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PATENTS

Band-in-a-Box is protected under US Patent 5990407. The TC-Helicon Harmony feature in Band-in-a-Box and PowerTracks Pro Audio is protected under US Patents 5567901, 5641926, 5986198, 34583, 296.80.173.9, PI9603819.5, 0368046, 0750776, 6,046,395, and patents pending.

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Chapter 1: Welcome to Band-in-a-Box!

Congratulations on your purchase of Band-in-a-Box, the favorite of musicians, students, and songwriters everywhere. Get ready to have fun!

What is Band-in-a-Box?

Band-in-a-Box is an intelligent automatic accompaniment program for your multimedia computer.

You can hear and play along to many song ideas and go from “nothing” to “something” in a very short period of time with Band-in-a-Box as your “on demand” backup band.

Just type in the chords for any song using standard chord symbols (like C, Fm7, or C13b9), choose the style you’d like, and Band-in-a-Box does the rest, automatically generating a complete professional-quality arrangement of piano, bass, drums, guitar, and strings in a wide variety of popular styles.

Band-in-a-Box is so easy to use!

Band-in-a-Box is a powerful and creative music composition tool for exploring and developing musical ideas with near-instantaneous feedback. Over the years many features have been added to Band-in-a-Box – Notation and Lyrics, Piano Roll, 16-channel Melody & Soloist multitracks, Harmonization, the StyleMaker and StylePicker, and a Conductor window for live playback control. The Soloist and the Melodist are popular “intelligent” features that generate professional solos or even create whole new songs from scratch. RealDrums adds the human element of a live drummer, bringing the entire Band-in-a-Box arrangement to life, and the Audio Chord Wizard has the amazing ability to analyze and extract the chords from audio recordings and write them to the Band-in-a-Box chordsheet.

The inclusion of digital audio features makes Band-in-a-Box the perfect tool for creating, playing, and recording your music with MIDI, vocals, and acoustic instruments. Band-in-a-Box for Windows® can also record an acoustic instrument or voice to add to the composition, with processing through DirectX audio effects. Its built-in audio harmonies will turn your audio track into multiple harmony parts or adjust its pitch, with vibrato and scooping effects for realistic vocal styles.

You can print out your finished creation with repeats and endings, DC markings and codas, or save it as a graphic file for web publication or to e-mail to a friend. And when you're ready to let others hear your composition, you can burn it directly to an audio CD. Or save your composition as a Windows Media File or in other compressed formats for a file that’s “Internet ready.”

Let’s get started!

This guide will have you making great music with Band-in-a-Box in a matter of minutes. We’ll begin with the easy installation and setup procedure.
Chapter 1: Welcome to Band-in-a-Box!

Installing Band-in-a-Box for Windows®

Minimum System Requirements
- 128MB of RAM.
- Digital audio features require a Pentium-class system.
- 120 MB available hard drive space for Pro version, 3 GB for MegaPAK including RealDrums.
- PC sound card or external MIDI device (synthesizer, sound module, etc.).

Installing the Program

Use any of the following three methods to install the program files into the Band-in-a-Box directory. By default this directory is C:\bb; you may choose another location.

Method 1 – Auto Run.
1. Insert the program CD-ROM into the CD drive.
2. In a few seconds, a browser window will open with a list of the CD contents.
3. Double click on SETUP.EXE to run the installation program.

Method 2 – My Computer.
1. Insert the program CD-ROM into the CD drive.
3. Then, double-click on the CD-ROM drive icon and double-click again on the SETUP.EXE program found in the root or main folder of the CD-ROM.

Method 3 – Start Menu.
1. Insert the program CD-ROM into the CD drive.
2. From the Windows [Start] button select Run.
3. Type D:\SETUP in the “Open:” command line box. If your CD-ROM drive uses another drive letter type the appropriate letter, for example E:\SETUP.
4. If you don’t know the drive letter for your CD-ROM you can use the [Browse…] button to find it. SETUP.EXE will copy all of the program files to your Band-in-a-Box subdirectory (usually C:\bb) and install icons to a Band-in-a-Box program group. Click on the Band-in-a-Box icon or launch bbw.exe to open the program and configure the setup.

MIDI Setup

Band-in-a-Box uses the multimedia drivers for your MIDI interface and/or sound card that are supported by the Windows operating system. To get sound playback you need to have a MIDI (and audio - for songs with digital audio) driver installed.

To start using the program you will need to make sure that your MIDI interface, audio driver, and Windows sound source is installed and configured.

Run the program by double-clicking the program icon. The first dialog you should encounter is a MIDI Output Driver message similar to this one:

The program sets your initial MIDI output driver automatically. Note which driver has been selected and press [OK] to continue.

The next dialog you encounter is the MIDI Driver Setup.
Chapter 1: Welcome to Band-in-a-Box!

If the driver that was selected is not the best choice, simply make an alternate selection from the MIDI Driver Setup dialog. Select a MIDI Output Driver to use for MIDI sound playback and optionally a MIDI Input Driver if you are using an external MIDI controller keyboard or guitar. If the setup is panned to mono, the program offers to change it to stereo.

Perhaps the easiest way to configure Band-in-a-Box is to press the [Run Driver Wizard..] button in the Opt. | MIDI driver setup window.

The MIDI Output Driver Wizard dialog will take you step-by-step through the process of auditioning and selecting an appropriate driver. This assumes that the appropriate Windows sound drivers are installed and correctly configured.
**DirectX Instrument Synthesizer (DXi plug-in) Support**

Software synthesizers allow Band-in-a-Box to play high quality sounds directly through your computer sound card, without requiring any external MIDI hardware. Most new software synthesizers are released as “DXi plug-ins,” so they will work in a standard way with many programs. Connecting Band-in-a-Box to the software synth as a plug-in provides several advantages over the previous method of connecting as a MIDI driver. The plug-in allows Band-in-a-Box to merge/synch in any existing audio file (vocals etc.) with the synth output. You can also directly render your performance to a .WAV file using the DXi plug-in. Sampler-based synths allow you to assemble a huge, customized library of instrument samples to use with Band-in-a-Box. Examples of popular DXi synths include the Roland ED VSC-DXi and Coyote’s ForteDXi.

To use DXi with Band-in-a-Box, you should think of the DXi as a type of “MIDI Out Driver.” As such, you visit either the Opt. | MIDI driver setup or click on [Pref] [MIDI Driver] and select the “Use DXi Synth” checkbox. When you do this, you can select the type of DXi to use (from a list of installed DXi, if any), and also will see a panel display of the DXi that allows you to make settings directly for your DXi synth.

The DXi will convert the MIDI information to audio, which Band-in-a-Box will playback through your sound card to audio speakers.

You can select DirectX DXi Software Synthesizers as the MIDI destination, and also apply DirectX Audio plug-ins to the Band-in-a-Box audio track.

- **Use DXi Synth** checkbox to enable DXi playback. While using DXi or VSTi, all playback information is routed to the DXi/VSTi, including the option to route the THRU part from your MIDI keyboard to the DXi/VSTi synth.

**Note:** To use this option, you must have a polyphonic DXi synthesizer installed on your computer, such as the Roland/Edirol VSC DXi. It will also be most convenient if your DXi synthesizer can use General MIDI or GM2 patches.

To select the DXi synthesizer, click the [DXi Synth Settings] button, which will open the DirectX Plugins window.

The **Synth Track** tab edits Synthesizer settings, and the **Audio Track** tab edits Band-in-a-Box audio track DirectX plug-ins. Select your desired DXi synth in the top plug-in Insert Slot 1.

To apply DirectX audio plug-ins to the synth, insert DX audio plug-ins to Insert Slots 2, 3, or 4. This can be useful to add EQ, Reverb, Compression, or Peak Limiting plug-ins, if the “raw sound” of the synthesizer needs sweetening.

**VST Instrument Synthesizer (VST plug-in)**

To add VSTi synthesizer plug-ins, please make sure the Synth Track tab is selected, and use the plug-in menu on the top synthesizer slot.

VST plug-ins appear at the bottom of the plug-in list below the DirectX plug-ins. VST plug-ins and synthesizers have the text “<VST>” prefixed to the name of the plug-in or synthesizer.

To select a VST plug-in for the first time, select the “Add VST plug-in...” item at the bottom of the plug-in Menu. Select a VST plug-in .dll file in the following **Select a VST plug-in** dialog, and it is added to the plug-in list. After you add each VST, the plug-in is permanently added to the list. You only have to add each plug-in one time.

**Note:** Some VST host programs scan for all available plug-ins every time they start up. We decided not to use that method, because the scanning can take a long time if there are many plug-ins on your system. Additionally, a badly-written or corrupt plug-in could cause program malfunctions. Therefore, we feel the method of selecting only the plug-ins you wish to use is both safer and faster.
VST/VSTi Additional Panel Controls

VST is necessarily different from DirectX/DXi, and some extra controls are available for VST plug-ins. DirectX/DXi plug-ins save their presets to the Windows Registry and only one setting is “alive” at a time.

VST/VSTi plug-ins save their presets to disk files. VST/VSTi plug-ins contain a bank of presets in memory. You can switch between presets while editing, and each edited preset is remembered in the current bank. If you save the bank, it will save all the presets you have edited. You can save individual presets, or you can build a custom bank by loading individual preset files into different preset slots, and then save the new bank file.

Select Preset Menu

Select a preset. You can also use the small Right/Left arrow buttons to step forward/backwards through the presets one at a time, to audition each preset.

**Note:** Some very nice plug-ins, including some advanced synthesizer plug-ins, may only have one preset, but that single preset can be a doozy containing many settings. Even with single-preset plug-ins, you can Save/Load Presets or Banks.

**Rename Pst:** Rename the currently selected Preset (in the plug-in's memory).

**Save Preset:** Save the currently selected Preset. VST/VSTi preset files use the “.fxp” extension.

**Load Preset:** A “Select Preset To Replace” dialog appears where you should pick which preset in memory to replace. Then select the desired Preset file in the following File dialog.

**Save Bank:** Save a Bank file of all the current presets in the plug-in. VST/VSTi bank files use the “.fxb” extension.

**Load Bank:** Load an entire bank of presets. Different plug-ins have different bank sizes. One plug-in might contain 10 presets in a bank, but another plug-in might have 128 presets in a bank.

VST Generic User Interface
VST/VSTi plug-ins are not required to have a fancy graphic control panel. There are many “faceless” VST plug-ins which have many adjustable parameters, but no fancy control panel. When you open such a plug-in, the control panel will look like the above example. Band-in-a-Box presents one “generic” slider for each adjustable parameter in the plug-in.

**Parameter Name:** Simply the name of each adjustable parameter.

**Value Slider:** Move the slider to adjust the parameter value

**Value Indication Text:** Displays the value of the slider, as interpreted by the plug-in. In the above example, Parameter 0: Bright is interpreted as an ON/OFF switch, but Parameter 1: Volume is interpreted as a value from 0 to 10.

**Options:** Remove VST Plug-In (from list)

This feature allows the removal of unwanted plug-ins from the Band-in-a-Box VST/VSTi plug-in lists.

**Driver Latency**

Software synthesizers have some inherent latency, which is the delay between the time a note is played and it is processed by the computer. Older softsynths had noticeable latency, whereas a DXi synth using ASIO drivers has very little. This setting is used to synchronize the visual display (notation, chords, virtual piano etc.) with the sound you hear. Band-in-a-Box automatically sets the latency for DXi and some other softsynths.

The [Latency Adjust...] button opens the **SoftSynth Latency Adjust** dialog where you can manually adjust the latency.

This lets you adjust the latency setting for a non-DXi soft synth (e.g. GS-WaveTable Synth) by ear. When you press the Start button, BB will load in a special song that contains an audio and MIDI track that plays quarter notes. The note of the MIDI track is a 5th higher than the note on the audio track.

While the notes are playing, adjust the latency on the spin control until it sounds like both notes are played in unison. Press start again. If the song starts with the tracks lined up right away then you are finished. If not, then this means you overshot or undershot the real latency by the length of a quartenote which is 500ns. (e.g.: If the MIDI begins exactly a quartenote early then the latency setting is now 500ns too high. If the audio is heard a quartenote early than the latency setting is still 500ns too low.)
Alternate Patch Maps

You can choose the patch map (instrument list) that matches your synthesizer keyboard or sound module. Original equipment sound cards or integrated sound chips are General MIDI (GM) compatible.

We have made preset drum/patch files for many synthesizers and sound cards including the Roland VSC and VSC DXi.

If your synth is not listed you should use the General MIDI Instrument Misc. patch kit (default).

You can probably omit this step unless you’re using an old synth that is not General MIDI compatible. If your non-GM synthesizer or sound card is not listed you can easily make your own patch map in Opt. | Preferences | Patch Map.

General MIDI 2 (GM2) Support

The choices are:
- **General MIDI 2 support**: If you’re using the Roland VSC3, or a newer Sound Canvas (i.e. newer than 1999, or newer than the Roland SC88), then choose this GM2 support.
- **Roland GS (older Modules)**: “Older” Sound Canvases (SC55/SC88) support GS, but not GM2. The good news is that they have the same patches available, just at different locations. So if you choose this option, Band-in-a-Box will find the patches at the “GS” locations instead of the “GM2” locations. If you have a newer GS module like the SC8820, it supports both GM2 and GS - you should likely choose GM2.
- **No GM2 support**: Some sound cards don't have GM2 support yet; they just support the original 128 General MIDI sounds. Band-in-a-Box will use the closest instrument in these cases.

Audio Setup

Band-in-a-Box performs the audio setup automatically using the installed system audio components. To restore or modify this set up click on the Preferences button and then select the [Audio] button to launch the Audio Settings dialog.
To reset the default MME driver settings click on [Get from soundcard…] and Band-in-a-Box will analyze the sound card and enter the correct audio settings.

If your computer has ASIO capability you can use these drivers instead of the default MME drivers.

### ASIO Audio/Software Synth Drivers

By using an ASIO audio driver, software synths like the Roland VSC (DXi or VSC) will play with almost no latency (delay is only 5-10ms). So you’ll hear the sounds instantly, and be able to play along using MIDI Thru with the same ultra-low latency.

On the Preferences [Audio] tab, you’ll see the following options for “Audio Driver Type,” MME or ASIO.

**MME** is the default Windows audio driver type. MME is good, but there is latency (delay) associated with MME drivers.

For this reason, Steinberg developed a faster type of audio driver system, called **ASIO**. It allows for much lower latency than ordinary MME drivers do.

**Note:** Many OEM or value sound cards do not include an ASIO driver, so you may not have an ASIO driver yet. In this case, you’ll need to get an ASIO driver from the Internet.

This **ASIO Audio Drivers** dialog lets you choose an ASIO driver. You can arrive at this dialog in 3 different ways:
1) If you haven’t used ASIO drivers, but Band-in-a-Box detected them, and you answered “Yes” when Band-in-a-Box asked if you want to use an ASIO driver.

2) If, within the Audio Settings, you change the “Audio Driver Type” from MME to ASIO.

3) If the ‘Audio Driver Type’ is already set to ASIO, but you later press the [Audio Drivers…] button in the Audio Settings.

The Select one ASIO Driver list box lets you select an ASIO driver to use. You can only select one ASIO driver at a time.

Once you have selected an ASIO driver, you will see the Input Port and Output Port list boxes filled with your driver’s input and output ports. By default, the first of each will be selected. You are allowed to select different ports (but only one input and one output port at a time can be selected). The ports you selected will be available for output within Band-in-a-Box. If you do not hear input or output, then you may need to try different ports than the defaults. You may need to read your sound card’s instructions to determine the correct ports to use.

**Tip:** The ASIO4All driver sometimes cannot connect if the Microsoft GS Wavetable synth is being used as a driver. So if this happens, you will get a message that ASIO will be silent, and the solution is to de-select the ASIO4All driver.

The ASIO Driver’s Control Panel button launches the Control Panel for your driver. This usually lets you adjust the latency by letting you choose different buffer sizes in milliseconds. Some drivers might let you choose the buffer size in samples, which is less convenient than milliseconds. The smaller the buffer size, the lower the latency, and the faster the response. Smaller buffers require more CPU power and if you hear dropouts or artifacts, you may need to increase the buffer size. See the Understanding Latency section that follows.

Since many ASIO drivers do not support multiple sample rates, Band-in-a-Box has a built-in resampler which lets you play and record songs that have a different sampling rate than the rate(s) directly supported by your ASIO driver. For example, if the driver does not support 44.1K sampling rate, but supports 48K, then Band-in-a-Box will use the resampler to convert to 48K when playing back, and to convert FROM 48K when recording. The Resampler Quality combo lets you choose Fast, Good, Better, or Best. Fast is the quickest, but is the lowest of the four levels of quality. Best is the slowest (uses more CPU time), but the most transparent and accurate quality.

The ASIO Driver’s Control Panel button launches a settings dialog specifically provided by your driver manufacturer. This usually lets you adjust the latency, and usually you will have a choice between buffer sizes in milliseconds. See the Understanding Latency section later below.

Show Warning for Untested Soundcard Formats is an optional setting that shows a warning if your ASIO driver format has not been tested in Band-in-a-Box. This message does not necessarily mean your driver will not work, and it can be disabled if you want.

The Driver Info field shows various characteristics of your driver.

The Name is the driver’s name.

The Version is the version number of your driver.

Input Channels is the total number of mono input channels that your sound card has. (Note: Band-in-a-Box groups each into a stereo pair.)

Output Channels is the total number of mono output channels that your sound card has. (Note: Band-in-a-Box groups each port into a stereo pair.)

The Allowed Sample Rates field shows the sample rates are allowed by your sound card’s ASIO driver. Band-in-a-Box has a built-in resampler which lets you play and record files that aren’t directly supported by your ASIO driver.

The Buffer Sizes In Samples shows the range of allowed buffer sizes. The “Pref” is the preferred size, and this is the size that Band-in-a-Box uses. Your driver may alter the preferred size if you’ve launched the ASIO Driver Control Panel and have selected a new buffer size from within the driver’s Control Panel. If your driver changes the preferred size, then Band-in-a-Box will be aware of the new preferred size.

**Understanding Latency**

Latency is based on the buffer sizes. The smaller the buffer sizes the lower the latency. Lower latency allows you to hear mixer volume changes very quickly, as well as hear MIDI thru echoed out via a DXi soft synth practically in real time.

The latency, in MS is determined by the buffer size in samples, as well as the driver’s sampling rate.
Note: If your ASIO driver’s control panel lets you select the buffer size in MS, then you don’t have to pay much attention to the part of discussion below about converting samples to MS.

**Converting Samples to MS:** For example, suppose the driver’s sample rate is 48K. A 48K sampling rate means that it is playing at 48,000 samples per second. If the buffer size were 48000 samples, then the latency would be 1 second, or 1000ms (which is very large and slow, and usually not allowed in ASIO). If the buffer size were 4800 samples, which is 1/10 second, then the latency would be 100ms. If the buffer size were 2400 samples, which is 1/20 second, the latency would be 50 ms. If the buffer size were 240 samples, which is 1/200 second, the latency would be a mere 5ms which is incredibly low and very fast.

Normally, you can change your driver’s latency by pressing the Launch ASIO Driver’s Control Panel button. Normally, the driver specifies the buffer sizes in milliseconds which is equal to the latency.

**Low latency is faster and more responsive, but uses more CPU power.**

Depending on the speed of your computer, you may find that the playback has dropouts, clicks/pops, or other artifacts if you set the buffer sizes too small. This is because smaller buffers use more CPU power and if your computer can’t handle the low latency you will hear artifacts. If this happens, you would need to use larger buffer sizes. You may need to experiment to find what works well. You may be able to use smaller buffers with songs that don’t have a lot of tracks and effects, but may find that you need to use larger buffers with songs that have more tracks and use more effects. This is because more tracks and more effects use more CPU power, which leaves less CPU power available for the audio routines to keep up with lower latencies.

Now you’re ready to have fun with Band-in-a-Box!
Chapter 2: QuickStart

Creating music with Band-in-a-Box is as easy as 1-2-3! In this chapter, you’ll see how easy it is to get started with Band-in-a-Box.

Step 1 – Typing in the Chords

There are numerous ways of entering chords into Band-in-a-Box. We’ll discuss five fast ways of entering chords:
1. Using the computer keyboard.
2. Playing directly on a MIDI controller keyboard.
3. Using the Chord Builder feature.
4. Importing chords from a MIDI file.
5. Loading an Existing Band-in-a-Box format song.

On the main screen of the program, you’ll see an area called the chordsheet.

Enter Chords Using the Computer Keyboard
To enter a specific chord, move the highlight cell to where you want to place the chord. For example, to add (or change) a chord in bar 10, you would highlight bar 10 on the chordsheet. Next, type in your chords. If you want an A chord at bar 10, type the A key on your keyboard, and press [Enter]. Notice that when you use the enter key, the highlight cell moves to the second half of the bar. You could then enter another chord at beat 3. Chords names are normally typed using standard chord symbols (like C or Fm7 or Bb7 or Bb13#9/E), but you can enter them in any of the supported chord symbol display formats like Roman Numerals, Nashville Notation, and Solfeggio.
Enter Chords Using a MIDI Controller Keyboard

If you have a MIDI controller keyboard, you can use it to enter chords into Band-in-a-Box. Play a chord on your MIDI keyboard, and then type Ctrl+Enter. The chord will be entered into the chordsheet at the current highlight cell position. Another method allows you to choose alternate chords. From the Window | MIDI Chord Detection menu item, you’ll see this window:

When you play chords, Band-in-a-Box shows you the chord name and suggests alternates that you can choose from. Typing Ctrl+Enter enters the first selection, and advances the highlight cell by ½ bar.

Enter Chords Using the Chord Builder

Press the Chord Builder button. This opens the Chord Builder dialog with a list of chord roots and their extensions.

To enter a chord at the current bar, select the chord root from the left pane, and then the extension on the right pane. Pressing [Enter Chord] or using the arrow keys will enter the chord and advance the highlight cell to the next half bar.

Import Chords from a MIDI File

You can have Band-in-a-Box import chords from an existing MIDI file. Choose Import Chords from MIDI File on the File menu.

When the dialog opens, press the [Open (Change). . .] button to choose a MIDI file that you want Band-in-a-Box to interpret the chords from. To help Band-in-a-Box interpret the chords better, you should choose a genre (Preset) for the song. Choose from among such genres as Pop, Rock, or Jazz Standard.

Tip: It helps if you've previously listened to the MIDI file, in order that you can choose a genre most appropriate to the song.
Loading an existing Band-in-a-Box format Song

Press the Open Song button. The first time you use this button, Band-in-a-Box will offer to build a Song list for you. We’ve included many demonstration songs; they are listed in the song list.

You could also load a pre-existing song by using the File | Open menu item, or by typing [F3], which will launch the Windows file dialog. Songs usually load a “Style,” which we’ll learn about in the next section.

Step 2 – Choosing a Style

Band-in-a-Box creates backing arrangements based on the chords you type in, playing them in a particular style.

What’s a Style?

A style is a set of rules that determine how Band-in-a-Box creates music using your chords. By adjusting the rules, we have created hundreds of styles for everything from Country to Bebop, such as Jazz Swing, Blues Shuffle, Hip Hop, Country 4/4, Pop Ballad, Waltz, and Medium Rock to name just a few. If you don’t find a pre-made style that suits your tastes, create one from scratch using the StyleMaker. There’s a “how-to” section on custom Styles in this manual.

Four Fast Ways To Pick A Style

Method 1:
To open a user style from disk, you can just type the [F9] key. You will be presented with a Windows file dialog from which you can select a specific Style. Alternately you can select the Styles menu item Open a User Style from disk.
Method 2:

You can use the StylePicker window to select your style. Select the button above the chordsheet, or type Ctrl+F9 on your computer.

This window shows styles listed by Category and by Styles Set number. Select a Set or genre from the left pane, and choose the specific style on the right pane. There are Memos and examples for each of the Styles.

In addition to the selection categories, styles can be filtered by “feel” and “tempo.” They can also be selected by the number of the styles set.
**Method 3:** Styles that you’ve used previously show up in the **Favorite Styles** dialog. Choose this with the [F] button next to the [Style] button in the song title window, from the Styles menu, or type **Shift+F9** on your computer keyboard.

You can choose to save a Favorites set for use later. You can also load a set of favorite styles in this manner.

![Favorite Styles Dialog](image)

**Method 4:**
In the **Styles** menu, you can choose from among the 24 “built-in” styles. This list provides a quick way to choose from among the most popular music genres.

![Styles Menu](image)

**Step 3 – Play your song!**
You’ve entered chords on the chordsheet and chosen a style. Now it’s time to play the song! You’ll need to tell Band-in-a-Box how long your song is, how many times to play it through, in what key, and how fast.

**Framing the Song**
To tell Band-in-a-Box where to start and end the song, take a look at the middle of the main screen.
Locate the framing buttons. There are three of them, one each for Beginning of Chorus, End of Chorus, and Number of Choruses. In the example above, the chorus starts at bar 1, ends on bar 32, and is going to play 3 times.

**Setting the Key**
In the example above the key is set to C. However, you can set this to any key. In our first view of the chordsheet the Blues song was in the key of E. If you do change the key, Band-in-a-Box will offer to transpose the chordsheet for you.

**Setting the Tempo**
If you know the tempo value of your song, you can enter it in the tempo box. The song example above has a tempo of 120. There is an even faster way to enter a tempo. Locate the minus key [-] and the equals key [=] in the number row of your computer keyboard, they are usually next to each other. If you tap the minus key 4 times at your tempo, Band-in-a-Box will set the tempo automatically for you. If you tap the equals key four times, Band-in-a-Box will set the tempo and begin song playback!

**More fun with Band-in-a-Box…**
That’s all there is to quickly creating music with Band-in-a-Box. Band-in-a-Box has many more features and user settings, which are discussed in later chapters. Have fun making music with Band-in-a-Box!
Chapter 3: Band-in-a-Box 2007

Band-in-a-Box 2007 Plus!

We’ve got a great new release of Band-in-a-Box, with many new features and enhancements since 2007. We now have Band-in-a-Box 2007 Plus (version # 2007.5)

We’ve improved the Real Drums, AudioChordWizard, added Remix features to allow you to add BB styles to existing MP3 files, and much more! We’ve also made 5 new RealDrums sets for Band-in-a-Box, with authentic Nashville, Rock and Jazz styles. There are now 10 RealDrums sets available! And we’ve got 2 new styles disks, and 2 Soloist disks.

These are the new features added since version 2007:

**AudioChordWizard enhanced.** The AudioChordWizard is the feature that automatically figures out the chords, tempos and bar lines present in audio files (MP3, WAV, and WMA). The improved features are present in version 2.1 of the AudioChordWizard:

- Better detection of chords, bar lines, and tempos (compared to 2.0)
- 2 chords per bar detected (previously was one)
- Easy setting of tempo and bar lines by tapping F8 (or Enter key) when song is playing. On many songs, you can now tap “F8” just once or twice, and bar lines will be lined up for the song!
- Faster chord interpretation and scrolling
- Hotkeys (and remote control support) added to navigate around the song
- No requirement to “Set Bar 1” as the first bar line. Can renumber bars at any time.
- ...and many more AudioChordWizard enhancements.

‘Remix’ Features – After using the Audio Chord Wizard for an MP3 (or author audio) file, an automatic tempo map is created, so that the MIDI styles in Band-in-a-Box sync to the Audio File for the whole song. This allows you to remix an existing MP3, by adding a BB style to the MP3. For example, add strings or congas to an existing song, (or a trumpet solo, or chord reharmonization etc.) and they stay in sync for the whole song, and can be all played or rendered to a WAV file. The tempo map can be added, removed, re-added etc. from the song at any time.

**Automatic detection of key signature based on the chords only.** This is useful for a song from the Audio Chord Wizard, where you forgot to set the key signature or for any song without the key signature set.

**Audio Chord Wizard Utilities dialog added,** with handy options to 1. Make/Remove tempo map in Band-in-a-Box
2. Remove audio file from song 3. Auto-set Key signature, with button present in the Audio Chord Wizard
4. enable/disable the BB MIDI style

**RealDrums improved**

- **Faster. Smaller.** Now take up much less space, using WMA files instead of WAV files, still with great quality! Uses 1/10 of the space! When you install, you can either install as WMA or WAV files. Either can be used. This allows your downloads and installations of RealDrums to be much faster!
- **RealDrums Variations of instruments with each “play”**. Most RealDrums styles (starting with RealDrums set 5) contain may instrument variations (“brushes vs. Sticks”, “HiHat vs. Ride Cymbal” “Percussion only” etc.). Now, by selecting Prefs-Real Drum Settings – choose different Variations with each play, you can hear a different variation each time play is pressed, so the song sounds fresh each time. One time you’ll hear it with “brushes”, the next time with sticks and ride cymbals, etc.
- “Favor Brushes”, “Favor Sticks” settings. When selecting RealDrums styles to use for a style, BB will use your preferences for brushes and sticks. For example, if you choose “Favor Brushes”, BB will always choose from among variations that include brushes (when available).
- **Selectable Folder for your RealDrums styles**. Now you can choose any folder (e.g. e:\Drums) for your RealDrums. This allows you to, for example, conserve space on your C:\ drive.
- **RealDrums “Compatible song/style finder.”** In the RealDrums Settings dialog, there are now buttons that will, for a chosen RealDrums style, enable you to (1) play the RealDrums demo song, (2) show a menu of BB styles that would work with the Real Drum style and (3) play a song demo of various BB styles that work with the Real Drum style.
- **Tempo checking for chosen RealDrums styles.** If you choose a RealDrums style, and the tempo is out-of-recommended-range for the style, BB will inform you of that – you can still use the style of course. RealDrums styles that get chosen automatically by Band-in-a-Box will always be compatible with your song.

- **RealDrums styles can now have 2 separate feels,** with different push amounts, and custom fills for transitioning between substyles (see above). We made a great new style that starts out in Bossa, and changes to ‘swing’ at ‘b’ substyle, with custom drum fills for the transition fills. This “BossaThenSwing” style is on RealDrums 10, and is very effective for Latin/swing tunes.

- Drum Fills can now be customized to include fills specifically used when changing from ‘a’ to ‘b’ substyle (and vice versa).

RealDrums “Developer Mode”.

(1) People making their own styles benefit from the “Developer Mode”, that outputs TXT files with information about their style-in-progress. Now they can render a batch of songs, which will all save separate TXT files, useful for analyzing their styles.

(2) Bars Blocked limit increased to 2,000 bars

Other improvements, including….

Improved: The Erase-Audio option now provides a message reminder that you should Save the song for the erasure to become permanent.

In the Style picker, when choosing “Song Demo”, the melody patch used will be the one from the demo, even if you’ve set “Change Melody Patches” in the dialog. This insures that you’ll always hear the correct melody instrument for the demo.

Improved Vista support – Recording panel button opens up the Vista Sound Control Panel, with tips on enabling/disabling microphone/line-in recordings.

… and more!

**Summary of Band-in-a-Box 2007 Features**

**Version 2007 adds more than fifty new features to Band-in-a-Box.**

We’ve added RealDrums - these are audio drum styles that replace the MIDI Drum track with actual recordings of top studio Jazz/Rock/Country drummers! These are not “samples” of single drum hits; they are full recordings, lasting from 1 to 8 bars at a time, playing along in perfect sync with the other Band-in-a-Box tracks. They sound like a real drummer, because they are recordings of a real drummer. And adding a real instrument to the mix makes all of the Band-in-a-Box parts sound more authentic. As well as improved drum sounds, you are hearing the exact rhythms played by the drummer, including features not seen in MIDI (subtle drum rolls, variations in ride cymbal taps, complex fills, etc.).

And we’ve added an amazing “Chords from MP3” feature (Audio Chord Wizard). This amazing feature automatically figures out the chords from any MP3, WAV, or WMA audio file, and displays them in Band-in-a-Box. The Audio Wizard also figures out tempo, bar lines, and fine-tuning from the MP3 file.

There’s also a new “SoundTrack” feature that allows you to generate new royalty-free music of a specified length for use in home or corporate videos, soundtracks, etc.

A “Reharmonist” feature figures out a chord progression for any melody. This allows you to create a new chord progression or enhance an existing one. Solos are enhanced with features that allow the solo to be influenced by the melody, just as a musician does.

Other great new features: Save as MP3, batch MP3/WAV/WMA generation, TranzPort® wireless controller support, Auto-memo generation, Chord Breaks, Practicing Window, Melodist/Soloist/Notation enhancements…and much more. Please read on for the details.

**RealDrums**

We’ve added real audio drums to Band-in-a-Box!

This replaces the MIDI Drum track with real recordings of top studio Jazz/Rock/Country drummers.
These are not “samples,” but are full recordings, lasting from 1 to 8 bars at a time, playing along in perfect sync with the other Band-in-a-Box tracks. For example, choose a brushes style, and you will now hear lush Jazz brushes. The results are dramatically better than MIDI. They sound like a real drummer, because they are recordings of a real drummer. Adding a real instrument to the mix makes all of the Band-in-a-Box parts sound more authentic. You’ll wonder, “Why does the guitar sound more real?” It’s because the realism of the drum part has the effect of improving the overall sound.

As well as improved drum sounds, you are hearing the exact rhythms played by the drummer, including features not seen in MIDI (subtle drum rolls, variations in ride cymbal taps, complex fills etc.). And the tracks intelligently play differently at faster/slower tempos, so you hear appropriate playing for the current tempo (not seen in MIDI drums). Change tempos or volumes during playback, using the same tempo/volume controls as MIDI. And best of all, we’ve seamlessly integrated the RealDrums into Band-in-a-Box, so you just use the program as you normally do, and you will hear RealDrums instead of MIDI drums, according to your preferences.

You can fully control which styles you will hear MIDI vs. RealDrums. New RealDrums styles can be made by the user or third parties, using standard WAV files. User created styles can control fills/post-fills/pattern lengths/substryles etc. We include a huge library of RealDrums styles to get you started, and all of the RealDrums styles are available in the MegaPAK Upgrade or MegaPAK First-Time purchase package.

**Chords from MP3 (“Audio Chord Wizard”)**

This is one of the all-time most requested features for Band-in-a-Box!

![Audio Chord Wizard](image)

Now this amazing wizard automatically figures out the chords from any MP3, WAV, or WMA (Windows Media) audio file and displays them in Band-in-a-Box.

Just load in any MP3 file and you’ll instantly see the chords in Band-in-a-Box. And there’s more! In addition to the chords of the song, the PG Audio Wizard also figures out:
- the tempo of the file,
- bar lines throughout the song,
- fine tuning detection (e.g. 5 cents sharp from A440),

An included **Audio Piano Roll** displays many of the notes found in the file. This serves as a helpful guide to transcription.
Once you have the chords-from-MP3 inside Band-in-a-Box, you can auto-sync the file with Band-in-a-Box, so you can hear the original MP3 playing in sync with the bar lines in Band-in-a-Box. You can then add your own Band-in-a-Box parts to it, for example, add a Strings part, or a RealDrums part to an old audio recording that didn’t have drums! Or have the Band-in-a-Box Soloist generate a Bluegrass Banjo solo for one of your Country MP3 files!

**SoundTrack Generator**

Need to generate some original, royalty-free music for backgrounds, home videos, slide shows, voiceovers, jingles, themes, underscoring scenes, entr’acte, dance routines, ceremonies or any occasion that calls for musical accompaniment?

The SoundTrack feature allows you to generate music in the style you choose for any length of time you specify. As the “producer,” you select the genre, length of time, instruments, and fade-in/fade-out options. The SoundTrack adjusts the tempo and duration to match the settings, and then allows you to save the file as a WAV, WMA (Windows Media), or MP3 file for further use in your own projects. Generate original music (over 20 genres) or select from over 50 supplied SoundTrack types (Bluesy/Excite/Healing/Jazzy/Tropics etc). In seconds, you can generate a 30 second audio music clip in the genre of your choice, for example!

**Melody Influenced Solos**

Solos are enhanced with the new “Melody Influenced” Soloist. When musicians solo for a song, the solo is typically influenced by the melody as well as the chords. Now Band-in-a-Box can also allow the melody to influence the type of solo generated by its Soloist feature. The result is a much better solo generated for the song. A strength (%) setting allows you to control how much the solo will be influenced by the melody. Choose the melody influence (%), and one of several presets to control the type of influence (pitches/rhythms/note density, etc.).

**The Reharmonist**

Generate Chords for a melody, or an improved chord progression for a melody with the new “Reharmonist” feature.

This feature generates a chord progression in the genre that you choose, based only on the melody. Generate a new chord progression for a complete song or a portion of a song.
Or use the feature interactively by displaying a menu of possible chord progressions for a portion of the melody, and audition them to choose the best one using the “Bar Reharmonist.” This allows you to hear some new chord progressions for existing melodies, or new progressions for tunes without chords.

TranzPort® Support

Wireless Remote Control support for Band-in-a-Box!

The Frontier Design TranzPort is a wireless remote control hardware unit (Electronic Musician Editors’ Choice 2006) that now allows you to control Band-in-a-Box through walls from 30 feet away!

The backlit LCD provides a two-line readout, and buttons and a wheel allow control of many Band-in-a-Box features.

Select songs and play/stop/pause/loop. Select/mute/solo tracks and volume/tempo changes are all supported.

And best of all, when the song is playing, the chords of the song are displayed in time on the backlit LCD screen. You can, for example, put the TranzPort unit on your piano at home (or your music stand on a gig) and load/play/control and view chords for songs, all while far away from your computer – all wirelessly up to 30 feet – even through walls! Selectable transpose lets the TranzPort show chords in a non-concert key (e.g. Eb Alto) while the computer shows concert - great for jam sessions! Or display the scrolling lyrics of the song on the TranzPort for a wireless Karaoke session! The TranzPort also works “right-out-of-the-box” with other popular music software, including Pro Tools®, Sonar™, Logic®, Cubase®, Digital Performer® and others.

Note: The TranzPort is sold separately.
Chord “Breaks”

This feature is great for practicing tempo control. Select the # of bars, and Band-in-a-Box will play for, say 4 bars (selectable), and then will rest all instruments for the next 4 bars. During the silence, you keep playing (comping, drums, melody, etc.), trying to stay in tempo. Drummers can mute the drum part.

When the band comes back in after the 4 bars, you’ll get instant feedback on how well you have maintained the tempo, if the band comes in time with you or not. Once set, this feature works automatically with all songs until you turn it off.

Auto-Set Key Signature

There is a function to auto-determine the correct key of a song, given only the melody.

Audio Settings Dialog

The Audio Playback settings dialog makes it easy to mute, solo, or change the volume of the audio track, similar to the control of the other instrument parts in Band-in-Box. Simply click on the “Audio” label on-screen, and choose these options.

Other Audio enhancements

Punch-In Recording

There is now punch-in audio recording, allowing you to punch-in record or overdub a section of audio. You can also now hear the existing audio part when you are overdubbing.

Audio Offset

Answer YES to define this point as Bar 1 for audio playback, or answer NO to remove any previous Bar 1 definition.
A new Audio Offset feature allows you to synchronize any point of the audio file with bar 1 of the Band-in-a-Box song. This is useful after importing an audio file into Band-in-a-Box that you want to sync with a song – just right-click on the Audio window to set Bar 1. The Audio Settings dialog is now also accessible from the MIDI Driver Setup dialog or Audio menu.

**Batch Convert to Audio Files**

In the Render to Audio File dialog you can batch convert a folder of Band-in-a-Box songs to audio files (MP3, WAV, or WMA).

Press the [Batch] button to convert an entire folder of Band-in-a-Box songs to audio files.

There is an option to name the resultant audio files based either on the original file name or the song title name.

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**MIDI Keyboard Wizard**

The “QWERTY” Keyboard Wizard now works with MIDI keyboard input.

Now you can also use a MIDI keyboard to play the Keyboard Wizard. The Keyboard Wizard always plays correct notes (chord tones or passing tones on the current chord), and is a fun way to play along with Band-in-a-Box (as well as a useful way to enter melodies, by playing notes in correct rhythm and fixing the pitches afterwards).

By turning on this wizard, (C/E/G/Bb) notes played on a THRU keyboard will be mapped to chord tones, and D/F/A/B will be passing tones.

Note that you also need to have the Wizard checkbox selected on the main Band-in-a-Box screen.

The MIDI keyboard also sends volume information (unlike the QWERTY keyboard), so is a better choice if you have a MIDI keyboard connected.
Automatic Memo-Generation

The Song Memo has been enhanced, with a “summary” checkbox. If selected, you’ll see an additional window that automatically displays a full summary of the song (title/tempo/patches used in the song) as well as other special features, such as substyle patch changes or harmonies. This saves much of the work previously required to manually type in this information to the memo.

Practice Window

A new Practice Window allows convenient “1-click” access to many Band-in-a-Box features that help you with practicing. These include the Ear Training dialog, games (Pitch Invasion etc.), Metronome, CopyMe, Sight Reading, 101 Riffs series, and more.
Soloist Enhancements

Melody Influenced Solos

When musicians solo for a song, the solo is typically influenced by the melody as well as the chords. Now Band-in-a-Box can also allow the melody to influence the type of solo generated by its Soloist feature.

The result is a much better solo generated for the song. A strength (%) setting allows you to control how much the solo will be influenced by the melody. Choose the melody influence (%), and one of several presets to control the type of influence (pitches/rhythms/note density, etc.).

You can now select “Genres” of soloists (e.g. Modern Jazz) and see only soloists matching the genre.

And you can also filter to show/not show soloists from Soloist sets that you don’t have.

Expanding on the “trade 4’s” feature, you can now “Trade 2’s” or “Trade 8’s.”

Soloist suggestions have been enhanced.

Melodist Enhancements

The Melodist has been enhanced.

Melodists can be filtered by “Genre” (e.g. Dixieland) to show only Melodists in that genre.

And you can also filter to show/not show Melodists from Melodists sets that you don’t have.

StyleMaker Enhancements

The StyleMaker now displays current patch numbers for the parts on the main window.

Moving notes in notation on the StyleMaker notation now plays the note on the current instrument.
StylePicker now auto-rebuilds when new styles have been added.

**Notation Enhancements**

Lyric entry now has convenient buttons to enter line breaks or paragraph breaks.

![Lyric entry buttons](image)

Guitar chord diagrams are improved.

Polyphonic (chord) notation spacing is improved.

There is now a filter for the Event List Editor, allowing you to, for example, quickly spot all patch changes.

Hot key support is added to delete or insert notes directly in the Event List.

**Note Properties Summary**

![Note properties summary](image)

When mousing over notes, summary information about the note is displayed (pitch, channel, velocity, duration).

**Lead Sheet Enhancements**

**Lead Sheet “Lyric Text Block”**

A large text block can now be appended to the Lead Sheet window and printout. This is ideal for song lyrics that you want entered as a text entry appended to the end, multiple verses of lyrics, or any other text.

Open the Lead Sheet window and select the [Memo] button to launch the Lead Sheet Memo.

![Lead Sheet Memo](image)

Select font type and size, copy/paste text from other programs.
Fakesheet Endings

Fakesheets can now optionally include the 2-bar song ending.

Auto Piano Hand-Splitting

The Piano part now displays on both clefs, using intelligent hand-splitting routines that dynamically change the split point. This happens automatically.

You can also manually split a piano part on a Melody or Soloist track using the intelligent hand-splitting routines.
The left/right hands display in red/blue on the Big Piano, and on bass/treble clefs on the notation. Import a piano MIDI file to the Melody track to get a split-hands display and printout!

**Enhanced DXi Features**

Lower latency settings for VSC DXi are now possible, and they are typically auto-set to approximately 100ms on newer PC’s. Looping during playback is now seamless while using DXi/VSTi softsynths. Recorded melodies now automatically adjust for any latency.

While using DXi or VSTi, all playback information is routed to the DXi/VSTi, including the option to route the THRU part from your MIDI keyboard to the DXi/VSTi synth. The “Panic” button feature is enhanced to reset a “hung” DXi/VSTi driver. Latency selection has been simplified, with informative messages added. ASIO4All support has been enhanced, with messages added to detect/correct silent output.

A patch list (.PAT) is now provided for the Roland VSC DXi synth.

The list of available synth DK/PAT files is enhanced to support newer sound cards.
MIDI Latency Calibration. For software synths with latency, there is now a [Latency Adjust] button to open a **Soft Synth Latency Adjust** dialog that allows you to accurately set your softsynth’s latency by listening to 2 tones a fifth apart. The MS GS Wavetable synth (included in Windows XP) is now auto-set to correct latency (about 120ms).

New Chord Entry and Editing Features

The **Edit** menu **Nudge Chords/Melody** feature allows moving a range of chords by any number of bars and beats.
The *Edit* | *Fold* routine converts a song with a single large chorus to multiple smaller choruses, with optional tag ending.

![Fold Song (Convert 1 Chorus to Multiple Choruses) dialog](image)

*Fold Song (Convert 1 Chorus to Multiple Choruses)*

Fold to a multi-chorus song, with these parameters:

- **Chorus Begins at Bar**: 1
- **Chorus Ends at Bar**: 32
- **Number of Choruses**: 3
- **Song has a Tag**: 
  - **Start tag after source bar**: 96
- **2 bar ending**
- **Start the ending 2 bars early**

![Edit Search/Replace Chords...](image)

*Edit* | *Search/Replace Chords...* will search and replace chords, including support for asterisks (*) as wildcards.

![Chords - Search and Replace](image)

*Chords - Search and Replace*

*Replace this chord*: DMaj9

*With this chord*: DMaj7

(starting at bar: 1, # of bars: 256)

- **Jazz Up**
- **Jazz Down**
- **Simpler Jazz**
- **Replace NOW**
- **Close**
- **Cancel**
- **Help**

Also a “simplify Jazz chords” option will simplify chords like C13#11#5 to simply C9.

Deletion of chords over a range of bars can be done by selecting the range and pressing DELETE, and no confirmation dialog is required for chord delete.

Direct Render to MP3 button is added to the *Render to Audio File* dialog (this uses the existing MP3 audio codec that you have in your Windows installation). This renders the Band-in-a-Box song to MP3 in a single step, using your Roland VSC DXi (or other DXi/VSTi synth).

Feature on program boot-up added to detect and prevent conflicts with the THRU channel and other Band-in-a-Box instruments.

Convenient buttons added for setting “no-harmony” in harmony dialogs.
Jukebox option added to stop the Jukebox when set is completed.

Yellow “Fly-By Help Hints” have been expanded throughout the program to provide more information and tips.

Loading “song demo” on Style menu, or click on the name of the style on the main screen, and the menu that displays will include the option to “Load Song Demo” for the current style.

… and many more!
QuickStart Tutorial for the Version 2007 New Features

The full descriptions of the new features in Version 2007 of Band-in-a-Box are provided elsewhere. This tutorial is a QuickStart tour of the new features in Band-in-a-Box 2007.

Note: It is assumed that you are somewhat familiar with the previous release of Band-in-a-Box.

Explore Band-in-a-Box Version 2007

First, we’ll take a quick tour of the new features in Band-in-a-Box. Then we’ll do an in depth tutorial for the main new features. The other chapters in the manual are also tutorial style presentations of the new features.

Let’s explore the main screen and menus.

Look at the toolbar at the right of the screen.

There is a RealDrums button. These are audio drum styles that replace the MIDI Drum track with actual recordings of top studio Jazz/Rock/Country drummers. The dialog lets you control the RealDrums.

There is an “Audio Chord Wizard” button that launches the Audio Chord Wizard – this automatically figures out chords, tempo, bar lines and other data from audio files (WAV/MP3/WMA and CD audio)!

The Practice button launches the Practice Window. This window is a “launching pad” for many Band-in-a-Box features that are helpful in practicing, including setting up your practice folders of songs that you are working on, and launching ear training, Band-in-a-Box add-ons (101 riffs, master solos), and instrument lessons.

The Soundtrack button launches the Soundtrack Generator. This lets you generate fixed-length, royalty-free music in a variety of styles.

The Reharmonist will generate a chord progression for a melody, not requiring any existing chord progression.

Pressing the button displays a menu to either launch the “Bar Reharmonist” that displays a menu of possible chord progressions, and let’s you interactively choose them, and the “Auto-Reharmonist” that automatically reharmonizes part or all of the entire song, in many genres. For example, if you have a Bach melody, and don’t have a chord progression for it, you can instruct the Reharmonist to make a chord progression fit the melody in, say, a “Bossa Nova” genre. We will do that later in the tutorial!

New Main Menu Items

The File | Open Audio w/Chords
command will open a WAV, WMA, MP3, WMV, or CD Audio file and also figure out the chords and bar lines.

The File | Launch Audio Chord Wizard will open the Chord Wizard to analyze chords in an existing Band-in-a-Box song (that has a WAV file on the audio track).

Edit | Nudge Chords/Melody will move the chords and/or melody a certain # of beats.

Edit | Fold converts a song with a single big chorus to multiple smaller choruses.

Edit | Search/Replace Chords lets you search and replace chord names, including wild cards.

Style | Load demo for current style loads the song demo for the current style. This menu item is also available by clicking on the yellow style name on the screen.

The Play | Panic command and panic button now resets a DXi/VSTi synthesizer to insure that the notes are all turned off if stuck on.
The Window menu has items for the new Reharmonist, SoundTrack, and Practice windows.

Let’s explore the RealDrums.

Learn how to make your own RealDrums styles in the Help file Tutorial: Making RealDrums Styles. Here’s an introduction to using the ones you already have.

Here are 3 key points to insure that you get proper sound with RealDrums styles.

1. Choosing the correct MIDI/DXi driver to use with real drums,
2. Syncing, and

With Band-in-a-Box 2007, there is a RealDrums track that plays along with the arrangement. So you are hearing 2 tracks at once, the normal MIDI track and an audio track (RealDrums). It is important that you have these playing in sync, and volume balanced. If you don't, the result will just sound (musically) BAD. One interesting thing we found, is that if the sync is out by even as little as 20ms, it changes a RealDrummer from “star of the show” to “you're fired,” amplifying the need to have things in sync.

You need to make sure that:

1. The RealDrums are in sync with the MIDI. If you use a DXi synth (like Roland VSC DXi, or other DXi/VSTi) the sync is set automatically. If you use a hardware MIDI module, the sync should be fine (as long as MIDI Latency is set to zero in Opt. | MIDI Driver Setup). If using MIDI “soft synth” Drivers (non DXi/VSTi), the RealDrums/MIDI can be out of sync until you set the MIDI latency setting in Opt-MIDI Drivers to the correct value for your synth (for example “Microsoft GS Wavetable” is 120ms).
2. You can hear both the MIDI and the RealDrums at the same volume (mix). If using DXi this is automatic, as they both come out of the audio port at the same volume. If using hardware MIDI module (Sound Canvas), you will have MIDI sound coming from your Sound Canvas and RealDrums from your computer (audio port), and you'd have to match the volumes by turning up/down volumes or using a mixer. Sometimes you'd need to use the Windows Volume Control (Start | Run | sndvol32.exe) to finely set the volumes.
3. (optional) You are listening through good speakers or headphones.

RealDrums Setups

Here are recommended MIDI setups for use with RealDrums (from best to worst):

1. <BEST> DXi synth (Roland VSC DXi is included with Band-in-a-Box). Important note: This is different from the Roland VSC MIDI Driver that shows up in the MIDI Drivers output drivers. There are no syncing issues to deal with when using DXi, everything syncs up automatically, and is volume balanced. To select VSC DXi synth, go to Options-MIDI drivers, and choose “Use DXi synth” and then select VSC DXi. If it is not found, then you need to re-install the VSC DXi (we've been including it for years in Band-in-a-Box releases, so it should be on a Band-in-a-Box disc). Other General MIDI DXi/VSTi (like HyperCanvas) should work as well.
2. <BEST2> MIDI hardware module (e.g. Roland Sound Canvas module). When you do this, the only “challenge” is that the sound from the RealDrums will be coming out of the audio-out of your PC, and the MIDI sounds will come from your Sound Canvas. If you have a mixer, no problem, otherwise you'd need to balance the sounds.
3. <GOOD> Microsoft GS Wavetable synth. This is the one that comes free with Windows XP. You might need to adjust the balance RealDrums vs. MIDI in the sound volume app in Windows (Start | Run | sndvol32.exe), if they have separate volumes for GS Wavetable synth and regular WAV (RealDrums). Of course you can adjust RealDrums volume on screen just like any other MIDI volume. Since the Microsoft GS Wavetable has “latency,” you need to “guess” at what the latency is, and it is about 120ms. Opt. | MIDI Driver Setup is where you select the Microsoft GS Wavetable (make sure that DXi is not selected in this case).
4. **<OK>** Other software synth (non-DXi/VSTi). If you know the latency of the other synths, then they could be used. Most good synths are DXi/VSTi these days, the non-DXi/VSTi are usually not as good. See the latency setting tips in item #5.

5. **<WORST>** Roland VSC (non-DXi version). We wouldn't recommend this combination, mainly because the DXi/VSC combination is so much better (perfect sync, direct render). If you do end up using Roland VSC (non-DXi), make sure the latency is set correctly, and it is “about” 430ms. You can adjust that to higher values if the RealDrums are behind (dragging) or lower values if the RealDrums are ahead.

If possible, let’s choose the Roland VSC DXi synth to use with the RealDrums. You have likely received the DXi with your Band-in-a-Box program, and should install it if you haven’t already done so. Note that this is different than the “Roland VSC MIDI driver” that appears in the Output MIDI Drivers.

The advantages of using DXi along with the RealDrums are:

1. Perfect syncing without having to manually make a latency setting.
2. Volume match (mix) occurs automatically, since both are going out the same source (audio port).
3. Direct render of the file to WAV file that includes the RealDrums.

To select the VSC DXi, open the **MIDI Driver Setup** from the **Opt.** menu and check “Use DXi Synth.” Then select VSC DXi in the dialog that appears.

If you can’t use the DXi, then choose another driver, like the Microsoft GS Wavetable MIDI Driver – this comes with Windows - or use a hardware MIDI module (Sound Canvas) or hardware synth chip found in Sound Blaster cards. These have zero latency.

Now, let’s load in some RealDrums tunes! Open the c:\bb\Drums - Demos folder and you’ll see demo tunes. These will demonstrate the RealDrums. Let’s load in “JazzBrushes_145_Demo.MGU” (if you don’t see that file, load in another demo instead). Press PLAY. If you have the RealDrums style installed for “JazzBrushes” (i.e., you have a folder called “c:\bb\Drums\JazzBrushes”), then you should now be hearing RealDrums. You can tell right away, because the count-in sound is different, it is not the usual MIDI count-in, but is a side-stick or snare live drum sound.

As the RealDrums are playing:
- Notice if the drums are in sync with the rest of the MIDI instruments. They should be, especially if you are using a DXi synth or a synth with low latency like a hardware module. If they are not, try adjusting the latency milliseconds in **Opt. | MIDI Driver Setup**.
- Change the tempo of the music as it is playing. Use the standard tempo controls [ and ] to change the tempo and the RealDrums will change immediately to the new tempo. (The [ and ] keys change tempo by 5 bpm.)
- Press STOP, and then change the tempo to a far slower tempo (like 60 bpm). Now press PLAY. Notice that the RealDrums are not just playing slower, they are playing differently, with appropriate patterns and fills for a slower tempo! This is because we have recorded the drummers playing at different tempos, and include a wide variety of tempos inside the RealDrums folder.

- **Styles with RealDrums** Open up the StylePicker, and notice the new category called “Styles with RealDrums.” This lists many RealDrums styles (.STY) that we’ve made. RealDrums style names always begin with a minus sign, so that “-ZZJAZZ.STY” is the ZZJAZZ.STY, but using RealDrums instead.

- **Misc** With a RealDrum style loaded, open up the StyleMaker, and press the [Misc] button. You’ll then see the name of the RealDrum style that has been saved with a style. You can turn any .STY into a RealDrum style this way.
Open up the **RealDrums Settings** dialog. Try turning off the RealDrums by de-selecting Enable RealDrums. You can do this even while the song is playing. When you do, you will then hear the MIDI drums – this is a good A/B comparison test to hear the differences.

**Making Your Own Real Drum Styles from Scratch**

- Choose a name for your style, let’s call it “Funky,”
- Make a WAV file recording of a live drummer, save the file with the name Funky_120_style.WAV (if 120 is the tempo of the file),
- Make a Funky_120_style.txt file that lists the various patterns to play (“a,” “b” substyles, fills, etc.). Details of the TXT file format are provided on [www.pgmusic.com](http://www.pgmusic.com).
- (Optional) Make more tempo variations (e.g. Funky_180_style.WAV), so that your drums get the closest tempo match when used in a Band-in-a-Box song.
- Put the WAV and TXT files in the c:\bb\drums\Funky folder.

Inside Band-in-a-Box you can now choose your “Funky” RealDrum style by any of the methods described above. More details about the RealDrums are covered in Chapter 4, in the meantime, play a few more demos in the RealDrums folder.

**Get chords from MP3s and other audio files with the Audio Chord Wizard.**

This amazing wizard automatically figures out the chords from any MP3, WAV, or WMA (Windows Media Audio) file and displays them in Band-in-a-Box. Just load in the file and you’ll instantly see the chords.
As well as the chords of the song, the **Audio Chord Wizard** also figures out,
- the tempo of the file,
- bar lines throughout the song,
- fine tuning detection (e.g. 5 cents sharp from A440),

**Using the Audio Chord Wizard**

To open your audio file in the **Audio Chord Wizard** you can click on its toolbar button or use the *File* menu command to *Open Audio w/Chords.*

Use the *Launch Audio Chord Wizard* command if you already have a file with audio loaded in Band-in-a-Box.

When you select a file to open you will see a series of *Progress* messages.

The **Audio Chord Wizard** is then launched, and more Progress messages will flash on screen as the file is analyzed and imported. As well as interpreting the chords, the program is also inserting bar lines and setting the tempo.

The **Audio Chord Wizard** window shows an overview of the open wave file with the bar lines and chords as interpreted by the wizard. Controls and settings are found in the toolbar at the top of the window, and the **Audio Piano Roll** in the lower part of the window shows notes interpreted from the wave file.

**Now let’s move on to the Reharmonist.**

This will generate a new chord progression for an existing melody, presumably one that you would like to have a chord progression for. For example, let’s say that you like “Brandenburg Concerto #1 in F, 1st movement” by J.S. Bach. This is a beautiful melody that adapts itself to many musical styles. Load in the song called “c:\bb\Tutorial – BB2007\Bach Brandenburg - no chords present!” Now, let’s create a chord progression for this melody. We will make it a Bossa Nova style song.

Press the Reharmonist button, and choose *Auto-Reharmonize for entire song.*

In the dialog that appears, deselect “Show-All” and then select the “Bossa Nova (Latin)” genre.

Note that the program has analyzed the melody, and decided that the key should be F (this is independent of any key that was already set in the song).

Now press “OK – Reharmonize.” You will then have an entire chord progression written for the song, in a Bossa Nova style.

The Chord Progression generated is different every time, so the one that you get will be different from this one that we generated for the Tutorial. We saved this generated chord progression and it is found in the file “c:\bb\Tutorial – BB2007\Bach Brandenburg - Bossa reharmonized.”
Play the file that you have generated. Notice the “Bossa” style of chord progression, with 2-5 progressions, and other typical Bossa chords like a G7 for 2 bars in the key of F.

Now let’s use the Reharmonist in an “interactive mode” where it gives us choices of various chord progressions at each bar. Let’s see if we can interactively improve on the chord progression, according to our own tastes.

The first 2 bars generated originally are:

| F6 | 2 | Dm7 |

Make sure that the currently highlighted cell is bar 1. Now we press the Reharmonist button, but choose the first menu item *Reharmonize Melody for Current Bar*.

We then see a dialog with a menu of possible chord progressions for the first 2 bars.

| FMaj7 | Dm7 |
---|---|
| FMaj7 | Bb9 |
| FMaj7 | Bbmaj7 |
| Dm7 | Dm6 |
| F6 | |
| F6 | D7b9 | Gm7 | C7 |
| F6 | Dm7 | Gm7 | C7 |
| Dm6 | |
| F6 | Bb9 |
| F6 | Bbmaj7 |

With the Preview on Double-Click item selected, you can double-click on any suggested chord progression and hear how it would sound.

By listening, there are a couple of nice ones for the first 2 bars.

| F6 | D7b9 | Gm7 | C7 |

Or

| FMaj7 | Bb9 |

We can choose one of those, and then press the +2 button to move on to bar 3, where we might choose to leave the existing chord progression alone. We can continue this process, or improve any section of the song in a similar manner.

Revisit the *Reharmonize* dialog, and try generating a new chord progression, in a new Genre. For example, “Country/Bluegrass 16ths” will generate a Bluegrass style chord progression, very different from the Jazz chords in the Bossa version.
Let's try out some other new features of Band-in-a-Box 2007.

**Batch Mode Rendering Of Audio Files**

Let’s make WAV files for every one of the Style demos in the c:\bb\Styles01 folder (or whatever folder you want). There are over 20 songs here.

**Note:** For this feature to work, you must use a DXi driver, like the Roland VSC DXi, usually included with Band-in-a-Box.

Set the folder to c:\bb\styles01 (or whatever folder you are using).

Set the suffix to something like “_Demo,” so that the files like MySong.MGU gets a rendered name or MySong_Demo.WAV.

Choose your preferred output format - WAV, WMA, or MP3.

Note that for MP3, it uses whatever MP3 codec and bit rate that you already have installed in Windows.

Press “Go” and you will then get all 20 files rendered.

**Melody Influenced Soloist**

Load in the song “c:\bb\Tutorial – BB2007\Beautiful Dreamer.MGH.”

Press Soloist, and select Soloist #8.

Press the [All Solo] button, so that the Solos will generate throughout the song. Select the “Enabled” checkbox on the “Melody Influences Solo” group.

Beautiful Dreamer is a simple melody, so choose “Pop/simple melodies” and a strength of 100%.

Press OK to generate the solo. When it’s completed, you’ll see a message displayed (for 5 seconds) with summary information about the success of the method chosen in generating a compatible melody. If the percentage looks low (below 50%), choose a method for a more complex melody.

**Solo completed, 79% of solo is compatible with melody**

See c:\bb\Tutorial – BB2007\Beautiful Dreamer with Melody Influenced Solos.MGU.”

**Let’s set up a practice folder on the Practice Window.**

Press the Practice button. Examine the Practice Window. It is described in detail in the Chapter on Wizards, Tutors, and Practice Aids.

Press the Folder button in the “My Tunes” group. You’ll see a list of the Favorite Folders that you’ve used in the recent past with Band-in-a-Box.

Let’s make the c:\bb\styles0 into a “Practice Folder.” This folder will always be listed first in the list of folders, i.e., a “sticky” folder.
In the Manage Folders submenu, choose Add Practice Folder and then select “C:\bb\Styles0” or whatever folder that you want to make a practice folder.

It will then show up on the menu when you press the Folder button, and when you press the [Songs] button you will see a pop-up menu of the songs in that folder. This lets you load in songs much faster than navigating a File | Open dialog. Note that this is used for folders with less than 200 songs, the menu limit for a single screen.

This is the end of the tutorial.

Thanks for taking the time to read this section. The next sections examine the new features in detail.
Chapter 4: The Main Screen

Main Screen Overview

The main screen gives direct access to the major features and program settings of Band-in-a-Box for ease and convenience during a session. There are five different areas on the main screen.

1. The **Status Bar** is used to show program running status messages and path names of the currently loaded song.
2. The **Synth Window** is the area between the Menu Bar and the Piano Keyboard where Instruments patches are set and levels are adjusted. It also includes buttons for adding harmonies to the Melody, Thru, or Soloist parts.
3. The **Tool Bar** area under the Piano Keyboard has buttons for direct access to important program features and menus. Hold the mouse cursor on any button to see a pop-up hint that describes its function.
4. The **Title Window** shares the Tool Bar area. In addition to the song title, it includes all the other settings for the song such as its Key Signature, Tempo, and Chorus settings. To the right of the Title Window are two floating, dockable toolbars that can be configured by the user.
5. The **Chordsheet Area** occupies the lower part of the screen. Chord changes for the song are typed into the numbered bars (cells) in the sheet. “a” and “b” part markers are entered here to switch between the “a” and “b” Band-in-a-Box substyles. Repeats and endings are also shown.

Personalizing the Main Screen

Band-in-a-Box gives you many options to personalize the main screen.

Screen Layout

The Chordsheet area (or Notation Screen) can be placed at the top of the screen if desired by selecting the “Put Notation/Chords on Top” from the Window menu or by pressing **Ctrl+T**. (This is reversed by selecting the same option.)
Display Options
Go to Opt. | Preferences or click on the [Pref] button to open the Preferences dialog. Then click on the [Display] button to open the Display Options dialog where you can select a toolbar mode, show or hide the on-screen piano, pick a song title font and set options for the chordsheet display including the number of rows to display for the main chordsheet, the font to use, and the font size too. This allows you to read the chordsheet window from “across the room.”

![Display Options dialog]

If you choose a Custom font, you can choose the size as well. Choose a preset font, and the size will be set automatically to fit into the height of the row. Choose Jazz Symbols to see shorthand Jazz chord symbols in the chordsheet and notation. To revert to the “old look” that used a small System font, and lots of rows, you can choose that as the type of font “Small font (system).”

Color Schemes
You can choose from several color sets using the 256-color palette in Windows. Choose from pre-made color schemes or make your own. To change the color scheme, select Opt. | Preferences from the main screen, and then click on the [Colors] button in the Preferences dialog to launch the Color Selection dialog.

To select a pre-made color scheme, press the [Import..] button and choose from the list of schemes. Select [OK] to make the changes permanent. Use the [Export..] button to save and share your customized color schemes.

To make your own color scheme, click on the name of the element you wish to change (Chord Area, List Box, etc.), then click on the [Choose...] button to bring up the Windows Color palette and click on the color you desire.
Status Bar

The name of the open song is identified in the status bar at the top of the screen. The full file name and path name are shown, as well as audio track information if present, the length of the song in minutes and seconds, and the current position of the highlight cell. Other "running status" messages such as Soloist Generation and Song Generation display in the status bar.

The status bar changes during playback to show additional information like the current bar and chorus location and the current style.

Taskbar hint

The entire song name displays in the taskbar hint when Band-in-a-Box is minimized. This is useful to find the name of a song playing when Band-in-a-Box is playing in the background.

Synth Window / Piano Keyboard

The Piano Keyboard:
This keyboard displays the notes (in different colors) that are being played by all instruments on various parts of the piano keyboard during playback (except drums). The MIDI Thru/Soloist is also displayed on the piano keyboard.
On the top row, guitar (green), melody (red), and soloist (pink) are displayed. On the bottom row, bass (brown), piano (blue), and strings (grey) are displayed.

Instruments and Parts:

Part Settings: The Bass/Drum/Piano/Guitar/Strings/Melody/Soloist and Thru buttons refer to instrument parts. The parts in use for the current song and style are shown in yellow. Parts that are not used are in white. When RealDrums are available the Drums label is shown in green. The names of muted parts display in red.

To change a setting for one of the parts you need to do the following:
- Select the part by mouse clicking on the part name, or on the button immediately to the left of the part name.
- Change the desired parameter to affect the new setting.

Instruments - Choosing

The instrument panel allows you to change the instrument for any part:
- Clicking on the drop-down arrow produces an instrument list that you can choose from by highlighting and clicking on the desired instrument name.
- Clicking the [F] button produces a representative list of predefined favorite instruments that you can choose from.

The [GM2] button lets you select patches from a list of both General MIDI and General MIDI 2 patches if your system supports GM2.

Audio

The Audio Playback settings dialog makes it easy to mute, solo, or change the volume of the audio track, similar to the control of the other instrument parts in Band-in-Box. Click on the “Audio” label on-screen to open this dialog.

Harmony

The Harmony area displays the current Melody and Thru Harmony. At the top right, you'll see the harmony boxes for the Melody and the Thru/Soloist.

The [M] button is for Melody harmony -- pressing the [M] button produces a list of harmonies you can choose from. In this case it's set to SuperSax for a Big Band Sax-section harmony.

This button permanently writes the generated harmony to the Melody track. Once converted, set the harmony to none to prevent a “harmony-on-harmony” effect.

The [No harmony] button disables the harmony for the song. The keystrokes Shift+F10 also allow or disable the Melody harmony.

Tip: You can also search for a harmony by a keyword (i.e. typing in the first few letters of a harmony name) in either the Harmonies or Favorite Harmonies dialog.
Pressing the [F] button produces a list of your favorites; the 50 most recently loaded harmonies.

The [T] button is for Thru/Soloist harmony. Either your live part or the Soloist will be harmonized in real time - in this case using George Shearing Quintet type harmony (piano, vibes and guitar). Pressing the [F] button produces a list of your favorites; the 50 most recently loaded harmonies. Pressing the Shift+F11 keys toggles the Thru harmony on and off.

**Toolbars**

The main toolbar extends the full width of the screen. (It is divided in two here.)

- **New**: The [New] button clears the Chordsheet to start a new song. Band-in-a-Box reminds you to save your work before it erases the chords.
- **Open**: The [Open] button is used to open (load) songs into the program from a standard Windows **Open File** dialog.
- **Prev.**: Use the [Prev.] button to immediately open the previous song in the same folder (in alphabetical order) without going through the usual file opening process.
- **Next**: Use the [Next] button to instantly open the next song in the same folder (in alphabetical order) without going through the usual file opening process.
- **Save**: The [Save] button saves the song to disk with the standard Windows **Save As** dialog.
- **Save As**: This saves the song, allowing you to choose or confirm the name and location for the file save.
- **Save +**: The [Save +] button opens the **Assign Instruments and Harmonies to Song** dialog where custom patches, harmonies, and other settings can be permanently saved with the song.
- **.MID**: The [.MID] button allows you to make a Standard MIDI File and save it to disk as a file with extension .MID or to the Windows Clipboard with type “Standard MIDI File.” Type 0 and Type 1 MIDI files are supported, or you can also choose to save the song as a Karaoke file with the .KAR extension.
- **WAV**: This is the “Render to WAV file” button, which will convert (render) your MIDI arrangement to an audio wave file. It includes a batch render feature to convert an entire folder of songs in a single operation.
Transport Controls
These buttons are like the transport controls on a CD player or a media player.

[Play] button generates a new arrangement and plays the song.
[Loop] plays the selected (highlighted) section of the chordsheet in a loop.
[Replay] plays the song from the beginning without creating a new arrangement.
[Stop] button stops the song or the Jukebox from playing.
[Pause] button pauses the song during playback.
[From] button is used to play a song starting anywhere in the song, including tags or endings. This feature is also available from the right-click menu in the Chordsheet.

The [Melodist] button opens the Generate Chords and/or Melody dialog, where you can choose the type (or genre) of Melodist you wish to have generate a complete new song with chord changes and melody as well as an improvised solo and an original song title.

The [Soloist] button opens the Select Soloist Dialog, where you can choose the Soloist you wish to have play over any given chord changes.

The [Juke] button is used to start or stop the Jukebox. The [←] and [→] arrow keys are used to move to either the previous or next song in the Jukebox.

The [Rec.] button is to record a song from the beginning. The music that you play in to the computer will then be stored on the Melody track. The “R” key is the keyboard equivalent.

The [R. Aud] button launches the Record Audio dialog for live audio recording.

You can make yourself sound like a 5 piece vocal group or a 16-voice choir! Record a vocal part, and add a 4 part audio harmony. Press the audio harmony button on screen to do this.

Band-in-a-Box supports DirectX and VST audio plug-ins – you can apply them directly to the digital audio track. Use the cool PG Music plug-ins provided, or any other DirectX and VST plug-ins that you have.

This allows you to select and configure DXi (DirectX instruments) or VSTi software synthesizers. The “Use DXi Synth” checkbox must be selected in the MIDI Driver Setup dialog.

Sends out an “all notes off” message to your MIDI or software synthesizer, so it can function as a “panic” button to stop a hung or stuck note.

This button resets General MIDI devices by sending a GM mode On message and then setting up the Band-in-a-Box patches.

Floating Toolbars
These are Copy and Paste buttons for chords or notes. They copy to the Windows clipboard, and paste from the clipboard.
The Folder button allows you to change song and style folders or directories from within the program.

Use the Favorite Folders button to select a folder from previously used folders. **Shift**-click on this button to choose any folder.

The guitar button launches a guitar fretboard window that displays guitar notes as music is playing.

This button allows you to enter repeats, 1st and 2nd endings, DS al coda, DC al coda and more. The Auto-Find feature enters them automatically.

The [Intro] allows you to generate and insert an intro into a song with a “press of the button.”

The Big Piano button launches a Big Piano window. It will display the notes to any track (except drums) as the music is playing.

This launches the Windows Mixer applet. Use the Windows Mixer to make global settings to your sound card's input and output options.

Press the Guitar Chord button to launch the “Generate Guitar Chord Solo” dialog.

The Ear Training button opens the Ear Training Window that plays chord types and intervals for you to improve your playing-by-ear.

Launches the Pitch Invasion game that helps to develop perfect pitch as you shoot down “alien” notes invading from above.

Launches the Music Replay game that develops pitch, rhythm, and melody recognition by replaying what the program plays.

The Vocal Wizard selects and transposes the song to the best key for a singer’s vocal range.

This button launches the Chord Options dialog box, which allows you to add chord pushes, rests, shots, and held chords for any given bar.

The grace note button opens the Melody Embellisher dialog for customizing the Melody Embellisher.

You can convert your composition to an audio CD. Press the CD button to burn a CD with the built-in CD burner program.

This button connects to the [www.pgmusic.com](http://www.pgmusic.com) web site.

If you have a Sound Blaster card, this button runs the Creative Mixer.

Open an audio file (WAV, WMA, MP3) and the Audio Chord Wizard will automatically figure out the chords.

The Practice Window is where many of the features and add-on programs useful for learning can be launched.

This controls the RealDrums, which are audio drums that can replace the MIDI drums with a real drummer.

The SoundTrack feature allows you to generate music of fixed length for backgrounds in videos, corporate presentations, jingles, etc.
The Reharmonist creates a chord progression based only on the melody. It can also reharmonize existing chord progressions.

This button opens the Notation window, where you can enter chords and lyrics, edit notation, and view MIDI notation.

The Lead Sheet notation is a full-screen notation window with optional Fake Sheet mode that shows 1st and 2nd endings, repeats, and codas.

Launches the Piano Roll window for editing the Melody or Soloist tracks in a piano roll format, including graphic controller editing.

The Audio Edit window displays a graphical waveform and allows editing. Hold Shift when pressing to open a moveable window.

Use the Print button to launch the Print Options dialog, which allows you to print Lead Sheet or Fake Sheet style notation.

The Drum button launches an animated Drum Kit window. Press it to launch this fully functional (and fun) GM-MIDI “virtual” drum kit.

The Song Title button generates a song title for the current song. Each time it is pressed a new title is generated.

This button opens the Big Lyrics window for full screen “Karaoke-style” scrolling lyrics.

Runs the Sequencer for control of multi-channel Melody or Soloist tracks. Each track can record up to 16 separate channels.

The Conductor window allows live, real time QWERTY keyboard or MIDI control of the song as it is playing.

This button opens the Windows Recording mixer where you set your recording inputs. Select Microphone or Line-in to record audio.

The [Pref] button will bring up a dialog box where you can set various settings all at once and access most of the program options.

The Audio VU meters display the input volume for audio recording and the output volume for audio playback.

There’s a Lyric Document window so you can easily copy and paste lyrics to and from your favorite word processor.

The StyleMaker button opens the current style in the StyleMaker, allowing you to edit the style by editing the patterns.

This button opens the “Hybrid Styles” feature that allows you to create a new style by using instrument parts from up to five different styles.

This opens the Style Creation Wizard dialog, where Band-in-a-Box will automatically convert a MIDI file into a Band-in-a-Box style.

This is the Chord Builder button. Chords may be heard and entered to the chordsheet by clicking in this dialog.

The MIDI Monitor button launches a MIDI Monitor that displays the MIDI Data flowing in and out of your computer/synth.

The tuner button opens the Guitar Tuner so you can tune a guitar or other instrument that is plugged into the sound card.
The SB button opens the Sound Blaster control panel, but only if you use a Sound Blaster card. Sound fonts are loaded in the control panel.

This button toggles the chord display among standard (CMaj7), Roman Numeral (I\textsuperscript{maj7}), Nashville (1Maj\textsuperscript{7}), and Solfeggio (DoMaj\textsuperscript{7}).

This runs the stand-alone Title Generator program, which will generate and print 50 new song titles at a time.

**Title Window**

The Title window shows the basic information about the current song at a glance - its title, style, key, tempo, and the length and number of choruses. It also gives quick access to the Song List, the StylePicker, Memos, and Song Settings.

The [Song] button launches the **Load Song by Full Titles** dialog box.

The [F] favorites button opens a list of the last 150 songs played.

The [Style] button launches the **StylePicker** window. This window offers detailed information about each style.

The [F] favorites button opens a list of the last 150 styles chosen.

The names of the last five songs are listed at the bottom of the File menu, and are numbered from 0 to 4.

**Note:** Pressing Shift+F3 on your computer keyboard will bring up a list of the last 150 songs that you've loaded.

The **Song Title** window allows you to enter the name of a song.

Click in the box with your mouse to start an insertion cursor and type in the name of your song. The title is automatically included when the song is printed.

**Style Display Window**

This window displays the current style in use. This window displays the current style in use. Mouse over the style to see the full name or right mouse-click on the style name for a menu of style utilities. These include choosing and changing styles as well as playing the demo song for the currently loaded style.

**Key Signature**

The key signature of the song is displayed on the main screen under the title. To change the key, click on the key signature to choose a new key from the dropdown list box. Band-in-a-Box then asks you if you would like to transpose the song or not. Press [Yes] to confirm, or [No] to leave the melody and chords untransposed (only the key signature will change). An instance where you would say "no" is where you have entered a song without first setting the key signature and you want to apply the correct key signature.
Chapter 4: The Main Screen

Tempo Control

The current tempo displays in the Title window, with controls for easy tempo settings and adjustments.

- Click the mouse on the spin control arrows to raise or lower the tempo in by 5 bpm (beats per minute) at a time. Use a right mouse click on the tempo arrows to change the tempo by 1 bpm at a time.
- Tap the [=] key on the number row of your computer keyboard for 4 beats to set the tempo and start the playback immediately at that tempo. (Or click the [=] button on the screen with your mouse pointer.)
- Tap the [-] key on the number row of your computer keyboard (see illustration above) for 4 beats to set the tempo. Or click the [-] button on the screen with your mouse pointer.

Chorus Control

The Chorus Control buttons are used to set the overall format of your song.

- Chorus Begin button: Click on the Chorus Begin Button to select the first bar of the chorus. The Bar number that you select is displayed.
- Chorus End button: Click on the Chorus End Button to select the last bar of the chorus. The Bar number that you select is displayed.

The number of choruses possible for a tune is 40. Click on the chorus button and choose how many choruses you require.

As the song is playing the current chorus is displayed in the chorus button. 2/3 shows that the second of three choruses is playing.

If you change the number of choruses, Band-in-a-Box will offer to fill up or remove choruses of the Melody track to match the new number of choruses.

Title window checkboxes

- Loop: When the loop checkbox in the Title window is checked, the song plays endlessly until stopped by the [Esc] key, the space bar, or the [Stop] button. At the end of the song, it plays again from the start.
- FakeSh: Enables fake sheet mode for the chordsheet with 1st and 2nd endings and repeats. Right click to auto-detect repeats.
- Wizard: The Wizard is an intelligent play along feature that uses your QWERTY keyboard as a substitute for an external MIDI piano-style keyboard or optionally works with a connected external MIDI keyboard on the Thru channel. Toggle this checkbox “on” to play along with Band-in-a-Box. The bottom row of keys plays chord tones, the second row plays passing tones - you play any key in either row and never make a mistake!
- Embellisher: During playback, the Melody Embellisher changes timing of notes, durations, velocities, legato, as well as adding grace notes, additional notes, and “turns.” It is turned on and off by the Embellisher checkbox on the main screen. Embellisher settings are accessed from the menu item Melody | Embellisher or the Embellisher button on the toolbar.
- Memo: Press the [S] button, or choose Edit | Settings (for This Song)... to select additional settings for the current song such as varying styles, allowing song breaks, and adding a tag and/or an ending.

The [Memo] button allows you to put in a memo to a song. You can type in a memo or you can paste text from the Windows clipboard.

The Song Memo has an option to close automatically during playback. When this option is set, the Memo button will close when play is pressed, and not reopen when stop is pressed.

This setting, in combination with the “Auto-open” setting, ensures that the memo opens when the song opens, but closes during playback.

Automatic Memo-Generation

The Song memo has a “summary” checkbox. If selected, you’ll see an additional window that automatically displays a full summary of the song (title/tempo/patches used in the song), as well as other special features, like substyle patch changes or harmonies.
Loop Section Settings

The loop button launches the Loop Section Settings dialog, allowing you to set a range of bars to loop in Band-in-a-Box.

The LoopSec/LoopScn checkbox turns the Loop Section on/off. When it shows LoopSec a selected range of bars repeats in an endless loop. LoopScn indicates a screen of notation is looping.

Chordsheet Area

Chords, rests, shots, holds, and part markers are entered in the Chordsheet.

The chordsheet can be viewed in the full linear view showing all bars, or optionally in fake sheet view that shows 1st and 2nd endings and repeat signs. Another option shows bars past the end of the song in gray.

Chord Entry

The basic way of entering a song into Band-in-a-Box is to type in the chords to the song on the chordsheet (worksheet). The arrow keys move the active (highlighted) cell around in the chordsheet. The Enter key advances to the next ½ bar. Chords can be entered from the QWERTY keyboard or an external MIDI keyboard (see Window | MIDI Chord Detection...).

Chords are typed in using any of the supported chord symbol displays:
1. Standard chord symbols (e.g., C or Fm7 or Bb7 or Bb13#9/E).
2. Roman numerals (I\textsuperscript{maj7}).
3. Nashville Notation (I\textsuperscript{Maj7}).
4. Solfeggio (D\textsuperscript{Maj7}).

Notes: It is not necessary to type upper or lower case. The program will sort this out for you. Any chord may be entered with an alternate root (“Slash Chord”) e.g.: C7/E = C7 with E bass. Separate chords with commas to enter 2 chords in a 2 beat cell, e.g., Dm, G7.
Shortcut Chords:
If you enter a lot of songs, you'll appreciate these shortcut keys.
- J = Maj7
- H = m7b5 (H stands for Half diminished)
- D = dim
- S = Sus

Example: To type CMaj7, just type CJ (it will be entered as CMaj7)

Add your own chord shortcuts.
You can make your own shortcuts text file and name it `bb\shortcut.txt`. This allows you to add new chord shortcuts. (Note that this file doesn't ship with Band-in-a-Box or it would overwrite your file.)

If you find a chord that Band-in-a-Box won't accept like Csus2 (it expects C2), you can enter this on a single line (without the quotes) “Csus2@C2.” Then Band-in-a-Box will enter the chord C2 if you type in Csus 2.

Play Selected Area as a Loop
To use this function, select a region on the Chordsheet

Click on the [Loop] button, **Shift-click** on the [Play] button, or press F10 (Play Selected Area as Loop) and the program will play a selected region, and loop the selection. For example, you can select bars 19 and 20, and then press F10, and bars 19 and 20 will play looped.
Chapter 5: Guided Tour of Band-in-a-Box

With Band-in-a-Box you can arrange, record, save, and print your own song ideas. Just type in the chords to any song; choose a style and press [Play] to hear the “band” play a full arrangement. Then record a Melody - either MIDI or live audio – or have Band-in-a-Box write an original Melody for you. Add Melody embellishments and harmony, an automatically improvised Soloist, an Intro, and print out a multi-part Lead Sheet or a Fake Sheet with repeats and endings in a “handwritten” Jazz font. Edit the notes for the Melody or Soloist track in the Piano Roll window, with precision graphic editing of controllers. Use the Melody Pitch Tracking feature to “tweak” the pitch of your Band-in-a-Box audio track, and then add amazing “stylized” 4-part audio harmonies.

Loading and Playing Songs

Open any song file with the familiar dialog box, just like any other file on your disk.

Start song playback.

The [Loop] button plays the highlighted section of the chordsheet or notation in an endless loop. Click and drag the mouse to highlight a section of bars to loop.

Replays the song without regenerating the tracks, so the current arrangement is preserved. (Save the song to a MIDI file to permanently save the arrangement.)

Stop song playback.

Pause playback with the [Pause] button; resume by pressing it again.

Jump to any bar in the song. Press the [From] button to choose which chorus and bar number to jump to.

The [Song] button opens the SongPicker window, a resizable window that lists all of the songs in the current directory and, optionally, its subdirectories. For example, if you get a song list of C:\bb, it can include songs in subfolders like C:\bb\styles34. You can lock the SongPicker to always open in the same folder and use the same list to keep track of all songs on your disk.

The first time that you select the [Song] button Band-in-a-Box automatically writes the song list. The current folder name is displayed in the title bar, with the total # of songs displayed. The Song List generation has a [Cancel] button so that it can be interrupted.
From then on, the SongPicker opens when the button is pressed and songs can be selected by title from the alphabetical list. Songs can be sorted by any of the column headings, like Song Title, File Name, Style, Tempo, etc., by clicking the mouse on the heading at the top of the column. Either a plus (+) or minus (-) sign will appear beside the selected column heading. A plus sign indicates that the column is sorted in ascending order; a minus sign indicates that it is sorted in descending order.

**Filter**

Use the filter to search by column, song title, file name, or style.

![Filter Example](image)

**Folder Settings**

The folder settings are at the bottom of the SongPicker.

![Folder Settings](image)

The folder can be changed, either by:

1. **Up**
   - Going “up” a folder (e.g. from c:\bb\styles to c:\bb).
2. **Fav**
   - Choosing a folder from recently used favorites folder.
3. **Change**
   - Selecting the new folder.

When the new folder is chosen, the song list for that folder will be displayed. The song list may need to be rebuilt; the program will do that automatically.

- **Always open in this folder**
  - If the “Always open in this folder” item is selected, the song picker will always open up in the specified folder. So if you put all of your songs in c:\songs, you can make the SongPicker always open to the c:\songs folder!

- **Include Subfolders**
  - If “Include Subfolders” is selected, the SongPicker list will contain songs from the folder and any subfolders. So if you have subfolders to c:\songs like c:\songs\country and c:\songs\jazz, you can see/search all of these songs in the same SongPicker dialog.

**Tip:** If you choose c:\ as your folder, the SongPicker would find every Band-in-a-Box file on your hard drive and display it in the SongPicker. You might instead find it easier to put all of your songs within a folder like c:\songs, and have various subfolders to that. And then set the SongPicker to always open up in the c:\songs folder. Then you’ll have access to all of your songs easily.

- **Print List**
  - Copy the song list to the Windows clipboard where it can be pasted into any word processing program and printed.

- **Search**
  - Search for song by keyword will find the search term if it is present in any field. The filter (upper right) can also be used to search the song list.

- **Search Again**
  - Search Again repeats the previous search starting from the current point.

- **Rebuild List...**
  - [Rebuild List] will exit the dialog and build or rebuild the song list file by loading in all of the songs in the directory. It will then launch the SongPicker dialog with the updated information.

- **Export as CSV**
  - Exports the list as a Comma Separated Value text file that can be opened by spreadsheets.

- **Fonts**
  - Click here to change the fonts in the StylePicker window.
Check "Play when chosen" to automatically play the selected song.

Once you’ve loaded a song you’ll see the chords on-screen in the chordsheet so you can follow the chord changes and play along with the band.

There are right mouse menu options on the Chordsheet, such as “Play from Bar/Chorus #.”
Chordsheet Options

You can set up the chordsheet with your own preferences. Go to Opt. | Preferences or choose the [Pref] toolbar button to open the Preferences, and click on the [Display] button to open the Display Options.

In the Chordsheet area of the Display Options you can pick a chordsheet font and the number of rows to display, or set an option to automatically adjust the number of rows to display.

Transpose Chordsheet option

The “Transpose” option is also found in the Display Options dialog. It is useful for non-concert pitch instruments like Tenor Saxophone. This option is also available on the Notation window.

Play along with your MIDI Controller Keyboard

If you have an external MIDI keyboard controller connected to your computer system, you can use the MIDI THRU features to play along with the program, including the Harmony feature.

When playing along on a keyboard to the Band-in-a-Box “band,” if the sound of your keyboard is too quiet and increasing the THRU Volume doesn't help enough use this option to boost the THRU velocity and make your THRU playing louder. (For example, non-velocity sensitive keyboards are usually set to output a quiet velocity of 64). To set this “THRU velocity boost,” open the MIDI Settings dialog (Opt. | Preferences | Channels). Click on the [Options] button and set “Boost THRU Velocity by” to a value in the range of –127 to +127 in the MIDI Options dialog. (Default is 0.)

Harmonize your play along part by pressing the [T] button in the Synth window to choose a harmony, just as you would for the Melody.

Using the Wizard with MIDI keyboard input

The Wizard can also be used with a connected MIDI keyboard. The keyboard wizard always plays correct notes, and is a fun way to play along with Band-in-a-Box. The MIDI keyboard also sends volume information (unlike the QWERTY keyboard), so is a better choice if you have a MIDI keyboard connected.

This feature is accessed with the [Transpose] button in the Preferences dialog. To turn on the Wizard to allow MIDI control, choose “Use Wizard for THRU part.” Make sure that the Wizard checkbox is enabled on the main screen.
Now, when you play notes on the MIDI keyboard (during playback), they will get remapped to chord tones. C/E/G/Bb notes played on a THRU keyboard will be mapped to chord tones, and D/F/A/B will be passing tones. This scale - C D E F G A Bb B - is considered the “Bebop” scale, useful for playing over dominant 7th chords.

**Change the Style**

**Try different styles** by clicking on the [Style] button to choose from a list of the styles available in the StylePicker window. Styles that have the same feel (triplets, eighths, sixteenths) and a similar tempo range to the current prototype will be indicated with an (*) asterisk. Styles with a (^) caret have a similar feel but a different tempo range.

<table>
<thead>
<tr>
<th>Style Changes at current bar</th>
<th>STY</th>
<th>Open...</th>
<th>Clear STY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send Patch changes with style change</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Change the Sound**

You’ll find the Synth window at the top of the screen. Select an instrument part by clicking its name. The black dot beside the name indicates the selected part. Any changes to the Instrument, Volume, Reverb, Chorus, Bank, etc. will apply to that part. Change the instrument patch by scrolling through the 128 General MIDI instrument names in the Instrument box, even while the song is playing.
Chapter 5: Guided Tour of Band-in-a-Box

Solo an Instrument Part
While listening to Band-in-a-Box, you can easily solo (isolate) a certain part by holding the Control key and mouse clicking (left or right) on the instrument at the top of the screen. For example, if you want to hear only the Piano part, Control-Click on the Piano part. If you want to use hot keys for this, you can press Alt+2 (Mute-All) and then Alt+4 (Unmute Piano).

Mute All Parts
To mute/unmute all parts as the song is playing, simply press Alt+2 or right-click on the “Combo” radio buttons at the top of the screen.

MIDI Normalize
If performing live, or at a jam session, it helps to have the volume of all of the songs be similar. With the MIDI Normalize feature, you can level the volumes to a setting in the program options. For example, you can set all volumes to be 70 and the program will make each song play within those levels. This is done in the Preferences [Arrange] tab.

When you have set the normalize to “on” the status bar at the top of the screen reports that Normalization is set to 70, and that the velocity of the currently playing song has been increased from 49 to 70.

The normalization will affect bass, drums, piano, guitar, and strings. If you select the “Including melody and Soloist” option, the normalization will also affect the melody and soloist parts.

Play Selected Area as a Loop
To use this function select a region on the Chordsheet.

Loop any Section of the song.
You can loop any section of the song. The program will then start playback at the first loop point and play the looped section until stop is pressed or looping is turned off. This feature is handy for looping a full chorus or other section of a song for practice or performance.
Looping of a section of the song is enabled by the “LoopSec” checkbox or with the keystroke NUMPAD 1.

Open up the Loop Section Settings dialog by clicking the Loop button, or pressing NUMPAD 2. The Loop settings dialog will then display.

The Conductor Window

As the song is playing, many “single key” hot keys are available to control the playback and looping of the song. For example, pressing the “4” key will insure that the middle chorus is the next one played, and pressing the “S” key will insure that the middle section is looped. This would be useful to extend a song that has the last chorus playing. Custom loop points can also be set for each song. These settings are ideal for live performance, or “jam sessions” where you aren’t entering new Band-in-a-Box songs, but want full control of the playback. These loops happen seamlessly at the end of the chorus, so are suitable for the “dance floor.” In addition, you can control Band-in-a-Box from a standard MIDI keyboard, pressing MIDI keys corresponds to program functions. For example, load the next song, play/pause/tempo adjust/change thru patch/jump to middle choruses/open the notation or lead sheet window – all from your MIDI keyboard!

Press the Conductor button to launch the Conductor window with more settings and descriptions. This feature is documented in the PowerGuide chapter and in the Help file.

Add a Melody – MIDI and/or Audio

Band-in-a-Box is much more than an intelligent arranger and accompanist. You can record your live MIDI performance to the Melody track, enter a Melody in the Notation note-by-note, or use the Wizard feature to record with either your computer keyboard or a connected MIDI keyboard controller.

Enable the Embellisher, and the Melody will be embellished as it plays. You hear a livelier, more realistic Melody, and it's different every time.
The Embellisher is only active while the music is playing; the recorded Melody track isn’t affected. There is an option for the Embellisher to only humanize the timing of the music if the timing was “stiff” to begin with. This allows the Embellisher to leave the timing of human input melodies alone, and humanize only the ones that were entered in step-time.

You can save/load your own presets for the Embellisher. Press the Export button to save the data as an .EMB file. You can record an audio track of your live vocal or instrumental performance and save it to an audio wave file along with the Band-in-a-Box accompaniment. Make sure that you have a microphone plugged in to your sound card, or a connection from a mixer, keyboard, or other audio device connected to the Line In jack on your sound card.

**Opening and Importing Audio Files**

A mono or stereo WAV file can be imported to the Audio track, optionally merging with or replacing any existing audio track. Choose the menu item *Audio | Import Audio (WAV, WMA, MP3, WMV) File*. You then choose an audio file to import. The Import Audio File dialog is then displayed, which allows selection of the point to insert the audio file, and whether to merge or overwrite existing audio in the range.

**Audio Chord Wizard (Chords from MP3)**

This feature analyzes a WAV, WMA, MP3, WMV, or CDA audio file and imports it to Band-in-a-Box. The Audio Chord Wizard works out the tempo, bar lines, and chord changes so you can easily make your favorite recordings into Band-in-a-Box songs. It is fully described in the *Working With Audio* chapter.

**Harmonize the MIDI Melody**

Press the [M] button in the Synth window to add a MIDI harmony to the Melody track. Pressing the [F] favorites button brings up a list of the last 50 harmonies used.

The Select Melody Harmony dialog box allows you to choose from any of the pre-defined harmonies and even allows you to define your own.
This button opens the Harmony Maker, where you can customize Harmonists.

You can search for a harmony by a keyword (i.e. typing in the first few letters of a harmony name) in either the Harmonies or Favorite Harmonies dialog.

This button is to turn off any notes that are stuck on. (There shouldn’t be any.)

Enter the number of the harmony you want to go to and press [Go To #].

Pressing either the [Fav] or the [F] button produces a list the 50 most recently loaded harmonies.

The [No harmony] button disables the harmony for the song. The keystrokes Shift+F10 also allow or disable the Melody harmony.

When adding a harmony to the Melody (or Soloist) you can use the option to loosen up start times of for the harmony notes to achieve a more natural, richer harmony sound.

Choose menu item Melody | Edit | Utilities | Loosen Start Times. You can select the range of adjustments. For example, if you want the notes to be played earlier, use a negative number. A setting of minus 5 to positive 6 would cause the start times to be varied up to 5 ticks early and 6 ticks late. There is also a setting to choose whether you want only the harmony notes present on the track to be affected, leaving the original melody unaffected.

This will vary the start times of notes on the Melody or Soloist track. Randomizing the start times gives the sound a ‘looser’, less mechanical sound. This is also useful for harmonies that are on the Melody/Soloist track.

This feature permanently writes the specified harmony to the Melody or Soloist track, instead of being applied in real time. Use the buttons in the Select Melody/Soloist Harmony dialogs, or the Convert Harmony… menu command found in the Melody and Soloist menus. You’ll then see a dialog allowing you to choose the range of the song to add the harmony, either the whole song or a specified range of bars.

There are options to “Eliminate Note Overlap” and “Loosen start times of notes” for the harmony notes to achieve a more natural, richer harmony sound. The melody is not affected, only the harmony notes, and there are options for the range of spread for the harmony notes.
Guided Tour of Band-in-a-Box

**Chapter 5**

**Live Harmonies While Band-In-A-Box Is Stopped**

Normally, the Live Harmony feature is not active when Band-in-a-Box is stopped. But you can in fact use the Live Harmony even while a song is not playing.

You need only to open the Harmony | Real Time MIDI Harmonies menu item. Note that this Live Harmony dialog must remain open for this feature to be active.

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*Note: Once the track is converted you should set the harmony to “None” or you will hear harmonies being applied to the harmony notes, i.e., “harmony-on-a-harmony.”*
When this dialog (shown above) is open, you can play a chord in the Left hand (below the split point set in the dialog), and the chord you play is and displayed in the dialog. Then, the notes that you play in the right hand will get harmonized according to this left-hand chord.

If you set the **Only Harmonize if Left hand chord held down** you’ll be able to control what notes get harmonized by holding down the chord when you want a note to be harmonized.

**Play Along with the Wizard**

The **Wizard** is an intelligent play along feature that is controlled with the bottom two rows of your computer’s QWERTY keyboard. The bottom row of keys plays chord tones; the second row plays passing tones. You play any key in either row and never make a mistake!

In the **Play** menu, toggle **Wizard uses “Smart” notes to “off”** (unchecked) to have the Wizard provide you access to the chromatic scale. Toggle it “on” to have access only to the notes based on the chord/key of the song.

This also allows you to record to the Melody or Soloist track without an external MIDI keyboard, and can even be used to trigger the Soloist Wizard. Also, play along using the Wizard works with the harmony feature, so you can play along live from your QWERTY keyboard in 4-part saxophone harmony for example.

**Playing the Wizard**

The Wizard Keys are active during playback. The active keys are the lower 2 rows of the keyboard.

A S D F G H J K L ; ‘ ← This row plays PASSING Tones (2nd, Fourth, Sixth)
Z X C V B N , . / ← This row plays CHORD tones (root, 3rd, Fifth, Seventh)

**MIDI Keyboard Wizard**

By turning on this Wizard setting in the **Opt. | Preferences Transpose** dialog, notes played on a Thru channel MIDI keyboard will be played through the Wizard. C, E, G, and Bb will be mapped to chord tones while D, F, A, and B will be passing tones.

**Changing Instruments / Settings for the Wizard**

As a play along instrument, the Wizard uses the Thru instrument part. To change the instrument patch, volume, reverb, etc. for the Wizard select the Thru instrument in the synth window.

**Add a Solo - “The Soloist”**

That’s right! Band-in-a-Box can “solo like a pro” in over 200 styles.

Use the [Soloist] button on the main screen to open the **Select Soloist** dialog box and choose from over 200 Soloist profiles.

Use the preset Soloist settings, or choose a Mode and which Choruses to solo.

You can select a Soloist type (e.g. Modern Jazz) and see only soloists matching the type.

And you can also filter to show/not show soloists from Soloist sets that you don’t have.

With the “Trade” feature, you can Trade 2’s, Trade 4’s, or Trade 8’s between your live playing and the Soloist.
There is a dedicated function to vary the start times of notes on the Melody or Soloist tracks, with options for what notes to affect (harmony, chords, and amount of variance). Choose menu item Soloist | Edit Soloist Track | Utilities | Loosen Start Times.

Using the Soloist Feature

1) Generate a Soloist and practice the solo by looping it, slowing it down, or printing it out, until you can perform a great solo on any chord changes!

2) Generate a Soloist and attach a Harmony such as “Big Band Brass” to create phenomenally quick and interesting Big Band Arrangements automatically. Generate a standard MIDI file or print them out (with PowerTracks Pro) for you and your friends.
3) Have the Soloist play a solo according to your accompaniment and arrangement (along with the other members of your Band-in-a-Box, of course!)

4) Trade 4’s in a call-response fashion with the Soloist (you solo for 4 bars, Band-in-a-Box solos for 4 bars, etc.)

5) Concentrate separately on different aspects of your playing with assistance from the “Wizard.” From soloing with proper phrasing and “feel” (the best notes are included automatically) to accompanying a soloist with confidence and authority (Tip: try muting out one of the accompaniment parts such as the piano or guitar part and play along to the Soloist in a supportive role-- its fun!)

6) Use the Soloist track to record another part in addition to the Melody and other parts provided by Band-in-a-Box.

7) Generate a Soloist on chords/keys that you would like to practice. Band-in-a-Box will play and solo with you all day without getting bored. For example, if you want to work on your II-V7-I progressions ("two-five-one"), you can just type the chords you want, and generate a solo to play over those changes. As the solo plays, you see the notation, can you can sight read along. Pressing the "Loop Screen" checkbox on the notation will loop the notation the screen so you can master each 4 bar phrase (II-V-I) and then move ahead to the next one!

The Soloist Maker [Edit…] button gives access to the advanced settings in the Soloist Editor where you can edit existing profiles or create new Soloists of your own.

To see the Soloist part play in standard music notation open the Notation window and press the [S] button at the far right of the instrument buttons.

Notation window showing Soloist part.

**View and Print Notation**

Open the Notation window with the Notation button. You will see standard notation on the grand staff. There are 3 notation modes in Band-in-a-Box, selected with the buttons in the Notation window toolbar.

1. Standard Notation for display of notes, chords, lyrics, and optional guitar tablature as well as entering chords and lyrics. Notation is not editable in this mode.

2. Editable Notation to enter or edit notation with the mouse

3. Staff Roll Notation works like the Editable Notation plus note velocities and durations can be viewed and edited with the mouse.
Standard Notation Window

The Standard Notation window can be used for notation display and the entry of chords and lyrics. Just type a chord name and it will be inserted at the current time line location (the black vertical stripe just under the tool bar.)

Click on the instrument buttons to see the notation for the different parts: Bass, Drums, Piano, Guitar, Strings, and the Melody [M], or the Soloist [S].

Press the [Opt.] button to set Notation window options such as track type, bar resolution, lyric font size, and position, transpose options, and Regular or Jazz fonts.

This button opens the Lead Sheet window, which provides a full screen of notation either for an individual instrument or for multiple instruments that you choose to view together by clicking the instrument buttons while holding the Ctrl key.

Print out any part with the Print Button. In the Print Preview window save your notation as a graphic file to upload to the Internet or to e-mail.

The [#] button opens the Event List for editing the Melody or Soloist tracks.

This is the button for note-based lyrics, which are automatically aligned with the corresponding note in the Melody track.

Use the plus and minus buttons to zoom the Notation in and out.

The text button lets you enter section text or boxed text into the notation.

When the Scrub button is selected, notes will play as the mouse is dragged over them while holding down the left mouse button.

Switch to Editable or Staff Roll notation modes with these buttons.

Editable Notation Mode

Click on the Editable Notation button to go to Editable Notation mode. Chords, lyrics, and text can be entered as in the Standard Notation window; the Editable Notation mode also permits point-and-click entry of notes and rests as well as drag-and-drop editing.
This is the screen for step-entry of a melody or for editing existing parts. There are checkboxes for different note entry modes.

- **Note** checkbox: Determines whether a note or a rest will be inserted when the mouse is clicked.
- **Rest** checkbox: Determines whether a rest will be inserted when the mouse is clicked.
- **Mono** checkbox: When selected, the notation is entered as monophonic (one note only). This is useful for melodies that only have one note playing at a time. Mono mode is a faster way to enter notes, because the Notation window will automatically delete a note that is present at the same location that you are putting a new note on. So if you have mistakenly put a B note on as a C, you just click on the B note, and if in mono mode the C note will be deleted automatically.
- **Clean** checkbox: Eliminates the display of grace notes and glitches, and also simplifies the Notation display so it is more readable. Clean Notation doesn’t affect the actual track it just controls how it is displayed. In general this should be on, since it improves the display. But if you want to see every grace note or glitch that was played, then turn it off.

### Clean Notation

When music has been played in from a MIDI keyboard, there are frequently effects like grace notes, glitches, and notes played off time. The Clean Notation mode is an intelligent feature that “cleans up the notation” for you. It does this by eliminating the display of grace notes and glitches, and also simplifies the Notation display so it is more readable. Clean Notation doesn’t affect the actual track it just controls how it is displayed. In general this should be on, since it improves the display. But if you want to see every grace note or glitch that was played, then turn it off.

### Beat Divisions

In the Editable Notation mode each beat is sub-divided by either 3 or 4 broken vertical lines.

- **Swing styles**: use 3 lines to divide each beat into eighth note swing triplets.
- **Straight styles**: use 4 lines to divide each beat into sixteenth notes.

**Tip**: The edits you make to Band-in-a-Box accompaniment parts will be overwritten when the [Play] button is pressed and the program generates a new arrangement. To hear the song play as edited, use the [Replay] button found next to the [Play] button. Edited songs can be permanently saved as a MIDI file with the [.MID] button.
Staff Roll Notation Mode

Click on the Staff Roll Notation button to go to Staff Roll Notation mode.

In addition to the editing features of the Editable Notation mode, in Staff Roll mode the velocity (vertical line) and duration (horizontal line) of notes can be edited with the mouse.

Piano Roll Window

You can edit your tracks using the “Piano Roll” window, similar to the type found in many sequencer programs. Edit the Melody or Soloist tracks with greater ease and precision. There are 2 panes in the window – one for notes and the other for controllers, velocity, and other data. All notes and controllers are displayed as black/gray bars on a grid. You can change note duration and pitch by selecting and dragging with your mouse.

The Piano Roll window enables precise graphic editing of note timing and duration. You can also graphically edit note velocity, controllers, program changes, channel aftertouch, or pitch bend.

The Piano Roll may be opened as a movable window, which floats above the Band-in-a-Box main window, or it may be opened embedded, in the same position as the Chordsheet/Notation panels in the Band-in-a-Box main window.

Track Selection
Select the Track - Bass, Drums, Piano, Guitar, Strings, Melody, or Solo.

It is most practical to edit the Melody and Solo tracks. The other tracks for the accompaniment are rewritten every time Band-in-a-Box rebuilds the song (every time you click the [Play] button). So if you edit a “backing track,” be sure to save as a MIDI file before rebuilding the song, or your edits will be lost.

**Keyboard Pitch Panel**

1. Click on a single note of the keyboard to select all notes of the clicked pitch.
2. Click-drag on the keyboard to select all notes in a pitch range.
3. **Shift**-click-drag to add another set of notes to the selection.
4. **Ctrl**-click-drag to invert a pitch selection.

For instance, you could drag C5 thru C6 to select an octave of notes. Then **Shift**-click A3 to add all A3 notes to the selection. Then **Ctrl**-click F5 to remove all F5 notes from the selection.

**Note Panel**

Horizontal bars represent notes. Notes can be selected, edited (start time, pitch, duration), inserted, and deleted.

**Note Selection**

Selected notes are red.

1. Click on individual notes to select.
2. **Shift**-click on individual notes to add to the selection.
3. **Ctrl**-click on a note to invert (toggle) its selection.

Overlapping notes are displayed in bold Aqua color, making them easy to identify. Overlapped notes can be eliminated from the right-click menu in this window.

Click on white space and then drag a rectangle around notes to select a group of notes. Only notes that start within the rectangle are selected. If the left edge of a note is not inside the rectangle, it will not be selected. This is a feature, not a bug!

1. **Shift**-drag a rectangle to add another group of notes to the selection.
2. **Ctrl**-drag a rectangle to toggle the selection of the notes in the rectangle.
Graphic Event Panel

Graphically display and edit non-note MIDI events. This panel only shows MIDI events specified in the Chan, View/Edit, and Controller Type controls.

Zero-value events are drawn as small hollow squares, to make them easy to identify.

When graphically inserting controller and pitch bend events the event density is adjustable from one event per 1 tick up to one event per 30 ticks.

With events such as pitch bend or controllers like modulation and sustain, it is important to take care to end a “gesture” with a zero-value event. Otherwise, subsequent notes will be affected, with an unwanted “hanging” permanent pitch bend, permanent vibrato, or sustain pedal locked down.

**Event Selection**

Selected Events are red.

**Graphic Event Ruler Time Selections:**

The Graphic Event Ruler will only select non-note events. In addition, it will only select the type of MIDI events specified in the Chan, View/Edit, and Controller Type controls. When you make a Ruler Time selection, ONLY THE VISIBLE events in this time range are selected. Other MIDI events in this time range are not selected.

**Snap-to-Grid**

Snap-to-Grid Selections, Inserted Notes, or Edited Notes will snap to the grid spacing. If you do not want snap-to-grid, select [NONE] in the drop-down menu.

**Note Duration**

Set the default duration of new inserted notes. It is easy to mouse-edit a note's duration after a note is inserted, so it is usually sufficient to select a typical note duration that makes sense for your purposes and then mouse-edit the duration of “exception” notes after they are inserted.
View/Insert Channel

If a track contains multiple channels, “All” will display MIDI events on all channels. Otherwise, select the channel that you need to see. If “All” is selected, new MIDI events are inserted on the Band-in-a-Box track's assigned channel.

Except for perhaps multi-channel Guitar tracks, Band-in-a-Box plays all track events on the assigned track channel. Therefore, in almost all cases, the channel of track events does not matter.

For instance, if the Melody track is set to transmit on channel 4, all events on the Melody track will be sent on channel 4 regardless of the “actual channel” of each track event.

Ghost Notes

When viewing a single channel, notes on other channels can be ghost-displayed in light gray. This is useful when viewing multi-channel tracks.

View/Edit Graphic Data

Determine what graphic data to view or edit in the bottom Graphic Data panel. Choose Velocity, Controller, Program Change, Channel Aftertouch, and Pitch Bend. If Chan is not set to “All,” only the selected channel events will be displayed.

Controller Type

If “View/Edit” is set to “Control,” the Controller Type control becomes visible. The Graphic Data panel will display the chosen controller type. If Chan is not set to “All,” only the selected channel events will be displayed.

Cursor Location Info Panel

The Info Panel shows the cursor's Bar:Beat:Tick and MIDI note or controller value (depending on the cursor location). In cursor locations where a value would be nonsensical, the status text values are blank.

For instance, in the Note panel, Bar:Beat:Tick and Pitch are displayed. In the Ruler panels, only Bar:Beat:Tick is displayed. In the left Piano panel, only Pitch is displayed. In the Graphic Event panel, Bar:Beat:Tick and Event Value are displayed.

Chord Ruler and Note Time Ruler Panel

There are two top rulers. The top Chord Ruler displays chords and the Playback Location Indicator. The Note Time Ruler displays bars and bar subdivisions. When zoomed-in, more subdivisions are displayed. When zoomed-out, fewer subdivisions are displayed.
Click or drag in the Chords Ruler to set the Insertion Point (useful if you wish to use the menu Edit/Paste (Ctrl+V) to paste into the Piano Roll). If a song is playing, a Chords Ruler click will stop playback.

Double-click the Chords Ruler to start playback at the indicated bar. You can also set the Insertion Point and then tap Ctrl+G to start playback at the desired location.

Notes can be selected with the Note Ruler. However, the Note Ruler does not select non-note events such as controllers or pitch bend.

1. Click-drag on the Note Ruler to select a time-range of notes.
2. Shift-click-drag to add a time-range of notes to the selection.
3. Ctrl-click-drag to invert the note selection of a time range.

For instance, you could drag to select all notes in bars 2 thru 7. Then you could Ctrl-drag to toggle off note selections in bar 4. By using the Shift and Ctrl keys, very flexible time selections can be made.

**Note Editing**

**Edit Note Time Stamp (start time):**
Move the cursor over the left of a note. An east-west cursor appears. Then click-drag the note to a new time (horizontal dragging).

If multiple events are selected, and you want to move all selected events, use Shift-click-drag. Otherwise a click on a note will deselect the previous selection, and it will only select/edit the clicked note.

**Edit Note Pitch:**
Move the cursor over the middle of a note. A north-south cursor appears. Then click-drag the note pitch (vertical dragging).

If multiple events are selected, and you want to transpose all selected events, use Shift-click-drag. Otherwise a click on a note will deselect the previous selection, and it will only select/transpose the clicked note.

**Edit Note Duration:**
Move the cursor over the right of a note. A right-arrow cursor appears. Then click-drag the note duration (horizontal dragging).

If multiple events are selected, and you want to change duration of all selected events, use Shift-click-drag. Otherwise a click on a note will deselect the previous selection, and it will only select/edit the clicked note.

**Insert a Note:**
Hold the Shift+Ctrl keys. The cursor becomes a pencil. Click where you want the note and it is inserted with a duration from the “Dur” drop-down menu, and on the channel selected by the “Chan” drop-down menu.

If “Snap” is enabled, the note is inserted at the nearest grid boundary. For instance, if the snap-to-grid setting is a quarter note, inserted notes will snap to the nearest quarter note boundary.

There are many on-screen visual cues to assist cursor positioning. The Cursor Position Time Markers in the Time Rulers can assist time positioning. The Cursor Pitch Marker in the Keyboard can assist pitch positioning. The Cursor Location Info Panel gives precise time and pitch info. Also, the Note Panel has time grid markings, and pitch accidentals are marked in light gray on the background.

If you make a mistake inserting a note, you can hit the Delete key to remove the new note. Alternately, it is very easy to immediately drag the note to correct mistakes in time, pitch, or duration.

**Delete a Note:**
Select a note (or group of notes), then tap the Delete key. Alternately, select some notes, right-click, and choose the “Delete Selected Events” item in the pop-up menu.

**Eraser tool**
For quickly deleting individual notes or controllers. Shift+Ctrl-click on a note or graphic event. If multiple events have been selected, all selected events will be deleted.

**Splitter Bar**
A vertical Splitter Bar sits between the Note and Graphic Event panels. If you want to maximize the Note panel to see more notes, drag the Splitter down. If you want to maximize the Graphic Event panel for more accurate event editing, drag the Splitter up.
Two graphic event mouse editing modes for editing graphic events:

1. **Add Mode**
   - Add/subtract the same amount to all selected events.

2. **Scale Mode**
   - Scale the selected events. Select one or more Graphic Events, and move the mouse over one of the events. **Shift**-drag vertically, and the events are scaled in a proportional fashion. Large-value events are scaled more than small-value events. This keeps the same shape of a gesture, but makes the gesture bigger or smaller.

**Note Velocity Line Tool**
- With **Add Mode**, note velocities will exactly match the slope of your drawn line.
- With **Scale Mode**, the Line Tool will shape the dynamics, but note velocities are scaled to follow the approximate shape of your drawn line. With Scale Mode, you can insert a Velocity fade, or change the velocity of a region, while preserving the Velocity dynamics of the music.

**Edit Events**

**Edit Event Value:**
Move the cursor over the top half of an event. A north-south cursor appears. Click-drag vertically to scale event values. To scale a selected group of events, **Shift**-click-drag vertically on one of the events in the selection.

**Edit Event Time:**
Move the cursor over the bottom half of an event. An east-west cursor appears. Click-drag horizontally to slide the event in time. To slide a selected group of events, **Shift**-drag horizontally on one of the events in the selection.

**Insert Events**

**Line Tool:**
With no modifier keys, the “white space” cursor is a Line Tool. Move the cursor to white space and then click-drag to draw a line. When the mouse button is released, a series of events are inserted which follow the line slope.
To avoid choking the MIDI stream, the maximum event density is one event per 10 ticks. Repeated events of the same value are not inserted. Therefore, long gradual Line Tool fades have a lower density than short extreme Line Tool fades.

**Pencil Tool:**
Move the cursor over white space and hold the **Shift+Ctrl** keys. A Pencil Tool appears. **Shift+Ctrl**-drag to freehand-draw a curve. If you don't get the curve quite right on the first pass, just keep holding the mouse button and move the mouse back-and-forth to draw your desired freehand curve. When the mouse button is released, a series of events are inserted to follow the freehand curve.
To avoid choking the MIDI stream, the maximum event density is one event per 10 ticks. Repeated events of the same value are not inserted. Therefore, many freehand curves have a fairly low density.

**Delete Events**
Make a selection of events with the Ruler or by clicking on events. Then tap the **Delete** key. You can also right-click and choose the “Delete Selected Events” item in the pop-up menu.

**Right-Click Contextual Menu**
The pop-up menu can be accessed by right-clicking on the notes, graphic events, or any of the rulers.

**Undo:**
Duplicates the Band-in-a-Box Edit | Undo (or **Ctrl+Z**) action.

**Delete Selected Events:**
Deletes any selected events (highlighted in red). This can also be accomplished by tapping the **Delete** key.

**Select All Notes and Graphic Events:**
If the “Chan” combo box is set to All, this item will select ALL EVENTS on ALL CHANNELS (all events in the track). Otherwise, ALL EVENTS are selected which match the CURRENT MIDI CHANNEL.

**Select All Note Events (Of Current Channel):** (right-click the Note Panel or Note Ruler)
If the Chan combo box is set to All, this item will select ALL NOTES on ALL CHANNELS, but it will not select any non-note events. Otherwise, ALL NOTES are selected which match the CURRENT MIDI CHANNEL.
Select All Note Events (Of Current Channel): (right-click the Graphic Event Panel or Graphic Event Ruler)

If the “Chan” combo box is set to All, this item will select ALL GRAPHIC EVENTS of the CURRENT VIEW/EDIT TYPE on ALL CHANNELS. Otherwise, ALL GRAPHIC EVENTS of the CURRENT VIEW/EDIT TYPE are selected which match the CURRENT MIDI CHANNEL. For instance, you could select all channel 4 modulation events, then **Delete**, to easily remove all of those events from the track.

<table>
<thead>
<tr>
<th>Cut</th>
<th>Copy</th>
<th>Paste - Replace</th>
<th>Paste - Merge</th>
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<tr>
<td>Select All Notes and Graphic Events (On All Channels)</td>
<td>Select All Note Events (On All Channels)</td>
<td>Paste - Replace</td>
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<tr>
<td>Re-Channel All Events to the Track Channel (Ch = 4)</td>
<td>Re-Channel Selected Events to the Track Channel (Ch = 4)</td>
<td>Re-Channel Selected Events to the Current View Channel</td>
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<tr>
<td>Eliminate Overlapped Notes</td>
<td>Cancel Popup</td>
<td></td>
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</tr>
</tbody>
</table>

**Cut:**
Copy selected events to the clipboard and then remove them from the track. Can also be accomplished with the menu **Edit | Cut** (or **Ctrl+X**) action. If you wish, it is possible to cut from the Piano Roll, and then paste into the Notation window, or vice-versa.

**Copy:**
Copy Selected Events to the clipboard can also be accomplished with the menu **Edit | Copy** (or **Ctrl+C**) action. If you wish, it is possible to copy from the Piano Roll, and then paste into the Notation window, or vice-versa.

**Paste - Replace:**
If no events are on the clipboard, this item is dimmed.
The paste occurs at the time location of your right-click. Move the mouse cursor to the desired insert location. Right-click on the Note Panel, Graphic Event Panel, or any of the Rulers. Then choose this item from the pop-up menu. Any previous event types in the paste range which match event types in the clipboard are removed before the clipboard data is added to the track.

If the “Chan” combo box is set to All, pasted events keep their original (copied) MIDI channel. Otherwise, the pasted events will be re-channeled to match the “Chan” combo box.

**Paste - Merge:**
If no events are on the clipboard, this item is dimmed.
The paste occurs at the time location of your right-click. Move the mouse cursor to the desired insert location. Right-click on the Note Panel, Graphic Event Panel, or any of the Rulers. Then choose this item from the pop-up menu. Events from the clipboard are merged with existing data in the track.

If the “Chan” combo box is set to All, pasted events keep their original (copied) MIDI channel. Otherwise, the pasted events will be re-channeled to match the “Chan” combo box.

The feature can also be accomplished with the menu **Edit | Paste** (or **Ctrl+V**) action (to match the Notation window, which also uses a merge style of pasting). Before using the main menu **Edit | Paste** (or **Ctrl+V**), first make sure the insertion marker is set to your desired paste time location.

This is easy to do. Just click or drag in the Chord Ruler to place the insertion marker where you want it. Then tap **Ctrl+V**.
Re-Channel All Events to the Track Channel (Ch = xx)
Re-channel all notes and graphic events (the entire track) to the MIDI Output channel assigned for this track. Sometimes this can come in handy to bring some “sanity” into Piano Roll editing.

For instance, though the default Melody output channel might be channel 4, meaning that Band-in-a-Box transmits any events in the Melody track on channel 4. The actual events in the Melody track might be channel 1, or a mixture of several channels.

For ordinary playback or note tweaking, it doesn't matter if the event channels are “mixed up,” as long as you have the view channel set to All. But if you wish to use Paste - Replace, the Paste - Replace function is smart enough not to “stomp on” a track's events that differ from the channels of the clipboard MIDI data. So if you force all events to the track channel, the Paste - Replace function will always replace appropriately.

Re-Channel Selected Events to the Track Channel (Ch = xx)
Re-channel only the selected events to the track channel.

Re-Channel Selected Events to the View Channel
When editing a multi-channel guitar part or editing an imported multi-channel MIDI file, this command may be useful. Beware that it might initially appear confusing.

For instance, one might set the view channel to ALL, and make a selection (intending to set these events to Ch 12). Then set the view channel to 12, and of course the selected events disappear (if the events had some other MIDI Channel). But then when you invoke “Re-Channel Selected Events to the View Channel,” the MIDI events will reappear on the Piano Roll.

Eliminate Overlapped Notes
Overlapping notes are displayed in bold Aqua color, making them easy to identify. Selecting this menu command will remove the overlap.

Horizontal Scroll Bar, [+ ] and [- ] Buttons
Scroll in time, and zoom the horizontal display.

Vertical Scroll Bar, [+ ] and [- ] Buttons
Scroll to see different note ranges (does not scroll the Graphic Event Panel) and zoom the vertical display.

Zoom Buttons
Use these buttons, found in the right border of the Graphic Event panel, to zoom and un-zoom the Piano Roll view.

Zoom to Selection
Make a selection of notes, and then click the Zoom To Selection button. The vertical pitch range and horizontal time range adjusts to fill the note panel with the selected notes.

Un-Zoom
Return to the previous view range after zooming in on a region.

Zoom All
Zoom the window so that all track notes are visible at a glance.
Lead Sheet Notation Window

The Lead Sheet Notation window displays a full page of notation with lots of options such as a selectable number of staves per page, clefs to show, font size, margins, scroll-ahead notation, and lyrics. You can set it to a big font size and read the notation from across the room. Since the notation scrolls ahead, you can read ahead without waiting for a page turn.

Launching the Lead Sheet Window

You can launch the Lead Sheet window from the main screen by pressing the Lead Sheet button (or Alt+W). The Lead Sheet button is also accessible from the Standard Notation window.

During playback, red rectangles highlight the current bar. If the bar is empty (or in Fake Sheet mode), the Lead Sheet will draw the staff lines and bar lines in red.

Multiple Tracks of Notation

Multiple tracks of notation can be viewed together in the Lead Sheet window. To select tracks, hold down the Ctrl key and click on the part buttons at the top of the screen in the order that the tracks should appear from top to
bottom. For example, clicking on [M], and then on [P] and [B] with the Ctrl key held down would display and print the multi-stave staff system shown. Multiple tracks can also be printed like a score.

![Lead Sheet Window](image)

Band-in-a-Box Lead Sheet Notation window displaying multiple parts.

**Multiple lines of Lyrics on Fake Sheet.**

If your song has 1st and 2nd endings or multiple verses of lyrics, multi-line lyrics can be displayed, so you’ll see all verses on the same fake sheet. Load in the song c:\bb\Tutorial - BB 2005\Listen Multi-line lyrics Demo.MGU.

![Lyrics](image)

Open the Lead Sheet and select “Fake Sheet Mode.”

This song has a 1st/2nd ending entered, with separate lyrics for each ending. Multiple lines of lyrics will also appear if there are lyrics in multiple verses (choruses).

In the **Notation Window Options**, “Lyric Position” allows you to vertically position the height of the lyrics.

**Lead Sheet “Lyric Text Block”**

A large text block can now be appended to the Lead Sheet window and printout. This is ideal for song lyrics that you want entered as a text entry appended to the end, multiple verses of lyrics, or any other text.
Open the Lead Sheet window and select the [Memo] button to launch the Lead Sheet Memo.

Select any available font type, size, and style. Type text or copy and paste from other programs. The memo appears on the Lead Sheet and printout after the last line of notation.

Click on the [Print] button to print your song as sheet music. There are print options for “# of copies to print” and “print specific page #.”

In the Print Preview screen the notation can be saved as a graphics file to be imported to a document or uploaded to an Internet page.

Choose the file type that you'd like to save to. If you want an exact rendition of the screen, choose MONO BMP, since bitmap files are saved without any loss of quality. If you want a smaller file of your composition for Internet use, choose a format like JPG, or PNG. These are smaller, because they compress the data, with some loss of quality.

To save a JPG file, press the [OK - Preview/Graphics] and [Save...] buttons and then select “Save to File Type: JPG.” You can then see the estimated size of the file, and can change settings by pressing the Low/Medium/High resolution buttons.
The notation can also be copied as a bitmap to the Windows clipboard and then pasted into any application. This is done by clicking on the [Clipbd] button in the Print Preview screen.

To print a specific page, press the [OK -Preview/Graphics] and [Print Page] buttons.

Full-page view of Band-in-a-Box MultiTrack notation.
Multi-Channel Notation (Sequencer Mode)

Normally you would want a single part on the Melody and Soloist tracks. But, since MIDI information can have separate channels, it is possible to store 16 separate parts on each of the Melody and Soloist parts. When one of these tracks has been set to “Multi (16)-Channel” we refer to this as sequencer mode.

Now, when you are in this multi-channel mode, output from the Melody/Soloist part will be on whatever MIDI channel the information is stored on, and will not be using the Melody/Soloist MIDI channel.

If you click on the Lead Sheet window, you’ll see the entire MIDI file displayed on separate tracks of notation. This is likely “too much information” to read, unless you are a symphony conductor.

To customize the notation display for sequencer mode, press the lead sheet options button and see the settings for Multi-Channel Track display.

Select “CUSTOM channels play/display” and press the [Set…] button to launch the Sequencer Window (Multi-channel track on Melody/Soloist) dialog. Then you can customize which channels will play and display.

In the example picture, we have set Channel 2 (Bass) and Channel 4 (Trumpet) to show on the notation, and have set all of the channels to play (to hear them).

For a specific channel, (e.g. channel 3: piano), we see the following information.
Channel 3: Acoustic Piano (this is the patch name found on the track).

842 There are 842 events in the track; usually every note is an event.

We have customized the piano track so that it can be heard (play=true), but not seen in notation (Show=false).

There is a small button at the right of the track line that allows you to delete/rechannel or merge the channel with another channel.

You can also change the patch (instrument) for that track by using the instrument patch combo box.

Now that we’ve customized the display, we are seeing bass and trumpet on the notation, and hearing the entire track.

The Guitar Window

This is a window for guitar and bass players! The on-screen fretboard displays any track on guitar, bass, mandolin, ukulele, or banjo. This feature has many option such as auto-setting of correct positions, notes named on-screen, auto-octave adjust to play in selected position, and a resizable guitar fretboard.

Launching the Guitar Window

To launch the Guitar window, press the Guitar Button, or Ctrl+Shift+G, or choose the Window | Guitar Window menu item.
Notice the various areas of the Guitar Window.
- The top title bar states the key of the song is Cm, the Melody track is the track displayed, and the guitar is at the 8th position.
- The fretboard is displayed with the highest notes of the guitar at the top, and the open position of the guitar on the left.
- There are names for the open strings displayed on the left (E B G D A E).
- There are fret positions marked at the bottom of the fretboard. You can mouse click on these positions to change the current fret position.
- There are Note Names displayed for two positions on the guitar fretboard. One of the positions is the scale beginning with the third of the scale on the lowest string. In the key of F, this is the 5th position beginning on an A note (the third of the scale). Because it begins on the third of the scale, this position is referred to as the Phrygian Position (since an A Phrygian scale is the same as an F scale). Similarly, the other popular scale is the scale beginning on the 6th of the scale, in the key of F, this is up at the 10th position, and is called the Aeolian Position.
- There are note names displayed in color, with ellipses around the notes that are in the scale. The root note of the scale is highlighted in red, the third and fifth of the scale are in purple, and the rest of the scale tones are circled in gray.
- Pitch bends show up on the Guitar Fretboard. As the pitch bend occurs, a blue line moves along the string in real time, illustrating the height of the pitch bend. Load in the c:\bb\Tutorial\Pitch Bend demo song. You’ll then see pitch bends written as a blue color moving along the string.

**Automatic Settings for Guitar Display**

Band-in-a-Box does a lot of things automatically on the Guitar window to ensure that the notes are displayed intelligently on a guitar fretboard. These include:
- Automatically setting the two positions that will display the note names based on the key.
- Auto-Scanning the track to be played, and adjusting the display octave on the guitar fretboard to ensure that the best octave is picked to minimize the number of notes that will be outside of the current position displayed on the fretboard.
- After Auto-scanning the track, the best position for displaying the music on the guitar is determined. This is always one of the two positions, Aeolian or Phrygian, though you may over-ride this by clicking on any fret position.
- Color-coding note displays. In addition to the note names being outlined in the colors, when the note is played it is highlighted in green if it is a scale note and yellow if it is an out-of-scale note.

**Alternate Guitar Tunings**

The Guitar window supports alternate tunings, including DADGAD, Drop D, Double Drop D, Open G, and 11 others. You can also select “Nashville High Strung” tunings, which tune certain strings up an octave. These tunings are supported in Styles, Chord Diagrams, Guitar Tutor, Notation, Tab, and Printout. Learn how to play these tunings by watching the on-screen Guitar Fretboard or Notation/Tab window. Easily change any style to use the alternate tuning that you want.

In this discussion, we’ll be referring to DADGAD tuning, a popular alternate tuning. The same reasoning applies to all of the other alternate tunings available.

There are four ways you can use Band-in-a-Box playing in DADGAD (or any alternate) tunings.

1. See any Melody (or Soloist track) displayed in DADGAD tuning. This will display on the guitar fretboard, tab, and printout.
2. See guitar parts (chording etc.) in DADGAD tuning, using correct chord shapes. For this, choose a style that has DADGAD tuning, and view the guitar part.
3. Use the Guitar Tutor, to view DADGAD chording for any style.
4. View guitar chord diagrams in DADGAD tuning, by setting the Notation Window Options “Guitar Chord” to “DADGAD.”
**Guitar Fretboard**

To see the guitar neck displayed in DADGAD, choose *Melody | Track Type | Guitar – DADGAD Tuning.*

When you open up the **Guitar** window and choose the Melody track, you’ll see the DADGAD tuning.
Any melody will now display in the chosen tuning. Similarly, you can set the Soloist track to an alternate guitar tuning with the *Soloist | Track Type* menu.

The Guitar track (or Piano, Strings) is controlled by the style, and will only reflect the type of tuning stored in the style. Load in some alternate tuning styles included in Styles Set #44 – Requested 4 to see the chording on the guitar track in alternate tunings. Another way to see the guitar play chords in alternate tunings is to use the “Guitar Tutor.”

Select DADGAD tuning, and enable guitar Tutor.

Now, during playback, you will see guitar chords on the guitar fretboard in DADGAD tuning.
The examples above are for DADGAD tuning, but apply similarly to all 11 alternate tunings included.

Some of the tunings are “Nashville High Strung.” These tuning have the lowest 3 strings tuned up an octave, to achieve a close sound. So a DADGAD High Strung tuning would have the lowest 3 strings “DAD” tuned up an octave. Listen to some style examples that use this tuning.

One of the tutors uses 3 note Jazz voicings to simulate the famous Big-Band chord guitar comping styles. If you use this tutor you'll only see 3 notes in the chords of course. Since it sometimes helps to see the entire 4 chord voicing in this case, there is the option to show the muted note as well.

The Tutor normally just shows the guitar part without writing it to any track. If you want to see the track in notation copy it to the Melody or Soloist track.

**Guitar Window Toolbar**

At the bottom of the Guitar window is the toolbar.

- **Set…** The [Set…] button opens the **Guitar Settings** dialog, which allows you to set the guitar options.

- **< > < - >** These buttons will chord step advance, or note-step advance. The chord step advance is the most commonly used function. It is also accessible by the hotkeys Ins and Del on the numeric keypad and will advance or go back one chord at a time, leaving the chord displayed on the guitar.

- **B 4** This is the name of the current note that the mouse is over. If you click on the guitar at that position, the note will sound.

If the Notation Window is open (in Editable Notation or Staff Roll mode), that note will get inserted on the notation at the current position on the timeline – you can disable that option to insert notes.

When you open the Guitar Window, the first thing you'll want to do is choose the track that you want to display. Usually this will be a Melody track or a Soloist track.

In the diagram here, the Melody track is the current track, and it has a red rectangle around it to indicate this.

To get to the Soloist track, you would click on the [S] button or use the hotkey Ctrl+F5, which toggles between the Melody and the Soloist. Similarly, you can display other tracks like Bass, Piano, or Strings.

- **POS** The “position” button. This toggles between the two popular positions displayed with note names.

- **Tutor** There is a Guitar Tutor button.

- **Ch Sol…** Generate a guitar chord solo based on the existing Melody track using correct guitar fret positions.

- **Ch- Ch+** When you have a note or chord highlighted press the [Ch-] or [Ch+] (insert guitar chord) button on the guitar, or 7 or 8 on the NUMPAD keypad. Each time you press the [Ch-] or [Ch+] you'll see that the guitar chord changes to a different voicing, cycling through the available 5-10 voicings possible for each chord. (Some notes won't have any chord voicings, for example a C# note on a Cmaj7 chord, because it is always a passing tone.)

- **N- N+** In a similar manner, you can convert a chord to a guitar note using the insert guitar note button. Pressing the [N+] (or 3 or 4 on the NUMPAD keypad) repeatedly cycles through playing the same note on all 6 strings.

**Big Piano Window**

The Big Piano window can display the notes of any track on a resizable piano keyboard. You can also set the range of the piano and number of octaves to display. Additionally, you can display notes names or guide notes --showing the scale notes of the current key. Notes can be displayed using a different color for each note. There's an “Auto-Octave” setting that will scan the track to be displayed and auto-size the piano to the largest size that would display all of the notes. This 'Big Piano' makes it easier to learn piano parts from within Band-in-a-Box.

The Big Piano window is launched (or closed) by pressing the piano icon on the toolbar at the right-middle of the screen, or by pressing Ctrl+Shift+N, or choosing Window | Big Piano Window.
- The default settings for this feature can be customized by pressing the [Settings...] button.
- The Big Piano window displays a single track on the piano.
- The piano can be resized by dragging the bottom of the window to enlarge it vertically.
- The key of the song is displayed at the top.
- The range of the piano is set automatically (based on the actual notes in the track) to show the largest possible piano.
- The notes of the scale are circled on the piano, with the note names included.
- The root of the scale is colored in red. As the song plays, scale tones are colored green; other notes are colored yellow.
- The name of the note that the mouse cursor is over is highlighted at the top of the window. Clicking on the Big Piano plays a note (using the Thru part) and this can be recorded or sent to the Notation window when entering notation. You can select the track to use by clicking the [B|D|P|G|S|M|S] line of buttons.

**Play the Jukebox**

Use the Jukebox for continuous playback of a whole list of Band-in-a-Box songs or to play all or the songs in a folder. The \( \leftrightarrow \) Juk button plays the previous song in the directory; the Juk \( \Rightarrow \) button plays the next song in alphabetical order. The Jukebox will play continuous background music while you move to other Windows programs.

Click the [Juke] button to open the Options for Juke Box dialog where you’ll see a list of options that lets you control how the songs in the chosen list or directory are played.

You could choose to only play songs with melodies or solos, and to randomly change the melody instrument.

Songs can be played in random order, or in the order they are listed.

Hide the song titles and play the “Guess the Song” game.

You can optionally disable the count-in.

The “Change Harmony” setting will randomly assign harmonies within a specified range of harmony numbers.

Solos can be generated over all the songs selected for Jukebox playback.

“Auto-Choose Soloists” lets the program choose the soloists, and “Change Soloist Instrument w/ each chorus” has the program select a new instrument for each chorus of the solo.

Use the “Preview” feature to audition a complete directory of songs automatically by playing a part of each song and then moving on to the next one.

Specify a selectable time delay (in seconds) between songs.

Check “Loop Jukebox at end” for continuous jukebox play rather than stopping at the end of the list.

You can type a folder name directly, or click on [Change Directory] to use the folder dialog.

When you have chosen the options you want, click [PLAY JUKE BOX] to play all the songs in the selected directory folder.
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In the main screen, click on the [F] button to open the **Favorite Songs** list and make your own custom set lists for the Jukebox.
- Use the [Clear] button to blank the list.
- Songs can be added or removed from the list with the [Insert], [Append], and [Delete] buttons.
- Use the [Save Set..] button to save the list of selected songs.
- The [Load Set] button loads a saved list of songs.
- The [Juke..] button loads through the list of songs automatically, like a jukebox.

This is a great feature for saving a list of current song projects, or for performing a live set with Band-in-a-Box accompaniment.

**Import a MIDI File**

With the amazing Band-in-a-Box Chord Wizard, you can convert any MIDI file into a Band-in-a-Box song, complete with Melody and Soloist parts. Then apply all of the powerful music making features of Band-in-a-Box to create new accompaniments, add harmonies, add soloing, and embellish the melody. And when you're finished, you can always resave your song as a MIDI file again.

**MIDI File Chord Interpretation Wizard**

You can open up any MIDI file in Band-in-a-Box, and Band-in-a-Box will automatically figure out the chords of the song for you. It automatically analyzes the MIDI file, figures out where the bass, piano, melody and other tracks are, and then figures out the chord changes for the song. The chords are written onto the Band-in-a-Box Chordsheet like any other song. You can also read tracks into the Melody and Soloist tracks.

To interpret a MIDI file, go to File | Import Chords from MIDI file or use the keystroke combination Ctrl+Alt+I. This launches the **Interpret Chords from MIDI file** dialog where either user settings or presets can be applied to specify how the chords should be interpreted.

Select a preset or choose custom settings for the MIDI Chord Wizard.

You can open an entire MIDI file into Band-in-a-Box. The chords will be automatically interpreted by the Chord Wizard and the MIDI file will play and display on the Melody track. A “silent” style will be loaded so you'll only
he can the MIDI file. When the file is saved, the extension will be MGX, allowing you to easily identify the BB songs that you have that contain entire MIDI files.

**Sequencer Mode**

There are 2 tracks in Band-in-a-Box to add your own recordings. These are the Melody and Soloist tracks. Normally you would want a single part on each of them. But, since MIDI information can have separate channels, it is possible to store 16 separate parts on each of the Melody and Soloist parts. When the track has been set to “Multi (16) -Channel” we refer to this as “Sequencer Mode.”

If you want to use the 16 separate parts for the Melody track, you need to set the Melody Track type to “Multi (16) -Channel.”

This is done from the Melody (or Soloist) menu, or can be done by pressing the Sequencer button.

Now, when you are in this multi-channel mode, output from the Melody part will be on whatever MIDI channel the information is stored on, and will not be using the Melody MIDI channel. Both the Melody and Soloist tracks can be set to multi-channel play, for a total of 32 channels.

**Automatic Songs - “The Melodist”**

Feel like composing a brand new song? With Band-in-a-Box you can compose a new song, in the style of your choice complete with intro, chords, melody, arrangement, and improvisations, all created by the program! All you have to do is pick from one of the “Melodists” and press [OK] - the program then automatically generates the intro, chords, melody, and arrangement in the chosen style. It even auto-generates a title! You can go from nothing to a completed song in less than 1 second!

You can also auto-regenerate any part of a song and modify it to suit you. The Melodist will also generate a melody over an existing chord progression. A “Melodist Juke Box” mode creates and performs new compositions in succession.

**Launching the Melodist**

To launch the Melodist, press the [Melodist] button on the main screen, or use the **Shift+F5** hot keys.

Melodists can be filtered by “Genre” (e.g. EZ listening) to show only Melodists in that genre.

You can also filter to show/not show Melodists from Melodist sets that you don’t have.

Check “Show if N/A” to list all Melodists, even if they are not present in the :bb folder.
Choose Melodist settings in the Generate Chords and/or Melody dialog.

Note: Band-in-a-Box also has a SoundTrack feature that allows you to generate music in the style you choose for any length of time you specify. Click on the SoundTrack toolbar button to launch this feature.

Make Your Own Songs
Now that you see how much fun it is to play music with Band-in-a-Box, you’ll be pleased to discover how easy it is to make songs of your own. This section shows you how with step-by-step instructions from start to finish.

Making a New Song
Clear the Chordsheet
Click on the [New] button to blank the Chordsheet.

Name the Song
Enter the title of the song by clicking in the title area and typing in the name.

Choose a Key
Click on the Key Select List and choose the key of your song instantly.

It's easy to change the key by simply selecting another key from the list. Click on “YES” when the program asks, “OK to transpose WorkSheet” and Band-in-a-Box will automatically transpose the entire song into the chosen key.
Type in the Chords

The chords we will enter are F, Bb, and C7. Mouse click on the first cell in the Chordsheet and type f. The letter f will appear in the chord box. Press the Enter key to enter the chord F on the first beat of bar one. The Enter key advances the chord cell ½ bar at a time, i.e., 2 beats in 4/4 time.

Next, type the letters bb and press Enter to put a Bb chord on beat three of bar one. The highlight cell will advance to bar two, type c7 and press Enter.

Tip: A chord can be entered on each beat. To enter two chords in the highlight cell type a comma between the two chord names as shown in the example above.

This song will have no intro, and the chorus will be 32 bars long. The chord sheet we want to end up with will look like this:

![Chordsheet and Song Title window with chords and song settings.](image)

Copying and Pasting Chords

Since many songs repeat the same sequence of chords throughout, a faster method to enter a song into Band-in-a-Box is to COPY and PASTE the repeating chords.

Highlight a section of chords by dragging the mouse over them while holding the left mouse button. The area will be highlighted in black. You can also select a region of the chordsheet by clicking on the first bar in the region and then holding down the Shift key and clicking on the last bar in the region. This will highlight all bars in the region.

Press Ctrl+C, or select the Edit | Copy menu item. The highlighted area will be copied to the Windows clipboard. It can then be pasted back into the Chordsheet at any location, and reused as many times as you like.

![Use the arrows keys or the mouse to move the highlight cell to the destination bar where you want to paste the chords.](image)

Paste the copied section with press Ctrl+V command, or select the Edit | Paste menu item. The chords will then appear at the new location.

Choose a Style

Pressing the [Style] button will open the Select Style dialog box where you can choose from the hundreds of available styles.
Load Previous Style, Load Next Style.
This function, analogous to the Load Next Song function, loads in the previous (or next) style in alphabetical order of the file name. These functions are found in the Styles menu, or with the hot keys Ctrl+Alt+Shift+F8 (or Alt+Shift+F8).

“Framing” the Song
A typical song contains the following three basic components:
- **Intro:** If present, an intro is typically 4 bars long.
- **Chorus(es):** Typically 3 or 4 choruses in a 3 minute song.
- **Ending:** Typically a 2 bar ending following all of the choruses.

| Note: We use the term “chorus” here as it is used in Jazz music. A chorus therefore means once through the entire form of the song. The typical length of a chorus is 32 bars. A song may have the form AABA where the A sections are verses and the B section is the Bridge. This entire form AABA is considered one chorus. |

Intro

In Band-in-a-Box, you can select the beginning and ending bars of the chorus (see below). If you select a bar greater than 1 for the first bar of the chorus, then the program assumes that you want to use the bars prior to this for an Intro.

Example: 4 bar intro to a song

Type in the 4 bars of intro chords, starting at bar 1 of the chordsheet. Then, at bar 5, you will begin typing-in the main chords of the chorus. Set the beginning of the chorus to bar 5 by clicking on the chorus begin button.

Framing a song designates the first and last bars of each chorus and the number of choruses Band-in-a-Box will play before playing the standard 2 bar ending.

![Chordsheet](image)

Here we have selected bar one to be the first bar of the chorus and bar 32 to be the last. The chorus will play three times, jumping to the two bar ending the third time through.

With the “Loop” checkbox enabled the entire song will keep repeating until stopped. (This is a different feature from the “LoopSec” checkbox, which loops a selected section of the song.) The “FakeSh” checkbox is for a “fake sheet” style of chordsheet display with 1st and 2nd endings and repeats.

The [S] button opens the **Song Settings** dialog for additional settings such as endings, tags, style variations, pushes, rests, and chord embellishments.

Set the tempo

The tempo is displayed on the main screen under the title with a default setting of 120 beats per minute.

| Tempo | 160 |
|----------------------|

Let’s set the tempo to 160 beats per minute (bpm). Click the mouse on the arrow buttons to adjust the tempo.

- LEFT mouse click to change by 5 beats per minute at a time.
- RIGHT mouse click to change by 1 beat per minute at a time.

You can quickly enter a specific tempo for the song by clicking on the tempo (hot key is Ctrl+Alt+T, or menu item **Play | Tempo | Set Tempo...**), and a dialog will open up allowing you to type in a tempo. Similar dialogs are available for Volume, Panning, Reverb, Chorus, and Bank settings.

Tap the tempo

Not sure of the tempo for your song? Tap it in real time on either the minus [-] key or the equals [=] key on your computer keyboard. Four taps on the minus key sets the tempo, four taps on the equals key sets the tempo and starts the song playing. This can also be done by clicking the mouse on the onscreen [-] and [=] buttons to the right of the tempo box.

Finishing the Song Arrangement

Use the powerful musical intelligence of features like the Harmonies and the Soloist to add the final touches to your song. The **Edit Settings for Current Bar** dialog (F5 function key) lets you fine tune your arrangement by changing patches, styles, harmonies, tempo, and meter anywhere in the song.
Add variations in the Edit Settings for Current Bar dialog.

**Record a Melody**

Band-in-a-Box has two built-in sequencer tracks so you can record and edit your own melodies or solos. These tracks are recorded from a MIDI keyboard (or other MIDI controller) connected to Band-in-a-Box by your MIDI driver.

You can record up to 16 separate tracks on the Melody or Soloist part. Or simply load any MIDI file to the either part and edit the channels.

This allows for counter-melodies or additional instrument parts. Simply set the track to “Multi-Channel” then record the part, and specify the channel number. Each channel displays separately on the notation window.

A **Sequencer Window** dialog allows for easy editing of the channels and patches with commands for deleting and re-channeling.

If you want a metronome to play while you are recording, you can select it in the **Opt. | Preferences** dialog. You can even have a visual metronome if you like.

Press the [Rec] toolbar button to begin recording. This launches the **Record Melody** dialog box, which prompts you to set the position (bar and chorus) where you wish to start recording.
Pressing the [Record] button will start Band-in-a-Box recording what you play on the Thru track. An audible count-in is played prior to recording.

You can punch in/out, overdub, and record directly to the ending or the tag, and use the filter to choose which MIDI events are recorded.

Once you have completed recording your melody, Band-in-a-Box will ask you if you would like to keep the take and if you would like to copy the recorded chorus to the whole song.

**Embelling the Melody**

When musicians see a Lead Sheet that has a melody written out, they almost never play it exactly as written. They change the timing to add syncopation, change durations to achieve staccato or legato playing, add grace notes, slurs, extra notes, vibrato, and other effects. Now you can have Band-in-a-Box do these automatically using the Embellisher.

If you enable the Embellisher, any Melody will be embellished as it is played so that you hear a livelier and more realistic Melody - and it's different every time.

The Embellisher button opens the **Melody Embellisher** dialog with many user options to control the embellishment settings. The Embellisher Presets allow you to choose a combination of common settings for the Embellisher quickly.

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**Tip**: Looking for inspiration? At the click of a button, the Band-in-a-Box Melodist will write entire new songs from scratch, complete with Chords, Intro, Melody, Solo, Ending, and even an original Title. Or you can enter your own chord changes and let the Melodist create a new melody over them. There are more than 100 Jazz, Pop, Rock, Latin, Country, and Classical melody styles.
The Embellisher Memo describes the current embellishment, with statistics counting the number of embellished notes.

<table>
<thead>
<tr>
<th>Memo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Notes = 440, Trumpet, Octave adj. = 0, av. pitch=67 (ideal=70), Extra Notes = 0, Turns = 11, Doubled Notes = 15, Grace Notes = 8, Anticipated Notes = 37, Reduced Antic. = 7, Vibrato Notes = 35</td>
</tr>
</tbody>
</table>

You can save/load your own presets for the Embellisher.

When you have made a custom setting in the Embellisher dialog, press the Export button to save the data as an .EMB file.

When you want to recall the saved preset, press the Import button, and load in a previously made .EMB file. You can share your favorite presets with other installations of Band-in-a-Box using the EMB files.

**Adding Note-Based Lyrics to Your Song**

Open the Notation window by pressing the notation button.

Press the [L] button on the Notation toolbar. The Lyric Edit window opens up and the current note is highlighted. In this example, lyrics have already been entered in bars 1 and 2, and the first note of bar three is highlighted. The first syllable of the word “Swanee” has been typed in the lyric box.

Now by pressing [Enter] or [Tab] “Swa –” will be entered under the highlighted note and the highlight will automatically advance to the next note.

Viewing the Lyrics

The big [L] button in the user configurable toolbar opens the Big Lyrics/Karaoke window. The font and colors are selectable, you can show or hide the chords, and words highlight as the music plays.
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Digital Audio Features

Open an MP3/WAV/WMA or audio CD track, and play back at 1/2, 1/4, or 1/8 speed without affecting pitch. This is great for transcribing or analyzing audio. To play it at a slower speed, choose the desired speed on the Play | Tempo menu.

Audio Chord Wizard (Chords from MP3)

Just load in any MP3 file and you’ll instantly see the chords.

As well as the chords of the song, the Audio Chord Wizard also figures out,
- the tempo of the file,
- bar lines throughout the song,
- fine tuning detection (e.g. 5 cents sharp from A440),
- key of the song.

The digital audio capability offered in Band-in-a-Box enables you to combine MIDI music with live digital audio recordings of voice and live instruments in a fully produced arrangement.

It also offers the ability to render a MIDI or MIDI+AUDIO composition into a single digital audio wave file. This file can then be converted into a CD-Audio or streaming Internet audio file.

Digital audio features are fully described in the Working With Audio chapter.

Record a Vocal or Any Live Instrument

To start recording audio, plug your instrument or microphone into the computer’s sound card. The Line Out from electronic instruments or amplifiers can be plugged directly into the Line In jack. To record your voice, or an acoustic instrument such as a flute, plug a microphone into the Mic jack.

If you have a Sound Blaster card, this button is used to select the Microphone input and/or Line In input to record digital audio. The Windows mixer Record settings can also be used.

Open the Record Audio dialog box with the [R. Aud] button. This dialog box lets you set the parameters for the recording session.
You can adjust recording levels from this dialog with the [Set Recording Properties] button.

Once you have set the recording properties and tested the recording input levels, recording is easy. Simply tell Band-in-a-Box the place in the song where you want to start recording, whether or not you want to record the MIDI data along with your acoustic instrument, and press [Record]. If you choose to start recording from the beginning of the song, Band-in-a-Box will start with a lead-in count before the music starts playing. If you are starting from elsewhere in the song recording starts instantly.

**Punch-In Recording**

Punch-in audio recording allows you to punch-in record or overdub a section of audio. You can hear the existing audio part when you are overdubbing.

To select a punch-in range, open the Audio Edit window and highlight the punch-in section. The highlighted range will set the From: and Thru: values for Punch-In Record.

Press the Esc key or click on [Stop] to stop recording. Band-in-a-Box will prompt you to keep the take or take again.

When you get a take you like, press the [OK – Keep Take] button to save your recording. Use the Options to record one Chorus and then copy it to the whole song, to overdub underlying audio on the track, and to retain audio past the new take just recorded (punch out).
Add Audio Harmonies

You can apply a harmony to the audio part — allowing you to automatically create up to 4 part vocal harmonies from your singing. And don’t worry if your singing is not in perfect tune, Band-in-a-Box can now “fix” vocals to the correct pitch - automatically! Band-in-a-Box generates the harmonies using the world-leading TC-Helicon Vocal Technologies engine. Once you have recorded a vocal part into Band-in-a-Box, you can use this feature in many ways, including:

- Record yourself singing into a Band-in-a-Box file. Create a vocal harmony for part or all of the song by selecting a Band-in-a-Box harmony and choosing the Generate Audio Harmonies option (Harmony | Audio Harmonies & Pitch Tracking or Audio | Audio Harmonies & Pitch Tracking). You can then hear yourself singing in perfect harmony!

- Did you hit a few “out-of-tune” notes when you recorded your singing to Band-in-a-Box? Fixing your “out-of-tune” singing is easy, by instructing the program to correct the pitches to the Melody track.

- When you’ve recorded your singing voice, in addition to harmony voices, you can add unison voices that “fatten” your sound. Each unison voice can have different vibrato and pitch characteristics.

- Each harmony voice can have up to 4 “choir” voices, duplicated and shifted slightly in time, pitch and more to create an authentic, full choir sound. Create a 16 voice choir from your single vocal performance!
Add Audio Effects

You can add professional audio effects like reverb, echo, and compression by choosing a plug-in from the Audio menu (*Audio | Plug-in*). Band-in-a-Box comes with a large selection of high quality audio effects built-in, and DirectX plug-ins are supported.

The plug-ins apply audio effects or utilities such as compression to the already recorded audio part. A typical plug-in dialog is shown. The [Preview] button will play a short sample of the processed track, and the *Edit | Undo* command will restore the original track if applied before another edit is performed.

**Play Your Song**

Press the [Play] button to hear your results!

**Saving Your Work**

Now that you have produced a great sounding song, it is time to save it as a Band-in-a-Box file, as a MIDI file, a Karaoke file, or as an audio wave file.

The [Save] button saves your song in Band-in-a-Box format. Band-in-a-Box accompaniments are saved with the file extension *.sgu*. If a melody has been recorded the file extension will be *.mgu*. The audio track, if present, is saved as an associated wave file with the song name and the extension *.wav*.

The [.MID] button will save your file in Standard MIDI File format. These files can be played in any MIDI file player.

When making a MIDI file, you can select a range of bars to be included. Highlight any range of bars, and the MIDI file will be made for just that range.

If you have recorded an acoustic instrument, Band-in-a-Box can render the MIDI data to a wave file (*.wav) and merge it with your live audio recording to produce a complete digital audio file.

Press the [.WAV] button and Band-in-a-Box will render the song arrangement to an audio wave file.
The **Render to Audio File** dialog box permits you to save your file as a wave file (*.wav), a Windows Media Audio (*.wma) file, or other compressed audio formats supported by your system.

You can direct render “MIDI only” songs into high quality wave files with the included Roland VSC DXi or any other DXi or VST softsynth you have.

The MIDI parts are converted directly to audio without being rendered (recorded) in real time, usually in just a few seconds.

**Burn Your Own Audio-CD**

You can burn your Band-in-a-Box composition directly to an audio CD. The resulting CD will play in any standard CD player.
To burn your CD:

Press the [.WAV] button to open the **Render to Audio File** window. Then press the [Burn to Audio CD] button. This renders the file to a stereo wave file, and then launches **MiniBurn**, the built-in CD burner application in Band-in-a-Box. The song just rendered will be listed in the burn list.

You can add other files to the list to make up a full CD, or choose [Burn CD - No Finalize] to allow other files to be burned to the CD later. The CD will not be playable until finalized.

**Note:** This feature requires that you have a CD-R or CD-RW drive. If your drive is not recognized by MiniBurn then you should burn the rendered .WAV file to CD using the software supplied with the CD drive.

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**Built-in Miniburn program for burning audio CDs.**

**Congratulations!**

You have completed the full process of song production in Band-in-a-Box.

You can now produce a complete song in Band-in-a-Box with a Melody, Solo, Harmonies, plus an audio track with harmonies and professional effects. You can print out beautiful notation in a stylish Jazz font, complete with chord symbols, lyrics and your own text markers and annotations. And you can save your song in either MIDI or audio form for playback from your computer, over the Internet, or from an audio CD.

You’re ready for endless hours of fun and great music with Band-in-a-Box.
Chapter 6: Band-in-a-Box PowerGuide

This chapter is a guide to the advanced settings in Band-in-a-Box. Any user can use these settings to quickly and easily become a Band-in-a-Box power user.

Descriptive Hints

The pop-up hints make it “too easy” to become a power user. They are comprehensive fly-by hints that appear when you move over an item, including hints for the dialog boxes and various windows.

Go to Opt. | Preferences or select the [Pref] button to open the Preferences dialog and set the type of hints to display, the time delay, and duration. Set a longer delay if you find that the hints are popping up too often and getting in your way.

Opening Files

File Associations

Go to the menu item File | File Utilities to associate the file types for Band-in-a-Box songs and styles in Windows. Once set, this means that you can double click on a song or style and Band-in-a-Box will open up with that song or style.

Choose the menu items File | File Utilities | Associate File types (songs, styles) with Windows... to associate the Band-in-a-Box file types, and Remove File Associations (songs, styles) with Windows... to remove the associations.

Custom File Selection Dialog

The custom Open File dialog opens if you press Ctrl+Shift+F3 to load a song. You can make it the default dialog if you go to Opt. | Preferences and select “Use custom filename dialog” under the Environment Options in the Preferences dialog.

Then the [Open] button, or the menu command File | Open, or the F3 key will launch the custom Open File dialog.

Open File

The custom Open File dialog has several advantages over the traditional Windows dialogs:
- The window is much bigger than the traditional one, allowing more room.
- There is a selectable font size and typeface.
- You can adjust the widths of the various columns.
- The Window remembers your settings.
- There are tabs at the top that allow sorting by name, date etc.
- Additional information is displayed (file size, time of file).
- You can open a song without typing the extension. For example, to open the song MySong.MGU you just have to type MySong, without MGU.

The Font Selection button lets you pick a font, size, and style for the dialog from any of the fonts installed in Windows.

The Search button allows you to search for a file by its name or part of a name.

The Favorite Folders button remembers the last few directories that you've used, allowing you to easily change between directories.

**Favorite Folders**

The menu command **File | Favorite Folders** launches the **Favorite Folders** dialog with a list of recently used folders. To open a song using this dialog you first select the folder from the list, and then you can directly open the song from that folder. This allows you to quickly find a song in another folder.

Hold the **Shift** key as you click the [Open] button. This will launch the **Favorite Folders** dialog, allowing you to pick the folder. This saves you the time needed to navigate through the Explorer-style folder choice, which can be time consuming if you're hopping back and forth between folders.

Similarly, **Shift-clicking** on the [Save As] button will allow you to choose a favorite folder prior to seeing the **Save As** dialog.

**Global Song Overrides**

Global overrides are found in **Preferences [Overrides]**, which allow you to set the overall song looping (always OFF, always ON, or as set in the song).
Similar overrides are available to see which other information gets loaded from a file, such as patches, harmonies, volume/reverb/chorus/panning/banks. For example, you can set every song to load with looping ON, and don’t load any reverb settings from songs.

For example, if you want every song loaded to have looping set to on, then set “Always set loop to ON.”

But if you are going out on a playing job, and don’t want any songs to loop, then set it to “Always set loop to OFF.”

If you want the settings to work the same way they did in previous versions, use the “As set in the song” setting, or press the DEFAULTS button.

**Chord Entry**

The most common way of entering a song in Band-in-a-Box is by typing in the chords. Up to 4 chords per bar may be entered.

Chords are commonly typed-in using standard chord symbols (like C or Fm7 or Bb7 or Bb13#9/E), but you can enter them in any of the supported chord symbol display formats - Roman Numerals, Nashville Notation, and Solfeggio.

- **Tip:** To view a list of chords recognized by Band-in-a-Box refer to the Chord List topic in the Help file.

To start typing in chords:
- Go to the top (Bar 1) of the chordsheet. The [Home] key will go there.
- Blank the Chordsheet (if necessary) by clicking on the [New] button.

This is the chord highlight cell. Chords will be entered wherever this is placed. You may move this around by cursor keys, the **Enter** key, or a mouse pointer click.

The chord highlight bar moves 2 beats at a time (½ a bar). When you have the chord highlight cell over the area that you want to enter a chord, you simply type the name of the chord you would like to see there.
For example, type c6 to get the C6 chord. Note that you should never have to use the Shift key, as Band-in-a-Box will sort this out for you.
- Use b for a flat, e.g. Ab7.
- Use 3 for a sharp #, e.g. for F#7 type f37.
- Use / for slash chords with alternate roots, e.g. C7/E (C7 w/E bass).
- Use comma to separate the ½ bar, enabling you to enter 2 chords in a cell. In the example below, we would type Ab9,G9 to get the 2 chords in the cell on beat 3 and 4 of bar 2.

The sequence of keystrokes to enter all these chords above would be:
HOME c6>am7>dm7>ab9,g9>c6/e>>a739

Note: We're able to type A7#9 as "a739" because Band-in-a-Box knows to use the uppercase of the 3, which is #. The > indicates a carriage return, or the Enter key.

An option (in Prefs-Display) for “11th chords” allows display of “9sus” chords as “11” (e.g., Bb11 instead of Bb9sus). This only affects how the chord is displayed, not how it is stored, and you can type either C11 or C9sus to enter the same chord.

You can also enter chords from an external MIDI keyboard using the Window | MIDI chord detection… feature. Play the chord on the keyboard, then press Ctrl+Enter to insert the chord into the chordsheet on the first beat of the current chord cell, i.e., beat 1 or beat 3 of the bar. Use Ctrl+Shift+Enter to insert the chord on the next beat, i.e., beat 2 or beat 4 of the bar.

Copy and Pasting Section of Chords
One of the best ways to copy chords is by pressing Alt+C, which launches the Copy Chords and/or melody dialog.

This allows you to copy chords/ melody/ soloist/ lyrics for a range of bars by entering the From and To locations and the number of bars to copy. Select the checkboxes for the items you want to include in the copy.

Insert Bars at destination
If selected prior to the Copy bars will be inserted onto the Chordsheet at the destination chosen.

# of times to repeat copy
If set to more than one, multiple copies will be made, optionally with transpositions on each copy. These are all applied to the first chorus only.

With each copy, transpose ___ semitones
If more than one copy is selected, this will transpose the song with each copy. This is most useful when wanting to learn a short phrase (“riff”) in different keys, or modulating a section of a song.

Random # of semitones

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This will transpose the copy a random transposition and would be useful for advanced students who are trying to master a riff or phrase in all keys.

**Copy 1st Chorus to whole song**
If set, this will apply any of the copying commands in this dialog to all choruses of the song, not just chorus #1.

**Copy, Repeat X times, with Transpose.**

The *Edit|Copy From.. To..* menu command opens the Copy Chords and/or melody dialog, which has additional fields allowing you to define the number of times to repeat each copy and define the number of semitones you transpose. For example, you could have a 16 bar section, copy it 3 times with a semitone transpose each time. Or, take a single 4 bar phrase, and copy it 11 times, transposing up a 4th each time, generating the same 4 bar phrase in all 12 keys.

**Deleting Chords**
The chords at the current location of the highlight cell are cleared by the Delete key, the Windows “Cut” command, or by typing a comma and pressing Enter.

Deletion of chords over a range of bars can be done by selecting the range and pressing the Delete key on your computer keyboard. No confirmation dialog is required.

**Previewing Chords**
This feature allows you to hear chords as you to type them in. After you type a chord name onto the Chordsheet (or notation window), press the Shift+Enter keys. This enters the chord onto the chordsheet and then plays the chord for you, using the patches on the Piano part and Bass Part. You can also listen to a chord that has already been entered, by just pressing the Shift+Enter keys after moving to that bar with the chord. If there is no chord entered at that bar, you will hear the last chord that was entered.

You can right-mouse click on the chordsheet and choose Chord Settings to launch the Chord Options dialog, and then press the [Preview] button to hear the current chord in the Chord Options Dialog.
Support for other chord display types
You can enter or display chords in Roman Numeral notation, Nashville notation, or Solfeggio notation. For example, the chord Gm7 in the key of F would be displayed as IIm7 in Roman Numeral Notation, 2m7 in Nashville Notation, and Rem7 in Solfeggio. These systems are very useful for learning or analyzing tunes, since they are independent of the key signature. You can take an existing song, and print it out in Roman numeral notation, so you can study the chord progression. You can also type a chord in any of these systems, like “4” which will enter the 4 chord in the current key.

You can switch among any of these systems by pressing the Roman Numeral button on the right side of the screen to toggle among the various settings.
The Roman numeral and other nonstandard displays use superscript for the chord display when in the Notation window (or when printing out). Therefore, the alternative chord symbol displays are best viewed in the Notation window.

Tip: Print out a song in Nashville Notation or Roman numeral notation. Then, learn the song this way, i.e. 1maj7 4maj7 3m7b5 67b9. You’ll soon discover that it is much easier to play the song in any key. Since you know the song goes from the 1 chord to the 4 chord, so you can easily play it in the key of Bb, for example.

Advanced Chord Entry and Editing Features
“Nudge” Chords feature allows moving a range of chords by a number of bars/Beats.

For example, let’s say that you have entered a complete song chord progression, and you then realize that all of the chords starting at bar 23 are 1 beat too late (maybe due to a time signature change). You can move all of the chords 1 beat earlier, by setting the nudge at bar 23, beat 1, and duration of the nudge to -1 (minus 1) beats.
You can nudge chords and/or Melody/Soloist parts.

**Edit** : **Fold (convert 1 chorus to multiple)**

A “Fold” routine converts a song with a single large chorus to multiple smaller choruses, with optional tag ending.

**Fold song (convert 1 chorus to multiple choruses)**

Fold to a multi-chorus song, with these parameters:

- Chorus Begins at Bar
- Chorus Ends at Bar
- Number of Choruses
- Song has a Tag
- Start tag after source bar
- 2 bar ending
- Start the ending 2 bars early

**Edit** : **Search/Replace Chords…**

A Search/Replace Chords feature will search and replace chords, including support for asterisks (*) as wildcards.

**Chords - Search and Replace**

Replace this chord: DMaj9

With this chord: DMaj7

( note: use standard chord names, Cm7 etc, or * for wildcard “m7 or C” )

Replace NOW Close Cancel Help

A “simplify Jazz chords” option will simplify chords like C13#11#5 to simply C9.

**Repeats and Endings**

You can add repeats and endings so that the Lead Sheet window will display and printout using 1st /2nd endings.

**Edit** : **Repeats and Endings**

The Repeats and 1st/2nd Endings button launches the **Edit Repeats and Endings** dialog where you can enter repeats, 1st and 2nd endings, DC, DS al coda and more. The “Auto-Find” feature will intelligently detect 1st/2nd endings automatically for you, so you can view and convert any Band-in-a-Box song to include 1st/2nd endings in lead sheet format.

The **Edit Repeats and Endings** dialog can also be entered by right-clicking on the chordsheet and selecting Repeats/Codas/1st-2nd endings from the pop-up menu.

When you have created your repeats and endings, either manually or automatically, simply select the “Fake Sheet” checkbox on the Chordsheet or Lead Sheet window. Band-in-a-Box will hide the repeated bars and display the fake sheet using 1st and 2nd endings.

There is a tutorial for this feature in the **Tutors and Wizards** chapter, and also in the Help file topic **Repeats Edit Dialog**.
Playing/Pausing/Stopping Songs

Use the tool bar buttons to control the playback of your song in Band-in-a-Box.

You can also use the Play menu commands or keystrokes.

Lead-In Counts and Metronome

These settings are made in the Preferences dialog. Click on the [Count-in/Met.] button to open the Count-in and Metronome Options.

The default count-in is two bars, but there is an option to shorten it to a 1 bar lead-in.

You can select any drum instrument for the count-in and choose different count-in rhythms (e.g. Tap on 2 and 4 instead of 1-2-3-4).

The Smart Lead-in feature avoids playing the count-in drum sound during a Melody pickup.

There's an option to play the drum count-in in all circumstances, useful when the style doesn't have drums or for drummers who play along with Band-in-a-Box by muting the drum track.

You can display the Visible Metronome on-screen during the entire song (or just the lead-in). Choose the screen position, the size (up to near full screen size), and the visual metronome pattern. The on-screen metronome is a great way for a student to learn to keep on the beat, and with a settable size, students can view this from across the room.

The Audible Metronome can be set to sound “During record,” during “Record and Play,” or “None” - turned off entirely.
Play Selected Area as a Loop

Click on the [Loop] button, Shift-click on the [Play] button, or press F10 (Play Selected Area as Loop) and the program will play a selected region, and loop the selection. For example, you can select bars 10 and 11, and then press F10, and bars 10 and 11 will play looped.

To use this function, select a region on the Chordsheet.

Choose Play | Play (loop) Highlighted Section (or press F10).
The selected region will then play, and continues looping until STOP is pressed.

Loop any Section of the song.
You can loop any section of the song. The program will then start playback at the first loop point and play the looped section until stopped.

Open up the Loop Section Settings dialog by clicking the Loop button, or pressing NUMPAD 2. The Loop settings dialog will then display.

The “Play within loop” command allows you to quickly play a looped section. Highlight the range of bars to loop on the Chordsheet, press NUMPAD 2 to open the Loop Section Settings dialog, and click the [Play within loop] button.

To enter settings manually in this dialog, you start by choosing either “Loop a Single Screen of Notation” or “Loop Range of Bars.” If you want the custom range of bars, then enter the starting “From Bar” number, the “Chorus #,” and the “# bars” for the length of the looped section. You can then play the song with the [Play within loop] button and then [Close] the dialog.

Presets are available to set the loop points to Introduction, First / Middle / Last Choruses or First & Middle, Middle & Last combinations, Ending, or All.

As the different buttons are selected you will see the “Loop Range of Bars” settings update.
Hot keys are also available for these, look in the Play menu under the Looping submenu.

**Loop Keystroke Commands (useful for live performance)**

- **NUMPAD 1**: Toggle looping on/off.
- **NUMPAD 2**: Open Loop Section Settings dialog.
- **Ctrl+NUMPAD 1**: Play with last chorus looped.
- **Ctrl+NUMPAD 2**: Play with middle choruses looped.
- **Ctrl+NUMPAD 3**: Play with middle and last choruses looped.
- **Ctrl+NUMPAD 4**: Jump to last chorus.
- **Ctrl+NUMPAD 5**: Jump to ending.
- **Ctrl+NUMPAD 7**: Loop Notation screen.
- **NUMPAD [DEL]**: Advances the notation, lead sheet, and guitar window by one chord (group of notes).
- **NUMPAD [INS]**: Backs up the notation, lead sheet, and guitar window by one chord.

Notebook users should set “Simulate NUMPAD Keys” to “ON” in the Preferences dialog, then use the regular number keys to trigger looping.

The Title bar at the top of the main screen indicates the looping status. If a song has a looped section, this will be listed at the top of the screen (e.g. “Will loop Middle Choruses” or “Currently looping Middle Choruses”). So you can tell what is going to happen with the looping during a live performance.

**“Conductor”- Live Looping/Playback control.**

As the song is playing, many “single key” hot keys are now available to control the playback and looping of the song.
Additional Patches

A "patch" is a MIDI instrument name. Examples of patches are Acoustic Bass, Electric Piano and Violin. Patches are used to emulate real instruments through MIDI playback. Band-in-a-Box defaults to using the standard bank of General MIDI patches used by all MIDI manufacturers, but many MIDI synthesizers and sound cards have additional patches available as alternatives to the basic GM list. These sounds are typically found on higher banks in memory.

Patches on Higher Banks Dialog

This displays your patch names by name and lets you pick them from an easily customizable list. You've probably got great sounds on higher banks -- now you can find and use them easily!

Clicking on the [+ button opens the **Patches on Higher Banks** dialog for easy access to patches on all other banks as well as General MIDI.

To narrow your sound search you can do one or all of the following:

- Open the patch list and select an instrument (i.e. Electric Bass, Acoustic Piano, etc.)
- Click on the "Include Family" checkbox to have other offerings of similar type shown. (i.e., all bass family patches, all keyboard family patches, etc.)
- Find a patch by keyword by clicking the [Search…] button and typing some letters that you know are in the name (e.g., "mando" will find your mandolin patch and any others containing "mando").
Converting Synthesizer Patch Lists in Band-in-a-Box

Band-in-a-Box can read a patch file list generated by PowerTracks Pro Audio or Cakewalk, and convert it to a .PAT file for use in Band-in-a-Box.

Converting PowerTracks patch list to Band-in-a-Box .Pat files.

PowerTracks stores its patch lists in a single file, called PATCHES.INI. This file contains all of the patch lists for the synths supported by PowerTracks. Band-in-a-Box stores the patch list for each synth in a separate file, with an extension of .PAT.

To convert a PowerTracks patch file to a Band-in-a-Box Patch file, you will be choosing the c:\pt\ptw\patches.ini, and then choosing the synth that you want to convert to a .PAT file.

Press the [+] button to the right of the Instrument name on the main Band-in-a-Box screen.

This will open the Patches on Higher Banks dialog.

Note: If a .PAT file has not been previously selected, a File Open dialog will appear. Select a .PAT file from the \bb directory to launch the Patches on Higher Banks dialog.

Press the [Open INI/INS…] button to launch the BB File open dialog.

Choose the file c:\pt\patches.INI.

You’ll then see a menu of synths stored in the patches.INI file. Select one to convert. Create a name for the .PAT file (e.g. My Patch List.PAT) and save it to c:\bb.
Converting a Cakewalk .Ins file to a Band-in-a-Box .Pat file.

This is done using the same process described above for PowerTracks, except that you open the individual .INS file instead of a PATCHES.INI file. For example, if you have a Cakewalk file called “My Synth.INS” you would select this file name. You would then save that converted list to c:\bb\My Synth.PAT.

General MIDI 2 support

General MIDI 2 standard (GM2) adds 128 new instruments to Band-in-a-Box styles and songs, including ukulele, mandolin, 12-string guitar plus many new and improved piano, organ, guitar, brass, and string sounds.

Note: The included Roland VSC3 synth supports the new GM2 instruments, as do many newer modules/sound cards. If yours doesn’t, a similar instrument from the existing 128 General MIDI sounds will be substituted.

The type of GM2 support is set in the MIDI Driver Setup dialog (Opt. | MIDI driver setup…). The choices are:

- **General MIDI 2 support**: If you’re using the Roland VSC3, or a newer Sound Canvas then choose this GM2 support.
- **Roland GS (older Modules)**: “Older” Sound Canvases (SC55/SC88) support GS, but not GM2. The good news is that they have the same patches available, just at different locations. So if you choose this option, Band-in-a-Box will find the patches at the “GS” locations instead of the “GM2” locations. If you have a newer GS module like the SC8820 that supports both GM2 and GS you should likely choose GM2.
- **No GM2 support**: Most sound cards don’t have GM2 support yet, so just support the original 128 General MIDI sounds. Band-in-a-Box will use the closest instrument in these cases.

You can select the GM2 patch using the GM2 button next to the Instrument box. This shows a menu organized by instrument types.

*Technical note*: For a GM patch like Nylon Guitar the patch is 25. For a GM2 patch like Ukulele, the patch is also 25, but it is accompanied by two bank settings, MSB Bank Controller 0 setting of 121 and LSB Bank Controller 32 setting of 1.

When you select the instrument from this menu, it will make the bank settings (Bank0 and LSB) for you. You can also change the bank #s directly, and the patch in the box will change. GM2 patches can also be selected elsewhere in the program, such as the Edit Settings for Current Bar dialog and the StyleMaker.

Changing Volume, Panning, Reverb, Chorus, Bank

To change the Volume, Panning, Reverb, Chorus, or Bank of a part, click on the desired part to change.

The names of instrument parts that are playing are colored yellow. If the part name is white when the song is playing it means that the instrument is not present. A red instrument part name means that the part is muted.
When “Drums” appears in green it indicates that RealDrums are in use and their volume level only will be set by this control. RealDrums are not affected by the other controls. MIDI drums respond to all controls.

Then click on the spin control arrow keys to increase or decrease the setting.

- The left mouse button increases/decreases by 5 at a time.
- The right mouse button increases/decreases by 1 at a time.

You can also click directly on the number field to open a dialog and type the value in directly.

Chase Volumes.
For a file with Volume change events (Controller 7) written into the Melody (or other tracks) – if the song is played back from somewhere in the middle, the most recent volume setting prior to the start of playback will be sent.

Solo an Instrument Part
While listening to Band-in-a-Box, you can easily solo (isolate) a certain part by holding the Ctrl key and mouse clicking (left or right) on the instrument at the top of the screen. For example, if you want to hear only the Piano part, Ctrl+click on the Piano part. If you want to use hot keys for this, you can press Alt+2 (Mute-All) and then Alt-+4 (Unmute Piano).

Muting Instruments
To mute/unmute all parts as the song is playing, simply press Alt+2 or right-click on the “Combo” radio buttons at the top of the screen.

To mute an instrument click on the name of the desired part with the right mouse button. Click again to unmute.

When the part is successfully muted, the instrument name will turn to red in color, indicating that the part is muted. Right mouse-click on “Combo” to mute/unmute all instruments at the same time.

Edit Functions
- Edit | Undo and Edit | Redo allow you to Undo (or redo) most operations.
- Edit | Cut functions like a delete command. It removes bars of chords from a song.

Highlighting Regions
This feature makes it easier to perform editing operations, such as copy/insert, etc. Simply highlight the region and select the option. This feature also aids in Copy from...to...: Erase; Transpose; Insert; and Delete. For example, if you select (highlight) a region by dragging the mouse and then choose one of the Edit menu commands the dialog box will automatically adjust to the correct values, based on the region that you've highlighted.

To select a region of Chordsheet, Notation, or Audio window, you can Shift+click on the end point to easily select a large area.

The **Copy Chords and/or melody** dialog is typical of the range selection dialogs used by several functions. You are able to set a range for the function to be either part of the song, or the whole song.

Copy and Pasting a Section of Chords
Copying a section of chords is done in the same manner as copying text in a Windows word processor (read on if you are unfamiliar with how this is done). There are also similar “keyboard shortcuts” for these operations as listed in Keystroke Commands – Hot Keys section of this guide.

Copying Chords to the Windows Clipboard
- Select the region to copy. Place the mouse cursor at the bar to begin the selection. Then, holding down the left mouse button, drag the mouse over the region. As you do this you will see that the region will be inverted (i.e. looks dark). When you have selected the desired region of chords to copy, release the mouse button.
- Copy the selected region to the clipboard. Click on the Copy button or choose **Copy** from the Edit Menu.
Pasting Chords from the Windows Clipboard

Assuming you have already copied some chords to the Clipboard (see previous topic), you are then ready to paste the copied chords into another part of your chordsheet.

- Move the highlight cell to the bar to begin the paste of chords.
- Click on the Paste button or choose Paste from the Edit Menu.

Tip: The copied section remains in the clipboard and can be used repeatedly. Example: If you're inputting a song with verse, verse, bridge, verse, you can simply copy the first verse to the Clipboard, and then repeatedly paste-in the other verses. The clipboard contents remain intact even if you load in a new song, so you can copy and paste between songs.

Additional Copy function for Chords/Melody

The menu command Edit | Copy From.. To.. launches the Copy Chords and / or melody dialog.

This allows you to copy Chords, Melody, Soloist, and Lyrics for a range of bars. If you're copying the Melody/Soloist you'll need to specify which chorus you wish to copy.

If you want to extend the song by inserting a new section by copying an existing range of bars, then select the “Insert Bars at destination” checkbox to insert the extra bars.
“K” Quick Copy Method

By simply typing “K” at a bar followed by the Enter key you can instantly copy the last 8 bars to the current position. By adding additional keys in the K command, you can customize this shortcut (e.g. typing K 12, 3 would copy from bar 3 for 12 bars to current position.) The current position is advanced to the bar beyond the copy. This speeds up song entry!

For example, if you're entering a song that has a repeating section of chords for 8 bars. Type in the first 8 bars of chords, and then move to bar 9 and then type: k, Enter.

The last 8 bars will be copied to bar 9-16, and the cursor will be moved to bar 17, so you're ready to continue with the tune. If you get to bar 25, and would like the chords from 1-8 to be copied to 25-32, type k,1 and this will copy 8 bars from bar 1 to bar 25.

The chords always get copied. The Melody, Soloist, and Lyrics also get copied if these items are set in the Copy Chords and/or melody dialog.

Copy Rests

With the menu selection Edit | Copy Rests you can copy the attributes of a chord over a range of other chords. Rests also include shots and held chords.

Erase From.. To..

To erase bars with additional control for erasing the Melody, Soloist, and/or Lyrics, choose Edit | Erase From.. To.. to launch the Erase Chords and/or melody dialog box:

Intro Bars – Auto Generate (or Remove)

To generate an intro, press the [Intro] button (or choose the Edit | Intro Bars... menu item). The Generate Chords for Intro dialog opens.
With a single press of a button you can auto-generate a 2, 4, or 8 bar intro for any song. The chords will be different each time, and you can keep trying as often as you like until you get the progression that you want. The intro generated will be an intelligent chord progression (i.e. appropriate for an intro) in the chosen style of music (Jazz/Pop). It can have optional pedal bass, and will “lead” correctly to the first chord of the song.

The duration of the intro can be set to 2, 4, or 8 bars. You can also get a pedal bass figure inserted throughout the intro. Press the [Remove Intro] button to delete any intro present in your song.

**Insert / Delete Bars**
- Choose Edit | Insert Bars and the program will ask you to type in the number of bars you wish to insert.
- Choose Edit | Delete Bars and the program will ask you to type in the number of bars you wish to delete.

**Nudge Chords/Melody**
The "Nudge" feature allows moving a range of chords by any number of bars/beat. For example, let’s say that you have entered a complete song chord progression, and you then realize that all of the chords starting at bar 23 are 1 beat too late (maybe due to a time signature change). You can move all of the chords 1 beat earlier, by setting the nudge at bar 23, beat 1, and duration of the nudge to -1 (minus 1) beats.

You can nudge chords and/or Melody/Soloist parts.

**Repeats/codas/1st-2nd endings**
Most lead sheet-style printouts contain 1st/2nd endings, repeats, coda, tag, and sign markings. Band-in-a-Box now supports entry, display, and printout of song forms using these symbols. This command launches the Edit Repeats and Endings dialog where you can enter repeats, 1st and 2nd endings, DC, DS al coda and more.

The “Auto-Find” feature will intelligently detect 1st/2nd endings automatically for you, so you can view and convert any Band-in-a-Box song to include 1st/2nd endings in lead sheet format.
When you have created your repeats and endings, either manually or automatically, simply select the “Fake Sheet” checkbox on the Chordsheet or Lead Sheet window. Band-in-a-Box will hide the repeated bars and display the fake sheet using 1st and 2nd endings.

**Reduce (durations of chords by ½)** cuts chord durations by 50% (e.g., 4beats>>2beats, 2beats>>1beat, etc.).

**Expand (durations of chords by 2)** doubles the durations of chords (e.g., 1beat>>2beats, 2beats>>4beats, etc.).

**Unfold (convert To 1 BIG Chorus)**

Choose Edit | Unfold (convert to one BIG chorus) to unfold a multi-chorus song into one BIG chorus.

![Example](image)

If you have a song with 3 choruses and want to convert it to a single large chorus, this command unfolds the song into just that; one BIG chorus. This is useful for customizing a song with style, patch or tempo changes in different verses.

**Fold (convert 1 chorus to multiple)**

A "Fold song" routine converts a song with a single large chorus to multiple smaller choruses with optional tag ending. If you have imported a MIDI file, you might have a file that is 96 bars long, but really consists of 3 choruses of 32 bars each. You can convert this to a 32-bar song by using the Edit | Fold song option, including inserting tag endings, and 2-bar endings.

![Example](image)

**Set Time Signature (range of bars)**

Under the Edit | Set Time Signature (range of bars) menu item, you can assign a specific time signature at any bar and apply it to a range of bars, as often as you want.

![Time Signature Dialog](image)

For example, to have one bar (bar 13) of 5/4, select Edit | Set Time Signature... and toggle the 5/4 button. Then, type in the bar beginning and ending range in the space provided. (In this case, 13 and 1.)

**Transpose**

- Transpose From .. To ..
- Transpose DOWN 1 semitone Ctrl-Alt-5
- Transpose UP 1 semitone Ctrl-Alt-6
- Transpose # of semitones... Ctrl-Alt-7

This submenu lets you transpose the entire song by a number of semitones, or specify a range to transpose with the Transpose From.. To.. command.
To transpose part of a song, simply highlight the area you wish to transpose and select *Transpose From.. To..* in the submenu. When you have confirmed the starting bar and the number of bars you wish to transpose, click on the “Transpose to Key” area and select the destination key.

**Song Memo…**

A Song Memo of up to 2000 characters may be added. When a song has a memo associated with it the label on the Memo button (located to the right of the song title) is pink. Clicking on the [Memo] button launches the **Song Memo** dialog, where you can type or edit a memo about the song and select an “Auto-open” option that will show the memo each time the song is loaded.

The Song Memo has an option to close automatically during playback. When this option is set, the Memo button will close when play is pressed, and not reopen when stop is pressed. This setting, in combination with the “Auto-open” setting, ensures that the memo opens when the song opens, but closes during playback.

If the “Summary” checkbox is selected, you’ll see an additional window that automatically displays a full summary of the song (title/tempo/patches used in the song), as well as other special features, such as substyle patch changes or harmonies.

**Auto-Generate Song Title** allows you to generate a title for a song. There is also a button on the main screen for this.

**‘Jazz Up’ The chords**

This will “Jazz Up” the chords by changing chords like C and Cmaj to 7th and 6th chords. Song embellishment will be turned on for the song. Select the type of 7ths from the list box, and then click on the [OK – Jazz UP] button.

**‘Jazz Down’ The chords**

This will “Jazz Down” the chords by changing chords with 7ths (e.g. C7) to triads (e.g. C) and 9ths and 13ths to 7th chords. Song embellishment is turned off. Press [OK – Jazz Down] to proceed.

**Search/Replace Chords** allows you to search and replace chord names, including wild cards.
Edit Dialogs

Chord Settings

If you can’t remember the various keystrokes to put in rests and pushes, you can use the Chord Options dialog box instead. To get to the Chord Options dialog box press the [C7] button, click with the right mouse button onto the chordsheet, or use the keystrokes Alt+F5.

You can launch the Preview, Chord Builder, or Chord Substitution functions from this window.

You can enter pedal bass with any chord. For example, if you are in the Key of F, and would like a pedal on a C note for 2 bars (on an Fm7 chord), then type in the settings as shown. This will play the rhythm specified — in this case the pattern will play on beat 2 and 4.
Settings for Current Bar

The number of beats per bar, tempo changes, patch, style, and harmony changes can be made by selecting the Settings For Current Bar option on the Edit menu or by pressing F5 after you have selected a bar to edit.

Number of Beats this Bar
The initial time signature of the song is determined by the style (e.g., Jazz =4/4, Waltz =3/4). In some songs you will want to change the time signature, for example, you might want a single bar of 2/4, or 8 bars of 3/4 time. This option allows a change of time signature during a song.

The change takes place at the beginning of the bar and continues until a new time signature change is specified. You can select from 1 to 4 beats per bar. Time signature changes are printed on the Notation/Lead Sheet.

Example: A song in 4/4 time with a single bar of 6/4 time.
The maximum # beats per bar is =4, so we’ll split the 6/4 bar into 2 bars, a 4/4 bar and a 2/4 bar. Insert a # beats per bar =2 at the beginning of the 2/4 bar, then restore the time signature to 4/4 by assigning # beats per bar =4 for the next bar.

Tempo Change
If you want to change the tempo at a certain bar of the song, then use this dialog box to type in the new tempo in beats per minute. The tempo change takes effect at the beginning of the bar and remains until a new tempo change at another bar is inserted. Alternatively, you can specify a percentage change in tempo.
Style/Tempo/Patch/Harmony Changes
Insert changes of styles, tempo, patches, and harmonies (melody and soloist) at any bar (and any beat of any bar) in the song with the Edit Settings for Current Bar dialog, which opens with the [F5] key. For example, click on the [.STY] button to choose the new style from the StylePicker window.

Style, tempo, patch, and harmony (Melody and Soloist) changes will be recorded on your song worksheet indicated by a small red square around the bar that will be affected. Changes remain in effect from that bar forward until new changes are recorded.

Song Settings Dialog
The Ctrl+N keys or the Edit | Settings (for This Song)… menu command brings up the Song Settings dialog.

Here, you can choose from song settings such as chorus variations, chord embellishments, tag jumps, and endings, to make your song interesting and varied.

The [S] button on the main screen will also bring up the Song Settings dialog.

This button opens a dialog box where the song’s title and its main settings can be typed in. These settings are usually made in the main screen title window.

This button opens the Edit Settings for Current Bar dialog.

This button opens the Chord Options dialog where you can edit chords and add rests and pushes.
Options and Utilities
These settings are found in the Opt. menu and the Opt. | Utilities submenu.

Language Selection
This item in the Opt. menu allows you to change language from English to another language for display. If there are other languages supported by your version of Band-in-a-Box, then they will display in this dialog box. The new language will be displayed the next time Band-in-a-Box is launched.

Edit Chord Shortcuts file (shortcut.txt)
Add your own chord shortcuts. Have you found a chord that Band-in-a-Box doesn't recognize? If so, you can make a text file called \bb\shortcut.txt for your own shortcuts. (Note that this file doesn't ship with Band-in-a-Box or it would overwrite your file!) The file \bb\pgshortc.txt is only for shortcuts supplied by PG Music.

Refresh Chord Shortcuts...
When you have saved your shortcuts file click on Refresh Chord Shortcuts... to start using them. Changes to your chord shortcuts won't take effect until you choose this command.

Applying Styles
There are many styles available for use with the Band-in-a-Box program. Styles refer to styles of music like Jazz Swing, Tango, Blues, Pop Ballad, or Country. You can pick a musical style either before or after you have entered the chords to a song. Once a style is loaded, the song will be played back using your chosen style. All style files have the .STY extension.

Note: The program defaults to the “Jazz Swing” style or it may be “aliased” to another style, such as the newer J_WYNT_K style.

When a requested style is not found, Band-in-a-Box makes an intelligent substitution.

BOSSASW.STY wasn’t found, but will substitute a similar style: BOSSA2.STY

This feature is available for every style that PG Music has made, and also can be customized by third-party or any users by making a text file (*.NA) with suggested alternative styles.

Load Previous Style, Load Next Style.
This function, analogous to the Load Next Song function, loads in the previous (or next) style in alphabetical order of the file name. These functions are found in the Styles menu, or use the hot keys Ctrl+Alt+Shift+F8 (or Alt+Shift+F8).

Current Style Window
The name of the current style is shown in the window below the song title.

The full (long) style name is displayed in a pop-up hint and also at the top of the screen.

There is a convenient “Load Song Demo” option for style demos. Click on the name of the style on the main screen, and the menu that displays will include the option to “Load Song Demo” for the current style.

The [Style] button opens the StylePicker window.

The [f] button opens the Favorite Styles list.

Using the StylePicker Window
The StylePicker window is opened by pressing the [Style] button or the Shift+F9 keys. It lists all of the styles that are present in the \bb folder.
The **StylePicker** window allows easy selection of styles by category or from a complete list of all styles. For example, you can select Jazz styles and see a list of all of your Jazz styles. Then you can select any style to see its full title, description, and examples of songs appropriate to the style.

The current style of the song is listed at the top of the window; in this case it is the Jazz Swing style (ZZJAZZ.STY). This is referred to as the Prototype Style. The prototype style can be changed to the current selection that is highlighted in the list by pressing the [*Change Prototype Style*] button.

There are filters to display only styles of a certain “Feel” or “Tempo” or only the styles of a certain Styles Set number, as well as displaying the name of the Styles Set. To select this, open the StylePicker, and choose “Only Show Styles Set #.” When you pick Styles Set #, you can then see only that Styles Set listed, regardless of the category you are in.

Styles can have different instruments (patches) for the “a” and “b” substyle. You can see a list of styles with multi-patches by looking at the “Styles with Instrument Changes” category.

**RealDrums Styles**

The **StylePicker** has a special category called “Styles with RealDrums.” This lists many RealDrums styles (.STY) that we’ve made. We always name the RealDrums style beginning with a minus sign, so that “-ZZJAZZ.STY” would be the ZZJAZZ.STY, but using RealDrums instead.

When you open the StylePicker window, it shows you which styles would work best in your song, highlighting all styles that have a similar tempo, genre, and feel to your song. You can preview styles before loading them so you can hear what they’ll sound like in your song. The window remembers the style and genre that you’ve used, and will return to it the next time you visit the window.

For each style, you see the following information:

- The asterisk (*) or (^) caret indicates if the style is a perfect or good match to the prototype style.
- ZZJAZZ is the name of the .STY style file.
- “sw” indicates that the style is in a Swing feel vs. “EV” for Even feel.
- The “8” indicates that the style is an 8th note feel (vs. 16th note feel).
- 160 is the tempo for this style.
- Jazz Swing Style is the full name of the style.
- SD #0 indicates that the style is found on Styles Disk #0, one of the original 24 Band-in-a-Box styles.

Styles that are similar to the prototype are indicated with an asterisk (*). These are styles that have the same feel (triplets/ eighths/ sixteenths) and a similar tempo range. Styles with similar feel but a different tempo range are marked by a caret (^) symbol. So you can quickly see styles that are similar to Jazz Swing (in this example). The styles J_BASIE and J_DIXIE could be substituted with a perfect match so are marked with an asterisk (*). Styles like J_DJANGO are marked with a caret (^) because they sound best in a much faster tempo than the prototype Jazz Swing style.

Use the filters to display all styles, or only ones that you choose.

You can play the style demo from the StylePicker window by pressing the [Load Song Demo] button.

The [Search] button that lets you find data in any of the fields. Also, the StylePicker window opens up at the current style.

There is an option for this called “Defaults to current style.” When you choose a style with the song playing, it will switch to the new style and continue playing!

When you find a style that you'd like to test, double click on its name in the list to hear a preview of your song in the new style. Note that you must set the option Preview on Double Click for this to work.

Alternatively you can press the [Preview] button. The [Preview] button generates and plays an arrangement with the new style; use the [Stop] button to end the preview.

Change the tempo by typing in a new tempo in the t= field at the top.

You can [Reduce] or [Expand] the duration of the chords, useful when changing the feel of songs.

If the Prompt With Preview item is set, the program will ask you if you want to change the feel of the song's melody, or auto-reduce/expand the chord durations when the styles change.

When a new style is previewed, patches appropriate to the new style get loaded in if you have selected “Auto Change Melody/Soloist Patch.” So when you load in a “Chopin Piano Style” the melody patch of your song will change to Piano. This allows the song to blend in with the new style.

This will copy the Styles List to the clipboard so that it can then be printed as a text file from any word processor.

If you have added new styles to Band-in-a-Box (or edited the BBW.LST file) the StylePicker’s [Re-Build] button will update the styles list.

You can add your own styles to the StylePicker list by pressing the [Edit] button on the StylePicker.

Technical Note: All of the styles that you add will be appended to the bottom of the StylePicker under new category and style names. This is because we don't want editing of the main style list (BBW.LST) provided by PG Music, because we update that list frequently ourselves, and the updated list would overwrite your changes. The edits that you make in the StylePicker editor will stay permanently, and not be overwritten by future versions of Band-in-a-Box.

When you first launch it, there won’t be any styles added, so you’ll see a screen with only a blank category with no styles on it.
The category here is called “My Styles,” you can change the name using the yellow “Category Name” area. For this example, change the name to “Favorite Jazz.”

Let’s add a Style to the list.

**Add New Style** Press the [Add New Style] button.

**NONAME.STY** A style has been added, called NONAME.STY. You now need to fill in all of the information in the colored fields to supply the information for the style you have added.

Note: For this example, we’ll add a Jazz style called NEWONE.STY. This style is included in the C:\bb folder. This information includes:

1. **Name of the Style** (8 characters maximum + .STY). [name must end in .STY]

   You can type in the style name, or press the Choose button to pick a style name from the ‘bb folder. If the style doesn’t exist, a <not found> will appear in the style list beside the style name (as it does for the NONAME.STY). Press the [Choose] button and choose NEWONE.STY.

2. **Long Name of the style**. This is a descriptive name that appears on the StyleMaker, and can be up to 32 characters. Enter “A Brand New Jazz Style.”

3. **Memo and Examples**. You can enter a memo for the style, and example songs that could be played in that style. The memo and example can total 200 characters maximum. Enter a memo and examples for NEWONE.STY.
4. We now enter settings to tell Band-in-a-Box what Soloist it should use when making improvisations using this NEWONE.STY. For this, we need to know the genre of the style (Jazz, Country, and Pop etc.), whether it is in an even or shuffle feel, and whether a soloist should be playing primarily 8th or 16th notes. From the drop down combo box that appears, for this Jazz Swing style (newone.sty), we should choose “Jazz Swing Triplet feel 8th notes.”

By doing this, Band-in-a-Box will then choose from many Jazz Swing type of Soloists available in BB.

But if we want a specific soloist to always be used, we can specify that soloist number. You can see the soloist numbers in the Soloist dialog. In this example, we leave this at zero, so Band-in-a-Box will choose between many different soloists.

This setting enables double time soloing when the style is played at slower tempos.

5. Next we describe the feel of the style. Are the 8th notes straight or shuffle? Is the time signature 3/4 (waltz) or 4/4, is it a 16th note based style (tempo usually less than 120), or an 8th note style (tempo usually above 120). For the NEWONE.STY, enter these checkboxes as shown.

6. Next is the Tempo area. Here you can enter the typical tempo and the range of the tempo for the style.

7. You can assign a number for the style disk. We recommend that you use numbers higher than 1,000 and pick a unique number for your styles. You can then search for them easily. It is not necessary to enter a Style disk #.

8. When a style is chosen in the StylePicker, it will send out patch changes on the Melody and Soloist tracks, to make the song sound more authentic in that style. The settings for Melody and Soloist patches allow you to select which patch types will get sent out. Here we choose “Jazz Patches” for our NEWONE.STY.

We’re finished adding the NEWONE.STY.

We could now continue adding new styles, and categories, for all of our new styles that are not in the list.

But let’s see our added style on the StylePicker.

Press the [OK – Save] button. This exits the dialog, returning to the StylePicker. The StylePicker will recommend rebuilding the style list for the added styles. Answer “Yes” to this.

This re-builds the style list file, according to the styles that are found in your bb directory. This should only be done when you have added new styles to BB, used the stylepicker editor, or modified the B/BW.LST text file. OK to re-build?
You will then see a rebuilt style list, and your category “My Styles” and your new style “NEWONE.STY” will appear in that category.

Technical notes:
Information about styles you make yourself is stored in a file called A_USER.LS3. This is a text file, but it is better to edit it using the StylePicker editor.

You can make other .LS3 files using the StylePicker editor, using the [Save As] and [Open] buttons.

You can also erase an .LS3 file from disk. Third party added styles are also stored in .LS3 files. Band-in-a-Box will load in all of the .LS3 files that are in the 'bb' folder (in alphabetical order), and append them to the StylePicker list.

Technical Information about the BBW.LST file
The Help topics “Select Style with information” and “LS3 files” have information about adding styles to the Styles List.

Favorite Styles Button
Another way to load a style is with the favorite styles [F] button, located to the right of the StylePicker button.

If you are technically minded and want to modify the styles list file then read on.

The Styles List is built from a text file called BBW.LST. You should only edit this file if you want to change the list of styles, or add styles that you have created.

Technical Information about the BBW.LST file
This is the text file that defines the styles that appear in the Style Picker Dialog box in Band-in-a-Box. You may edit this file to change the information, add/remove styles etc.
Chapter 6: Band-in-a-Box PowerGuide

File Rules:
- Any line beginning with a semicolon “;” is a comment
- Lines beginning with ~ indicate a new category like jazz, country, pop
- Lines beginning with @ are a description of a style in the format @a\b\c\d
  - where a = style file name e.g. zzjazzsw.sty (max. 8 chars + .sty )
  - b= Long Style Name e.g. Jazz Swing Style (max. 32 chars)
  - c= Style memo
  - d= Examples of songs that can be played in this style
- c and d combined can be a maximum of 255 characters, e.g. c could be 200 characters and d could be 50
- Each style description must be on one-line, carriage returns not allowed in the middle of a style description.

Once made, you add the new information to the style picker by choosing the re-build option inside the style picker.
This rebuilds the binary file BBW.LSV from this file BBW.LST.
You can list a style more than once, for example Pop Ballad might be listed under Jazz and Pop Ballad. You can also make your own categories. Like My Favorite styles, and build up a list.
The limit of number of styles in the StylePicker is 4,800 to accommodate the large number of third party styles developed for Band-in-a-Box.

Example excerpt from the BBW.LST file

~Jazz
@ZZJazzSW.STY\Jazz Swing Style^This is the “built-in jazz swing style”using bass, drums and piano. Bass plays half notes in “a” section and walks in “b” section.*Satin Doll, Sweet Georgia Brown
@A.STY\This is A^ How about this A style Useful for A songs
@BluHill.sty\Blueberry Hill Style^This is Blueberry Hill*Fats Domino songs
@GARNER.STY\Errol Garner Style^This is garner*I’ll Remember april
@GARNER2.STY\Errol Garner Style #2^This style is in 2 feel for a and b*OLDFOLKS

Third Party Styles – LS3 Files
You can create LS3 files to add information to the StylePicker dialog about your styles. The LS3 files are for third party added styles and style data descriptions.
An LS3 file cannot exceed 65,000 bytes (65K). If you need more, use 2 LS3 files. The style data and descriptions show up in the style picker dialog.
- Lines beginning with @ are for style descriptions (memos etc.)
- Lines beginning with the 3 chars ^@ are for the style data
- More information on the format of the style data line is found at pgmusic.com/styledata.htm

Here's a summary of the style data line (on the next 4 lines)
; stylenname,soloist# to use (1-255),soloist type to use (see list on web),double time OK (false/true),
; time sign. (3 or 4),straight or swing (sw/ev),16ths or 8ths (8/16),tempolow(30-500),
; tempo high range (30-500), tempo mid range (30-500), style disk # (0-30000) PG uses 1-255)
; melody patch to use (1-128 or higher-see list on web),soloist patch to use (1-128 or higher-see list),

RealDrums Styles

Why do RealDrums sound better than MIDI Drums?
The RealDrums are recordings of top studio drummers, playing multi-bar patterns. MIDI drums are patterns based on single drum hits, being programmed, typically on a quantized grid, of what people assume drummers are typically playing.
We record drummers at multiple tempos, so the playing you hear at various tempos is also musically different, not just “sped up.” Drummers play different types of fills etc. at slower/faster tempos, and these are captured with RealDrums.

Technical note: If interested, you can see which tempos have been recorded by looking in the c:\bb\drums\ folder for the particular style you are interested in.
How Do RealDrums Work?

There are several ways to hear RealDrums with new or existing Band-in-a-Box songs.

We provide many styles that already have RealDrums. These styles can be identified by the style name beginning with a minus sign. For example “–ZZJAZZ.STY” is a version of the ZZJAZZ.STY that uses RealDrums. Styles (.STY) can have RealDrums (e.g. “–ZZJAZZ.STY”).

This setting is found in the StyleMaker’s Misc. Style Settings dialog.

Styles (.STY) can have RealDrums (e.g. “–ZZJAZZ.STY”).

This will substitute RealDrums for MIDI styles. You can change the setting from 1 to 5.

If set to 1, almost all MIDI drums will get substituted by RealDrums. If set to 5, only RealDrum styles that match the style perfectly will get substituted.

Technical note: The text file a_pgmusic.ds provided by PG Music controls this, and users can make other files MySubs.ds if they make their own RealDrums styles.

Songs can have RealDrums added to them. To do this, set the desired style in the Preferences RealDrums Settings dialog, or with File | Save Song with Patches & Harmony.

This will let the current song use the specific RealDrums style.

For RealDrums substitutions, choose different variations with each play. RealDrums Variations of instruments with each “play”. Most RealDrums styles (starting with RealDrums set 5) contain many instrument variations (“brushes vs. Sticks”, “HiHat vs. Ride Cymbal” “Percussion only” etc.). Now, by selecting Prefs-Real Drum Settings – choose different Variations with each play, you can hear a different variation each time play is pressed, so the song sounds fresh each time. One time you’ll hear it with “brushes”, the next time with sticks and ride cymbals, etc.

Favor Brushes”, “Favor Sticks” settings. When selecting RealDrums styles to use for a style, BB will use your preferences for brushes and sticks. For example, if you choose “Favor Brushes”, BB will always choose from among variations that include brushes (when available).

For this song, choose different variations with each play. When this is set, if you save a specific RealDrums style with a song, you’ll hear a new variation of that style each time you press PLAY, with different drum instruments.

Clear button, this clears the currently selected RealDrums for the song.
**RealDrums “Compatible song/style finder.”** In the RealDrums Settings dialog, there are now buttons that will, for a chosen RealDrums style, enable you to (1) play the RealDrums demo song, (2) show a menu of BB styles that would work with the Real Drum style and (3) play a song demo of various BB styles that work with the Real Drum style.

**INSTALL button.** When this is pressed, WAV files will be created from any RealDrums styles that are still WMA files. Make sure that you have enough space available on your hard drive prior to installing the RealDrums. Note: Usually the WAV files have already been created upon installation, if so this feature isn’t needed.

**Selectable Folder for your RealDrums styles.** Now you can choose any folder (e.g. e:\Drums) for your RealDrums. This allows you to, for example, conserve space on your C:\ drive.

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**Tempo checking for chosen RealDrums styles.** If you choose a RealDrums style, and the tempo is out-of-recommended-range for the style, BB will inform you of that – you can still use the style of course. RealDrums styles that get chosen automatically by Band-in-a-Box will always be compatible with your song.

**Favorite Styles Button**
Another way to load a style is with the favorite styles [F] button, located to the right of the StylePicker button.

This button activates a window with a list of the 150 styles you have used most recently. This lets you quickly load in styles that have been used your last few sessions with Band-in-a-Box.

Click the “Play When Chosen” checkbox to have Band-in-a-Box play your song immediately upon selecting a style.

**Style Aliases Dialog**
The Style Aliases selection is found in the Styles menu.

Let's say you've got a new style for Jazz called “Wynt_K.” You can create an alias so that when Band-in-a-Box looks for a Jazz Swing style, it will load in “Wynt_K” instead, so you don't have to make changes to all your songs. And when you have found a new favorite style, just change the alias. You can also load or save sets of “Alias” files and share them with others.

To type in a style name that you don't have, use the [Custom...] button.

1. To create a new alias, click on an empty spot (i.e. no alias defined) in the alias list, or click on the alias you wish to edit if you wish to change an existing alias.
2. Press the [Choose …] button below the Original style box and select the style you wish to be replaced.
3. Press the [Choose] button below the Substitution box and select the replacement style (alias).

If you have made a mistake and wish to change your style selection, press the [Clear] button. When you have successfully made an alias, you will notice that there will be a small arrow in the Styles box on the main screen indicating that you have an alias loaded.

You can Export and Import alias files to share with your friends by clicking the [Import..] button to read an alias file from a floppy, or click the [Export..] button to send one out to a disk.

**Tip:** You can temporarily totally disable the Alias feature by unchecking the “Allow Any Style Aliases” checkbox. You can also have confirmation of alias substitutions by checking the “Confirm Substitution” checkbox.

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### Enable/Disable Style menu item. (Alt+S E)

The *Styles* menu has an item to Enable/Disable the style. When disabled, the name of the style will have an X at the beginning, which indicates a disabled style. The disabled style won't sound or write any data to the MIDI file. The most common use for disabling a style is when a MIDI file is loaded to the Melody track. Then the style won't sound and conflict with the full arrangement on the Melody track.

### Forced Styles option

This allows you to keep a style in memory. This way, all subsequent songs that are loaded will not change the style (even if they have a different associated style), so you can easily play songs in the same style. If you've found a new favorite style, you can try it out in all kinds of songs without having to reload the style each time.

For example, let's say we've discovered the “GARNER” style, and want to try it out on all kinds of songs. Select *Styles | OK to load styles with songs* so that the item is **NOT** checked. Now when you load a song the new style doesn't load and you can play the song in GARNER.STY. You can temporarily override this setting by loading in another style using the [STY] button or the Style menu, and the new style loaded will stay in until you choose another one.

### Breaks - Rests, Shots, and Held Chords

Breaks are points in a song when one or more of the instruments rests, plays a shot, or holds a chord.

- **Rests** can specify any, some, or all instruments to rest at any bar. For example, you could rest all instruments except the bass for the first 4 bars, and then add the piano for 4 bars, and then add the entire band for the rest of the song. You may optionally disable the rests in the middle or final choruses (e.g., where you would likely have a solo, and rests may not be appropriate).
- **Shots** can specify certain instruments play a “shot,” where the chord is played and then a rest follows. For example, the song “Rock Around The Clock” has a shot on beat 1 followed by a rest for 2 bars. The duration of “shots” is 60 ticks per beat.
- **Held chords** specify that certain instruments hold a chord sustained for a certain number of bars. For example, you can have the bass and piano hold a chord sustained while the drums continue to play a pattern.

A chord can be specified as a REST by adding a period after the chord.

\[ C. \] indicates a C chord that is a REST.

\[ C.. \] indicates a C chord that is a SHOT.

\[ C... \] indicates a C chord that is a HELD CHORD.

**Selecting BREAKS for different instruments.**

You can specify that some instruments not be affected by the rhythm break.

The coded names for the instruments are:
- B for Bass
- D for Drums
- P for Piano
- G for Guitar
- S for Strings

To type a rest for all instruments on a C chord type \[ C. \]

To exempt instruments, add their letters following the break. For example, \[ C.bd \] will put a rest on all instruments EXCEPT the bass and drums.

To indicate a held chord for all instruments except the piano, type \[ C...p \]

Breaks can also be set in the **Chord Options** dialog.

**Chord Options**

Chord options include rests, pushes and pedal bass. The **Chord Options** dialog opens with the C7 toolbar button, or from the right-click contextual menu in the Chordsheet.

Normally, when a “shot” or a “held” chord is assigned, the instruments that are excluded from the shot/held chord play normally.

There is an additional option for those excluded instruments to stay silent. To set this, open the chord options dialog, and select a shot or held chord, and then select “Excluded instrument(s) should rest.”

This option gives you the ability to rest some instruments while others play the shot or held chord.

Other settings for how chords play are made in the **Edit** menu. You can choose **Edit | Settings (for This Song)** to open the **Song Settings** dialog and set the rests (breaks) to happen only in the first, middle, or last choruses.

There are also settings to allow pushes, pedal bass, and chord embellishment.
Pushes
“Pushes” (also called anticipations) are chords that are played before the beat. For example, in Jazz Swing, the piano player often “pushes” a chord change by playing the chord an eighth note before the beat. To execute a “push,” you can use either keystrokes or open the Chord options dialog box by right mouse clicking on a given chord.

To use keystrokes:
Type the caret symbol[^] before the chord. The caret symbol is located above the numeral 6 on your computer keyboard.

Type a single caret to get a chord an eighth note before the beat, e.g.,

Type a double caret to get a chord a sixteenth note before the beat, e.g.,

In Jazz styles (and other triplet feels), the chord will be pushed by a triplet, regardless of whether there is a single or double caret (^).

Velocity Boosts for Pushes, Shots, and Held Chords
You can set the amount of velocity boost, so that the effect won't be too loud.

In the Preferences dialog (Opt. | Preferences) click on the [Arrange] button to open the Arrangement Options. Then type in the amount of velocity boost for pushes, shots, and holds.

The style can override the velocity for the pushes, and drum velocity for shots, held chords, and pushes is also set in the StyleMaker.

Part Markers
Part Markers are used to indicate a Substyle Change or to insert Drum Fills.

Part Markers [a] and [b] are placed on the chordsheet to indicate a new part of the song. They typically occur every 8 bars or so, but may be placed at the beginning of any bar.

Changing Substyles Each style has 2 available substyles [a] and [b]. The song continues to play in one substyle until it encounters a new part marker, or on second choruses (see below). There is always a part marker at bar 1 so that Band-in-a-Box knows which substyle to begin with.

Substyle [a] is usually used for the verse of a song.

Substyle [b] is usually used for the bridge of a song, and for soloing in the middle choruses. The entire middle choruses of the song will be automatically played in the “b” substyle.

Styles can have different instruments (patches) for the “a” and “b” substyle. For example, you can have drum brushes on the “a” substyle, and sticks on the “b” substyle, or acoustic piano for the “a” and electric piano for the bridge.

You can see a list of styles with multi-patches in the StylePicker, by looking at the “Styles with Instrument Changes” category.

Placing Part Markers
- Move the highlight cell to the bar that you want the part marker at. Then press the P key. Repeatedly pressing the P key will toggle between part markers or no part marker, or
- Position the mouse cursor directly over the bar line (or an existing Part Marker). Then, click the left mouse button. Repeat this procedure to toggle among the A, B, and NO PART MARKER options.

Placing Drum Fills
A one bar drum fill will occur in the bar preceding a part marker. If you want a drum fill at bar 7 of a song, you insert a part marker on the bar after the bar with the drum fill (i.e. Bar 8). You can either retain the original substyle or change the substyle (a or b) when you place the part marker.

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Song Settings Dialog

The [S] button on the main screen will bring up the **Song Settings** dialog. The keystrokes **Ctrl+N** key or the **Edit | Settings (for This Song)...** menu command also brings up this window. Here, you can choose from various song settings such as chorus embellishments, tag jumps, and endings, to make your song interesting and varied.

### Vary Style in Middle Choruses
If set to “Yes,” the song will play in substyle “b” throughout the Middle Choruses. The Middle Choruses are considered all choruses except the first and last ones.

For example, in the Jazz Swing Style, since the “b” substyle is Swing, all of the middle choruses will have swing bass. (Whereas the “a” substyle is playing half notes on the bass.)

If set to “No” the middle choruses will play A and B substyles exactly as they appear in the song as outlined by the part markers.

### Allow Pushes in Middle Choruses
This is most frequently used if there are pushes in a song (indicated by the “^” symbol), but you don’t want these pushes to play in the middle choruses. Simply set the checkbox to “No” (disabled) and the pushes will be ignored in the middle choruses. This is to allow for uninterrupted soloing choruses.

### Allow Rests in First/Middle/Last Chorus
These parameters allow you to decide which choruses will play any rests that are present in a song (indicated by the “.” symbol). For example, you may have put rests into a song but don’t want the rests to play in the middle choruses, since you are using them for soloing: simply set the ALLOW RESTS IN MIDDLE CHORUSES checkbox to “No” (off).
Allow Pedal Bass in Middle Choruses
This determines whether Pedal Bass effect will be allowed in middle choruses.

Allow Embellishment of Chords
The Jazz styles include embellishment of chords. This means that if you type a C7 chord, the piano part may play a C13 or a C7b9. This makes the arrangement sound more authentic, as this is a common practice in Jazz playing. It also means that you don’t have to worry about inputting these types of extensions into your arrangements, since they will turn up automatically if this feature is enabled.

Tip: If you are hearing b9 and b13 embellishments on a C7 chord that is clashing with the melody, you should rename the chord C9 or C13, which will ensure natural 9 and 13 embellishments.

Tag Settings
A tag (also referred to as a coda) is a group of bars that are played in the very last chorus of a song. If you select the “Tag Exists?” check box then the tag will play during the last chorus of the song. After the bar you specify as the “Tag Jump After Bar #” the song jumps to the “Tag Begin At Bar #” and plays through the “Tag Ends After Bar #” and then plays a 2 bar ending as usual.

Options for Song Endings
Song endings can be turned off for all songs, or on a song by song basis. For example, you can make a custom ending to a song to end on the 3rd beat of a bar by playing a shot.

To turn song endings off for all songs, choose Opt. | Preferences and then press the [Arrange] button to option the Arrangement Options dialog.

To turn the song ending off for a single song, choose Edit | Settings (for This Song) and set the “Generate 2 bar Ending for this song” checkbox to “Off” (cleared) in the Song Settings dialog.

You can also have an ending that ends on the last bar of the song. This is set in the Song Settings dialog – “Start the ending 2 bars early.”

The standard Band-in-a-Box ending is 2 bars appended to the end of the song. The “2 bars early” option gives you an alternative to end the song on the last bar of the song. Band-in-a-Box will still play an ending on the chord that you specify, and the ending will occur as a 2 bar phrase beginning 2 bars before the end of the form. This results in more natural endings for many songs.

Sliding Tracks (Play | Slide Tracks ...)
This allows you to move any of the Bass, Drums, Piano, Guitar, Strings, Melody, or Soloist track ahead or behind by a definable amount. For example, slide the Bass track a little ahead of the rest of the band to make the bass player “drive the band.” To slide tracks, select the Slide Tracks option from the Play menu. The values are measured in “ticks-per-beat” with 120 ticks being the equivalent of a quarter note. The musically useful range is from -10 to 10.
Allow Any Slides
If you want the slides to occur, then set this to YES.

Humanize Slides
If set to YES, the slides will be humanized to slide the track a different amount for each note. The amount varies from 0 ticks (none) to the slide setting for the instrument.
- Press the [Default] button to fill the tracks with default slide values.
- Press the [Zeros] button to 'zero-out' the slide values for all tracks.
- Press the [Update] button to affect your changes and hear the result instantly.

**Tip:** A track that always plays notes early by a certain amount tends to sound out of time, whereas humanizing the slide makes the track sounds more alive.

Saving Songs

Once you have made a song (or have made changes to a song), you will probably want to save the song by clicking on the [Save] button. Or choose Save from the File menu, or press [F2], or Ctrl+S.

Use [Save As] to save a song with a different name or in a different location. **Shift-clicking** on the [Save As] button will allow you to choose a favorite folder prior to seeing the **Save As** dialog.

Songs will always be saved with last file extension letter of “U,” regardless of whether they are made with a built-in style or not. For example, if you make a song with ZZJAZZ.STY as the style (i.e., one of the 24 built-in styles) earlier versions of BB would save the song as MySong.MG1, where the “1” indicates Style #1 – ZZJAZZ. Now it is saved as MySong.MGU. Older songs loaded in with .MG1 will still be re-saved as MG1 to prevent duplicate song files.

**Note:** Make sure you remember to save your songs as Band-in-a-Box song files (not only as MIDI files). The Band-in-a-Box song files contain the names of the chords, etc. and are much smaller than MIDI files.

If you have an audio file associated with the song, the audio portion will be saved separately, and will be called MySong.WAV.

**Saving Song With …**

Patches, Volume, Reverb, Chorus, Panning, Bank, Harmony (both Melody and Thru), and the Soloist may be saved with your songs. This is done by selecting the **Save Song with Patches & Harmony** option from the File menu.

If you would like to save certain patches with a song:

a) Type in the number of the patch (instrument) that you would like. Leave the other instruments at = 0 for no patch change. Remember that the General MIDI numbering system is always used for instruments.

or

b) Press the [Fill w/Patches] button. This will fill the patch number boxes with the current patch settings showing on your main screen instrument panel.

Use the checkboxes to choose which instruments you would like to save and whether you would like to save the Melody and Thru harmony assignments and the Soloist selected to play on the song. You can also save the instruments as “On” or “Off” for each song. For example, you could have a song with no piano part. Other parameters that may be saved (Volume, Reverb, etc.) are shown on the right side of the window.

**Tip:** You can optionally save these kinds of settings with your songs for added realism. You can, for example, make a song with the piano a little quieter than usual, or add reverb to the melody patch, or pan the bass to one side, etc.

Select the “For this song only, force MIDI drums” checkbox if you always want MIDI drums, not RealDrums, used with the song.

Select “For this song only, use this RealDrum style” to assign a specific RealDrums style to your song. Press the [RD] button to choose the RealDrums style.

This dialog box is usually used in combination with and not instead of saving a song. To save a song with this embedded information to your hard drive, you therefore:
1. Choose File | Save with Patches and Harmony (Alt+F2).
2. Choose the patch and other settings that you want to embed.
3. Press the [Save] button to save the song to disk.

**Saving MIDI and Karaoke Files**

Your Band-in-a-Box songs can be saved as Type 0 and Type 1 MIDI files as well as Karaoke files and General MIDI lyrics. Click on the [.MID] button to launch the dialog.

Select the type of MIDI file you want to save in the dropdown “MIDI File type” combo box.
By default, Band-in-a-Box writes Type 1 multiple track Standard MIDI Files. You can also save Type 0 MIDI files, they have all of the parts on a single track and are used by many hardware modules and other devices that play MIDI files because they are simpler to play (since they only have 1 track).

Karaoke files (.KAR) are a special type of sing-along MIDI file with text events for the lyrics and a specific order for the tracks. There is an option to write the MIDI file with separate tracks for each drum instrument. In the “MIDI File type” combo box select “Drums on separate tracks.”

### MIDI File Options

Use this button to set custom MIDI file settings in the MIDI file options dialog. This dialog is also available from the [MIDI File] button in the Preferences dialog (Opt. | Preferences).

- **Include Patch Changes in MIDI files** will include the patch (instrument) changes.
- **Include Part Marker text markers** writes descriptive text part markers to the MIDI file if selected.

If “Include Part Marker text markers” is selected the resulting MIDI file will have text markers. Then, in PowerTracks Pro Audio (in the Bars window) you’ll see the descriptive text markers.

For example, at bar 3, there is an “A, Chorus 1” marker, to indicate a part marker “a” substyle and chorus 1. Text markers are also read in from MIDI files, and displayed as Section Markers on the Notation.
Include 2 bar lead-in in MIDI file
If you don't want to create a MIDI file containing the first 2 bars of the 1—2—1-2-3-4 count-in you can select this option. If there is a Melody pickup, then the 2 bar lead-in will remain in the file.

Write Lyrics in General MIDI format
The GM specification has agreed upon specific requirements for writing lyrics in MIDI files, which are supported, so that lyrics that you save in Band-in-a-Box should show up identically in other MIDI programs. This is one of the MIDI File options in the Preferences dialog. We recommend the GM format.

| Write Lyrics in | General MIDI format | PG Music format (old) |

Write Section Text as Text Events
Your section text can be included in the MIDI file as text events.

Include Volume/Reverb/Chorus/Panning
This will include the volume, reverb, chorus, and panning settings that you have made in the Band-in-a-Box synth window in your MIDI file.

Include Forced Channel Meta Event
This will include the forced channel META event. It is recognized by PowerTracks Pro Audio and other PG Music Inc. programs only.

Include Guitar Position Controller
This will insert a controller 84 which PG Music uses to indicate the fret position. Since some synths also use this for Portamento Control, you should use this setting with caution.

Write Soloist Part On Channel 5
Normally the program writes the Soloist part on channel 8. Since that could also mean the left hand of a piano track using the convention of channel 8/9 for piano, this option allows you to write it on channel 5 instead.

Write Harmony To MIDI File
If set to YES, the harmony will be written to the MIDI file. If not, just the melody will be written to the MIDI file.

MIDI File Harmony on separate tracks
If set to YES, the harmony will be written to the MIDI file on separate tracks for each voice. You could use this to print out individual parts to your printer for example.

Write Guitar part on 6 channels
If set to YES, the styles that are Intelligent Guitar Styles will result in a MIDI file that has the Guitar part written on 6 channels (11-16). Then, when you read it in PowerTracks, or another sequencer that uses the convention of 11-16 for guitar strings, the guitar part will display correctly.

For partial range MIDI files, chop off sustaining notes at end turns off notes that would be “hung” because their associated Note Off event does not fall within the range of bars saved to the MIDI file.

If song has RealDrums
Also generate MIDI Drums in the MIDI file can be unchecked if your song uses RealDrums and you don’t want MIDI drums included in the MIDI file.

Also generate RealDrums in xxxx_RealDrums.WAV file saves the RealDrums (which are audio) as a separate wave file. This allows you to easily import the entire Band-in-a-Box song into another program for editing.

Set range of bars for MIDI files.
When making a MIDI file, you can select a range of bars to be included. Highlight any range of bars, and the MIDI file will be made for just that range.
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For example, you could select Chorus #2 if that is the chorus that you want.

Alternatively, without selecting a range on the chordsheet, you can make a MIDI file for a partial range by pressing the MIDI file button, and then the “Set Range” button.

Batch convert a folder of songs to MIDI files.

You can convert an entire folder of Band-in-a-Box songs to MIDI files with a single command and choose the resultant file names to be based on either the file name or the song title name.

Press the “Batch mode” button in the MIDI file dialog to access this feature.
Save Options

[File on Disk] saves a MIDI file to your hard drive or floppy disk. You can then load the MIDI file into your sequencer for further editing.

[Clipboard] copies the MIDI file to the Windows Clipboard as a Standard MIDI File. This feature allows clipboard enabled programs to Edit | Paste the Band-in-a-Box MIDI file directly into the program. For example, you can clipboard-paste Band-in-a-Box MIDI data to PowerTracks Pro Audio, CakeWalk, Musicator, etc.

The Melody/Soloist (with harmonies) will be written to the MIDI file. If you’ve set a Melody or Soloist/Thru Harmony, that MIDI data will be written to the MIDI file also. See the settings in the Opt | Preferences dialog box to control how the harmony is written to a MIDI file.

The Chordsheet part markers are written to the MIDI files. They can be read by PowerTracks Pro Audio and by Band-in-a-Box if re-importing the MIDI file with the Chord Wizard.

Recording to External Hardware Sequencers

Many people use Band-in-a-Box in live situations. If you are unable to bring your computer with you, a good alternative is a hardware sequencer or a keyboard with a built-in sequencers that reads Standard MIDI Files. To transfer songs to the Sound Brush, follow these simple steps:

- Make a MIDI file of the song by pressing the button.
- Either save the file directly to a floppy disk or copy it to the floppy from your hard drive.
- The Sound Brush is then able to read the IBM formatted disk with MIDI files on it.

MGX Files

When a MIDI file is loaded onto the Melody (or Soloist) track, the Track Type for the Melody (or Soloist) gets set to Multi-Track. When the file is saved, the extension will be MGX, allowing you to easily identify the Band-in-a-Box songs that you have that contain entire MIDI files.

Outputting MIDI to an External Device

Some external music hardware devices require chords played in root position to drive them in real time.

An example of this is the Digitech Vocalist. It will let you sing into a microphone and harmonize your voice according to the chords that are input to the device. Band-in-a-Box has the capability of outputting a separate channel with the chords in root position to support such external devices automatically.

There are also settings such as complexity of chords, output channel, velocity, and note range. It will also drive “Real time Arrangers” like the Roland RA series. The best way to accomplish this is to access the Opt | Preferences and select the [OutputCh.] button. You will then be given a window like this:

Click on the [Vocalist] button if you have such a device connected to your MIDI system. Band-in-a-Box will then send it the appropriate chord information automatically as your song is playing (e.g., root position triads).
The Jukebox

The Jukebox will load and play an entire subdirectory (folder) of songs. Songs play continuously, one after the other. The Jukebox will continue to play while you move to other Windows programs, providing continuous background music. Click the [Juke] button to open the Options for Juke Box dialog.

Jukebox Options

Only Play song with melodies: If set to YES, the program plays only songs with melodies, that is, songs with an .MG? file extension. If NO, the Jukebox will include ALL songs in the subdirectory.

Change Melody instrument: If you set this option to “Yes,” then the program will randomly change the melody instrument among your favorite 10 Melody instruments.

Random order Playback: If set to “Yes,” the songs will be played in random order (though not repeating a song). If set to “No,” the songs will be played in the order they are listed in the subdirectory.

Hide Titles (until title clicked): This feature is used to play the “Guess the Song” game. When set to “Yes,” the titles are hidden till you click the title box.

Audible Count-in Click: While listening to the Jukebox, you might not want to hear the Count-in Click. If set to “No” you won't hear the count-in click.

Harmony Settings: Set the Change Harmony box to true/enabled if you would like harmonies in a given number range to be randomly assigned for use with the Melody and Soloist/Thru tracks (if applicable to the song).
Generate Solos: Set this option to “On” to permit the Soloist to play a Solo over all the songs selected for Jukebox Playback.
1. Change to this directory by loading/opening a song from the c:\bb\solodemo directory.
2. Instead of playing the song you have loaded, press the [Juke] button.
3. Ensure that the Generate Solos checkbox is set to “Yes.”
4. Select [PLAY JUKE BOX]. The Soloist Select Dialog will pop up with a suggestion to use a Soloist for the first song in the Jukebox list. This is normal. Press [OK] to accept the Soloist suggestion. (The Jukebox will not bother you with the Select Soloist dialog again; it will simply choose an appropriate Soloist for any given song in the Jukebox song list.)

Preview:

The Jukebox Preview mode will optionally play just one chorus of each song, or play a set number of bars of each song (e.g. 8 bars).

To access this, press the [Juke] button, and select the Preview checkbox. Set the # of bars to use for the preview, a setting of 99 plays one chorus of each song.

Delay between songs: The user can set a selectable time delay (in seconds) between songs.

Note: To manually start playback of each song in the jukebox list, set “Pause Play Until MIDI or Key received” to On (checked) in the Preferences dialog. At the end of each song the jukebox will load the next song in the list and then pause until playback is started by sending a MIDI note or a computer keystroke.

Check “Loop Jukebox at end” for continuous jukebox play rather than stopping at the end of the list.

Change Directory:

You can change the directory before starting the Juke Box with the [Change Directory] button. You can also type a folder name directly, instead of using the folder dialog.

Favorite Songs

The Favorite Songs window is accessed by the [F] button, found on the main screen beside the [Song] button. You can make a list of songs for a set by using the [Clear] button followed by the [Append], [Insert], and [Delete] buttons to add songs. This can be saved as a set using the [Save Set...] button, and reloaded with the [Load Set] button. Once you have the set, you can press the [Juke...] button.

This will play the set file in order, not randomly. It will start from the currently selected song.
MIDI Normalize
If performing a live set, or at a jam session, it helps to have the volume of all of the songs be similar. Now, with a MIDI Normalize feature, you can level the volumes to a setting in the program options. For example, you can set all volumes to be 70 and the program will make each song play within those levels. This is done in the Preferences [Arrange] tab.

When you have set the normalize to “on” the title window at the top of the screen reports that Normalization is set to 70, and that the velocity of the currently playing song has been increased from 49 to 70.

The normalization will affect bass, drums, piano, guitar and strings. If you select the “Including melody and Soloist” option, the normalization will also affect the melody and soloist parts.

The Conductor
The Conductor provides live looping and playback control. As the song is playing, there are options to allow control the flow of playback by one of three methods:
1. Conductor window
2. QWERTY hot keys
3. MIDI keyboard

The Conductor is launched with the Conductor button on the toolbar, or the tilde (~) hot key, or menu option Window | Conductor Window.

You must enable the QWERTY keys to be active for the Conductor during playback. This is done by selecting the “Enable Control by QWERTY keys” checkbox on the Conductor window.

If you want to control the Conductor using the MIDI keyboard, you need to
enable this by selecting the checkbox “Enable control by MIDI keyboard.” When this setting is enabled, any MIDI input will be interpreted as a hot key for the Conductor, and you won’t hear MIDI thru.

If you’d like the ability to switch your MIDI keyboard between Conductor mode and regular playing mode, you can do this using the lowest “A-natural” MIDI note on your keyboard. This is A1 on an 88-note keyboard. Note A1 will turn the Conductor off, Bb1 turns it on, and B1 will toggle the Conductor on only when the Bb1 note is held down. If you don’t have an 88-note keyboard, you can set the octave setting to a number higher than 1, for example if you set it to “3,” then notes A3/Bb3/B3 will turn the Conductor Off/On/Toggled.

Using the Conductor QWERTY or MIDI keys, you can:
- define and jump to up to 10 user defined sections in the song,
- jump back 1 bar/4 bars/# of bars/screen/part/chorus/section,
- jump ahead 1 bar/4 bars/# of bars/screen/part/chorus/section,
- LOOP 1 bar/4 bars/# of bars/screen/part/chorus/section,
- Pause/stop the song.

In addition, using the MIDI keyboard, you can also use the Conductor to:

A1 (note#21) Turn MIDI Conductor OFF
Bb1 Turn MIDI Conductor ON
B1 Turn MIDI Conductor ON only as note is held down

Here are the various functions available using the Conductor. The MIDI key and QWERTY hot key are shown.

C3 Normal Tempo Ctrl =
C# Half Speed Tempo Ctrl -
D3 Quarter Speed Tempo
Eb3 Eighth Speed Tempo
E3 Loop Section Enabled NUMPAD 1
F3 Play with last chorus looped Ctrl-NUMPAD 1
F#3 Play with middle choruses looped Ctrl-NUMPAD 2
G3 Play with middle and last choruses looped Ctrl-NUMPAD 3
G#3 Jump to last chorus (no loop) Ctrl-NUMPAD 4
A3 Jump to ending (no loop) Ctrl-NUMPAD 5
Bb3 Loop notation screen
B3 Decrease Tempo by 1 Shift [ 
C4(48) Increase Tempo by 1 Shift ]
Db4 Decrease Tempo by 5 [ 
D4 Increase Tempo by 5 ]
Eb4 Tap tempo - (press 4 times)
E4 Tap Tempo and play = (press 4 times)
F4 Play F4
F#4 Stop Escape
G4 Pause Backspace (or Ctrl H)
G#4 Replay Ctrl A
A4 MIDI Panic F12
Bb4 Previous Song Ctrl-Shift-F8
B4 Next Song Shift-F8
C5(60)  This is a control character for THRU patches. When C5 is held down, pressing MIDI notes 61/62 decrease/increase the THRU patch by one, and 63-72 change THRU patches to Favorite patches.

Db5  Open Notation Window  Ctrl-W
D5  Lead sheet Window  Alt-W
Eb5  Reduce All Volumes by 5  Ctrl-Alt-Shift-Q
E5  Increase all Volumes by 5  Ctrl-Alt-Shift-W
F5  ALL Mute/Unmute  Alt-2
F#5  Bass Mute/Unmute  Alt-3
G5  Piano Mute/Unmute  Alt-4
G#5  Drums/Unmute  Alt-5
A5  Guitar Mute/Unmute  Alt-6
Bb5  Strings Mute/Unmute  Alt-7
B5  Melody/Unmute  Alt-9
C6  Soloist Mute/Unmute  Alt-8
Db6  THRU Mute/Unmute  Alt 0
D6  Audio Mute
F6 to D7  Jump to Sections 1-10 of the song  1-9 and 0
Eb7  Loop Current Chorus  a
E7  Loop Current Section  s
F7  Loop Current Bar  z
F#7  Loop Current 4 Bars  x
G7  Loop current Part  c
Ab7  Looping ON, previous setting  v
A7  Looping OFF  b
Bb7  Go Back 1 Chorus  Ctrl a
B7  Go Back 1 Section  Ctrl s
C8  Go Back 1 Screen  Ctrl d
Db8  Go Back 1 Bar  Ctrl z
D8  Go Back 4 Bars  Ctrl x
Eb8  Go Back 1 Part marker  Ctrl c
E8  Go Ahead 1 Chorus  Shift A
F8  Go Ahead 1 Section  Shift S
F#8  Go Ahead 1 Screen  Shift D
G8  Go Ahead 1 Bar  Shift Z
Ab8  Go Ahead 4 Bars  Shift X
A8  Go Ahead 1 Part marker  Shift C

Customizing the Sections

Sections: This allows you to define up to 10 points in the song that are sections. By default, the following sections are defined for each song:
- Section 1: Start of song
- Section 2: Intro
- Section 3: First Chorus
- Section 4: Middle Chorus (i.e. start of chorus #2)
- Section 5: Last Chorus
- Section 6: Ending
- Sections 7-10 are user definable. To do this, type in any bar # using the bar/chorus format (e.g. 21/2 would be bar 21, chorus 2).

If you prefer to enter custom values for the section numbers, you can do this if you check the “custom” checkbox, and then type in up to 10 bar numbers for each section.

The section numbers are saved with the song. Once you have defined the sections, you can jump to a certain section of the song as the song is playing, simply by:

1. Pressing the 1-9 or 0 key on the QWERTY keyboard or,
2. Opening the Conductor window (~ hot key) and clicking on the section button or,
3. Pressing MIDI keys 77-86 (F6 to D7) corresponding to sections 1-10.

### Mode (when to do the action).

By pressing a QWERTY hot key prior to an action, you can control when the action will take place. If no mode hot key is pressed prior to an action, the default mode will occur.

The default is set in the “Default Mode for section change” or “Default Mode for going back or ahead” combo box. For example, by default, the section change will occur as soon as you press the key, and it will go to the equivalent place in the bar immediately before the beginning of the target section (so that the music stays in time, and the next section begins at the end of the bar). But you can change the default for the action to take place at the end of the current bar or current part marker etc.

### Example uses of the Conductor:

In this example, we don’t have custom sections set, so the default sections apply (middle chorus = section 4 etc.).

- Jump to the start of middle choruses during playback (press “4”).
- Loop the middle chorus (press S, which is Loop Section).
- Jump to the end of the song (press 6).
- Pause the song (Backspace).
- Go back 1 chorus (Ctrl a).
- Go ahead 1 chorus (Shift A).

At the end of the current chorus, go back 1 section, press Y then Ctrl S.

**Note:** Pressing the Y sets the mode to do the action at the end of the current chorus.

These actions can also be done with the MIDI keyboard. See the MIDI keyboard mapping diagram for details.

**Example using the MIDI keyboard.** Assume Charlie is a piano player who uses his MIDI keyboard with Band-in-a-Box, and would like to play his keyboard, but also use it to control Band-in-a-Box.

He sets the conductor to allow his MIDI keyboard lowest notes A/B♭/B to turn the Conductor mode OFF/ON/Toggled-when held.

When he turns it off (low A note), he can play his keyboard normally.

If he wants to pause the song, he holds down the low B3 note as he presses the MIDI key for pause, which is G4. The song will pause, and the conductor mode turns off as he lets go of the B3 key, and he can resume his piano playing. If Charlie didn’t plan on using the MIDI keyboard for piano playing, he could leave it in conductor mode by turning it on with the A3 key.
Chapter 7: Notation and Printing

Band-in-a-Box offers a variety of notation and printing features, both for viewing parts on-screen as they play and for printing them as sheet music.

To view the notation, open the Notation window by pressing the notation button on the main screen. Close the Notation window by pressing the notation button again.

Tip: You can rearrange the windows so that the Notation window is at the top of the screen with Window | Put Notation/Chords On Top or with Ctrl+T keys.

Band-in-a-Box offers multiple modes of notation for different purposes. The notation defaults to Standard Notation mode, other modes are selected with buttons on the Notation window toolbar.

- **Standard Notation** to display or print Notation and enter lyrics. The grand piano staff and/or guitar tablature with notes, chord symbols, and lyrics.
- **Editable Notation** to enter or edit notation. A special staff with time divisions for mouse-based editing.
- **Staff Roll Notation**, to enter or edit notes, velocity, and duration. The note heads are shown with editable velocity and duration lines.
- **Lead Sheet Notation** to display or print notation as full arrangements or in fake sheet style. This is a full screen notation window with notes, chord symbols, and lyrics.

### Exploring the Notation Window

With the Notation window open, the toolbar at the top of the window gives you access to its many features and options.

- **Options Button**
  - Opens the **Options** dialog box.
- **Lead Sheet Button**
  - Press to launch the Lead Sheet Notation window.
- **Print Button**
  - Press this button to print the notation to any printer supported by your Windows system.
- **Notation Mode Buttons**
  - 3-stage buttons to select a Notation window mode - Standard Notation, Editable Notation, or Staff Roll mode.
  - This box displays the name of the note that will be inserted when you click the mouse.
These determine whether a Note or a Rest will be inserted when the mouse is clicked. When this is selected, the notation is entered as monophonic (one note only) to avoid extra notes in a single note melody line. The “Clean Notation Mode” cleans up the notation by eliminating display of redundant grace notes and glitches for easier reading. While a song is playing, click the “LoopScn” button and the song will loop for the 4 bars shown on the notation screen. You can display or print any track from the program. Press the appropriate button to change to the desired track.

You can edit events including all MIDI events and lyric events using the Event List Editor. To enter note-based lyrics press the Lyrics button on the Notation toolbar.

The zoom buttons make it easy to increase or decrease the font size of the notation. Add or edit Section Text on the Notation.

When this button is pressed in you can drag the mouse over notes to hear them.

Use the Ins and Del keys on the numeric keypad to step advance on any track by one chord. The track MIDI data can display on the on piano, guitar, lead sheet, drums, and notation window(s). This feature advances the current track and displays the next group of notes on that track. For example, if the current track is set to the Melody track, pressing the chord advance buttons will display the next note or chord of the melody. The Chord Advance feature is a great way to study the notes being played, and to navigate around the track.

Note: In this context, “chord” is referring to any group of notes, or a single note, that occurs in a track at or near the same time. You can adjust the width of what Band-in-a-Box determines a ‘chord’ to be in the Notation Options - More dialog.

The Standard Notation window displays the notation for any individual track, and allows for the entry of chords and lyrics. Features include:
- Notation display for the Bass, Drums, Guitar, Piano, Strings, Melody, or Soloist track.
- Optional display of guitar chord diagrams.
- As the notation plays, the notes that are sounding are **highlighted in red**. This helps with sight reading or following the music.
- You can set the notation to scroll either 1 or 2 bars ahead of the music without interfering with your view of the current notation.
- Handles Jazz eighth notes and triplet figures correctly.
- Automatic options such as auto durations, clean notation, mono display, minimize rests, hard rests, and engraver spacing produce very musical and readable notation.
- Beamed notes are automatically given slanted beams.
- Groups of 5 notes will automatically display as groups of 3+2 or 2+3, and can be set this way manually as well. If you'd prefer to see them as a group of 5 notes, you can right mouse click on the timeline, and set the resolution to 5 for the beat.

**Right-click menu for Standard Notation**

This menu opens with a right mouse button click in the Standard Notation window.

<table>
<thead>
<tr>
<th>Command</th>
<th>Keystroke</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut</td>
<td>Ctrl+X</td>
</tr>
<tr>
<td>Copy</td>
<td>Ctrl+C</td>
</tr>
<tr>
<td>Copy From .. To ..</td>
<td>Alt+C</td>
</tr>
<tr>
<td>Paste</td>
<td>Ctrl+V</td>
</tr>
<tr>
<td>Chord Builder...</td>
<td>Ctrl+Shift+B</td>
</tr>
<tr>
<td>Play Current Chord</td>
<td>&lt;Shift&gt;Enter</td>
</tr>
<tr>
<td>Chord Settings...</td>
<td>Alt+F5</td>
</tr>
<tr>
<td>Bar Settings...</td>
<td>F5</td>
</tr>
<tr>
<td>Song Settings...</td>
<td>Ctrl+N</td>
</tr>
<tr>
<td>Preferences...</td>
<td>Ctrl+E</td>
</tr>
<tr>
<td>Repeats/Codas/1st-2nd Endings...</td>
<td></td>
</tr>
<tr>
<td>Play from Bar 15</td>
<td></td>
</tr>
<tr>
<td>Notation Mode</td>
<td></td>
</tr>
<tr>
<td>Editable Mode</td>
<td></td>
</tr>
<tr>
<td>Staff Roll Mode</td>
<td></td>
</tr>
</tbody>
</table>

Use this menu to access major editing features and dialogs. You can change to another notation mode by selecting it in the list.

**Keystroke Commands**

- To bring up the **Notation Options** window, press **Alt+N+O**.
- To change between notation views, press **Alt+N+N**.
- To bring up the **Print Options** window, press **Alt+N+P**.
- To loop the screen, press **1** on your numeric keypad.
- To jump 4 bars ahead, press the **DOWN** arrow key.
- To step 4 bars back, press the **UP** arrow key

**Editable Notation Mode**

Enter the Editable Notation mode from the notation screen with a single mouse click on the Editable Notation button.
In the Editable Notation mode you can enter, move, and edit notes and rests using standard mouse techniques – point and click, drag and drop, and right-click to open the Note Edit dialog box.

This is the screen for step-entry of a melody or for editing existing parts. Notice the grid of vertical lines, which sub-divide each beat. These lines indicate where the notes will be placed according to the resolution of the song.

When mousing over notes in this window, summary information about the note is displayed (pitch/channel/velocity/duration).

Resolution

The above example is in Jazz Swing style so Band-in-a-Box has automatically set the grid resolution to 3 per beat (triplets). This resolution can be changed in the Notation Options dialog, but the program automatically sets the resolution to the correct value based upon the Band-in-a-Box style that is currently in use.
- Swing styles use 3 lines to divide each beat into eighth note swing triplets.
- Straight styles use 4 lines to divide each beat into sixteenth notes.

Beat Resolution

The user can manually set the resolution for any beat in the Beat Resolution dialog, which opens with a right click on the black vertical time line.
Setting the Treble Clef Resolution for this beat to 5 allows a group of five notes to be placed on one beat.

**Tip:** Although you can edit any track (e.g., Bass track), your edits to Band-in-a-Box instrument parts will be lost if you press [Play] and the song arrangement is regenerated. To save edits to accompaniment parts, save your song as a MIDI file for export.

### Entering Notes

To insert a new note on the staff move the mouse to the location that you want. If you want beat 1, move to the first dotted line in the bar. Click on the staff over the note that you want.

- The Current Note box in the toolbar will give you the name of the note that you're on.
- Click with the left mouse button to insert the note:
  - To insert a sharp: Hold down the Shift key as you click the note.
  - To insert a flat: Hold down the Ctrl key as you click the note.
  - To insert a natural: Hold down the Alt key as you click the note.

Brackets (#) are drawn around accidentals after a bar line as a courtesy, where no accidental is required.

### How is the length of the notes determined?

Band-in-a-Box uses an intelligent auto-duration feature to determine how long the note should likely be. Auto-durations mean that you can enter a lead sheet style melody by clicking only once per note, dramatically speeding up the entry of notation.

Any note that is entered will initially have a duration of 2 bars (2 whole notes). When the next note is put in 2 beats later, Band-in-a-Box will adjust the duration of the previous note to just shorter than 2 beats. This means that you don't have to worry about durations at all, and can simply point and click to enter the notes where you want them. If you want to override the auto duration, you can edit the note using the right mouse key, which will permit you to type the exact duration that you want.

### Entering Rests

Insert a rest by holding the back-quote key (tilde key without pressing Shift) then clicking on the notation window. Another way to enter a rest is to click the Rest checkbox and then point and click where you want the rest to appear. This automatically shortens the duration of the previous note.

**Tip:** If it is important to see rests less than a quarter note, make sure you de-select the Minimize Rests checkbox in the Options dialog box.

### Forced Rests (Hard Rests)

This allows you to insert a rest on the notation, which will be in effect even if you have Minimize Rests set to false. For example, we are able to display a 16th note rest even though the Minimize Rests feature is on. To do this, click on the [Rests] button and then click on the notation at the location that you'd like a 16th note rest. The Hard Rest will show up in blue in the editable notation window and can be removed by holding the [DEL] key and clicking on the rest.
Moving a note in time.
If you want to change the start time of a note, drag the note with the left mouse button to the new location. This is a simple way to move the note. Alternatively, you could edit the note numerically with the right mouse button.

Changing the pitch of a note.
Similarly, you can drag the note vertically to change the note value, and release it when you're on the note you want. Hold down the **Shift**, **Ctrl**, or **Alt** key to have the note inserted as a sharp, flat, or natural respectively.

Insert Bends In Notation.
In the Editable Notation window, any note can be made into a bend by holding down the “b” key on the computer keyboard and right-clicking on the note.

Right-click Editable Notation menu
A right-click of the mouse in the Editable Notation window will open this menu.

<table>
<thead>
<tr>
<th>Insert Section Text…</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Section Letters</td>
<td></td>
</tr>
<tr>
<td>Notation Symbols</td>
<td></td>
</tr>
<tr>
<td>Cleanup Orphaned Notation Controller Events</td>
<td></td>
</tr>
<tr>
<td>Chord height adjustment…</td>
<td></td>
</tr>
<tr>
<td>Notation Mode</td>
<td></td>
</tr>
<tr>
<td>✓ Editable Mode</td>
<td></td>
</tr>
<tr>
<td>Staff Roll Mode</td>
<td></td>
</tr>
</tbody>
</table>

Insert Section Text
This launches the Text Event dialog box that allows you to type in the Text. You can set the Text type to "Boxed" or "Regular"

Section Letters
Select a section letter from an alphabetical list and it will be inserted into the notation at the current location of the time line bar. Use this same item to remove section letters.

Notation Symbols for Expression and Articulation
The Notation Symbols are entered from the **Notation Event** dialog, which is accessed from the right-click menu in the Editable Notation window. This dialog lets you insert (or remove) notation symbols such as,

<table>
<thead>
<tr>
<th>Slurs</th>
<th>Accents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crescendo</td>
<td>Legato</td>
</tr>
<tr>
<td>Decrescendo</td>
<td>Marcato</td>
</tr>
<tr>
<td>Staccato</td>
<td>Staccatissimo</td>
</tr>
</tbody>
</table>

Select a notation symbol from those listed and the **Notation Event** dialog will open. In this dialog you can further define the event and its precise location, then press [OK - Insert Event] to insert it into the notation. Use the [OK - Remove Event] to delete an existing event that is no longer needed.
The **Event Type** list box lets you choose the event type (slur, decrescendo, etc.).

The **Length of Event** field determines the length of a slur, crescendo, or decrescendo. The length is specified in beats and ticks. If an event is a "single-peg" event, such as a staccato or accent, then this field will cause multiple events to be inserted if the range is greater than zero (and the range spans multiple pegs). If you had highlighted an area of the Notation window prior to right clicking on it (to launch the pop-up menu and choose the notation symbols menu item) then this field is set based on the length of the highlighted area.

**Note:** The highlighted area does not actually include the very last peg at the very edge of the highlighted area.

The **Clef** field, if present, indicates the clef in which the event will be inserted (or removed from). Most events affect only one clef at a time, and therefore you must choose the clef and this field will be preset based on where you had initially right-clicked with the mouse on the Notation window (you did this to get the pop-up menu that launches this dialog). For example, if you had right clicked on the treble clef, then this will be set to treble.

When **Snap to notes toward beginning / end of range** is enabled slurs, crescendos, and decrescendos will be based on notes that exist at the beginning and end of the specified range.

The **Offset** field, if present, lets you adjust make adjustments to the vertical position of an event, e.g. slurs or chord height.

The **Start Time** field is the start time of the event (in Measures:Bytes:Ticks).

**OK – Insert Event** – exits this dialog and then inserts the event into the notation track.

**OK – Remove Event** – exits this dialog and then REMOVES the event (if it exists in the specified time range) from the notation track.

**Cleanup Orphaned Notation Controller Events**
This command will remove notation symbol events (such as staccato) that are no longer close enough to a note to display properly.
Chord height adjustment
Use this to adjust the height of a certain chord by adjusting the “Offset:” value in the Notation Event dialog.  

Note that a positive value moves the chord symbol lower, and vice versa.

Modes
Clicking on another notation mode will change to that screen while staying at the same location in the song.

Editing Note Values
Right click on a note.  This brings up a variation of the right-click window with added commands for editing or deleting notes.  Click on Edit Note to launch the Note dialog.  In the Note dialog box, you can manually change the characteristics of a note by entering the exact values you wish for any given note.  For example, you can change the velocity and duration by increments of 1 tick, as well as the note's pitch and relative positioning in the bar.

There are spin buttons in the note attributes window.  Holding the spin increments continuously, and Shift-clicking (or right-clicking) increments by a higher amount.

Shift-clicking on the spin buttons changes:
- the pitch of a note by an octave instead of a semitone.
- The velocity, duration or time stamp by 5 instead of 1.

For example, to change the octave of a note, Shift-click (or right click) on the spin arrows.  

Click on Delete Note in the right-click menu to remove the selected note from the Notation.

Select a region of notation to edit
To select a region of the notation you can Shift+click on the end point to easily select a large area.
- Select a small region by dragging the mouse.*
- Enlarge the region by Shift-clicking on the end point.

*Note: Shift-click is also used to enter a sharp (#) note, so the selection via Shift-click requires that a small region be already selected.
Staff Roll Notation Mode

Click on the Staff Roll notation mode button to enter the Staff Roll mode.

This mode is similar to the Editable Notation Mode, except that the beats begin right on the bar line. You can see the duration of the note visually represented by a horizontal blue line and the note's velocity displayed as a vertical blue line.

Tip: If you can't see these lines, press the [Opt.] button to check that "Show Note Durations, Show Velocity Lines," and "Show Bar/Beat Lines" options are enabled.

Using the Mouse to Edit Velocity and Duration

There is an additional function available in this mode; right mouse drag. Place the mouse cursor on the note head and hold down the right-mouse button. Then, starting at the note head, drag the cursor horizontally to set the note's duration, or drag it vertically to set the note's velocity.

Piano Roll Window

For advanced editing of notes plus graphic controller editing, go to the Piano Roll window, either by selecting the Piano Roll button on the toolbar, or the Window | Piano Roll Window menu item.
Notation Window Options

Press the [Opt.] button in a notation window to bring up the Notation Window Options dialog box:

**Track Type**
Normally you'd leave the track type set to Single Channel, but you can also set it to Multi-Channel, Guitar, or Piano.

**Multi (16) - Channel**
All MIDI channel assignments are preserved and output on playback. This would be useful for importing an entire MIDI file, and playing it from the Melody channel using a silent style.

**Guitar**
MIDI channels 11 to 16 are assigned to the guitar strings 1 to 6. Correct guitar tablature replaces the bass clef, the notation will be up an octave, and guitar channel assignments are saved with MIDI files.

**Piano**
In this mode, channels 8 and 9 are treated as the left and right hand of a piano part.

**Triplet Resolution (Swing)**
Band-in-a-Box automatically sets the resolution whenever a style is loaded. When a style has a triplet feel (such as Jazz Swing or a Shuffle style), Band-in-a-Box selects Triplet Resolution. This ensures that Jazz eighth notes (swing triplets) are handled correctly. When a style with a straight feel (Pop, Latin) loads the Triplet Resolution setting is automatically turned off. Examples would be many of the Pop and Latin styles. Then the notation shows even eighth notes, not triplets, and each note and duration is rounded to the nearest sixteenth note when displaying the music.

**Show Bar/Beat Lines**
This setting is for the Staff Roll mode only. When turned off (unchecked) only the staff lines will show, helpful for editing note Duration and Velocity lines.

**Show Note Durations**
A Staff Roll mode setting to show or hide the horizontal Duration lines.

**Duration Line Color (Green /Blue)**
There are two color choices for the Duration lines, green and blue.
Snap to grid lines
If the Snap To Grid Lines checkbox is checked, the inserted note will be lined up with the closest grid line. This is similar to the way a graphics or typesetting program aligns elements accurately on a page. This means that you don't have to click exactly on the beat to have the note inserted precisely on the beat.

Scroll Ahead
The Notation window can be set to scroll 1 or 2 bars ahead of the music without interfering with your view of the current notation. To enable this feature, select the number of bars you wish to scroll-ahead in the Notation Window Options (1 or 2). Select zero bars to disable this feature. When the notation scroll-ahead feature is enabled, the lyrics will also scroll ahead.

Highlight playback notes in Red
Good sight-readers who like to read ahead can use this option to disable the highlighting of notes in red as the song is playing so it won't be distracting.

Note Colors
Notation can display notes in different colors based on absolute note names or relative to chord or key. Colors are definable; the default color scheme is one that was introduced by the Russian composer Alexander Scriabin (1872-1915).

Colored notes will appear in color for printout on color printers or when saved in a color graphics file.

Pressing the [Edit] button launches the Note Color Editor dialog.
Change the colors by clicking on the color above the note name.
Pressing the [OK-Save] button will close the dialog and save the file as c:\bb\default.NCL.
You can also save/load different NCL files for different color sets.
Note Names

There is an option to display note names in the center of the note head. You can display absolute note names (A, Bb etc.) or you can display numbers relative to the key or the current chord. This is helpful for learning to read music. Combined with the ability to display large font sizes, this achieves the big note look common to “EZ-2-Play” music books.

Channel numbers are also displayable on the notation. When editing notes, it is often helpful to see the channel number of each note. By setting Note Names to “Channel Numbers” you’ll see the channel number for each note written into the note head of the notes. This is useful (for example) when viewing an entire MIDI file that you’ve loaded onto the Melody track, and want to examine the channel information, or for editing a guitar track that uses channels 11 to 16.

Notation Fonts

You can use the PG Music fonts or Jazz fonts for your chords and notation. Or you can choose Arial or any other font on your system for chords, lyrics, text, and titles. The Jazz fonts have the “handwritten manuscript” look. It’s a great alternative to music fonts that look too “computerized.”

To select just the Jazz music font select the “Use Jazz Music Font” option, then choose your Chord, Lyrics, Text, and Title fonts.

Click [Regular Fonts] for a quick overall change to regular fonts in the Notation window.

The [Jazz Fonts] button installs a pre-selected group of Jazz fonts.

The [Arial] button installs the regular notation font and Arial for everything else.

You can select from any of the fonts installed on your computer using the settings found in the Notation Options dialog.

Check “Use Jazz Music Font” to use the Jazz font, and check “Jazz Symbols” to use shorthand Jazz chord symbols in the notation.

The Lyrics and Text fonts appear in the Notation window, the Lead Sheet and the printout.

The Title font is used for the Titles, Composer, and Styles names that appear on the Lead Sheet window and printout. You can choose from selected fonts, or use the “Other…” selection to use any font. For example, you could use *PGJazzTextExtended* (PGTextje) for a jazzy look.

Note: Using the PG Music notation and text fonts requires that they be installed in your Windows | System directory. The fonts are installed automatically with the program.
Jazz Chord Symbol Graphics (circles, triangles)

Jazz and Pop music often use certain non-alphabetic symbols for chord types. These include a delta (triangle) for major chords, a circle for diminished, and a circle with a slash for half-diminished. Also, tensions like b9 and b13 are stacked vertically and contained in brackets. You can now select this option, and see these symbols for display/printout on the Chord Sheet, Notation, and Lead Sheet windows.

The Jazz Chord Symbol Graphics can be displayed independently on the Chordsheet and the Notation or Lead Sheet windows.

To get the Jazz Chord Symbol Graphics on the Chordsheet, choose Opt. | Preferences | Display Options and set “Chordsheet Font” to “Jazz Chord Symbols.”

You’ll then see a chord sheet like this.

To see the Jazz Chord Symbol Graphics on the Notation/Lead Sheet printout, set the Notation Options. The Notation will then look like this.

The Lyrics and Text fonts appear in the Notation window, the Lead Sheet, and the printout. The Title font is used for the Titles, Composer, and Styles names that appear on the Lead Sheet window and printout. You can choose from selected fonts, or use the “Other…” selection to use any font. For example, you could use PG Jazz Text Extended (PGTextje) for a jazzy look.

Note: PG Music notation and text fonts are installed automatically by the program in your Windows System directory.

Bars/Screen
This option lets you to choose the number of bars per line for both the on-screen notation display and printing.

Guitar Chord Diagrams
These are available on the notation, lead sheet, or printout for Folk, Pop, and Jazz voicings. There is an option to show the fret numbers on the diagrams.
Tab
When set, the Guitar and Bass parts will print tablature notation.

Show fret #s on chord diagrams
This will display the fret numbers for each string on the guitar chord diagrams.

Load notation layout w/songs
When this box is checked your Notation Option settings will be saved with the song and restored the next time you load the song.

Show Key Signature
If turned off, you won't have the key signature box displayed on the Notation Screen. This will save some space on the screen.

Transpose Options
These preset transpose settings for non-concert instruments like brass and woodwinds will auto-select the correct transpose settings and clef split points for the instrument. For example, Trumpet +2 will write the music up 2 semitones, and the split point will be adjusted to display the music in treble clef.

Guitar and bass settings are also included.

Transpose
The Transpose setting lets you manually adjust the Notation window to display notes either higher or lower than their actual pitches.

Clefs split at
This setting determines the split point for placing notes on the Bass or Treble clef. The default setting is C5, middle C. Use a higher split point, such as C6, if you want notes up to a G above middle C written on the bass clef with ledger lines.

Max Ledger Lines
You can specify an upper limit of a note range so that high notes won't result in an excessive number of ledger lines. The default is 6, which would show a maximum of 6 ledger lines above the treble clef staff.

Show Velocity Lines
This is a Staff Roll mode setting to show or hide the vertical Velocity lines. Line color is determined by the Duration Line Color setting.

Use chord scale for enharmonics
The sharps and flats in Band-in-a-Box notation are context sensitive to the chord names. For example, if you are in the key of Eb, and the chord is E7, a G# note will show up as G#, and not Ab. This means that the notation accidentals will automatically show up correctly.

Enharmonics for chord tones are automatically based on the chord.
Enharmonics for passing tones are based on chords if “Use Chord Scale Enharmonics” is set to true.

For example, on an F#7 chord in the key of Eb, the Ab note is part of the F#7 scale (as a G#, the 2nd of the scale), but is also part of the Eb key of the song. If you want to display based on the chord scale, setting “Use chord scale enharmonics” will display the note as a G# instead of an Ab.

**Engraver Spacing**

This is another one of the program's intelligent features which spaces the Notation appropriately to avoid overlapping notation while accounting for space required by accidentals, rests, etc. This feature is visible only in Standard Notation mode.

**Notation Settings**

**Tick Offset**

The “Tick Offset” on the notation options is one of the keys to "great looking notation." It accounts for playing that is before or behind the beat. The track is automatically scanned to determine the best tick offset so that you don't have to set this yourself. This results in better looking notation. You can change/override this setting in the Notation Window Options dialog box, but normally the best tick offset is set automatically.

For example, to properly notate Jazz performances, it is sometimes necessary to set the tick offset to approximately -15. This effectively adjusts for a performance that has been played slightly ‘behind’ the beat or, in Jazz terms, “very laid back.”

**Minimize Rests**

When checked, Band-in-a-Box will eliminate unnecessary rests. For example, if staccato eighth notes are displayed as sixteenth notes separated by sixteenth rests the setting will remove the rests and show the notes as eighth notes.

**Detect Fine Resolution Notation**

Improved auto-transcription identifies and correctly displays up to 128th notes. If for some reason you prefer to disable it, there is an option to do so. To set a beat to a certain specific resolution right mouse-click on the Time Line located at the top of the Notation window. You'll then see a Beat Resolution dialog where you can set the resolution for both the Treble and Bass clefs.

**New Line each**

Use this setting to automatically start a new line on each chorus, on each chorus and the intro, or on each part marker. It applies to the Lead Sheet notation screen and to printing.

If you want to control how many bars per line get displayed for a regular (non-fake sheet mode) display, use the **Edit Settings for Current Bar (F5)** options, and select “Notation - Start a New Line” on bars that you’d like a new line of notation. That setting, in combination with the Notation Window Options setting for “Bars/Screen,” and “New Line each” allow you to save custom settings for bars per line in non-fake sheet mode.

**R/L Cursor Edits**

This is used in the Keystroke Note Editing features.

**Number Font Size %**

This will change the bar number font size in a percentage range from 10% to 1000%.
Display Font Size %
To select the notation font size for display, enter the Display Font Size as a percentage, either more or less than 100%. The same setting is available in the Lead Sheet window and the Print dialog.

Chord Vertical Position

This controls how high the chords will be written above the staff. If set to = 5 the chords will be written 5 notes above the top of the staff. If your piece contains a lot of high notes, then set the chord position to a high setting.

Lyric Position
You can adjust the height of the lyrics by setting the lyric height (smaller values like –8 are higher on the notation).

Auto-Hand split Piano track
When checked, the Piano track (not any other track) will be displayed on both clefs with intelligent hand-splitting. You can print out the Piano track with the hands separated.
You can also manually split a piano part on a Melody or Soloist track using the intelligent hand-splitting routines. The left/right hands display in red/blue on the big piano, and on the bass/treble clefs on the notation. For example, if you have a MIDI file that is a solo piano piece, File | Open MIDI file will put the music on the Melody track.

Then choose Melody | Edit | Utilities | Piano Hand Split. Make sure that Melody | Track Type is set to piano. You will then see the piano part split into 2 hands intelligently.
More button

The [More..] button opens the Other Notation Options dialog.

**Other Notation Options**

**Inserted Note Defaults**
These settings determine the default values for notes that you enter manually.

**Duration %**
Notes are not always played for their full duration. If a whole note is inserted with a duration of 80%, the note would play for 80% of 4 beats = 3.2 beats.

**Velocity**
The loudest possible note has a velocity of 127; a velocity of 0 is silent.

**Channel**
Assign the MIDI channel of the inserted notes.

**Play Inserted Notes**
When checked, notes that you insert will sound briefly as they are inserted. This lets you hear that the note you inserted sounds correct.

**Advanced Notation Settings**
These advanced settings give you control over the clean notation features.

**Chord Note Separation in MS**
This lets you set the width of chords. Band-in-a-Box will display a new group of notes on the notation for every chord. If you know that a track is single notes and therefore couldn’t have any chords, set the chord note separation to a small value like 10ms and then every note will be displayed on a new note stem. The chord width parameter is also used for the “chord step advance” feature.

**Glitch Duration in MS and Glitch Velocity**
When set properly, “Glitches” will not be shown on the notation. Any note less than a certain length of time or less than a certain velocity can be filtered out.

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Line Thickness Settings
These settings allow you to control the thickness of various line elements of the notation. For example, if you set the Bar Line width to 200%, the bar lines will be twice as wide, and easier to see. This affects display and printout.

Show Popup Hint for Note Properties
If this is checked the note properties pop-up will open if you hover the mouse cursor over a note in the Editable Notation window.

Defaults button
Click [Defaults] to have all modifications revert back to factory settings.

Keystroke Note Editing
You can easily edit notes using only keystrokes. By stepping through the notes one-by-one, when a note is highlighted you can change the pitch using the cursor keys, and other values (timing, duration, channel) with other hot keys. This speeds up editing of notes. To use this function, you do the following:
1. Open up the Notation window.
2. Move the mouse cursor to the note that you want to edit, and then press the Chord Advance (INS or DEL key on the Numeric Keypad). This highlights the current note.
3. With the note highlighted in red, use the cursor up/down keys to change the pitch of the note. You hear the pitch change as the note changes.
4. Use the cursor left/right keys to change the note's start time, duration, channel, or velocity (depending on the setting of the “Right/ Left Cursor Edits” field in the Notation Options Dialog.

Press the Esc key or [Stop] button when you're done.

Section Text for Notation
You can add custom Section Text and Boxed Text messages at any position in the notation track, with optional box to appear around the text.

To put a section text comment on the notation track:
- Open up the notation window, and press the [N] button to enable editable notation.
- Right click on the track at the point that you want to enter the section text. Answer YES to the question “Would you like to enter Section Text?”
- This launches the Section Text Event dialog box that allows you to type in the text. You can set the text type to “Boxed” or “Regular.”
Scrub Mode on Notation

Scrub mode allows you to move the mouse over a group of notes and hear them playing. To enable the scrub mode, press the Scrub button in the Notation window toolbar. Then hold the mouse and drag it over the notes that you want to hear.

Lead Sheet Window

The Lead Sheet window displays a full screen of notation with one or more parts. Other options include a selectable number of staves per page, clefs to show, font size, margin, scroll-ahead notation, guitar chord diagrams, and lyrics. If you like to sight-read along with Band-in-a-Box, this is the window for you.

Launch the Lead Sheet window from the main screen by pressing the Lead Sheet button (or Alt+W keys), or with the Window | Lead Sheet Window menu option. This button is also available from the Standard Notation window.

As the notation scrolls ahead, you can read ahead without waiting for a page turn. During playback, red rectangles highlight the current bar. If the bar is empty (or in Fake Sheet mode), the Lead Sheet will draw the staff lines and bar lines in red.
The Lead Sheet is also useful as a kind of “Print Preview” feature, as it offers you the ability to correlate the on-screen notation to a printout.

You can move around the Lead Sheet window in various ways. Cursor keys and mouse clicks will move a small blue rectangle around the screen, which lets you type in chords at that location. Double-clicking the mouse at any bar will start playback from that position.

**Selecting Parts in the Lead Sheet**


To view multiple parts click on the button for the top part you want to view, and then hold down the Ctrl key and click on the other parts you want to view in the order you want to see them, from top to bottom. You will then see a group of tracks, displaying in the order that you have requested them. To revert to a single track of notation, simply click on a track without holding the [Ctrl] key down.

There is an option in the Lead Sheet Options dialog to allow you to display the chords above each track, or just the top track of the notation. If you press [Print] from the Lead Sheet window you will be able to print out the multiple tracks of notation.
Lead Sheet Options Dialog

Pressing the [Opt.] button in the Lead Sheet window or the [Leadsheet] button in the Preferences dialog launches the Lead Sheet Options dialog.
The settings in this dialog are applicable to the Lead Sheet window only. If you want to set options that are shared by the Lead Sheet window and the Notation window, press the [Notation Options…] button.

Lead Sheet Options

**Treble Clef and Bass Clef**
These checkboxes choose which clefs will display in the Lead Sheet view.

**AutoSet Clefs**
When set Band-in-a-Box will attempt to pick the clef for you, automatically displaying the bass clef when you are on the bass track or any other track with low bass notes. It will show both clefs when on the piano or drum track.

**Clef Sign Every Line and Key Signature Every Line**
By default, the Clef and Key will be shown at the beginning of every page, but if you want one every line, you can check these options.

**Chords and Staff Lines**
Both are shown by default. Uncheck if you don’t want them to display.

**Show Bar #s**
Choose whether the bar numbers will be shown for each bar, only at part markers, or not at all.

**Show Title**
If set, the song title will be displayed along with other information like Composer Names and Style information that is set in the Print Options dialog of the Notation window. To set these options choose File | Print from the menu.

**Fake Sheet displays multiple lines of lyrics** shows lyrics for 1st and 2nd endings or multiple choruses stacked as multiple lines on the fake sheet.
Fakesheet bars/line

You can set a custom number of bars to display on each row of the fake sheet.

For example, enter “4, 6, 4” in the Lead Sheet Window options and the program will use 4 bars for the first row, 6 for the second, and 4 for the rest.

**Fakesheet include ending bars**

Fakesheets can optionally include the 2-bar song ending.

**Restore Defaults**

You can reset all the Lead Sheet Options back to default settings by pressing the [Restore Defaults] button.

**Notation Options**

To set Options that are shared by the Lead Sheet window and the Notation window, press the [Notation Options…] button.

**Margins**

Set margins for the Lead Sheet window, just like the margins in a word processor. For example, if you want the lead sheet window to only take up the top part of the screen, set a bottom margin (of, say, 2 inches) and then make the lead sheet window smaller by pulling the bottom up.

This feature has no effect on printout; the **Print** dialog has its own margin settings.

**Show Chords above each track**

When using multiple tracks of Notation, this determines whether each track will show the chord names or not.

**Show track names for multi-track notation**

If checked, the Band-in-a-Box track names will be inserted at the start of each part in the multitrack notation display.

**Harmony display**

- **[Convert Harmony to track]** will add a harmony to an existing Melody.
- **[Remove]** will remove the harmony from the track.
- **Split Harmonies to different tracks** enables the splitting of the harmonies to different tracks on the lead sheet.
- **Show Harmony Voice** allows you to select ALL tracks, which will cause each track to display on a different track on the Lead Sheet. Or select a specific Voice to display only that voice. For example, if you choose “Voice 2” and press OK, you’ll now see just voice 2 of the harmony.

You can control the volume of the selected harmony voice relative to the other voices in the harmony. The Play Volume of harmony voice setting can be set to:
- Normal: Harmony plays as normal.
- Solo: Only the selected voice will play.
- 50% Solo: Selected voice is much louder than other voices.
- Quiet: Selected Voice is much quieter than other voices.
- Muted: Selected Voice is muted.

These settings are useful to sight-read along on harmonies, and learn to hear inner voices of a harmony.

**Staves Per Page**

The number of staves shown in the lead sheet can be set by typing in a number or using the [+] and [-] buttons. If “Auto-Set” is selected, the number of staves will be set automatically, attempting to fit the lead sheet on a single page.

**Font Size**

Choose the font size with one of the preset buttons for popular sizes, or type a number between 45% and 300% in the Lead Sheet Options dialog.

**Fake Sheet Mode**

The Lead Sheet window has its own Fake Sheet Mode checkbox. When it is NOT selected, the lead sheet will work as it always has (in linear mode).

![Fake Sheet Mode](image)

When Fake Sheet Mode IS selected, the form will show like a lead sheet, with only one chorus showing, and 1st/2nd endings and repeats displayed.

The Fake Sheet can show multiple lines of lyrics for 1st and 2nd endings or several verses stacked in multiple lines.

**Multiple lines of Lyrics on Fake Sheet.**

If your song has 1st and 2nd endings or multiple verses of lyrics, multi-line lyrics can be displayed, so you’ll see all verses on the same fake sheet. Load in the song c:\bb\Tutorial - BB 2005\Listen Multi-line lyrics Demo.MGU.

Open the Lead Sheet and select “Fake Sheet Mode.”

---

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This song has a 1st/2nd ending entered, with separate lyrics for each ending. Multiple lines of lyrics will also appear if there are lyrics in multiple verses (choruses).

In the **Notation Window Options**, “Lyric Position” allows you to vertically position the height of the lyrics.

**Lead Sheet Memo**

You can enter a memo to add to the Lead Sheet printout. Click on the [Memo] button in the Lead Sheet to open the **Lead Sheet Memo** window.

You can copy/paste from/to this memo.

The memo will be automatically positioned after the end of the lead sheet and printout. Use extra blank lines in the **Lead Sheet Memo** to control where it displays on the page.

Press the [Choose Font] button to select the font you would like for the memo.

A text block will be appended to the Lead Sheet window and printout. This could be song lyrics that you want appended to the end, multiple verses of lyrics, or any other text.
Harmony Notation Display
Harmonies can be displayed on the Lead Sheet window (or printed) with separate notation tracks for each harmony voice. View each harmony on a separate track, or view/print a single harmony voice. To examine the harmony display features, load in the song “Night_T.MGU.” The melody of this song was previously converted to a harmony using the Melody | Edit | Convert Melody to Harmony option, so this song contains a harmony on the Melody part.

Open the Notation window (Ctrl+W) and you'll see all four voices of the harmony on the same treble clef.

Now open the Lead Sheet window. Band-in-a-Box now recognizes that this is a harmony (generated by Band-in-a-Box), and displays each voice on a separate track of the lead sheet. For example, you can see the first Bb note has the other harmony voices playing G (drop 2), F, and D.
Press the [Print] button to print out “Voice 2.” If needed, press the notation “Transpose Options” to first visually transpose the instrument to Eb for an “Alto Sax” chart.

**Multi-Channel Notation (Sequencer Mode)**

Normally you would want a single part on the Melody and Soloist tracks. But, since MIDI information can have separate channels, it is possible to store 16 separate parts on each of the Melody and Soloist parts. When one of these tracks has been set to “Multi(16)-Channel” we refer to this as sequencer mode.

Now, when you are in this multi-channel mode, output from the Melody/Soloist part will be on whatever MIDI channel the information is stored on, and will not be using the Melody/Soloist MIDI channel.

If you click on the Lead Sheet window, you’ll see the entire MIDI file displayed on separate tracks of notation. This is likely “too much information” to read, unless you are a symphony conductor.

To customize the notation display for sequencer mode, press the Sequencer button, and see the settings for Multi-Channel Tracks.

Press the “CUSTOM channels play/display” buttons to launch the Sequencer Window (Multi-channel track on Melody/Soloist) dialog. Then you can customize which channels will play and display.

**Lyrics**

Band-in-a-Box supports lyrics in three different ways, Note-based Lyrics, Line-based Lyrics, and a Big Lyrics (Karaoke) window. The complete list of lyrics functions is found in the **Lyrics** menu.
Note-based Lyrics

Note-based lyrics offer accurate placement of lyrics by placing a word under each note. As you enter the lyrics, the note is highlighted. Pressing the Tab or Enter key moves to the next note. Note-based lyrics are saved with the MIDI file, so you can use them in your other MIDI programs.

You can enter note-based lyrics by pressing Ctrl+L keys or pressing the [L] button on the Notation toolbar. You will see [Line] and [Para] buttons.

When you are finished a line of lyrics, hit the [Line] button. This enters a backslash “\” line break marker in the current lyric.

Vertical placement is set in the Notation Options dialog. A setting of -10 puts the lyrics directly under the treble clef, higher values put them lower.

Lyrics Event List

You can edit the lyrics using an event list as well. This allows you to enter lyrics at any point, not just tied to a note.

Once you press the # button, you then press the [Edit Lyrics] button. You can then see the Edit Lyrics dialog.
From here, you can edit lyrics, or INSERT new lyrics or APPEND lyrics to the end of the track, or DELETE lyrics. A single lyric event can be 128 characters.

The Lyrics Menu
The complete list of Lyrics functions is found in the Lyrics menu.

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<thead>
<tr>
<th>Function</th>
<th>Hotkey</th>
</tr>
</thead>
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<tr>
<td>Enter Lyrics at current bar</td>
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</tr>
<tr>
<td>Big Lyrics Window</td>
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<tr>
<td>Lyric Document Window</td>
<td>Ctrl+Alt+Shift+L</td>
</tr>
<tr>
<td>Copy Lyrics to Clipboard</td>
<td></td>
</tr>
<tr>
<td>Copy 1st chorus Lyrics to whole song</td>
<td></td>
</tr>
<tr>
<td>Erase all Lyrics</td>
<td></td>
</tr>
<tr>
<td>Erase Note Lyrics only</td>
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</tr>
<tr>
<td>Kill Lyrics Choruses</td>
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<tr>
<td>Move Lyric ahead to timeline</td>
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</tr>
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<td>Move Lyric back to timeline</td>
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</tr>
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<td>Timeshift Lyrics (ticks)</td>
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<td>Insert Beat(s) in Lyrics</td>
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<td>Delete Beat(s) from Lyrics</td>
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<tr>
<td>Edit Lyrics as Event List</td>
<td></td>
</tr>
<tr>
<td>Line based Lyrics</td>
<td></td>
</tr>
</tbody>
</table>

Enter Lyrics at current bar - Opens the Lyric entry box at the current location of the timeline or highlight cell.

Big Lyrics Window - Opens the Big Lyrics window for viewing lyrics and, optionally, chord symbols.

Lyric Document Window - displays a full screen of formatted lyrics. Easily copy and paste lyrics to and from your favorite word processor.

Copy Lyrics to Clipboard - This function allows you to copy a song’s lyrics (and/or the chords) to the Standard Windows Clipboard. By pasting this data into a word processor, you can print out the lyrics in the font of your choice. The dialog has options to allow copying of note-based and/or line-based lyrics. With either option you can choose to include the chord symbols, have double or single line spacing, and make margin settings.

Copy 1st chorus Lyrics to whole song - Copies the note-based lyrics for the first chorus to the rest of the song.

Erase all Lyrics - Erases note-based and line-based Lyrics.

Erase Note Lyrics only - Erases only the note-based lyrics.

Kill Lyrics Choruses - Select to kill lyrics in the First Chorus, Middle Choruses, or Last Chorus from a list box.

Move Lyric ahead to time line - If you have a note-based lyric that you want to time shift ahead or back, you can click on the time line at the destination that you want, and then choose this item. You can also shift lyric times using the Lyric Event list.

Move Lyric back to time line -

Timeshift Lyrics (ticks) - These are functions that apply to the entire lyric track. They are useful when you're inserting bars or beats into the song and need to move the lyrics around to keep them in sync.
Delete Beat(s) from Lyrics

Edit Lyrics as Event List
- Opens the **Edit Lyrics** dialog with Edit, Insert, Append, and Delete functions.

**Line-based Lyrics** opens a sub-menu with additional features.

<table>
<thead>
<tr>
<th>Copy Line Lyrics to Note Lyrics</th>
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</thead>
<tbody>
<tr>
<td>Move Line Lyrics to Note Lyrics</td>
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<tr>
<td>Auto-Update all songs in folder to Note-based Lyrics</td>
</tr>
<tr>
<td>Move Lyrics Up or Down row(s)…</td>
</tr>
<tr>
<td>Erase Line-based Lyrics only</td>
</tr>
</tbody>
</table>

**Copy Line Lyrics to Note Lyrics** converts line-based lyrics to note-based lyrics. It is imprecise, because the line-based lyrics don't correspond to individual notes. But you can edit the positions of the note-based lyrics using the event list or the Move Lyric back/ahead to time line functions discussed above.

**Move Line Lyrics to Note Lyrics** works like the Copy Line lyrics to Note Lyrics function, except it erases the Line-based lyrics.

**Auto-Update all songs in folder to Note-based Lyrics** will update an entire folder worth of songs, copying the Line Lyrics to Note Lyrics. Only Note-based Lyrics get displayed in the Big Lyrics Dialog, so this feature will allow you to see these lyrics in the Big Lyrics Window.

**Move Lyrics Up or down row(s)…** moves a line of line-based lyrics up/down a number of rows.

**Erase Line-based Lyrics only** erases only the line-based lyrics, preserving the note-based lyrics.

**Tip:** Lyrics are printable above or below the chord line, or printed separately after song end. Lyrics will also support international characters such as é, ñ, and ó.

**Lyric Document Window**
The Lyric Document window displays a full screen of fully formatted lyrics so you can easily copy and paste lyrics to and from your favorite word processor. If you have the lyrics available you can quickly paste them into Band-in-a-Box.

You may already have the lyrics to your song typed into a word processor, nicely formatted with font/color/bold choices etc. Previously, you would need to retype them into Band-in-a-Box and would lose your formatting. Now you can simply Copy/Paste them to/from your word processor. This allows you to quickly add lyrics to any Band-in-a-Box song.

You can open this window by choosing Window | Lyric Document Window, or pressing Ctrl+Alt+Shift+L. In addition, if “Auto-open lyrics window for songs with lyrics” is set to true in the Lyric Window Options dialog (Opt. | Preferences [Big Lyrics]), the Lyric Document Window will open up automatically when the song is loaded, and close when the next song is loaded.

To use the window type or paste in text from a word processor. You can select fonts and colors as you would in a word processor. Since the data is stored in RTF format, it should look very similar to the appearance it would have in WordPad.

You can transfer “line based” or “note based” lyrics from the Notation Screen of Band-in-a-Box to the Lyric Document window. Press the Copy Lyrics button to do this. This launches the Options for Copy Lyrics to Clipboard dialog allowing you to select which elements to copy (line lyrics/ note-based lyrics/ chords) and formatting options. Then click on [OK Copy to Text Clipboard]. A message will tell you that the lyrics have been copied to the clipboard. Click on [OK] to paste the lyrics into the Lyric Document Window.

You can also print directly from this window and copy to/from the Song Memo (using copy/paste).

Big Lyrics (Karaoke) Window

The Big Lyrics window is great for sing along or Karaoke. It opens from the Lyrics menu, with the keystrokes Ctrl+Shift+L, or with the [L] toolbar button.

Each word is highlighted as it plays, and the window can be customized by clicking on the [Options] button. Click on any word in the Big Lyrics window to start the song playing from that point.

Lyric Window Options

Add chord symbols, customize your color scheme, choose a favorite font, and select a size in the Lyric Window Options dialog. Chords can be displayed on a row above the lyrics on the Big Lyrics window.

On the Big Lyrics window Options dialog, if you set “Show chord symbols above the lyrics,” you then see the chords written on a separate line.

When there are no lyrics for a few bars, the Big Lyrics window displays the chords in a line divided by bars so that they are easy to read.

Separate chord colors are used for the Chords and Lyrics, allowing these elements to be visually separated.
You can also select the color for the chords in the options dialog.

- **Scroll lyrics a page at a time**: With this option selected, the Big Lyrics scroll a page at a time. When the lyric cursor reaches the next-to-last line of the lyrics, it will scroll to the top of the page, allowing uninterrupted reading of lyrics.
- **Auto-open lyrics window for songs with lyrics**: If you have the Lyrics window option “Auto-open lyrics window for songs with lyrics” selected, and a MIDI file (or .KAR) containing lyrics is opened, the lyrics window will open to show the lyrics.

The popular Karaoke file format (.KAR) can be opened directly into Band-in-a-Box just like MIDI files. Chord symbols are displayed (Band-in-a-Box intelligently analyzes the chords of the song), as well as the lyrics from the Karaoke files.

The Big Lyrics window’s [Print] button opens the **Options for Copy Lyrics to Clipboard** dialog. This function allows you to copy a song’s lyrics (and/or the chords) to the standard Windows clipboard. By pasting this data into a word processor, you can print out the lyrics in the font of your choice. The dialog has options to allow “printing” (i.e., copying to clipboard) of note-based and/or line-based lyrics. With either option you can choose to include the chord symbols, have double or single line spacing, and make margin settings.

Process Lyric Lines cleans up the display of lyrics by inserting and/or removing extra spaces in line-based lyrics.

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Printing

Band-in-a-Box prints Lead Sheet style notation with chords, melodies, lyrics and text notes. It will also print instrument parts from your Band-in-a-Box arrangements, either individual instruments or multiple parts. Most songs will fit on one page, so your printout will look similar to a standard fake book.

You can easily make and print out a custom fake book of all of your tunes. Instantly transpose and print parts for brass or reed instruments. Print options include title, bar numbers, composer, style, and copyright information.

Print Options

Pressing the printer button launches the **Print Options** dialog box. Print options include title, bar numbers, composer, style, and copyright.
Include Chords
If selected, this will include the chords of the song on the lead sheet. Remember that you can set the height that the chords will appear in a different dialog box (the Options Dialog box).

Include Notes
If you want only a chord lead sheet with no Notes, then turn this off. Otherwise it should be ON.

Bar #s (new Part)
If set to YES, this will include a bar # written at every part marker, as well as the letter of the part marker. So bar 1 might be written as 1a. There is no option to print out every bar number at this time.

Staff Lines
Set to off (uncheck) to print a “chords only” fake sheet with chord symbols and bar lines but no staff lines or notation.

Template
There are print templates in the print dialog to achieve various printout styles - Normal/Lyrics Only/Chords and Lyrics/Chords Only/Blank Paper. In the print dialog, select the desired print template. To return to “normal settings,” choose the “Normal” template.

Lyrics
Lyrics can either be printed above the chords, below the staff, separately at the end (on a separate page), or not printed at all. Normally lyrics are printed below the staff.
Treble Clef
Normally you will want to include the treble clef unless you're printing a bass part or left hand piano part alone and want to save space.

Bass Clef
For melodies or solos, you probably won't want the bass clef printed. For other parts (piano, bass, drums, etc.) you should set this option to YES.

AutoSet Clefs
With this setting the program will print only the clefs that are necessary. For example, a Melody would probably print with just the treble clef, while a bass part would use only the bass clef, and a piano part would use both clefs.

Tab
Enables tablature display and printout for guitar and bass tracks.

Clef Split At
This determines where the notation will split the treble and bass clefs. Middle C is normally considered to be C5, and C4 is one octave below. For a melody or soloist part, you will probably want the entire part to be printed on the treble clef, so you could choose to split the clefs at C4.

Clef Sign Every Line
Leave this unchecked if it’s not needed and you want an uncluttered look.

Key Signature Every Line
Most modern fake books don't include the key signature every line. If you would like to see a key signature at every line, set this to “Yes.”

Print Note-based Lyrics
Set to “Yes” to print the Melody part with Lyrics, or turn off to print just the music for the melody line.

Print Range
(First Chorus/Last Chorus/Whole Song)
You can either print the First chorus, the Last chorus, or the whole song. When you change this setting, Band-in-a-Box will reset the number of staves per page setting in order to auto-fit the printout to one page, if possible.

Tip: You'll want to print the last chorus in a song that has a tag ending, or if you want to see a 2-bar ending printed.

Custom
A specific range of bars can be printed, either by highlighting a region or entering a range of bars.

To print out, for example, bars 11 to 16 of a song in the Print Options dialog, press the [Custom] button, and enter the range bar 11 for 5 bars. The song will then print only that range of 5 bars.

Include Lead-In
If your song has a lead-in (pickup) to bar 1 then make sure you've checked the Lead-In. Actually, Band-in-a-Box sets this for you by looking for notes in the lead-in measure. You can override this automatic setting, if necessary.

Font Size
This is the font size for the printed music. Changes will be seen in the Print Preview.

Staves per page
Band-in-a-Box sets this setting for you automatically to auto-fit on 1 page, use this to override the auto setting. Remember that the title takes up 1 stave. The “Auto-Set” option will set the number automatically, and will try to fit the lead sheet on a single page.

More... (Print Margins)
Click here to set margins. You can also select the Always fill tempo option, which automatically writes the current tempo on the song sheet.

Title/Style/Tempo/Composer/Copyright
Enter this information in the fields provided. If the title is long the font size will be reduced, and the title won’t be underlined. Titles are limited to 60 characters.
Chapter 7: Notation and Printing

- Click the [A] button to print the title in upper case.
- The [T] button automatically inserts the current tempo setting for the song.
- The [©] button will insert the copyright symbol into the copyright field.
- The [S] button will enter the full style name into the Style field.

Setup Printer

This launches the setup dialog box for your printer. If you choose a new printer, Band-in-a-Box will automatically set this as your default printer. Click on the [Setup...] button to open the printer properties to set paper size, resolution, page orientation and other settings controlled by the printer driver.

Tip: In the Notation Options you can specify an upper limit of a note range with the "Max Ledger Lines" setting high so notes won’t have an excessive number of ledger lines.

Print Preview

This feature allows you to preview what the printed pages will look like by displaying them on-screen.

Use the [Prior], [Next], [First], and [Last] buttons to navigate additional pages.

Press the options button to open the Preview Options dialog.

In the Preview Options you can set the exact number of pixels to display for the print preview, the same settings are also used if you choose to save the pages to a graphics file in the popular JPG, TIF, or BMP file types.

Printing your song to a graphics file allows you to embed your notation in a document, or in an HTML file for use on your web site.

This feature is only limited by available memory. This allows high resolution BMP’s like 2400 x 3000. A BMP of 2400x3000 is 300 dpi for an 8”x10” page.

When saving to a JPG file there are additional quality settings.

When you have selected your file options press the [OK] button.
Display Options

Use this button to display the notation across the full width of the screen.

This button will shrink the notation to display a full page at a time.

Saving the page(s) as Graphics files

The [Save…] button saves the current page as a Graphics file.

The [Save ++] button saves all of the pages to graphics files named songnamexxx.bmp, where xxx is the page number.

With the clipboard button you can quickly copy a bitmap to paste into other applications.

Printing from the Print Preview

You can print the page(s) by pressing the [Print…] button to return to the Print Options and then pressing the [OK – Print] button.

In the Print Options you can set the number of copies to print.

Press the [PrintPage] button to enter a page number and print only that page, not the complete song or a full chorus.

Chords-Only Lead Sheet Display and Printout

Need a simple fake book style chord chart? You can display just the chords in the Lead Sheet window or print out a lead sheet with just chord symbols.

To print a chords-only lead sheet, uncheck the Staff lines checkbox in the Print Options dialog.

There are print templates in the Print Options dialog to achieve various printout styles - Normal/Lyrics Only/Chords and Lyrics/Chords Only/Blank Paper.

In the Print Options dialog, select the desired print template. To return to “normal settings,” choose the “Normal” template.
Printing Multiple Parts

To print more than one track of notation:
- Open up the Lead Sheet window.
- Click the mouse on the track that you want on the top stave.
- **Ctrl+click** (hold down the Control key and click the mouse) on the tracks that you want below the top stave.

You will then see a group of tracks, displayed in the order you selected them.

**Note:** When you are viewing Multiple Tracks of notation, the clefs will be auto-set for you, ignoring the clef settings in the Lead Sheet options window. For example, the bass would always be on bass clef, you won’t be able to see it on bass and treble clef.

Press [Print] from the Lead Sheet window to print the multipart Band-in-a-Box notation.

Print Multiple Songs

Normally, to print out a single song you use the [Print] button in the Notation window. If you want to print out several songs, use the Print Multiple Songs feature to print them all out at once.

Print Preview of Band-in-a-Box multipart notation including guitar chord diagrams.
Chapter 7: Notation and Printing

This allows you to print all of the songs in a subdirectory with one command. This feature is accessed from the File | Print Multiple Songs menu item.

You can set options to refine which songs will get printed. For example, you might want to only print songs in a certain style (e.g. Bossa Novas), or only songs beginning with letters R to Z, or only songs with melodies.

Before you print out a whole bunch of songs, it is important to set the options that you'd like, as the program will use the same options for each song. Use the Print Options dialog box. Perhaps you want to print out only the first chorus of each song, for example. The program will automatically set each song to print out on 1 page if possible.

First, make sure that you are in the correct directory that you want to print. This is displayed in the [Change Directory] button.

For example, if the box under the [Change Directory] button says "C:\bb" then the songs in C:\bb will be printed. If you want to print songs in a different subdirectory, then press the [Change Directory] button.

If you want to print all of the songs in a subdirectory, then press the [All Songs] button. Pressing this button sets the “Start” and “Finish” ranges to start at “0” (blank) and finish at “ZZ.” Since song files with names like 8dayweek.mgu will appear before the letter A when sorted alphabetically, the blank string “0” is used instead of the letter A to ensure the inclusion of all songs.

Normally you'll want the “Range of Songs to Print” set to “All Songs,” but if you've already printed out songs from A to M, and want to resume printing starting at N, you can specify this range N to Z so that you don't have to print out everything again.

If “Only print songs with melodies” is set then only files that have a melody in them (i.e., song files ending in mg?) will print.

“Only print songs with style extension of _” is useful if you want to only print out certain styles. For example if you only want to printout Jazz Swing songs, then you can set this to style 1 which is Jazz Swing. Style 4 is Bossa Nova.

The 24 built-in styles each have a number associated with them. All user styles have a style character of U.

Here are the style #s for the built in styles.

Jazz Swing  1  Heavy Rock  D
Country 12/8  2  Miami Sound  E
Country  3  Milly Pop  F
Bossa  4  Funk  G
Ethnic  5  Jazz Waltz 3/4  H
Blues Shuffle  6  Rhumba  I
Blues Even  7  Cha Cha  J
Waltz (Old) 3/4  8  Bouncy 12/8  K
<table>
<thead>
<tr>
<th>Genre</th>
<th>Number</th>
<th>Sub-genre</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop Ballad</td>
<td>9</td>
<td>Irish</td>
<td>L</td>
</tr>
<tr>
<td>Shuffle Rock</td>
<td>A</td>
<td>Pop Ballad 12/8</td>
<td>L</td>
</tr>
<tr>
<td>Light Rock</td>
<td>B</td>
<td>Country old 12/8</td>
<td>M</td>
</tr>
<tr>
<td>Medium Rock</td>
<td>C</td>
<td>Reggae</td>
<td>N</td>
</tr>
</tbody>
</table>

If your printer requires loading each sheet, you might want the program to beep after each printed song. The “Beep after each printed song” setting is useful to monitor the printout if you aren’t near your printer, because if it stops beeping, then printout has stopped, and you may be out of paper.

“When completed, beep “x” times” will notify you that the job is finished by beeping a specified number of times.

These buttons start and stop printing the multiple songs.

Band-in-a-Box monitors the Print Manager to avoid overloading it with songs to print. So if the Print Manager has more than 2 songs waiting to print, Band-in-a-Box will pause before printing a new song. If your printer runs out of paper, the Windows Print Manager and Band-in-a-Box will wait for you to put more paper in before automatically resuming printout. The status of the Printout is displayed at the top of the dialog box.
Chapter 8: Automatic Music Features

Automatic Songs – “The Melodist”

Feel like composing a brand new song? Using the “Melodist” feature you can compose a new song in the style of your choice, complete with intro, chords, melody, arrangement, etc. All you have to do is choose from one of the many “Melodists” available and press [OK] button. The program then creates the intro, chords, melody, and arrangement in any given style. The Melodist will also generate a melody over an existing chord progression.

Once the song is generated, the chords and melody are part of the regular Band-in-Box tracks, and as such can be edited, printed, saved as MIDI file, etc. You can also regenerate any part of a song to further refine your Band-in-a-Box compositions.

A Melodist “Jukebox” mode creates and performs new compositions in succession. Besides the compositional advantages of the Melodist, utilizing this feature can also be a powerful practicing aid for improving your sight reading by reading the melodies generated in various keys using the Lead Sheet window, and improving your ear by playing along with the chord progressions in the generated songs using the ear training window.

This feature can be a powerful practicing aid for sight reading and improving your ear.

Press the on-screen [Melodist] button to launch the Melodist.

The left side of this screen displays the list of the Melodists available, including Pop, Swing, Bossa, Waltz, Rock, Bebop, and Jazz Ballads.

Selecting the “All” checkbox display, all available Melodists, or they can be filtered by “Genre” (e.g. Dixieland) to show only melodists in that genre.
To filter the Melodists, de-select the “All” checkbox and then check on the genre that you are interested in.

And you can also filter to show/not show melodists from Melodist sets that you don’t have.

Scroll down the list, and pick a Melodist that you’d like to use.

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The Melodist will generate Intro, Chords, Melody Harmony, Style, and Solos using the group of settings preset with the selected Melodist. Scroll down the list, and pick a Melodist that you'd like to use.

**Generate Chords / Generate Melody / Generate Intros / Auto-Titles**

The items that are selected will be generated. The convenient preset buttons will automatically set the appropriate settings to popular presets.

- **Chords & Mel.**
  - The [Chords & Mel.] button will set the checkboxes to Generate Chords & Melody (but not Solos).

- **All**
  - The [All] button will generate Chords, Melody, and Solos.

- **Chords**
  - The [Chords] button sets the options to generate Chords only (no Melody).

- **Melody**
  - The [Melody] button will set the options to generate only a Melody (no chords) over an existing chord progression.

**Insert Bass Pedals**

When selected Pedal Bass figure will be inserted during the intro and at the end of sections.

**Solo in Middle Choruses**

This will generate an improvisation in the middle choruses of the song. Any Soloist can be selected.

**Allow Style Changes**

When selected, this option allows a Melodist to load in the style associated with it. If you don't want Melodists to change the current style that you have loaded, then deselect this option.

**Form**

This selection box allows you to choose between a song generated with a specific form (AABA 32 bars) or “free” form. The AABA defaults to 32-bar form, which is the most popular song form.

If you'd prefer for the song to have no form, you could set the song to “no form” This wouldn't be a very musical setting, but might be useful for practicing or ear training.

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**# Choruses**

This determines how many choruses of the song form (Melodies) are to be generated. For example, if set to 5, the Melodist will generate 5 choruses, enough for an intro chorus, ending chorus, and 3 Middle Choruses. The # choruses setting defaults to the # choruses present in the current song.

**Tempo / Auto Tempo**

The Tempo Setting determines the Tempo of the song, and defaults to the current tempo of the previous song. If the “Auto-Tempo” is checked, the tempo will be set at the tempo range stored within the Melodist. For example, if a Melodist is called “Fast Waltz,” it would have a fast tempo range stored inside the Melodist, and the song would be generated at a fast tempo if the “Auto-Tempo” option is set.

**A2 Transpose**

In songs with an AABA form, it is common for the second “A” section to be transposed. For example, the first “A” section might be in the key of Eb, and the second would be transposed up to the key of Gb. Melodists store these settings, and some Melodists are set to transpose the A2 sections. If you don't want to allow Melodists to transpose the form in this way, set the A2 transpose to none.
If set to “section plus” it will transpose the A2 section, and might also transpose 2 bars early or 2 bars late. The song will only get transposed if the particular Melodist is set to transpose the section. This feature is discussed in more detail in the Melody Maker section.

This area determines the key for the song. If set to “Any Key” the program will randomly pick a key for the song, weighed more heavily toward the popular keys (C, F, etc.). “min. key%” determines what % of songs are generated in minor keys vs. major keys.

If set to 20, then 20% of the songs would be generated in minor keys.

Select whether you want to generate the Whole Song or just part of it. If you select Part of Song, you can specify which bar and chorus to start at, and how many bars to generate.

Tip: You can also set the “Song Key Combo” box to a specific key, or set it to use the current key of the previous song. If you want to generate only part of a song, an easy way to set the range of bars is to highlight/select the bars by dragging the mouse over the chord area prior to launching the Melodist dialog. Then the “Generate” form will be automatically set to “Part of Song” and the range of bars will be set to the selected area.

Replace Thru form
If you have set the Melodist to “Generate Part of Song” this would in the example above generate only bars 5 and 6 of the song form in the “A” section of an AABA form. If the form of the song is AABA, you'd normally want the regenerated section to be repeated throughout the form in all of the “A” sections. this option will instruct the Melodist to copy the generated bars 5 and 6 to the other “A” sections (bars 13,14 and 29,30).

Tip: If you'd like to remove the current Intro, Melody, or Soloist Track, press the [Kill Intro], [Kill Melody] or [Kill Soloist] button.

Press the [Search] button and type in part of a Melodist name, memo, style name, or other text associated with a Melodist. This will cause the Melodist selection to change to the next item containing the text. Similarly, you can type in a # of a Melodist and press the [Go To #] button.

The Memo area displays a Memo for the current Melodist, as well as the name of the database (e.g. MELPOP1.ST2) that the Melodist is based on.

Instrument / Harmony / Style / Change Instruments
Melodists can store patch and harmony settings, and these are displayed in the Instrument area of the Melodist selection screen. You can also set the instrument to change each chorus. You can override the settings of the current Melodist and choose your own patch, harmony and change instrument settings in these controls.

The Melodist Juke Box
Press [Juke Songs Now] button to launch the Melodist Jukebox. It will continuously generate new songs and play them in Jukebox fashion. Using the “From…To” setting, you can set the range of Melodists to include in the Jukebox, or keep the Jukebox on the same Melodist by deselecting “Change Melodists.”

Write to track
Usually, the Melodist is written to the Melody track. If you'd prefer the Melody to be written to the Soloist track, perhaps as a counter-melody, then set this setting to Soloist.

The Favorites button in the Generate Chords and/or Melody dialog allows you to pick a Melodist that you've used recently.
The **Favorite Melodists** dialog keeps track of the last 50 melodists that you've used, so you can easily recall them.

Highlight the melodist you want to use and press the [OK] button, or double-click on the selection you would like to make.

If you'd like to create your own Melodists, or permanently change the settings of existing Melodists, press the [Edit…] button to launch the Melodist Maker.

### Automatic Intro – Song Intros

With a single button you can generate a 2, 4, or 8-bar intro for any song. The chords will be different each time, and you can keep pressing until you get the progression that you want. The intro generated is an appropriate chord progression in the chosen style of music (Jazz/Pop), with optional pedal bass, and leads correctly to the first chord of the song. Intros can also be removed.

Press the [Intro] button or select **Edit | Intro Bars** to generate an intro. Once you press the [Intro] button, the Intro Dialog is displayed.

- **Pressing this button will insert or replace an intro in the song, with the given settings.**

#### Chord Types

- **Jazz** and **Pop** styles of chords can be chosen.

#### Intro Length (bars)

- Duration of the intro can be set to 2, 4, or 8 bars.

#### Starting chord (after intro)

- The starting chord can be specified in the key of C.

#### Pedal Bass

- A pedal bass figure can be inserted throughout the intro.

- **Use Maj7 instead of Maj6** allows the use of Maj7 or Maj6 chords.

#### Remove Intro

- Removes an intro from the song.

Note: The Melodist also has settings to auto-generate intros and song titles.
Automatic Song Title Generation
The Song Title generator names every song that the Melodist writes, if the Auto-Titles checkbox is selected. This feature can be used on its own to suggest titles for your own compositions. It will keep making titles until you get one you like.

Press the [TITLE] button to generate a song title, a new title will appear immediately in the title area of the screen. Click again for another one. Select Edit | Undo Title to go back one title.

Fiesta for Coconut Grove

Customizing the Song Title Generator
These word lists stored in a text file called TITL1.TXT. This file has several sections, each with two sets of words that will be put together. You can add new sections, with an adjective section and a noun section. Please see the comments included in the file TITL1.TXT for details on adding text to the file.

Automatic Sound Track Generator - “SoundTrack”

Need to generate some original, royalty-free music for backgrounds, home videos, slide shows, voiceovers, jingles, themes, underscoring scenes, entr’acte, dance routines, ceremonies, or any occasion that calls for musical accompaniment?

The SoundTrack feature allows you to generate music in the style you choose for any length of time you specify. As the “producer,” you select the genre, length of time, instruments, and fade-in/fade-out options. The SoundTrack adjusts the tempo and duration to match the settings, and then allows you to save the file as a WAV, WMA (Windows Media Audio), or MP3 file for further use in your own projects.

Generate original music (over 20 genres) or select from over 50 supplied SoundTrack types (Bluesy/Excite/Healing/Jazzy/Tropics, etc.). For example, you can generate a 30-second audio music clip in the genre of your choice in just a few seconds!

To use the SoundTrack feature, press the SoundTrack button (on the toolbar at right/middle of screen), or choose the Window | Generate Soundtrack menu item.

You will then see the Generate Soundtrack window.

Note: The SoundTrack feature renders to audio files (WAV/WMA/MP3) using DXi or VSTi synths only. You need to have at least 1 DXi/VSTi synth installed for the feature to work. Typical Band-in-a-Box installations include the Roland VSC DXi.
First, you should load in a song. There are several types of songs that you can load in:

You can generate a brand-new-royalty free composition by pressing the [Generate Song Now] button, after choosing a Genre and variation.

You can choose from over 100 premade “SoundTrack” compositions that we have made. These are designed to be suitable for “background” music for various uses.

You can load in existing songs, song demos that we have provided for the styles, or songs that have RealDrums, or finally a button to load in any song. Please note, if using an existing song (composed by someone else), make sure that you have sufficient rights to use the song for your project.

Once you have loaded in a song, you can now choose a portion of the song to use for your project. Assume that you want a 30 second clip of music.

Set the desired duration to 30 seconds.

Then press the [Adjust # of bars and Tempo] button. This will give a number of bars at a tempo that closely matches your current settings, that will last 30 seconds.

Adjust the “Starts at Bar” of the music. To start at the beginning, choose bar 1.

You can choose which instruments to include in the arrangement.

Use the [Play] and [Stop] buttons to hear the work-in-progress. You can also loop the song playback.

Now, generate your SoundTrack file. This will save a file in WAV, WMA, or MP3 format.

Set Fade-in, Fade-Out options in seconds for the audio clip.

You can hear your finished audio clip by pressing the [Preview] button.

**Automatic Solo Generation – “The Soloist”**

To select a pre-made Soloist, click on the [Soloist] button on the toolbar, or press Shift+F4, or choose Soloist | Generate and Play a Solo. The “Select Soloist” window opens.
Pick a type of Soloist in the “Soloist type” list box and choose the appropriate style, or enable the “Auto” checkbox and press the [Suggest] button next to it. This brings up a list of Soloists in that style; simply choose which one you like.

You can select genres of soloists (e.g. Modern Jazz) and see only soloists in that genre. To do this, de-select the “All Genres” checkbox, and then check on the genre that you are interested in.

The [Fav] button on the Select Soloist window brings up a list of the most recently used (favorite) 50 Soloists. The Soloists that you use most often will likely be at or near the top of this list, making it easier to select the Soloist you want than scrolling through your entire list of available Soloists.

Select the “Double Time?” checkbox (set to “true”) if you want a double-time solo; 16th notes instead of 8ths.

If you can’t find the Soloist you’re looking for, try pressing the [Search] button to type in part of a name to search for.

Go To# box allows you to select from the list exactly which Soloist to choose (if known).

The “Memo” field has a brief description of the Soloist style, and the name of the current database is shown.

The pre-made Soloists may set the style, instrument, and harmony, but you can change these settings to your own choices.
The [Clear] buttons will remove the currently selected Instrument, Harmony, or Style.

Use the [Choose(1)] button to select an instrument and automatically set the soloist note range for that instrument.

For a harmonized solo, choose a harmony from the Harmony list.

Use the [Choose(2)] button to select any style from the \bb folder.

**Solo Mode**

In Normal Solo Mode, Band-in-a-Box solos in the normal way of improvising choruses of the song.

Several other options are provided for adding improvisation to your song in a variety of ways, including Fills, Around Melody, Trade, Solo Wizard, and a user-defined Custom setting.

**Fills%**

Fill instructs the Soloist to “noodle” on the song for a user-defined period of time (% box).

**Around Melody**

To solo around the Melody, do the following:

- Open up a song that has a Melody, preferably a sparse Melody with some space in it that a Soloist might be able to “jump in.”
- Press the [Soloist] button. Select the Solo Mode “Around Melody.”
- Set the Soloist to play in All Choruses, and uncheck the “Mute Melody in Middle” option.
- Press [OK] and the Solo will be generated, playing riffs at times when the Melody isn't playing.

**Trade**

There is a type of soloing where different soloists “trade” phrases. For example, “trading fours” refers to a solo lasting four bars, usually followed by a different melodic solo or drum solo for the next four bars. Band-in-a-Box can “trade” 2, 4, or 8-bar phrases.

This means that you can alternate your own phrases with those played by the Soloist. Click on the number button beside the “Trade” radio button to toggle between trading 2’s, 4’s, or 8’s. Band-in-a-Box can generate the first phrase or the second phrase.

**Soloist Wizard**

This option in the Select Soloist dialog enables the “Soloist Wizard.” As you play notes on either a MIDI keyboard connected to the computer or on the QWERTY keyboard, the program will play “correct” notes in the style of the current Soloist! This means that you can play a “perfect” solo every time, simply by pressing any key on your MIDI keyboard or QWERTY keys.

Tip: The Soloist will use the velocities you play or pick its own, depending on the setting in Opt | Preferences | Use MIDI velocity for Soloist Wizard.

**Custom Solo Generation**

The [Custom] button located on the Soloist Selection dialog launches the Generate Solo for a Specific Range of Bars dialog. This allows you to set the range for the solo:
In real life, a Soloist tends to play a couple of extra notes after the solo section ends. Setting “OK to solo for an extra beat” allows the Band-in-a-Box soloist to behave in the same way.

If you want to overdub a solo and you have multiple solo tracks going at once, de-select “Overwrite existing solo in range.”

Once you press the [Generate Solo Now] button, the portion of the solo that you have selected will be (re)generated. The song will automatically start playing 2 bars before the new part, so you can quickly hear the new solo.

There are additional buttons and checkboxes to further define the Soloist.

**Auto-Suggest**

If the “Auto-Suggest” checkbox in the Select Soloist Dialog is on, you will find that an appropriate soloist is already selected for you. If you would like a different soloist, press the [Suggest] button and Band-in-a-Box will suggest another appropriate choice. Keep pressing until you are satisfied with the choice.

**Load/Save settings w/song**

These settings allow the saving and loading of Soloist settings. Enable these checkboxes if you wish to load and save these settings with a song.

**Force to # of Choruses**

Allows you to set a song to a definable number of choruses (e.g. 5) so that there are enough choruses for everyone to take a turn Soloing. This box allows you to quickly decide how many choruses you would like Band-in-a-Box to generate without having to open the Play | Looping | Force loaded songs to # choruses menu item. The default is 5. Note that when this setting is enabled (by setting the checkbox to “true”), all songs subsequently loaded using this Soloist will also change to the number of choruses indicated in this box.

**Solo Which Choruses?**

Select which choruses you would like the Soloist to solo over. Choose from first, middle, last, any combination, or all three choruses.

Press the [All Solo] button if you wish to have the Soloist play over everything.

Press the [Melody & Solo] button to have the Melody play the first chorus, then have the Soloist come in on the second chorus, then have the Melody “play the tune out” on the last chorus.

**Melody Influenced Solos**

When musicians solo for a song, the solo is typically influenced by the melody as well as the chords. Band-in-a-Box can also allow the melody to influence the type of solo generated by its Soloist feature. The result is a much better solo generated for the song.

A strength (%) setting allows you to control how much the solo will be influenced by the melody. Choose the melody influence (%), and one of several presets to control the type of influence (pitches/rhythms/note density, etc.).
To generate a solo that is influenced by the Melody, select the Enabled checkbox in the “Melody Influences Solo” group box.

Then choose the type of influence by choosing a strength (0 to 100%) and a type. The default method works best on simple melodies or Pop tunes, and others work on Jazz and complex melodies.

**Melody Influenced Soloist Settings**

A “Custom” method is available, allowing you to launch a dialog that let’s you change various parameters to control how the solo will match the notes, rhythm, and density of the melody. When this method is selected a [+...] button will display.

Click on this button to open the **Melody Influenced Soloist Settings** dialog.

**Enable Melody Influenced Soloist** – enables melody influenced soloing when selected (true).

**Overall strength** – how much you want the melody to influence the solo.

**First melody note MUST match riff** – the first note of the riff must match the pitch of the melody at this point in the song.

**Last melody note MUST match riff** – the last note of the riff must match the pitch of the melody at this point in the song.

**Overall Melody MUST match riff** – the pitch needs to be found somewhere in the riff for this condition to be true.

Enter Custom settings for melody influenced soloing. The DEFAULT button will return to default settings. If you don’t want to enter custom settings, exit this dialog and use the presets on the Select Soloist dialog.
Target Phrase Anchor Point score – phrase anchor points are points where both the pitch and timing of the Melody note and the riff match each other.

Rhythm Matches – per cent of time that a melody note is found at the same time as the note in the riff at the same point (pitch is irrelevant).

Density # of Notes Matches – the number of notes in the melody compared to the number of notes in the solo. For example, 8 melody, 10 solo = 80%. Note: If set to exactly 49, 59, 69 etc., soloist will stay quieter when the melody is not playing.

If Melody is not playing, then soloist is not playing

Passing Notes acceptable % - percentage of time that passing notes in the riff are OK (if not found in the melody). For example, if set to 20%, it is OK if 20% of the notes are passing notes.

Melody – Favor phrases that match melody – higher numbers will make the soloist follow the melody more.

Soloist Maker

The [Soloist Maker [Edit] button launches the Soloist Editor module where you can make your own or modify an existing Soloist. This feature allows you to define your own Soloists. See the following Soloist Maker topic for a full description of this feature.

This button launches the More Soloist & Melodist Settings dialog.

Soloist/Melody Velocity Adjust

This box allows you to quickly boost or reduce the volume of the Soloist part relative to the other instrument parts. For a realistic mix the soloist instrument is set slightly louder than the other instruments/parts in a song. The default is 5.

Use large soloist files (ST3) is selected to use the optional large soloist databases,*.ST3 files, instead of the smaller ST2 files. The ST3 files have improved phrases, but the solos take longer to create.

Create Long Phrases

Set this checkbox to “true” (enabled) if you would like the Soloist to use the longest musical phrases it “knows.”

Using the Soloist Feature

1. Generate a Soloist and practice the solo by looping it, slowing it down, or printing it out, until you can perform a great solo on any chord changes!
2. Generate a Soloist and attach a Harmony such as “Big Band Brass” to create phenomenally quick and interesting Big Band Arrangements automatically. Generate a standard MIDI file or print them out for you and your friends.
3. Have the Soloist play a solo according to your accompaniment and arrangement (along with the other members of your Band-in-a-Box, of course!)
4. Trade 4’s in a call-response fashion with the Soloist (you solo for 4 bars, Band-in-a-Box solos for 4 bars, etc.)
5. Concentrate separately on different aspects of your playing with assistance from the “Wizard.” From soloing with proper phrasing and “feel” (the best notes are included automatically) to accompanying a soloist with confidence and authority.  

**Tip:** Try muting out one of the accompaniment parts such as the piano or guitar part and play along to the Soloist in a supportive role - its fun!

6. Use the Soloist track to record another part in addition to the Melody and other parts provided by Band-in-a-Box.

7. Generate a Soloist on chords/keys that you would like to practice. Band-in-a-Box will play and solo with you all day without getting bored. For example, if you want to work on your II-V7-I progressions (“two-five-one”), you can just type the chords you want, and generate a solo to play over those changes. As the solo plays, you see the notation, can you can sight read along. Pressing the "Loop Screen" checkbox on the notation will loop the notation the screen so you can master each 4 bar phrase (II-V-I) and then move ahead to the next one!

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**Technical Notes:**

1. The Soloist has its own separate channel and settings. But when the Soloist uses a harmony, it becomes linked to the Thru Harmony channels and settings. Since we are already using 12 of the available 16 MIDI channels in Band-in-a-Box, we didn’t want to use up another 2 channels on dedicated Soloist Harmony channels. So if you want to hear a Soloist with harmony, use the THRU Harmony settings. In other words, wherever a Thru harmony is selected, the Soloist part will use the Thru Harmony settings.

2. We have designed the Soloist to not repeat any solo ideas so that the solos are always fresh, with new ideas forming and playing all the time. As a result, we have included a refresh Soloist menu item (under the Soloist menu) that, when selected, will allow the Soloist to think about all of its musical notions again.

   Choosing the Refresh Soloist option is like telling the soloist “It’s O.K., you can play whatever you like, even if it’s something that you played 5 minutes ago...” It’s a good idea to refresh the Soloist regularly to ensure maximum “idea” availability.

3. The Soloist menu contains many options. It has all of the same editing options found in the melody menu, so you can treat the Soloist track as a 2nd melody track. Even if you don’t plan on using the Automatic Soloist feature, you can just use the Soloist track as a 2nd track for counter melodies, overdubs etc. The result: two melody tracks, two solo tracks, or one melody and one solo track all at your disposal for any song, without having to resort to an outboard sequencer.

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**Soloist Maker**

The [Soloist Maker [Edit]] button launches the **Soloist Editor** module where you can make your own or modify an existing Soloist. This feature allows you to define your own Soloists.
Insert the title of your ‘soloist’ in the Title box, and any memo note you wish to add. (The Num field will be filled in for you.)

For the Memo box, you can put in information like "extra legato, straighter 8th notes, on top of the beat, laid back, etc.

The “Soloist is” box allows you to define what type of notes the Soloist will play (i.e. swing 8th notes, straight 8th notes, 16th notes, etc.)

There are several databases of Solo ideas to choose from. This button will launch an Open File dialog for the ‘\bb’ folder where you can select a database (ST2 or ST3) appropriate for the type of song the Soloist will be playing over (e.g., J_SWING.ST2 for Jazz Swing songs).

Note: If you have an .ST3 database available for the style of soloing you want to generate, you can still choose the .ST2, and the program will automatically substitute the appropriate .ST3 file if, (a) it is available and, (b) you have selected the “Use Large Soloist files” checkbox in the “Select Soloist” dialog.

Press the [Choose] button in the Soloist Editor to select the instrument the Soloist should play (i.e. Tenor Saxophone).

You may also select an instrument from the “Patch Change” window, but selecting an instrument with the [Choose] button also fills in the specific note range for that instrument.

If you wish to have a harmonized solo, select the harmony type by clicking on the Harmony box and choosing from the drop-down list.

“Change Instrument” allows you to quickly set how the Soloing will “take turns” with other instruments. Use this option to change instruments every chorus, every 4, 8, 16 bars, etc. Press the [Set...] button to choose the instruments you would like to change to, including the appropriate note range for each instrument.
The Sub-Soloist checkboxes are for use ONLY with add-on hybrid soloists such as the ones found on the SOLOISTPAK for Band-in-a-Box. These checkboxes can be used to “sub” a different instrument and playing style in a Soloist which contains more than one playing style, such as BG_BAND.ST2 found on Soloist Disk Set #5. For more information on additional Soloist Disk Sets and the additional features available with them, contact PG Music.

To Modify (if required) the “Phrase Length,” “Space Length,” and “Outside Range” parameters, simply click in the box you wish to change and type-in the new number.

For example, change the “Legato Boost %” to 10 %. This will add 10% to the duration of the notes.

Adjust the lateness by -5 to have the Soloist play the notes more "on the beat" than other Jazz soloists.

Adjust the 8th Note spacing by -5 to have your Soloist play 8th notes in a more even feel than other Jazz soloists.

The Increase Velocity setting will increase the velocity of each note in the solo by the value entered, or DECREASE the velocity if a negative value is entered.

You can control the maximum number of notes per quarter note that the Soloist will use.

For example, you can set a “Rock Guitar” Soloist to use nothing shorter than 16th notes. This would produce less “guitar hero” solos with bursts of 32nd notes etc. Or you could create a Jazz solo that uses only quarter notes or longer to help with sight-reading or student study.

Use the [Import] button to bring a soloist in from a disk and use the [Export] button to share Soloists with your friends.

You can also save your soloist to another Soloist file (*.s1) by pressing the [Save As] button.

Use Copy/Paste to copy all settings from one Soloist to another. Copy to an undefined Soloist # to create a new soloist. Changes are saved to the default file.

Press the [OK] button when you are satisfied with your choices.

Auto Piano Hand-splitting

This feature is effective on the Piano, Melody, and Soloist tracks. It is found in the Notation Window Options and in both the Melodist and Soloist Utilities submenus.

Piano Track (Notation Options)

The Piano part can be displayed on both clefs, using intelligent hand-splitting routines that dynamically split the point. This happens automatically.

When you do this, the Piano track (not any other track) will be displayed on both clefs with intelligent hand-splitting. You can print out the Piano track with the hands separated.

Melody and Soloist Tracks

You can also manually split a piano part on a Melody or Soloist track using the intelligent hand-splitting routines. The left/right hands display in red/blue on the big piano, and on bass/treble clefs on the notation. Import a piano MIDI file to the Melody track to get a split-hands display and printout!
For example, if you have a MIDI file that is a solo piano piece, File | Open MIDI file will put the music on the Melody track. Then choose Melody | Edit | Utilities | Piano Hand Split. Make sure that Melody | Track Type is set to piano. You will then see the piano part split into 2 hands intelligently.

When this is done, the left hand will be stored on channel 8, and the right hand on channel 9, on the Melody track. You can export the MIDI file to a sequencer, and these 8/9 channel assignments will be preserved.

![Automatic Guitar Solos – “The Guitarist”](image)

**Automatic Guitar Solos – “The Guitarist”**

The Guitarist allows you to generate a guitar chord solo for any melody. Band-in-a-Box will intelligently arrange the melody to a guitar chord solo by inserting real guitar voicings throughout the piece. You can select from among many “Guitarists” in order to create your arrangement. You can also define your own Guitarists; choosing parameters such as strum speed, types of voicings (Pop/Jazz), embellishments, and much more.

Guitar Solos are selected from the Guitar window, which opens with the Guitar button.

Press the [Ch Sol...] button to launch the Generate Guitar Chord Solo function from the Guitar Window.

It is also accessible from the Melody | Edit Melody Track | Generate Chord Solo menu item.
Here are the steps to generate a Guitar Chord Solo:

1. **Select the Guitarist to use.**
   In the main list at the left of the Window, you see the list of the Guitarists that are already defined. For example, you can see that Guitarist #2 is called “Jazz Guitar, single position.” That will create chord solos that stick to a single position on the guitar neck whenever possible.

2. **Select Melody (or Soloist) track.**
   Normally, the Guitar Chord solo is written to the Melody track, but you can also select the Soloist track as the destination.

3. **Confirm the Guitar Patch selection.**
   The Guitarist that you pick (see item #1) will already have chosen the guitar patch to use, but you can override it with this setting.

4. **Select the Range of the song to use.**
   You can either generate a chord solo for the whole song, or just a region of the song. In either case, remember that you need to have an existing melody to work with.

5. **Select the Main Guitar Position to use.**
   The “Auto-Set” feature sets the main guitar position for the solo based on the key signature. For example, in the key of C, Band-in-a-Box will choose the 5th position as the best position.
position for the chord solo to be played. If you wanted the solo to be in the 12th position, you could de-select the “Auto-Set” and then set the guitar position to 12th position.

If you already have a guitar track that has guitar channels (if it was played on a guitar controller as a single string guitar part), then you might want to tell Band-in-a-Box not to change the guitar positions of the notes that it finds. Otherwise set “OK to change existing guitar channels” to true.

6. Press OK to generate the Solo.

You'll then see a dialog box that tells you a solo has been added to the track.

As you listen to the solo, you'll notice the following:
- Some of the notes are left as melody, and some are assigned to chords.
- A wide variety of guitar chords are used, including some advanced chords. All of them are popular chords played by real guitarists – there are no theoretical chords.
- The chords are strummed, to simulate a real guitar player.
- The Track Type for the Melody has been set to Guitar – so the notation shows [Tab], and the MIDI file will be saved with the Guitar Channels (11-16) preserved which preserves the fret positions.
- All of these items can be customized in the Guitarist Editor.

Technical Note: Since some of the guitarists can be assigned to strum the chords in a delayed fashion, if you repeatedly re-generate the solo, the melody will become more and more delayed. The solution(s) for this occurrence would be to choose Edit | Undo Solo prior to regenerating the solo, or picking a Guitarist that doesn't delay the strum. The Strum Delay Status is indicated on the “Info” panel of the Select Guitarist screen.

ONCE YOU HAVE GENERATED A GUITAR CHORD SOLO...

The chord solo is now part of the notation track. You can edit it like any other part, by deleting/inserting notes, etc. You can use the special guitar features discussed in the Guitar Window section to change the guitar voicings or replace a note with a chord and vice versa.

When you have a note or chord highlighted press the [Ch-] or [Ch+] Insert Guitar Chord button on the guitar window (or 7 or 8 on the NUMPAD keypad). Each time you press the [Ch-] or [Ch+], you'll see that the guitar chord changes to a different voicing, cycling through the available 5-10 voicings possible for each chord. Some notes won't have any chord voicings, for example a C# note on a Cmaj7 chord, because it is always a passing tone.

In a similar manner, you can convert a chord to a guitar note, and use the Insert Guitar Note button for this. Pressing the [N+] (or 3 or 4 on the NUMPAD keypad) repeatedly cycles through playing the same note on all 6 strings.

The solo will be saved with the song (.MGU) and exported to a MIDI file with the string positions intact because we use channels 11 to 16 for the Guitar part. You can remove the solo at any time, even after the solo has been saved or reloaded, by choosing Melody | Remove Harmony part menu item.

Guitarists can be customized using the Guitarist Maker, described in the User Programmable Functions chapter of this manual.
Automatic Embellishments – “The Embellisher”

Overview
When musicians see a lead sheet that has a melody written out, they almost never play it exactly as written. They change the timing to add syncopation, change durations to achieve staccato or legato playing, add grace notes, slurs, extra notes, vibrato and other effects. You can have Band-in-a-Box do these automatically using the Embellisher so that you hear a livelier, more realistic Melody - and it's different every time. The Embellisher is only active while the music is playing; it doesn't permanently affect the Melody track. There is an option to make the Embellishment permanent, so that if you like a certain embellishment you can add it to the Melody track.

The Embellisher checkbox on the main screen.

The Embellisher only functions during playback. You will see the Embellished Melody on the notation as the Melody plays, so you can see the Embellished notes. When [Stop] is pressed, the notation will revert to the original (unembellished) melody. The Embellishment changes timing of notes, durations, velocities, legato, as well as adding grace notes, additional notes and turns. Here is a “before and after” example that shows a typical embellishment of a Melody.

Normal (unembellished) Melody…

Embellished Melody…

As you can see in the notation examples, the Embellished melody adds an anticipation in bar 9, and in bar 10 adds extra notes, timing changes, and grace notes to “spice up” the melody.

If you disable the Embellisher, by de-selecting the Embellisher checkbox, the Melody will function as normal with no changes.

Using The Embellisher

The Embellisher settings are accessed during playback with the Embellisher button in the main screen toolbar, or with the menu item Melody | Embellish Melody Dialog, or with the key strokes Ctrl+Alt+L.

There is a Melody Embellisher dialog that allows you to:
- Customize the settings of the Embellisher, or choose Embellisher presets.
- Make a particular Embellishment permanent.

“Live Auto-embellish during every playback” is the same setting that is on the main page checkbox. If enabled, embellishment will occur during every playback. If disabled, embellishment will not occur unless you choose the [Embellish NOW] button in the dialog.
Embellisher Settings

The settings that affect the embellishment can be turned on and off, and given a certain percentage strength.

Humanize

The velocities, durations (legato), and timing of the notes are humanized. The original velocities etc. of the notes are ignored. The option to only humanize the timing of the music if the timing was "stiff" to begin allows the Embellisher to leave the timing of human input melodies alone, and humanize only the ones that were entered in step-time.

Adjust Octave

The octave of the Melody is changed to the best octave for the current Melody instrument. For example, if the instrument were a piccolo, the octave would be raised to the best range for a piccolo.

Anticipations

An anticipated note is playing a note early ("ahead of the beat").

Less Anticipations

This is the opposite of anticipations. This finds notes that are anticipated, and "embellishes" them by playing them later (on the beat).

Grace Notes

The grace notes are brief notes played just before, and a semi-tone below the original note. The grace notes intentionally don't show on the notation, so that it will remain easily readable. They can be heard.

Doubled Notes

Melody notes are doubled with the same pitch.
Extra Notes
Extra notes are added between melody notes.

Note Turns
With a note turn, a single note is replaced by a group of notes that include the original note and semitone or scale tones above and below the note. In this “before and after” example, the C note is replaced by a turn of 3 notes with a note a scale tone above the C.

Vibrato
Vibrato can be added according to the additional vibrato settings available in the “More” dialog. The vibrato can't be seen on the notation window, but you can examine the events in the Event list.
Embellisher Presets

The presets allow you to quickly choose common combinations of settings for the Embellisher.

The Embellisher Memo describes the current embellishment, with statistics counting the number of embellished notes.

If the song is playing and the embellisher is enabled, you can update the embellishment by pressing this button. This is useful if you've changed settings, and want to hear what the new embellishment sounds like.

The [Defaults] button reverts to the original Embellisher settings.

There are additional settings, in the Embellisher Additional Settings dialog box. This allows you to set advanced settings for the Embellisher. These include:

- **Vibrato Depth**: The amplitude of the vibrato, in a range from 0-127.
- **Vibrato Speed**: This is the speed of the vibrato (slow-fast) range 0-127.
- **Only use Vibrato if Note is this many ticks**: e.g. If set to 120 ticks (one quarter note), then only notes of duration at least 120 ticks will get vibrato.
- **Start the Vibrato after this many ticks**: For notes that will get vibrato, the vibrato will start after this many ticks.
- **Adjust Octave Method**: If the octave is to be adjusted, it will either only adjust it if the notes are outside the playable range, or always adjust it to the best octave, according to the setting you make here.
- **Dynamic Range**: Refers to the range of velocities used for the humanization. Useful range 30-50.
- **Legato Settings**: Refers to the amount of legato for the notes. Useful range 55 to 75.

This displays the same thing that appears in the Memo field, but will display it even when there is no current embellishment.

You can save/load your own presets for the Embellisher.

When you have made a custom setting in the Embellisher dialog, press the Export button to save the data as an .EMB file.

When you want to recall the saved preset, press the Import button, and load in a previously made .EMB file. You can share your favorite presets with other installations of Band-in-a-Box using the EMB files.

If the song is not currently playing, you can still create an embellishment and have it apply permanently by pressing the [Embellish NOW – Permanent] button. The original Melody is not affected permanently unless you have pressed the [Embellish NOW – permanent] button.

Normally the embellishment occurs live when the song is playing, and doesn't affect the Melody permanently. But if you like the Embellishment, and want to apply it permanently to the Melody, you can choose the “Make Current Embellishment Permanent” option.

You can use the [Undo] button to reverse a permanent embellishment before the song is saved to file.

Use these transport controls for song playback with the Embellisher dialog.
Chapter 9: Working With MIDI

Band-in-a-Box has two built-in MIDI sequencer tracks. They are named the Melody and Soloist tracks, but they can be used to record any MIDI part you like – such as drum overdubs or layered accompaniments. MIDI can be recorded in Band-in-a-Box:
- Live with a MIDI keyboard, MIDI guitar, or MIDI wind controller.
- In step time by entering notes in the Notation window with the mouse.
- Using the Wizard feature to “play” notes with your QWERTY keyboard.
- Importing a pre-recorded Standard MIDI File into the Melody or Soloist.

Recording Live In Real Time

You can punch In/Out, do unlimited overdubs, record directly to the tag or the ending, and start recording from any bar. To record live using your MIDI keyboard, guitar, or wind controller click on the [Rec.] button, or type the letter [R], or choose the menu option Melody | Record Melody. The Record Melody dialog box will appear.

If you're sure that the settings are correct, just press “R” twice to immediately start Recording.

Tip: If you select the “Overdub underlying melody” option in the Record Melody dialog, you will hear the underlying melody while recording.

Pressing this button will launch the MIDI Recording Filter. The Record Filter supports all MIDI controllers and the sustain pedal.

You can record any type of MIDI information to the Melody or Soloist tracks, and use the Record Filter to select what types to include. Choosing Opt. | Filter for recording will also launch the Record Filter dialog.

Press [Record] or the [R] key again to begin recording.

Stop recording by pressing the [Esc] key, or the spacebar, or by clicking the [Stop] button. The OK – Keep Take dialog will open.
OK - Keep Take (yes/no) saves the take you just recorded. Remember that it’s easy to fix small glitches in the Editable Notation window or in the Event List editor.

Take Again lets you quickly reject a take and start the recording again. Press the “A” key to do this with a keystroke.

Cancel ends the recording session; nothing is saved. To start again press the [Rec.] button or the [R] key.

Copy 1st chorus to whole song
If you have recorded one chorus of the song, checking this at the end of the recording will copy the same recording to all of the choruses.

Overdub Underlying melody
You have the option to merge the recording with the existing melody. If there is no underlying melody this option will be grayed out.

Retain Melody past last recorded
You have the option to erase any melody after the last recorded melody note, or keep it. Use this feature when you want to punch out at the end of a take.

Count-In and Metronome Options
To set these options, go to the Opt. | Preferences dialog and select the [Count-in/Met.] button.

Recording to an external sequencer
Many people use Band-in-a-Box in live situations. If you are unable to bring your computer with you, a good alternative is a hardware sequencer or a keyboard with a built-in sequencers that reads Standard MIDI Files. To transfer songs to the Sound Brush, follow these simple steps:
- Make a MIDI file of the song by pressing the button.
- Either save the file directly to a floppy disk or copy it to the floppy from your hard drive.
- The Sound Brush is then able to read the IBM formatted disk with MIDI files on it.

Entering Notes Manually
You can enter melody notes directly to the track in the Notation window in either the Editable Notation Mode or the Staff Roll Mode.
Enter the Editable Notation mode from the Standard Notation screen with a single mouse click on the Editable Notation button. In the Editable Notation mode you can enter, move, and edit notes and rests using standard mouse techniques – point and click, drag and drop, and right click to open the Note Edit dialog box.

Once you have some melody entered, you can copy and paste chunks of it as you would in a text document. To copy and paste notation, highlight an area of notation by dragging the mouse over the region. Then select Edit | Copy.

Click on the place where you want to paste to (by clicking at the time line on top of the notation window) and then choose Edit | Paste. You can specify a precise paste location in the Paste Melody dialog.

Recording with the Wizard Feature

This is a very helpful feature if you don’t have a MIDI keyboard but you want to record with a “live” feel. Use the Wizard to record notes from the computer’s QWERTY keyboard for a track that’s more natural than step time. Here’s how it works:

1. **Enable the Wizard checkbox.**
2. Press [R] key to record.
3. As the song plays, play the melody on any keys on the bottom two rows of the QWERTY keyboard, in the rhythm of the melody. The “wizard” notes won't be the correct melody of course, but don't worry about that as you record. When you're finished, look in the Notation window. You’ll see the wrong notes in the right places with the correct durations.
4. Drag the notes (with the left mouse button) to the correct place on the staff. You’ll hear the notes play as you drag them, and the names will show in the note name box. For sharps, flats, and naturals, hold down the Shift key, Ctrl key, or Alt key respectively. You'll end up with a melody that sounds like it was recorded live, without the rigid feel of tracks entered in step time.

**Tip:** If you have the Wizard “On” the spacebar won't stop playback. You need to press the Esc key to stop playback when the Wizard is on. This is to prevent stopping the song if you mistakenly hit the spacebar while playing the Wizard.

Using the Wizard with MIDI keyboard input

The Wizard can also be used with a connected MIDI keyboard. The keyboard wizard always plays correct notes, and is a fun way to play along with Band-in-a-Box. The MIDI keyboard also sends volume information (unlike the QWERTY keyboard), so is a better choice if you have a MIDI keyboard connected.

This feature is accessed with the [Transpose] button in the Preferences dialog. To turn on the Wizard to allow MIDI control, choose “Use Wizard for THRU part.”

Make sure that the Wizard checkbox is enabled on the main screen.

Now, when you play notes on the MIDI keyboard (during playback), they will get remapped to chord tones. C/E/G/Bb notes played on a THRU keyboard will be mapped to chord tones, and D/F/A/B will be passing tones.

This scale - C D E F G A Bb B - is considered the “Bebop” scale, useful for playing over dominant 7th chords.

The Wizard is useful for entering notation quickly. If you can’t play piano well, play the wizard in the correct rhythm. The pitches will be wrong, but you can fix them in notation later, and the durations, volume, and timing are already correct.
Melody/Soloist Sequencer

There are 2 tracks in Band-in-a-Box to add your own recordings. These are the Melody and Soloist tracks. Normally you would want a single part on each of them. But, since MIDI information can have separate channels, it is possible to store 16 separate parts on each of the Melody and Soloist parts. For the following discussion, we’ll assume that you’re using the Melody track, but the same functions are available for the Soloist. When the Melody track has been set to “Multi(16)-Channel” we refer to this as “Sequencer Mode.”

Also, for this discussion we’ll assume that you have a multi-channel track loaded in. Let’s load a MIDI file, using File | Open MIDI file, and choosing a MIDI file like c:\bb\Violet.MID.

If you want to use the 16 separate parts for the Melody track, you need to set the Melody Track type to “Multi-Channel.”

This is done from the Melody menu, or can be done by pressing the Sequencer button.

Now, when you are in this multi-channel mode, output from the Melody part will be on whatever MIDI channel the information is stored on, and will not be using the Melody MIDI Channel.

You can examine the track to see the channels by looking at the event list, by pressing the [#] button on the Notation window.

You’ll notice that the information in the event list is color coded by channels for multi-channel tracks. For example, channel 7 is pink, and channel 10 is gold.

<table>
<thead>
<tr>
<th>Track Displayed is : Melody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
</tr>
<tr>
<td>1:2:000 Note</td>
</tr>
<tr>
<td>1:2:003 Note</td>
</tr>
<tr>
<td>1:2:006 64 Sustain Pedal</td>
</tr>
<tr>
<td>1:2:083 Note</td>
</tr>
<tr>
<td>1:2:084 Note</td>
</tr>
<tr>
<td>1:2:118 Note</td>
</tr>
<tr>
<td>1:3:000 Note</td>
</tr>
<tr>
<td>1:3:000 Note</td>
</tr>
<tr>
<td>1:3:000 Note</td>
</tr>
<tr>
<td>1:3:001 Note</td>
</tr>
</tbody>
</table>

If you click on the Lead Sheet window, you’ll see the entire MIDI file displayed on separate tracks of notation.
Since this represents 6 separate tracks (in the case of violet.MID), this is likely “too much information” for you to read, unless you are a symphony conductor.

To customize the notation display for sequencer mode, press the lead sheet options button, and see the settings for Multi-Channel Tracks.

Press the “CUSTOM channels play/display” buttons to launch the Sequencer window. Then you can customize which channels will play and display.

<table>
<thead>
<tr>
<th>Channel #</th>
<th>Patch</th>
<th># Events</th>
<th>Play</th>
<th>Show</th>
<th>Edit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Acoustic String Bass</td>
<td>312</td>
<td>✔</td>
<td>✔</td>
<td>...</td>
</tr>
<tr>
<td>3</td>
<td>Acoustic Piano</td>
<td>842</td>
<td>✔</td>
<td>✗</td>
<td>...</td>
</tr>
<tr>
<td>4</td>
<td>Trumpet</td>
<td>333</td>
<td>✔</td>
<td>✔</td>
<td>...</td>
</tr>
<tr>
<td>6</td>
<td>Vibes</td>
<td>220</td>
<td>✔</td>
<td>✗</td>
<td>...</td>
</tr>
<tr>
<td>7</td>
<td>Nylon String Guitar</td>
<td>1,630</td>
<td>✔</td>
<td>✗</td>
<td>...</td>
</tr>
<tr>
<td>10</td>
<td>Standard Drum Kit</td>
<td>860</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the example picture, we have set Channel 2 (Bass) and Channel 4 (Trumpet) to show on the notation, and have set all of the channels to play (to hear them).

For a specific channel, (e.g. channel 3: piano), we see the following information.

Channel 3: Acoustic Piano (this is the patch name found on the track).

There are 842 events in the track, usually every note is an event.

We have customized the piano track so that it can be heard (play=true), but not seen in notation (Show=false).

There is a small button at the right of the track line that allows you to delete/rechannel or merge the channel with another channel. You can also change the patch (instrument) for that track by using the instrument patch combo box.
So now that we’ve customized the display, we are seeing the bass and trumpet on the notation, and hearing the entire track.

**Removing All Tracks Except Melody From A Midi File**

One use for the Sequencer mode is to load in a MIDI file, and then delete all of the channels except the melody, so that you can allow the Band-in-a-Box rhythm section to provide the accompaniment. To do this, open the Sequencer window, and use the Edit pull down menu to delete all tracks except the melody.

Once you have done this, you don’t need the Melody | Track Type to be multi-channel anymore, so you should set it to be Track Type [Single Channel], so that it will be like any other Band-in-a-Box song, and use the Melody channel for playback.

**Recording Your Own Parts To The Melody Sequencer**

Normally you would record your parts to the Melody, and not be concerned about what MIDI channel they are using, because Band-in-a-Box uses the Melody channel (usually channel 4) for this.

But if you have set the Track type to be multi-channel, the output on the Melody part will be whatever channel is stored in the tracks.

When you record a Melody part and the track type is set to multi-channel, the “Keep Take” dialog will have a selection for the channel that should be used for the recording.

Also, make sure that you have “Overdub underlying melody” checkbox set, or you won’t hear the other melody parts during the recording.

**Example: Recording 4 Separate Counter Melodies On The Melody Track**

So if you want to record, for example, 4 separate parts to go along with a Band-in-a-Box song, you should do the following.

1. Set the Melody track to Multi(16)-Channel (Sequencer)

2. Record a Melody part. At the end of the recording, pick a channel for the part that is not already used by Band-in-a-Box. BB uses channels 2-10, so channels 11 to 16 are available for your counter melody parts.

3. Repeat step 2 by recording additional melody parts.

4. Assign patches to the Melody parts using the Sequencer Window.
Importing MIDI Files

Importing MIDI Files to the Melody or Soloist Tracks
Standard MIDI files can be read in to the Melody or Soloist tracks from MIDI files or from the Windows clipboard.
You can read in all of a MIDI file, or selected channels and a specific range of bars. Use one of the following two commands:
1.  *Melody* | *Import MIDI File* – to select a MIDI file from disk using the Windows Open File dialog.
2.  *Melody* | *Import MIDI File from Clipboard* - when the MIDI data is already copied from another program to the
       Windows clipboard. The clipboard option will be grayed out if there is no MIDI data in the clipboard.

Once chosen, the **Import MIDI File - Options** dialog box opens.

Import Which Channel(s)?
You'll need to know which channel(s) of your MIDI file the melody is on. You then select these channels for Band-in-a-Box to read-in. If you select all of the channels, Band-in-a-Box will read in all of the channels and merge them
to the Melody track. You can import and play the complete file on the Melody track if the **Track Type** is set to *Multi (16) - Channel* in the Melody menu.

# bars to offset from start of MIDI file
If you want to start reading from the beginning of the MIDI file, select 0 as the offset. If you want to start at bar 32, for example, select an offset of 32 (bars).

How Many Bars to import?
Leave this setting at the default of 1000 to read-in the entire file (unless it’s longer than 1000 bars!), or set it to the number of bars that want.

# blank bars to insert at beginning
This will insert blank bars into the Melody track. Remember that Band-in-a-Box normally has a 2 bar lead-in count.
If your MIDI file has no lead-in, then you’ll need to set this to = 2 to compensate for the 2 bars of lead-in.

Include notes early by (120 PPQ)
If you’re reading in a MIDI file starting at bar 5, it would be annoying to have a note that was played 1 tick earlier
than bar 5 left out of the MIDI file that is read in. To include it, you can set this, and the note will be read in.

Include continuous controllers and pitch bend / Patch changes / Lyrics
If you don’t need these items you can save space by not importing them.

Merge with Existing Data on the track
You can choose to merge the imported data with your existing Melody track.

Import to the Melody with the MIDI Chord Wizard
You can open an entire MIDI file into Band-in-a-Box using the MIDI Chord Wizard. The chords will be auto-interpreted by the Chord Wizard and the MIDI file will play and display on the Melody track. A “silent” style will
be loaded so you'll only hear the MIDI file. When the file is saved, the extension will be MGX, allowing you to easily identify the songs that contain entire MIDI files.

The MIDI Chord Wizard is opened from the File | Import Chords from MIDI File menu item. In the Interpret Chords from MIDI file dialog, select the “Open ENTIRE MIDI File to Melody” radio button, and then click on [INTERPRET CHORDS NOW].

The chords will be interpreted and written to the Band-in-a-Box chordsheet and an “X” will appear in front of the style name, indicating that the style is silent.

Press [Play] to hear the MIDI file play on the Melody track.

Additional Options for Melody/Soloist Track
Choose Melody | Edit Melody Track | Time Shift Melody. This will move (slide) the melody a certain # ticks. There are 120 ticks per quarter note. For example, to give the song a more laid-back feel, shift the melody about 10 ticks ahead.

In the same submenu, choose Insert Beats or Melody | Delete Beats to insert or delete beats in the Melody. For example, to insert 2 bars in the melody at bar 5, choose Melody | Insert Beats, select bar 5, and select 8 beats (2 bars) to insert.

Intelligent Humanize of Melody and Soloist Track
Quantize routines can leave the music sounding stiff and unmusical. Some routines attempt to humanize a part by adding “randomization,” which rarely has the desired effect since humans don't randomly change timing or volume. Band-in-a-Box uses intelligent humanization routines to humanize a melody from one feel to another, from one tempo to another, and vary the amount of swing to 8th notes. The results are very musical, with natural sounding melodies.

Let's look at some of the parameters found under Humanize.

In this example, Melody | Edit Melody Track | Humanize Melody was selected. The window for Humanize Soloist is the same.

As you can see, we have broken down the Humanize effect into 5 main categories: tempo, lateness, 8th note spacing, legato, and feel.

The best way to learn how these parameters combine is to try them (you can always press the UNDO button if you don't like the results.)

For example, try changing the tempo of a song to see the changes that this will make to the 8th note spacing and lateness. Press the [Quantize NOW] button to apply your changes to your song.

Tip: Often, when musicians play at faster tempos they play the swing 8th notes closer together and a little later.

We feel that these categories are straightforward and you should have no trouble achieving the desired results. Remember to apply such parameters as Legato and Lateness sparingly, then press the Quantize NOW button to apply your changes to your song.
Editing the Melody Track

**Event List Editor**

You can edit events including all MIDI events and lyric events using the Event List Editor. It can be launched in several ways:

- In the Melody menu, choose Edit Melody Track | Step Edit Melody.
- In the Soloist menu, choose Edit Soloist Track | Step Edit Soloist Part.
- In the Notation menu, choose Event List Editor...

or in the Notation window by pressing the event list button (#).

Different colors are used for different event types in the event list, to visually distinguish notes, patch changes, etc. The Event list for the notation colors the events differently as follows:

- Notes starting near the beat boundary are dark pink.
- Notes starting on the off-beat are light pink.
- Patch changes are cyan.
- Controller changes are yellow.
- Pitch Bends are grey.

The Event List Editor allows you to modify, insert, and delete notes:

- Double-click on an event to edit it (or press the [Edit] button.)
- [Insert] puts an event before the current event.
- [Append] puts an event at the end of the track.
- [Delete] removes an event.
- [Update] redraws the notation screen.

**Event List Filter**

There is a filter for the Event List Editor, allowing you to, for example, quickly spot all patch changes. For example, to examine all of the patch changes on the Melody track.

Choose “Use Event Filter,” and then press the [Filter…] button.
In the **Event List Filter** select the type of information you want to display. In this case, it is program changes (patches) only.

The track will then display with the program changes only.

The **Event Type to Edit** dialog opens when either the [Insert] or [Append] buttons are pressed in the Event List Editor.

This dialog allows you to select which type of event to insert or append - note, controller, pitch bend, etc. – and then opens the selected edit dialog.
Notation Window Editing

You can often get better results by using the Notation Window to edit notes instead of the Event List window. To do this, open the Notation window in either Editable Notation or Staff Roll Notation mode. In both of these modes, notes can be dragged and dropped with the mouse.

For precise note editing, right mouse click on the note you want to edit and choose “Edit Note” in the contextual menu.

This opens the Note dialog where all of the parameters of the note can be addressed.

Piano Roll Window Editing

The Piano Roll window enables precise graphic editing of note timing and duration. You can also graphically edit note velocity, controllers, program changes, channel aftertouch, or pitch bend.

The Piano Roll may be opened as a movable window, which floats above the Band-in-a-Box main window, or opened embedded in the same position as the Chordsheet/Notation panels in the Band-in-a-Box main window.
Note Panel

Horizontal bars represent notes. Notes can be selected, edited, inserted, and deleted.

Note Selection

Selected notes are red.
- Click on individual notes to select.
- **Shift+click** on individual notes to add to the selection.
- **Ctrl+click** on a note to invert (toggle) its selection.

Overlapping notes are displayed in bold Aqua color, making them easy to identify. Overlapped notes can be eliminated from the right-click menu in this window.

Click on white space and then drag a rectangle around notes to select a group of notes. Only notes that start within the rectangle are selected. If the left edge of a note is not inside the rectangle, it will not be selected.
- **Shift+drag** a rectangle to add another group of notes to the selection.
- **Ctrl+drag** a rectangle to toggle the selection of the notes in the rectangle.

Splitter Bar

A Splitter Bar sits between the Note and Graphic Event panels. Drag the splitter bar down to maximize the Note panel and drag it up to maximize the Graphic Event panel.

Two graphic event mouse editing modes for editing graphic events:

3. **Add Mode**
   Add/subtract the same amount to all selected events.

4. **Scale Mode**
   Scale the selected events. Select one or more Graphic Events, and move the mouse over one of the events. **Shift**-drag vertically, and the events are scaled in a proportional fashion. Large-value events are scaled more than small-value events. This keeps the same shape of a gesture, but makes it bigger or smaller.

Note Velocity Line Tool

- With **Add Mode**, note velocities will exactly match the slope of your drawn line.
- With **Scale Mode**, the Line Tool will shape the dynamics, but note velocities are scaled to follow the approximate shape of your drawn line. With Scale Mode, you can insert a Velocity fade, or change the velocity of a region, while preserving the Velocity dynamics of the music.

Edit Events

**Edit Event Value**: Move the cursor over the top half of an event. A north-south cursor appears. **Click+drag** vertically to scale event values. To scale a selected group of events, **Shift+click+drag** vertically on one of the events in the selection.

**Edit Event Time**: Move the cursor over the bottom half of an event. An east-west cursor appears. **Click+drag** horizontally to slide the event in time. To slide a selected group of events, **Click+drag** horizontally on one of the events in the selection.

Insert Events

**Line Tool**: With no modifier keys, the “white space” cursor is a Line Tool. Move the cursor to white space and then **click+drag** to draw a line. When the mouse button is released, a series of events are inserted which follow the line slope.
To avoid choking the MIDI stream, the maximum event density is one event per 10 ticks. Repeated events of the same value are not inserted. Therefore, long gradual Line Tool fades have a lower density than short extreme Line Tool fades.

**Pencil Tool:** Move the cursor over white space and hold the \texttt{Shift+Ctrl} keys. A Pencil Tool appears. \texttt{Shift+Ctrl}-drag to freehand-draw a curve. If you don't get the curve quite right on the first pass, just keep holding the mouse button and move the mouse back-and-forth to draw your desired freehand curve.

When the mouse button is released, a series of events are inserted to follow the freehand curve. The maximum event density is one event per 10 ticks. Repeated events of the same value are not inserted. Therefore, many freehand curves have a fairly low density.

**Delete Events**

Make a selection of events with the Ruler or by clicking on events and tap the \texttt{Delete} key. You can also right-click and choose “Delete Selected Events” item in the pop-up menu.

**Eraser tool**

For quickly deleting individual notes or controllers. \texttt{Shift+Ctrl}-click on a note or graphic event. If multiple events have been selected, all selected events will be deleted.

**Graphic Event Panel**

This panel only shows MIDI events specified in the Chan, View/Edit, and Controller Type controls. When graphically inserting controller and pitch bend events the event density is adjustable from one event per 1 tick up to one event per 30 ticks.

With events such as pitch bend or controllers like modulation and sustain, it is important to end a “gesture” with a zero-value event. Otherwise, subsequent notes will be affected, with “hanging” permanent pitch bend, permanent vibrato, or sustain pedal locked down.

**Event Selection**

**Graphic Event Ruler Time Selections:** Selected Events are red. The Graphic Event Ruler will only select non-note events. In addition, it will only select the type of MIDI events specified in the Chan, View/Edit, and Controller Type controls. When you make a Ruler Time selection, \textbf{ONLY THE VISIBLE} events in this time range are selected. Other MIDI events in this time range are not selected.
Chapter 10: Working With Audio

Notice the “Audio” label at the top right of the screen, beside the “Thru” part setting.
Clicking on the “Audio” label launches the Audio Playback settings dialog.
This dialog makes it easy to mute, solo, or change the volume of the audio track, similar to the control of the other instrument parts in Band-in-Box. Simply click on the “Audio” label on-screen, and choose these options.

There are two types of audio features in Band-in-a-Box:
1. The first refers to the Audio track. This is a single 44K mono or stereo track that you can use to record vocals or live instruments. In addition, the most popular types of audio files can be imported to this track.
2. The second refers to rendering which is the process of converting a MIDI performance in Band-in-a-Box to a stereo .WAV file or to different compressed audio formats.

Audio Track
The audio track includes only your live recording or the imported audio file, whereas the rendered .WAV file includes everything in the file; MIDI parts plus the audio track.

Try the following with the Audio Track in Band-in-a-Box:
1. Press this button and add an audio track to an existing Band-in-a-Box song. Add live vocals, guitar, sax, etc.
2. Process an audio track using audio plug-ins - such as reverb, chorus etc. (choose from over 20 plug-ins included).
3. Export the audio (and MIDI) track to sequencers such as PowerTracks Pro Audio, Cubase, or Cakewalk for further work.

Import Audio File to Audio Track
A Mono or Stereo audio file can be imported to the Audio track, optionally merging or replacing any existing audio track. Most popular types of audio files are supported, including WAV, WMA, MP3, WMV and CD audio.

Choose the menu item Audio | Import Audio (WAV, WMA, MP3, WMV...). You then choose an audio file to import. The Import Audio File dialog is then displayed, which allows selection of the point to insert the audio file, and whether to merge or overwrite existing audio in the range.

Audio files can also be opened from the File menu with the command Open Audio (WAV, WMA, MP3, WMV).
Open an MP3/WAV/WMA or audio CD track, and play back at 1/2, 1/4, or 1/8 speed. This is great for transcribing or analyzing audio.
Using the Half-Speed Audio feature to help you transcribe a piece of music.

Once you open the Audio file, open the Audio window and you can see the audio data on the track.

Choose “Half-speed tempo” (Ctrl+minus (-) hot key). Ctrl+equals (=) returns to normal tempo. (Use the Play | Tempo menu for slower speeds like 1/4, 1/8.)

Highlight the range that you want to hear, and then press “Play Selected Area.” You can then move around the window to play different sections as you transcribe the recording.

Audio Offset

The Audio Offset feature allows you to synchronize any point of the audio file with bar 1 of the Band-in-a-Box song – usually to sync the audio file with the rest of the song.

Let’s say you have a home recording of a live performance of one of your songs, saved as a WAV file (or MP3/WMA). File | Open Audio will load the song into Band-in-a-Box.

Now open up the Audio Edit window, and when you hear the point in the file that you would like to be considered bar 1, right click at that point, and answer YES to “would you like this point to be bar 1.”

Answer YES to define this point as Bar 1 for audio playback, or answer NO to remove any previous Bar 1 definition.

Then, as the song is playing, use the tap tempo feature (minus key, hit 4 times in tempo) to set the tempo of the piece.
Your audio file will then start playing at bar 1 of the Band-in-a-Box song in sync with the audio starting at the place you have marked as bar 1, and the bars will be in sync (approximately in sync, they will drift as the tempo of your live performance varies.) You can put tempo changes on certain bars to keep it perfectly in sync if you want to.

**Record Audio**
Before you begin recording, you'll need to:

**Set the Recording Properties**
This tells your sound card (and Band-in-a-Box) what sources you would record from. You may be recording from a microphone or a line-in plug into your sound card. If so, you need to have those items selected in the recording properties panel for your sound card.

Most sound cards are capable of recording from the following sources:

**Microphone** – plugged in to the sound card to record vocals or live instruments.

**Line-In** – from the Line-Out of a mixer or keyboard, or a guitar direct box.

**CD-ROM player** – to record the audio from an audio CD.

**Outgoing MIDI** - not used when recording audio tracks, but is used if “rendering” the whole Band-in-a-Box song to Audio. This is an important point to understand when using audio in Band-in-a-Box: the soundcard should be capable of recording the outgoing MIDI* that is being sent from your soundcard out to the speakers. When recording an audio track (vocals etc.), you’d almost never want to record the outgoing MIDI as well or it would get mixed in with the audio track. However, when rendering your whole composition to a single WAV file to distribute on a CD or the Internet you always want to record the outgoing MIDI.

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**Technical Note:** This is only true if you are using the sound card for your output MIDI driver. If you have an external MIDI device like the Roland Sound Canvas you’d need to route the Line Out from your Sound Canvas back in to the Line-In of your sound card in order to record (render) the MIDI.

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When you press the Recording Properties button, you'll see the Recording control panel of your sound card's mixer.

![Recording Control Panel](image)

The panel displayed here is the typical panel that sound cards use. Different makes and models may not look exactly like the example, but the basic layout and operation is the same. From this panel, you can set the recording level for the items you want to record. Let’s take the example of recording live with a microphone.

- We select the check box to record the microphone.
- Then, we set the level of the recording input for the microphone with the aid of the built-in VU meters in Band-in-a-Box.
**Audio VU meters**

These show the Record and Playback levels for audio, allowing adjustment of microphone and speaker levels. VU Meters can be launched by pressing the VU Meters button on the toolbar.

The VU Meters will also open automatically when the **Record Audio** dialog is opened.

The VU Meters will close or stay open when the dialog is exited depending on the “Leave VU Meters open” setting in the Record Audio dialog.

The VU meters show the average strength of the signal, with a dB scale, and a clip indicator. “Clipping” indicates that the signal has overloaded, and will sound distorted (“clipped”).

The green area represents normal levels, while red indicates an overload. Ideally, the sounds should remain in the green and avoid the red altogether. Unlike analog recording, where it’s good to get a “hot” high signal, digital recordings need to absolutely avoid high levels since any overload of the signal will result in clipping and a ruined recording.

Press the [R.Aud] button to start recording audio. The **Record Audio** dialog will open. This dialog displays the mono/stereo status of the recording. If you want to change to/from stereo (to/from mono), press the [Audio Options] button in this dialog. The mono/stereo track status is also indicated on the Title bar at the top of the main screen.

Set the start point for the recording.
You can record from the Start of the song, somewhere in the middle, or punch in by choosing a bar and chorus # to start recording.
Punch-In Recording

Punch-in audio recording allows you to punch-in record or overdub a section of audio. You can select a section to punch-in by highlighting it in the Audio Edit window. You can also hear the existing audio part when you are overdubbing. This is automatic.

Also Record MIDI?
In most cases you will only be recording audio, so you should set this to “No MIDI recording.” But if you want to record MIDI at the same time (in a situation where you were playing a MIDI piano at the same time as you are singing for example), then you could set this setting to “Also Record MIDI to Melody” (assuming that you wanted the MIDI to get recorded to the Melody track - use the Soloist setting if you want it recorded to the Soloist track).

Overdub underlying Audio
If you have previously recorded audio on the track, and want to overdub (to add a harmony for example), then you should select the Overdub underlying Audio. It is not essential to select it at this point, since you'll get another chance at the end of the recording. Note that the audio track will not play during record, so you'd have to sing the harmony without hearing the original audio part.

Press [Record].

Audio recording begins. If you've set the “Show VU Meter while recording” option, then the Recording VU Meter will open up and display during recording so you can monitor the VU meters.

Press [Stop] or press the [Esc] key.

You will then see the “Keep Take?” dialog.

If you are happy with your recording, you should choose [OK -Keep Take] and the audio will be added to the Audio track.

You can listen to the results by pressing [Play].

If you are then not happy with the results, you can choose Edit | Undo Keep Audio Take and you will be back to where you were prior to the recording. You can also choose the option to [Take Again], which reopens the Recording dialog.

Technical Details: The recorded take is recorded to a temporary wave file called TEMP_REC.WAV. This resides in the \bb directory or the directory of the current song. Once you decide to keep the take, the TEMP_REC.WAV is merged with the main wave file for the program, which is usually titled with the same name as the song (e.g. MySong.wav).

Options

Copy 1st chorus to whole song

Overdub underlying audio

Retain audio past last recorded

If you've recorded only 1 chorus of the song, you can choose the option to copy that first chorus of audio to the whole song. This will fill up the whole song with the audio by repeating it as many times as necessary. Then you'd just need to record the ending of the song.

At the end of recording, you receive an option to overdub with the underlying audio. This means that both recordings will be merged together to form a new file, with both recordings preserved. There is also an option to “Retain audio past last recorded.” This allows you to “punch out” and preserve the rest of a previously recorded take.
Playing the Audio File

You can play the Audio file that you've recorded by pressing [PLAY]. The size of the audio file will be displayed at the top of the screen. If you haven't saved the song yet, your window title will look like this.

In this example, the song is titled NoName.SGU, and there is a 6.1mb .WAV file associated with the file, and that's 1 minute and 9 seconds of audio. The total duration of the song is 3 minutes and 20 seconds. Save the song with the name “My First Song.” Then the window title will look like this…

Once the song is saved, the wave file will be called with the same name as the song, which is MY FIRST SONG.WAV. If you ever need to work with the .WAV file in another program, you can just directly edit the wave file. If you do this, make sure the .WAV stays a 44K mono .WAV file.

Edit the Audio File

In the Audio Edit window you can edit audio data using Copy, Cut, and Paste. Launch the Audio Edit window by the Audio | Audio Edit Window menu item or pressing the Ctrl+Shift+A keys.

You can see the dB (decibel) scale at the left of the Audio Edit window.

To select a region of the Audio Edit window, you can Shift+click on the end point to easily select a large area.
- Click on the starting bar.
- Shift-click on the ending bar.

Audio Edit Window Toolbar

These buttons zoom in and out to the audio window.

The 100% button sets the Audio Window to display about 8 bars per screen.

This button zooms to the sample level so that you can see the actual sine waves present. The [100%] button restores the wave view.

This setting allows you to select audio by snapping to a 16th note (or a triplet in swing styles).
This button plays the selected area, and then stops. The other instruments are all muted; you just hear the audio.

This button selects the whole track, useful for applying one of the built-in audio plug-ins.

**Non-Destructive Audio Track Editing**

The changes you make to the audio track are non-destructive and only become permanent if you save the file.

If you have a song file called MySong.MGU, the audio track is stored in a MySong.WAV file. If you are editing the audio, the edits are now made to a temporary WAV file called TEMPMAIN.WAV, and not to MySong.WAV. If you save the song, the changes get written to the MySong.WAV audio file, but if you don’t save, the original file is preserved.

**Audio Harmonies**

You can apply a harmony to the audio part – allowing you to automatically create up to 4-part vocal harmonies from your singing. And don’t worry if your singing is not in perfect tune, Band-in-a-Box can “fix” vocals to the correct pitch - automatically! Simply record your vocal part, choose a harmony, and Band-in-a-Box will generate the vocal harmony part for you using the world-leading TC-Helicon Vocal Technologies engine.

Once you have recorded a vocal part into Band-in-a-Box, you can use this feature in many ways, including:

- Record yourself singing into a Band-in-a-Box file. Create a vocal harmony for part or all of the song by selecting a Band-in-a-Box harmony and choosing the Generate Audio Harmony option. You can now hear yourself singing in perfect harmony!
- Did you hit a few “out-of-tune” notes when you recorded your singing to Band-in-a-Box? Fixing your “out-of-tune” singing is easy, by instructing the program to correct the pitches to the Melody track.

**Audio Harmonies Tutorial**

Note: All of the demo songs are located in the Tutorial - Audio Harmonies folder in the Band-in-a-Box (C:\bb) folder.

Let’s load in the song “Listen.MGU.”

First off, play the song “Listen” – it has an audio track, so you’ll be hearing a male vocal track lasting about 16 bars (since WAV files are big, we only include a small 16 bar sample of the WAV file).

We’re going to apply some audio harmony to this “Listen” demo.

Since any edits we save to the audio WAV file are permanent, we want to make sure that we keep a copy of the original file around that is unaltered.

Save a copy of the song as “Listen 4 Part Harmony.”

Press the [Save As] button, and choose a name of “Listen 4 part harmony.” We will now be working with this file, so our original Listen file won’t be affected.

Choose menu item Harmony | Audio Harmonies & Pitch Tracking. You’ll see the Generate Audio Harmonies dialog.
In this dialog, there are 3 types of harmony that we can choose from:

1. Melody Pitch Tracking only (this would change the pitch of our singing to the correct pitches found on the MIDI Melody track).
2. Harmonize to the MIDI Melody. This applies a 1-4 part audio harmony – turning your singing track into a harmony singing quartet.
3. Harmonize to the chords of the song. If your song doesn’t have a MIDI melody, you can still create a vocal harmony, based only on the chords of the song.

Let’s harmonize to the MIDI melody, so choose the radio button with that title. Then select Harmony type “131 Four Freshmen 4 part Vocal Harmony.”

This is a 4 part harmony that includes the melody, and one of the voices is above the melody.

Since we want to harmonize the entire song, choose “Whole Song.” The output can be mono or stereo. Since we’re making a 4-part harmony, and we want to hear the voices panned across our stereo speakers, we choose STEREO here.

We want Band-in-a-Box to play our files directly, and since Band-in-a-Box plays only one WAV file at a time, we won’t be exporting the 4 voices as separate WAV files, and we don’t select the “Output (Export) as separate WAV file” option.

Press OK, and this launches the **TC Helicon Harmony** dialog, which lets you control the sound of your harmonies.

Let’s examine the various sliders on this dialog, as they apply to our “Listen 4 part Harmony” File.
The “Dry Voice Level” slider is the level of our original voice. We can make the harmony to include more of our original voice by raising this slider. Set it halfway up (12dB).

The 4 columns labeled Melody, Voice 2, Voice 3, and Voice 4-8va are the 4 part MIDI harmony that will be transformed to an audio harmony using our original voice. The “8va” tells you that Voice 4 will be above the melody.

Each of the voices have sliders for “Level” (loudness) and “Gender.” The “Gender” slider makes the voice sound like a male or female (raise the slider to make it more female). Higher pitches of harmony should have a female gender applied. Make the settings as in the picture above.

The Octave is an important setting that controls the overall octave of all the generated harmonies. If the harmony generated is too high, lower the octave setting here.

Try out the preview with the octave on 0, and then again on –1, you’ll hear all of the voices an octave lower on the –1 setting. Leave it at 0 for this demo.

There are 3 Humanization settings (timing, pitch, and portamento) that affect the sounds of the individual voices.

Timing controls how “tight” the group sounds, with a setting of zero being perfectly synced start/stop times. Let’s set it to about 20, to give some natural looseness to the group.

Pitch controls how steady the pitch will be. If set to zero the pitch will be exactly the MIDI pitch, if set higher, the pitch will vary up/down with the original WAV file.

Portamento controls how fast the pitch will change from one pitch to another. Settings above zero give smooth transition from one pitch to another.

Pitch Styles

When you generate audio harmonies to your recorded vocal tracks, you can select Pitch Styles to add vibrato and scooping effects to the vocal harmonies. There is a drop down combo list at the bottom of each voice. You can choose a type of “pitch effect” (combination of vibrato and scooping) called a Pitch Style to be applied to each harmony voice.

In the example screenshot, we have chosen “Crooner,” “Lite Jazz,” “Lounge,” and “Head Voice” – somewhat similar vibrato types, but different for each harmony voice.

The Pitch Styles are especially useful for harmonies generated from MIDI tracks, because these lack any vibrato. Now by applying these pitch effects, you can get a natural sounding vibrato for these harmonies.

Now let’s preview our harmonies! Press the [PREVIEW] button, and after a 5-10 second delay, you’ll hear a 10 second sample of the harmony. Once you hear it, you can tweak the settings, for example:

- make the original voice louder by increasing the Dry Voice Level slider.
- to make the individual harmony voices louder, increase their sliders.
- to change the stereo separation, change the Pan sliders
- to make the group more “loose” sounding, increase the Timing slider
- to make the pitches and pitch-transitions more human, increase the Pitch and Portamento sliders
- change the whole Octave of all of the harmonies with the octave slider.

If you’d like to get more help on-line about the settings, inside the dialog press the Help button and then click anywhere in the dialog.

This launches the Band-in-a-Box Help file with more information.

When you are happy with the settings, press the [GENERATE] button. This generates a harmony for the complete song (takes about 20 seconds for “Listen” depending on your CPU speed).

The dialog then exits, and your song is ready to play in Band-in-a-Box.

Band-in-a-Box gives you a confirmation message that the audio harmony has been created.

Tip: When playing back the harmonies, mute the MIDI melody (right-click on Melody part at the top of the screen or Alt+9).

If you want to hear what the harmonies should sound like – we have included a completed version of “Listen 4 part harmony.MP3” and this is included on the “c:\bb\Tutorial - Audio Harmonies” folder.
Melody Pitch Tracking

Now let’s use the Audio Harmonies for a different purpose, to “fix” pitches that may be out of tune, or to change some pitches to more interesting notes.

For this, reload the song Listen.MGU. Now resave it by [Save As] and give it the name “Listen Pitch Tracking.MGU.” Now, we’re going to change some notes of the MIDI melody. Open the notation, and change the pitch of the D note at the end of bar 2 to an E. Also change the ‘B’ at bar 7 to a ‘G’ below it. At bar 10, change the ‘E’ note to a C#.

Now, choose Harmonies – Audio Harmonies, and select “Melody Pitch Tracking” and press OK to again launch the TC-Helicon Harmony Dialog. Now, we’re going to be changing the vocal track into a different vocal track that instead is matching the pitches of the MIDI melody (without any harmony).

So the dialog reflects this, by only showing one of the columns with a track name, and it is “Melody (BB).”

For this one, we should leave the original voice at ZERO (so we don’t hear any of it), and put some humanization settings as shown.

Now try the [PREVIEW] button. You’ll hear that the harmony is ONE OCTAVE TOO HIGH. This is because the MIDI melody is one octave higher than the vocal track (males sing in the bass clef!). No problem, just adjust the Octave setting to –1, and try the preview again.

You’ll hear what sounds like the original voice, except you’ll notice that the pitch is fixed to perfectly in tune, and some of the notes are changed in pitches (the ones we changed above, for example the E note on end of bar 2). Now press [GENERATE] to hear this whole song.

If you want to hear what the pitch tracking final file should sound like – we have included a completed version of “Listen Pitch Tracking.MP3” in the “c:\bb\Tutorial - Audio Harmonies” folder. (Play this file from Explorer by double clicking on it.) Your tutorial example should sound very close to this.

Chordal Harmony

For the last example on “Listen,” we’ll do an example of the “Chordal Harmony.” This is a 4 part harmony based only on the chords, when we don’t have a MIDI melody available.

Load in Listen.MGU. Save the file as “Listen – Chordal Harmony.MGU.” Now erase the Melody (just to convince yourself that the Melody is not going to be used). Melody-Edit-Kill Entire Melody. Now choose Harmony-Audio Harmonies to open the dialog, and then choose Chordal Harmonies.

You’ll see that the only harmony type available will be the Chordal Harmony, because there is no Melody available.

You can choose many different harmony variations, such as Four Above, or Three above etc. Let’s choose Four Above. This will give us 4 harmony voices above our original melody. We want to include the original vocal track as well, so we will mix the “dry voice level” up into the mix. Make the settings as shown in this dialog, and press [PREVIEW], and then [GENERATE].

Playback this demo song, and also play the included “Listen Chordal Harmony.MP3” file – your file should sound similar.

Unison Harmonies

Unison harmonies are available for the Chordal harmony. For example, if you recording a vocal track, and then choose Chordal Harmony (i.e. “Harmonize to the Chords of the Song”), you can then choose a new preset called “1 Unison, 2 Down, 1 Up.”

This will give you 4 harmonies, and one of them will be a unison harmony doubling your voice. You can assign specific vibrato and other settings to the unison voice so that it sounds slightly different than your own, creating a “fattening” effect to your voice.
In the TC-Helicon dialog, you can select a choir effect, from none/small/medium/large. A “large” choir effect makes each voice sound like 4 people singing, so if you use a 4 voice harmony, you will hear the effect as if 16 people are singing.

Audio Harmonies Pitch Styles (automatic “Vibrato” and “Scooping”)

When you generate audio harmonies to your recorded vocal tracks, you can select Pitch Styles, which adds vibrato and scooping effects to the vocal harmonies. Choose from many vibrato/pitch presets, including “Ballad,” “Broadway,” “Pop Diva” and more!

When you launch the TC-Helicon Audio Harmony dialog, you can see that there is a new drop down combo list at the bottom of each voice. You can choose a type of “pitch effect” (combination of vibrato and scooping) called a Pitch Style to be applied to each harmony voice. In the example screenshot, we have chosen “Natural Vibrato,” “Ballad,” “Broadway,” and “Crooner” – different vibrato types for each harmony voice.

The Pitch Styles are especially useful for harmonies generated from MIDI tracks, because these lack any vibrato. Now by applying these pitch effects, you can get a natural sounding vibrato for these harmonies.
Pitch Styles Preset Details (one per voice)

Each of the four voice banks has a Pitch Styles preset selection list. This control allows pitch scooping and vibrato effects to be added to the harmony voices. These effects can be used to increase the naturalness of vocals processed by melody pitch tracking, produce a more polished, professional sound in the harmonies, and even to create strange special effects. (Have you ever harmonized with a flock of sheep?)

The following table provides a list of the presets, as well as descriptions to help you decide when to use them.

<table>
<thead>
<tr>
<th>Style Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 B Natural Vibrato</td>
<td>This is a very subtle vibrato along with pitch effect that causes the harmony voice to slightly scoop up into some notes, making it seem more distinct from the lead voice.</td>
</tr>
<tr>
<td>2 Ballad Rock Vibrato</td>
<td>A Rock vibrato typically used in slower pieces.</td>
</tr>
<tr>
<td>3 Broadway Vibrato</td>
<td>The classic vibrato of the New York Show-Tune sound.</td>
</tr>
<tr>
<td>4 Classic Rock Vibrato</td>
<td>Classic Rock - A rich and potent sound.</td>
</tr>
<tr>
<td>5 Crooner Vibrato</td>
<td>The classic sound of the Las Vegas entertainers.</td>
</tr>
<tr>
<td>6 Deep Jazz Vibrato</td>
<td>Reminiscent of the great Jazz singers of the 1950s.</td>
</tr>
<tr>
<td>7 Discreet Vibrato</td>
<td>A very light vibrato.</td>
</tr>
<tr>
<td>8 Folk Vibrato</td>
<td>A warm and pleasant vibrato.</td>
</tr>
<tr>
<td>9 Funk Vibrato</td>
<td>An energetic sound from the 70s.</td>
</tr>
<tr>
<td>10 Head Voice Vibrato</td>
<td>A very resonant vibrato, using pitch and amplitude modulation.</td>
</tr>
<tr>
<td>11 Hi Energy Vibrato</td>
<td>A fast vibrato.</td>
</tr>
<tr>
<td>12 Lite Jazz Vibrato</td>
<td>A lighter Jazz sound.</td>
</tr>
<tr>
<td>13 Lounge Vibrato</td>
<td>The bold and big sound of the lounge entertainer.</td>
</tr>
<tr>
<td>14 Mellow Folk Vibrato</td>
<td>A sweet, mellow sound.</td>
</tr>
<tr>
<td>15 Mellow Pop Vibrato</td>
<td>Light accents to a Pop vocal.</td>
</tr>
<tr>
<td>16 Nervous Tremolo Vibrato</td>
<td>A very fast, “nervous,” and choppy vibrato.</td>
</tr>
<tr>
<td>17 Opera Tenor Vibrato</td>
<td>The sound of a Classical Tenor singer.</td>
</tr>
<tr>
<td>18 Tenor Delayed Vibrato</td>
<td>A Classical tenor sound with a delayed onset. Better for slow songs.</td>
</tr>
<tr>
<td>19 Pop Diva Vibrato</td>
<td>The sound heard on many hit Pop recordings.</td>
</tr>
<tr>
<td>20 Pop Diva XT Vibrato</td>
<td>A thicker and fuller Pop Diva vibrato, with a faster onset time.</td>
</tr>
<tr>
<td>21 R&amp;B Vibrato</td>
<td>Vibrato from another Pop music culture - Rhythm and Blues.</td>
</tr>
<tr>
<td>22 Slow Ballad Vibrato</td>
<td>A style typical of slow Pop ballads of the 1970s. Use this on slow songs only because the vibrato isn’t triggered on short notes.</td>
</tr>
<tr>
<td>24 Smooth Pop Vibrato</td>
<td>A smoother Pop vibrato.</td>
</tr>
<tr>
<td>25 Soprano Vibrato</td>
<td>The vibrato sound of a Classical soprano.</td>
</tr>
<tr>
<td>26 Tremolo Vibrato</td>
<td>No pitch modulation, just amplitude modulation.</td>
</tr>
<tr>
<td>27 Warm Vibe Vibrato</td>
<td>A warm and quick vibrato sound.</td>
</tr>
<tr>
<td>28 Memphis Scoop Vibrato</td>
<td>A style typical in ballads of a certain singer from Memphis. Long scoops into some notes, and a strong, slow vibrato.</td>
</tr>
<tr>
<td>29 Changing Scoop Vibrato</td>
<td>A style typical of a certain tambourine man. This one works best on slow songs if you just speak the lyrics without singing them!</td>
</tr>
<tr>
<td>30 Country Scoop Vibrato</td>
<td>A style that mimics that Country “flip” sound on note onsets.</td>
</tr>
</tbody>
</table>
Applying Audio Plug-Ins

When you've recorded audio, you'd likely want to apply some type of effect to the audio recorded. The usual one is reverb. Choose the audio plug-in that you want from the Audio | Plugin menu. For reverb, choose the Reverb option. You'll then see a plug-in with its own settings, specific to the type of plug-in.

Inside the plug-in, you can preview the plug-in effect, and if you like it you can then proceed with processing the entire .WAV file. You can undo the affects of any plug-in by choosing Edit | Undo.

Direct-X or VST Plug-ins

You can apply your favorite DirectX or VST plug-in to the digital audio track. To process a WAV track with a DirectX or VST plug-in, choose Audio | Plugin | DirectX Audio plugins.

Real time DirectX or VST Audio Plug-ins

<table>
<thead>
<tr>
<th>Special Effect</th>
<th>Audio Plug-in</th>
</tr>
</thead>
<tbody>
<tr>
<td>The sound of the jungle-man.</td>
<td>Jungle Vibrato</td>
</tr>
<tr>
<td>The sound of a close encounter with a spaceship landing.</td>
<td>Landing Vibrato</td>
</tr>
<tr>
<td>A motorcycle-like sound.</td>
<td>Motorbike Vibrato</td>
</tr>
<tr>
<td>An agitated, uneasy sound.</td>
<td>Nervous Vibrato</td>
</tr>
<tr>
<td>The likeness of sheep bleating in the field.</td>
<td>Sheep Vibrato</td>
</tr>
<tr>
<td>The sound of a North American emergency vehicle.</td>
<td>Siren Vibrato</td>
</tr>
<tr>
<td>A choppy alternative to a standard vibrato.</td>
<td>Slicer Vibrato</td>
</tr>
<tr>
<td>The sound of your science-fiction imagination</td>
<td>UFO Vibrato</td>
</tr>
</tbody>
</table>
You can real-time process the Band-in-a-Box audio track using DirectX or VST Audio plug-ins. This is useful to "non-destructively" apply EQ, Echo, Reverb, Dynamics, and other effects to a Band-in-a-Box audio track.

The advantage of real-time processing is that you can set effects today, and if you decide you don't like the effects tomorrow, the settings can be easily changed, since the real time effects did not permanently affect your audio track on the hard disk.

To use real-time DirectX or VST audio plug-ins, open the Band-in-a-Box Audio Settings dialog with the Preferences [Audio] buttons.

Check "Use Realtime DX Audio Plugins" to enable this feature.

DX/VST audio plug-ins are not enabled by default, in case an older/slower computer might have trouble with DirectX. If your computer misbehaves with DX/VST audio plug-ins, simply make sure this option is unchecked.

DirectX or VST audio plug-ins and DXi/VSTi synthesizer plug-ins can have playback latency (the delay between when a note is played, and when a note is heard).

Adjust "Audio Latency in mS" to fine-tune for your computer. If you have a fast computer and excellent sound card, the audio latency can be adjusted rather low. However, if you hear audio dropouts, you can set the latency as high as 2000 milliseconds.

Playback timing is equally good with long or short latency. But with longer-than-necessary latency, you have to wait awhile before hearing playback begin, and there is a noticeable delay if you adjust DX plug-in settings during playback.

To edit DX plug-ins, click the [Edit Plugin Settings...] button.
The **Edit** radio buttons let you choose which of the four in-line effects to edit.

The **Bypass** checkboxes let you bypass any of the four effects in a group.

In the above picture, four DX plug-ins are applied to the Band-in-a-Box audio track. First, **PG Dynamics** to balance input levels, **PG Ten Band EQ** for tone polishing, **PG Reverb** to add ambiance, and **PG Peak Limit** to boost and level the amplitude.

The **[Load Group]** and **[Save Group]** buttons let you load and save the effects settings for the currently selected track.

The **[Load Preset]** and **[Save Preset]** buttons let you save and load presets for the current effect (such as **PG Reverb**).

The **[Delete Preset]** button lets you remove a preset from the list of already saved presets.

The **[Options]** button brings up **DX/VST Options** (useful utility functions you may occasionally need).

![DX/VST Options](image)

The **[Edit DX Exclusion List]** button lets you edit the list of plug-ins to include or exclude in the DirectX editor. This is useful if you have plug-ins installed, which are not compatible with Band-in-a-Box. If you edit the exclusion list, you’ll see a dialog box with the left side displaying the included plug-ins and the right side displaying the excluded plug-ins:

![DX Plugin Exclude List](image)
The [<] button lets you move a plug-in from the excluded list to the included list. The [>] button lets you move a plug-in from the included to the excluded list.

The [Scan for New Plugins] button will re-scan for newly installed plug-ins. Use this option if you have installed a new plug-in since starting Band-in-a-Box.

The [Register a New Plugin] button can register a plug-in with Windows, so that audio applications such as Band-in-a-Box or PowerTracks can use the plug-in. Most DX plug-in installers register themselves, but this option is useful if you have a plug-in that doesn’t automatically register itself.

The [Un-Register a Plugin] button removes a plug-in from Windows so it will no longer be available. Many DX plug-ins have uninstallers that automatically unregister, but this option is useful to remove plug-ins that do not have uninstallers. This function does not delete a plug-in from your hard drive. It only removes it from the Windows registry so that it can’t be used.

The [Run DirectX Diagnostic Tool] button runs the Microsoft Direct X Diagnostic Tool. This is a Microsoft program, which checks for problems with DirectX.

[Remove VST Plugin (from list)…] opens a separate list where you can remove VST or VSTi plug-ins.

**NOTE:** The number of real time effects that you can expect to activate at a time without stressing the system depends on the speed of your computer. The more effects you chain together, the more CPU power will be required. For example, only an EQ plug-in will require less CPU power than a chain of four effects such as (Compressor – EQ – Chorus – Reverb).

Today, computers are usually fast enough to support full chains of effects on both the Audio Track and the DXi Synthesizer.

**Reading the Audio and MIDI tracks into other programs**

If you have a Band-in-a-Box song that has an audio track as well, and want to export that song to a sequencer like PowerTracks Pro Audio, follow these steps:
- For a song called MYSONG.MGU, the associated .WAV file (audio track) will be called MYSONG.WAV.
- You should make a MIDI file (by pressing the .MID button). Save the .MID in the same folder as the song.
- Then your sequencer can read the entire file by doing the following inside your sequencer:
  - Open the MIDI file.
  - Import the .WAV file track into the sequence.

**Tip:** PowerTracks Pro Audio recognizes that this is a Band-in-a-Box file with a wave file associated with it, and will offer to read them both in. In earlier versions of PowerTracks Pro and other sequencers you’ll need to follow the steps above.
Rendering Audio Files

Direct-to-Disk Audio Rendering

Audio rendering means converting a MIDI song to audio format, usually to a WAV file. Press the [.WAV] button on the main Band-in-a-Box screen to launch the Render to Audio File dialog.

This shows the directory where the rendered wave file will be saved. You can use the [Choose] button to specify the directory for the rendered wave file, but remember that the file chosen must reside in the same directory as the current one.

If you have selected a DXi synthesizer for your MIDI output in the Opt. | MIDI Driver Setup dialog, one click on [DXi - Direct Render] will quickly convert your song to a .WAV file, normally in a few seconds. You can direct render to audio as separate tracks. If this option is chosen, separate WAV files get written (mono or stereo) for each track (names MySong_Bass.WAV, MySong_Drums.WAV, etc.) so you can import tracks to your favorite sequencer as audio files. For direct rendering, you can also choose whether you want the output file to be mono or stereo.

Batch convert a folder of songs to audio files (MP3, WAV, or WMA).
Do you need to convert an entire folder of Band-in-a-Box songs to audio files? This can be done easily by a single command with an option to name the resultant audio files based either on the original file name or the song title name.

Press the [Batch] button to **Batch create audio files**.

**Batch create audio files (WAV/WMA/MP3) in a given folder**

This will create audio files from multiple BB songs (BGs) in a folder. The files will have _Render added to the file name. (eg. MySong.MGU will be called MySong_Render.WAV)

- Name audio file based on file name
- Name audio file based on song TITLE, max characters: 85
  
  Suffix to add to filenames: _Demo

C:\bb\Styles64

**Change Directory**

**Audio File Type**

- .WAV file
- .WMA file (Windows Media)
- .MP3 file

[Also write WAV files]

Go - Create audio files

Select the folder that you want to use (e.g. C:\bb\Styles 64).

C:\bb\Styles64

**Change Directory**

Add a suffix for each file name.

**Suffix to add to filenames**: _Demo

For example, if the suffix is _Demo, then MySong.MGU will render as MySong_Demo.WAV)

Choose whether you want the filenames to be based on the filename or the song title.

- Name audio file based on file name
- Name audio file based on song TITLE, max characters: 85

Choose whether you want the filenames to be based on the filename or the song title.

**Audio File Type**

- .WAV file
- .WMA file (Windows Media)
- .MP3 file

[Also write WAV files]

Go - Create audio files

Select the file type for the output file from the “Audio File Type” group box.

When rendering to WMA or MP3 files there is an option to also write WAV files.

**Note**: For rendering MP3 files the program uses whatever MP3 codec and bit rate you already have installed in Windows.

Press the “Go” button to render all of the Band-in-a-Box files in the folder to the selected audio format.

This button renders the file to a44K stereo wave
file by real time recording of the MIDI output. See the **Real Time Rendering** topic.

Once the wave file is rendered it can be converted to Windows Media format, or to other compressed formats like MP3 if you have the necessary codec present in your system. Or you can burn the .WAV to an audio CD and play it in any CD player. Use the “Test” button to check the converted file.

**Note:** For rendering MP3 files the program uses whatever MP3 codec and bit rate you already have installed in Windows XP.

Direct rendering to in a single step using your Roland VSC DXi (or other DXi/VSTi synth) is possible if you have an MP3 codec on your system.

If you are not using a DXi synthesizer, you can do high quality audio rendering by using the Roland VSC3 software synthesizer, included with Band-in-a-Box.

The file is saved using the high quality Virtual Sound Canvas sound set powered by the included Roland VSC3. To render with the Roland VSC3, make sure that you have installed the Roland VSC3. If you have installed the Roland VSC3, you'll see it listed as one of the output drivers when you choose Opt. | MIDI driver setup.

You don't have to select the Roland VSC as your MIDI Output driver to use the VSC3 for rendering; you just need to have installed the driver.

Press the [Render (Save WAV) w/Roland VSC3] button to launch the Roland VSC3 Virtual Sound Canvas. You'll see the two panes of the Roland VSC3.

If you only see one of the panes, then you need to open up the “Player” section by pressing the [Player] button. You’ll see that the MIDI file is already prepared and ready to convert to a WAV file.

Press the [AUDIO-CONV] button, and then choose the location and name for the WAV file to save. We suggest that you name the files with the suffix _VSC3, so that if your song is called “Violet Song” then you could name it Violet Song_VSC3.WAV, but of course you can call it anything you want.

**Tip:** If your song uses GM2 patches you need to turn on GM2 in the VSC3.

The WAV file will then be saved as a 44K stereo wave file in a matter of seconds. You can choose a different conversion rate by pressing the Setup – Audio Conversion Rate.
Launches the rendering Help file.

If you are not sure if you have installed the VSC click on this button to find it on your hard drive.

After the VSC wave file has been rendered, you can merge the recorded Band-in-a-Box audio track with the rendered wave file.

Once you've saved the WAV file, you can test it by pressing the [Test WAV] button.

You can then select compression rates so that your file could stream on typical dial-up web modem speed.

You could then convert your song to a CD audio recording by pressing the [Burn to CD] button.

### Rendering Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Merge in Audio Track</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Adjust Audio Track volume by</strong></td>
<td>0 dB</td>
</tr>
<tr>
<td><strong>Include 2 bar lead-in</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Include Drum Count-in sound</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Delay at start (seconds)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Delay at end (seconds)</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Merge in Audio Track**

Rendering of songs to .WAV files always includes the MIDI tracks. If this option is checked, the audio track will be merged with the MIDI tracks in the wave file.

Use “Adjust Audio Track volume by” a number of dBs to balance the audio track with the level of the rendered MIDI tracks. A setting of 6 dB is double the volume, -6 dB is half the volume.

**Include 2 bar lead-in**

If this is not checked, and there is no Melody track lead-in, the 2 bar lead-in will be skipped in the rendered file.

**Include Drum Count-in sound**

If this is set the drum count-in will be included in the rendered WAV file.

**Delay at start (seconds)** will include enough silence at the start of the rendered wave file for a space between tracks when creating audio CDs.

**Delay at end (seconds)** will insert extra time at the end of the song.

### Real Time Audio Rendering

The process of converting a MIDI file performance in Band-in-a-Box into an audio wave file is referred to as “rendering.” It involves recording the real time MIDI performance as a stereo .WAV file.

Pressing this button or choosing the menu item Audio | Render MIDI to Stereo .WAV file etc... enables you to render a MIDI file into an audio .WAV file. Use this feature if you do not want to direct render with the Roland VSC3, for instance you might want to record the audio output of your synthesizer or sound module.

**Note:** This button is not visible when “Use DXi Synth” is selected for MIDI Output.

The process differs from usual audio recording, in that you aren't recording from an input source of a Microphone or Line-In, but instead are recording the OUTPUT of the MIDI as it goes out your sound card to your speakers.

**Note:** If you use an external MIDI module as your driver, then you would be recording from the Line Out of the external module to the Line-In of the sound card.

These selections are done from the Recording panel of your Windows sound card mixer. This is launched with the [Set Recording Properties...] button.
If you use your sound card as your MIDI driver …
It is essential that when you render the file, you have selected the correct inputs, and are recording the outgoing MIDI, and not recording the Mic or Line-In.

If you use an external MIDI module as your MIDI Driver …
You should connect a cable from the audio Line Out of the MIDI module (like Sound Canvas) to the Line-In on the sound card, and then deselect the recording of the rest of the inputs (Audio CD, Microphone, MIDI, Wave, etc.).

**Rendering is a 3 step process:**
It's quickest to do this with a small sample of the wave file. Once you have the volume mixed properly, you can record (render) the whole file. This process takes as long as the song takes to play in real time, typically 3-4 minutes.

1. **Set Recording Properties**
   Set the inputs to record your outgoing MIDI. This would be MIDI if you use a sound card for MIDI, and Line-In for an external module.

2. **Render the song**
   Press the [(Re)-Render to WAV File…] button and wait as the song is recorded (rendered) in real time. When you press the render button, a dialog will pop up indicating that the rendering is proceeding. You can STOP this at any time, and if you stop it early, you'll be able to listen to the portion of the file rendered.

   ![Currently Rendering WAV file, please wait](image)

   The file is now being rendered to an audio file. The file is recorded as the song plays, so this process takes a few minutes. At the end of playback, the process will be completed, and this dialog will close automatically.

   **REMEMBER: UNLESS YOU HAVE MIDI SET TO RECORD IN THE RECORDING PROPERTIES, NOTHING GETSRecordED**

   When rendering is finished, the name and size of the saved file will be displayed at the top of the Render to Audio File dialog.

   ![Message](image)

   Rendering of MIDI is completed. File Saved is named C:\bb\My First Song_Render.WAV. FileSize is 2,450K.

3. **Test the file.**
   You can then use the [Test WAV] button to test the WAV file. For testing, Band-in-a-Box uses Windows Media Player (MPLAYER.EXE) to play the wave file, compressing the WAV file using the Windows Audio Compression Manager (ACM Drivers).

**Using the Audio Rendered Stereo .WAV file with other programs.**
In our example we rendered a stereo 44K wave file. To read this file directly into other programs such as Windows Media Player you would choose File | Open. Most audio programs have a similar ability to read a 44.1K stereo .WAV file.

**Saving in other audio formats**

   ![Save in other Audio format...](image)

   When you choose this option, Band-in-a-Box will launch the Windows Audio Compression Manager.
From this dialog, you can choose the type of compression that is appropriate (from the available installed codecs). You can save your settings as named presets by using the [Save As] button.

**Saving as Windows Media File**

Band-in-a-Box has enhanced audio support for saving in Windows Media Player format. Once you've saved a WAV file, you can compress the file for Internet use, using the Windows Media Player audio format (.WMA).

Press the [Save in Windows Media format (WMA)…] button to save your Band-in-a-Box song as a Windows Media Audio file. This renders the file to a stereo WAV file, and then launches the Convert to WMA/ASF dialog.

There are options to save the file to a specific file name and destination folder, select a resolution (quality) for the file, and even a space to fill in the appropriate Title, Author, Copyright, and Song Description credits. This information will be embedded into the WMA file and will be viewable when the file is played in an appropriate media player.

**Burn your own Audio-CD**

Press the [Burn to Audio CD] button to launch the MiniBurn program and burn your wave file to a CD, which will then play in a standard CD player.

**Note:** Any CD you create won't be playable in an Audio CD player until the disc is finalized. Therefore, if you choose [Burn CD - No Finalize] make sure that when you burn the CD for the last time the disc is finalized.

If launched from Band-in-a-Box, the current BIAB song has automatically been added to the Burn List. If MiniBurn is running standalone, you must add Wave files to the Burn List.

**Burn List**

Burn list files are displayed in MiniBurn’s central file list region.

Column 1 - Track Number
Column 2- Path and name of Wave files
Column 3- Play time of each Track, formatted in minutes:seconds:frames

![MiniBurn interface](image)

**Burn Time** indicates the sum of all the burn list track times.

**Avail Time** indicates the time available on the blank CD-R in the CD Burner. If no disc has been inserted, Avail Time reads “No Disc.” If an unwritable disc has been inserted (CD-ROM disc or already-finalized CD-R, CD-RW), Avail Time reads “UnWritable.”

**Add Files to the Burn List**

Wave files can be added three ways:
1. Use the menu item *File/Add Track*...
2. Right-click on the Burn List and select “Add Track” from the pop-up menu.
3. Drag wave files into the MiniBurn window from an open Windows folder view.

**Note:** Only Wave files are accepted, and Wave files must be 16 bit stereo, 44.1 K sample rate (the standard format for Audio CDs).

**Remove Files from the Burn List**

Files can be removed two ways:
1. Left-click to select a track, then use the menu item *File | Remove Selected Track*.
2. Left-click to select a track, then right-click on the Burn List and pick “Remove Track” from the pop-up menu.

**Clear All Files from the Burn List**

The list can be cleared two ways:
1. Use the menu item *File | Clear All Tracks From Burn List*.
2. Right-click on the Burn List and select “Clear All Tracks” from the pop-up menu.
Change the Order of Tracks in the Burn List
Left-click on the “Trk” column of the file you wish to move, and drag the file to a new location in the list.

Audition Tracks in the Burn List
Left-click to select a track in the Burn List, then right-click and pick “Play Selected File” from the pop-up menu.
To stop playback, right-click the Burn List and pick “Stop” from the pop-up menu.
It is not necessary to stop a wave file before playing a new wave file. It is not necessary to stop playback before burning. Playback stops automatically before burning begins.

Burner Controls
Eject: Open the drive tray using the menu item CD Recorder | Eject. Of course you can also press the eject button on the CD drive.
Close the Drive Tray: Close the drive tray using the menu item CD Recorder | Close Tray. You can also press the eject button on the CD drive, or gently push the drive tray to close it. Some manufacturers advise against closing the tray with a push.
Select a Burner
If the computer contains multiple burners, select a drive with the Burner drop-down menu. If a computer doesn’t have any supported drives, the Burner menu will be empty and burning is not possible.
Set the Burn Rate
MiniBurn automatically selects the fastest rate reported by your drive. It is typical to use the fastest rate, unless you know from previous experience that your computer doesn’t burn well at high speed. In that case, set a slower burn rate to ensure a good burn.
Test Mode Checkbox (Simulate Burn)
To test the CD Burner without actually writing a CD, turn on the Test Mode checkbox. After your PC has “proven itself” with a couple of good burns, routine testing is not necessary.
Cache Files Checkbox
If Cache Files is turned ON, MiniBurn writes an encoded temporary file before burning the CD. Unless burn errors are encountered, performance is faster with this option turned OFF. It is not usually necessary to Cache Files, but there are some situations where Caching is helpful:
1. On a very slow PC, the computer may not be fast enough to translate the wave file to CD audio while burning. Caching may be necessary to avoid errors.
2. If Burn List audio files are stored in another PC on your local network, the network transfer delay may cause errors. Caching will pre-fetch the files to your local hard disk before burning the CD.
Use Burn Proof Checkbox
Burn Proof is a technology available on many newer CD/DVD burners. With Burn Proof, it is less likely to accidentally make a bad CD. If a burner has the Burn Proof feature, the checkbox is automatically enabled and turned ON. If a burner does not have this feature, the checkbox is grayed-out and cannot be adjusted. Unless Burn Proof seems to be causing unlikely strange problems, always use this feature if it is available.

Burn CD + Finalize (Make Playable CD)
Start CD burning. This button is the preferred way to make CDs for use with standalone Audio CD Players. With the other options, ‘Burn CD – No Finalize’ and ‘Finalize Only’, the tracks will typically be readable by computer CDROM drives, but all of your recorded tracks may not be visible to standalone Audio CD Players, even after the disc is finalized.

Note: If you want the disc to be playable in standalone audio CD Players, remember to use CD-R (CD Recordable) discs rather than CD-RW (CD Rewritable) discs. Most stand-alone audio CD players cannot read CD-RW discs.

Burn CD – No Finalize (allow tracks to be added later)
Audio CDs must be “finalized” before they can be recognized by the majority of stand-alone audio CD players (stereos, boom boxes, portable CD players, automobile CD Players), or television DVD players. However, many
computer CD drives can play “Un-Finalized” audio CDs, so you can play them on your computer until all the songs have been added to the CD.

Use ‘Burn CD – No Finalize’ if you wish to add tracks to an audio CD over more than one session.

Note: Be sure to use ‘Burn CD + Finalize’ or ‘Finalize Only’ when you add the final track(s) to a multi-session Audio CD.

When adding tracks to an “Un-Finalized” audio CD, the Available Time field displays the “empty” time remaining on the CDR (the disc currently loaded in your burner).

Example: If you have already recorded 40 minutes to a 74 minute CDR, MiniBurn will display about 34 minutes of Available Time. Take care not to add more tracks than will properly fit on the CD’s remaining empty space.

Make sure that the Total Time does not exceed the Available Time!

Finalize Only (Make Playable CD without adding new tracks)

Audio CDs must be “Finalized” before they can be recognized by the majority of stand-alone audio CD players (stereos, boom boxes, portable CD players, automobile CD Players), or television DVD players. If you have previously added tracks to a disc with the Burn CD – No Finalize function, you can finalize the disc with the Finalize Only button.

Stop Burn

Stop burning before the disc is finished.

Note: If you prematurely Stop, the CD will almost certainly be ruined.

Burning Progress

While a CD is burning, progress is indicated in the lower-left of the MiniBurn window. Progress messages are also displayed in the Status Bar at the bottom of the window.

Read Buffer % - The computer’s disk read buffer usage. If Burn Proof is not available, you may have burn errors if this drops to zero in mid-burn. In this case, try a slower Burn Rate.

Drive Buffer % - The CD Burner’s write buffer usage. If Burn Proof is not available, you may have burn errors if this ever drops to zero. In this case, try a slower Burn Rate.

If a bona-fide buffer under-run actually occurs, MiniBurn also displays an error dialog at the end of the burn.

The two Buffer fields are most useful for diagnosing problems-- If the Read Buffer gets too low, it may mean that the Hard Drive (or network connection) is not fast enough. If the Drive Buffer gets too low but the Read Buffer remains adequate, it may mean that background processes are stealing too much CPU time from MiniBurn.

Track Written - Indicate the current track’s progress.

Total Written - Indicate the progress of the entire burn.
Chapter 11: User Programmable Functions

The StyleMaker™

The StyleMaker is the section of the program that allows you to create brand new styles or edit existing styles. This is done by recording patterns for each of the drums, bass, piano, guitar and strings parts, or by entering these parts in the StyleMaker Pattern Editor notation window. If you don't want an instrument in a style you don't need to record any patterns for it. The StyleMaker window is accessed from the Styles menu by choosing any one of:
- New – Make a New Style to create an entirely new style from a blank template.
- Edit a Style (Alt+F9 keys) to open any style for editing.
- Edit Current Style (Ctrl+Shift+F9 keys) to open the current style in use for editing.

StyleMaker Pull-Down Menus

The StyleMaker has a separate pull-down menu to the main program. Many of the menu commands can be accessed directly with the on-screen buttons in the StyleMaker window.

File

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save Style (F2)</td>
<td>Saves the style, using the current style name. This will overwrite a previous style!</td>
</tr>
<tr>
<td>Save Style As (Alt+F2)</td>
<td>This saves the style, allowing you to rename the style if desired.</td>
</tr>
<tr>
<td>Exit (Alt+F4)</td>
<td>Exits the StyleMaker, prompting you to Save the Style. If you don't save the style upon exit you will lose any changes that you've made.</td>
</tr>
</tbody>
</table>

Edit

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut Pattern</td>
<td>Cuts whichever pattern is highlighted in a row.</td>
</tr>
<tr>
<td>Copy Pattern</td>
<td>Copies a pattern to the clipboard.</td>
</tr>
<tr>
<td>Paste</td>
<td>Pastes a single pattern from the clipboard. Can paste between styles by opening and closing styles and copying and pasting.</td>
</tr>
<tr>
<td>Delete Pattern (Delete)</td>
<td>Erases a Pattern. Can also delete a Pattern by typing a weight of 0.</td>
</tr>
<tr>
<td>Cut from Notation</td>
<td>Highlight and cut notes from a pattern.</td>
</tr>
<tr>
<td>Copy from Notation</td>
<td>Highlight and copy notes in a pattern.</td>
</tr>
<tr>
<td>Paste from Notation</td>
<td>Paste notes into a pattern.</td>
</tr>
</tbody>
</table>

Pattern

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play Pattern (F4)</td>
<td>Plays the pattern using the currently selected style. Loops after 2 bars. If you want to play the song while the StyleMaker is open, you need to press the PLAY button on the</td>
</tr>
</tbody>
</table>
Main screen, as the F4 key will not play the song, it will play the StyleMaker pattern.

**Play Pattern on Chord** (F8)
This plays back a pattern as it would sound in a song on a certain chord. This is useful to see the effects of smooth voice leading or macro notes in a pattern.

**Record Pattern** (F3)
Records a pattern. For drums it enters the STEP EDIT Drum Editor. For the other instruments, it starts a real time record (2 bar lead in then record 2 bar pattern).

**Options** (F10)
Allows you to set or change options (masks) for a specific pattern. This same dialog box also appears at the end of recording a pattern.

**Quantize Pattern** (Alt+Q)
Quantifies a pattern to a given resolution. You can apply a percentage setting to adjust the “strength” of the quantization.

**Slide Pattern**
This time shifts the pattern X ticks (120 ticks per beat).

**Volume adjust (this pattern)** (Ctrl+Alt+W)
The `Pattern | Volume adjust (this pattern)` command displays the average velocity (volume) of the pattern and lets you set a new volume. Styles sound smoother if all patterns of one instrument are at similar volumes.

**Volume adjust (this row)** (Alt+V)
`Pattern | Volume adjust (this row)` sets the volume of all patterns in the selected row.

**Volume Adjust (all patterns)** (Alt+J)
You can quickly set the volume for an entire instrument by using the `Pattern | Volume Adjust (all patterns)` command. For example, if the strings are too loud, turn the [Strings] button “on,” select `Volume Adjust (all patterns)`, then type a number from 0 to 127 lower than the number that is currently displayed.

**Legato Adjust**
This adjusts the legato of each note. Units are 120 ticks/beat. Legato is the length of each note. Useful if you find a pattern that’s too percussive or too legato.

**Transpose Pattern**
This transposes the pattern X semitones. For example, +12 would transpose the pattern one octave up.

**Trim Pattern**
This deletes notes from the end of a Pattern.

**Velocity Adjust**
This function adds or reduces the velocity of a single pattern, row of patterns, or all patterns in an instrument. Choose the menu items for 1 pattern, 1 row, or the whole instrument and input the velocity change to make for the pattern(s). This will add or subtract a certain velocity value to the patterns, useful for reducing or increasing the volume of an entire instrument or fine-tuning the velocities in a style.

When adjusting velocities, use a single note only.
When this menu item is selected, only the MIDI note number that is specified will have its velocity adjusted, unless a note number of 0 is entered. If the note number is entered as 0 then all notes in the pattern(s) will have their velocity adjusted.

**Import Pattern**
This allows you to import pattern(s) from the Melody track, MIDI file, or MIDI data on the clipboard. The dialog box that appears allows you to select the # of patterns you want to import. Normally this will be one. If it is more than one (say, 4), then 4 consecutive patterns would be imported on to the current row of the StyleMaker.

**Style**

**Patch Assignments** (Alt+F10)
Assign patches to a style. See **Patch Assignment** dialog box.

**Misc. Settings** (Ctrl+F10)
Assign miscellaneous settings to a style. See **Misc. Settings** dialog box.

**Next Instrument** (F6)
Changes the instrument setting between Drums/ Bass/ Piano/ Guitar/ Strings.

**Previous Instrument** (Shift+F6)
**Import Instr. from Style**

(Alt +F3)

Import an instrument from one style into another. See Import Instrument dialog box.

---

**Import Drums from .MID to Drum Kit**

Since you can define a custom drum kit for the grid editor, this function allows you to use the instruments that are found in a MIDI file. A quick way of building up a kit. For example, if you are making a Latin style called “mambo”, you could load in a Mambo MIDI file that you made, and then the StyleMaker’s “Style | Import notes from .MID to Drum Grid...” menu command would extract the drum notes from the MIDI file, and put them on the drum grid.

---

**Define a Custom Drum Kit**

Since the Drum Grid Editor uses 19 instruments, this allows you to define which instruments will be used, and create a custom drum kit.

---

**Copy all “a” substyle patterns to “b”**

Copies all “a” substyle patterns to “b” slots. This feature is handy when only a volume increase tweaking is required for the “b” substyle.

---

**Copy Current Row to Row ___**

Copies an entire row of patterns to the new row specified.

---

**Delete all Patterns in this Row**

Deletes all of the patterns in the selected row.

---

**Style Checker**

Analogous to a “Spell Checker,” this function analyzes your style-in-progress and identifies possible problems.

The Style Checker results are output to a text window, allowing you to examine the patterns and fix them if required. It identifies patterns that might be “too busy” or incorrect macro notes etc. in a text report about the style, listing possible problems with the style. Here is a sample printout.

-----Start of style checking ------JAZQUINT.STY

Drums: Row 1, Column 1 First pattern of instrument shouldn't contain masks in it. It should be generic.

Bass: Row 1, Column 1 First pattern of instrument shouldn't contain masks in it. It should be generic.

Piano: Row 1, Column 3 Non Chord tones found (other than C, E, G, Bb) and pattern is not set to a chord mask, riff based or MACRO

…etc., etc.

-----end of style checking ------

**Style Summary**

This displays a text window summary of the style, including lots of information about the style such as # patterns, # patterns for each substyle, patches, pushes, volume changes, guitar patterns, and more.

---

**Help**

These menu items are quick links to the main Help, and to StyleMaker topics in particular.

**Index (F1)**

**Topic Search (Ctrl+F1)**

**StyleMaker Overview**

**Tutorial 5 Editing an Existing Style**

**Tutorial 6 Making a New Style**

**Drum Patterns**

**Bass Patterns**

**Piano/Guitar/String Patterns**

**How To (Shift+F1)**
**StyleMaker Toolbar Buttons**

These options are also available from the StyleMaker window pull-down menus.

- **Save**
  Saves and overwrites existing style using current name.

- **Save As**
  Saves the style, but allows you to rename it first.

- **Play**
  Plays the current pattern.

- **Stop**
  Stops the playback of the current pattern.

- **Chord**
  Plays the current pattern over a specific chord.

- **(Drum Grid Editor)**
  Allows creation or editing of a drum grid pattern.

- **(Record)**
  Begins live recording of a Bass/Piano/Guitar/Strings pattern after a 2-bar intro.

- **(Notation)**
  Displays current pattern in notation, allowing editing of pattern in notation.

- **(Options)**
  Change the volume of the selected pattern.

- **(Quantize)**
  Increases or decreases note durations for the pattern.

- **(Volume)**
  Assign instruments to the style.

- **(Legato)**
  Overall style settings including master volumes.

- **(Patch)**
  Assign instruments to the style.

- **(misc.)**
  Exits the StyleMaker and closes the window.

- **(Song)**
  Plays the current song using the new style you're making.

- **(Exit)**
  Exits the StyleMaker and closes the window.

A right-mouse menu has options to *Play Pattern, Play Pattern on Chord, or Mute Pattern.*

---

**Options**

- **F10**
  Options
  - Play pattern sh-click or dbl-click F4
  - Play Pattern on Chord F8
  - Play pattern on Current chord (ctrl-Click) F8
  - Make/Edit Drum Grid Pattern F3
  - Edit Live Drums Pattern (notation) Ctrl+W
  - Mute Pattern

**Exploring the StyleMaker**

To become familiar with the StyleMaker it is easiest to begin with an existing style and examine its makeup. This example uses **ZZLITROK.STY**, a basic Light Rock style. Patterns are played back from the main StyleMaker screen:

- **Drums (0)**
- **Bass (36)**
- **Piano (5)**
- **Guitar (49)**
- **Strings (28)**

The StyleMaker displays current patch numbers for the parts on the main window.
The StyleMaker always opens to the **Drums** window, as indicated by the highlighted button to the left of Drums. Other parts are selected by clicking on their buttons, just as in the main Band-in-a-Box screen.

The rows of cells are for the musical patterns that have been recorded for the style. Each numbered cell is a pattern; the blank cells are for new patterns. The numbers are the weights assigned to the pattern, a higher number, or weight, means that a pattern will be played more often. The average weight is 5.

In the example above, you will notice that there are 4 rows of drum patterns.
- A pattern is the row to record drum patterns for the A substyle.
- B pattern is the row to record for the B substyle.
- drum fills are recorded on the drum fills row
- end drums are ending patterns (2 consecutive patterns of 1 bar)

This style shown has nine drum patterns for its “a” substyle, and eight more for the “b” substyle variation. It also has eight drum fills and four ending patterns.

**What's a pattern?**
A pattern is one musical figure, a single element of a musical style. When Band-in-a-Box combines the various note patterns into arrangements we hear what the different instrumentalists would play for a song in that style.

**Drum Patterns**
In our example, the drum patterns are what the drummer plays for a Light Rock song.

You can view any drum pattern in the row if you click on the box and then on the drum grid button to open the Drum Pattern Editor.

The Drum Pattern Editor grid shows which drums in an 18-piece kit are being played on what beats and with what velocity (force) they are being hit. Each group of columns separated by a vertical line represents one beat in a four-beat bar, sub-divided into 16\textsuperscript{th} notes. If there was a number in each cell across the row for any instrument, that instrument would play sixteenth notes for the whole bar.

In a swing style each beat would be sub-divided into eighth-note triplets, with three columns to a beat.

Let’s examine the pattern in detail.

The highlighted cell shows that the Bass Drum is being played on beat 1 at a velocity of 83. (The loudest possible note has a velocity of 127, while 0 is silent.) Moving to the right, you will see that the Bass Drum plays again on the second eighth note of beat 2 with a velocity of 73, and then on beat 3 with a velocity of 93, the familiar “boom-ba-boom” Pop/ Bossa Nova beat.

The Closed High Hat plays straight eighth notes at different velocities.

The Snare Drum plays on beats 2 and 4 in a typical Light Rock backbeat.

You can easily create new patterns of your own by selecting an empty box in a row of patterns and then clicking the [Rec] button to open a blank Drum Pattern Editor grid. To hear the pattern you have made click on the [Play] button. Click on the [Help] button for more tips and details.
Defining a Custom Drum Kit

To set up a custom drum kit, select the menu item Style | Define Custom Drum Kit in the StyleMaker window to launch the Define Custom Drum Kit dialog. You can choose the 18 drum instruments to be used on the drum grid. Any of the GM instruments may be chosen. Kits may be saved and loaded to disk.

In defining a custom drum kit in the StyleMaker, you can use the drum notes found in a MIDI file. For example, if you are making a Latin style called “mambo,” you could load in a Mambo MIDI file that you made, and then the [Import notes from MIDI] button could be used to import the drum notes.
Drum Screen Alternate Notes

What are alternate notes?

Alternate notes can be entered for any note. This tells Band-in-a-Box to randomly choose a different note to the one specified. For example:
- you might want a note to be a closed high hat 80% of the time, and an open high hat 20% of the time.
- you might want a note to be high conga 60% and low conga 40% of the time.
- or high tom 30% of the time and NO note the other 70%

This allows one drum pattern to sound like many, because it will be played different ways depending on which of the notes are picked.

How To Put In An Alternate Note

Click on the cell in the Drum Pattern Editor where you want to add an alternate note. Then press the [Alt.] button or press the F5 key to open the Alternate Drum Note dialog box.

Type in the #s as you see here.
- The Alternate will play 50% of the time.
- The Alternate note #4 is Open High Hat (you will see the list of note #s at the side of the screen.
- The Alternate note will play at a velocity of 90.

Check the “Double note (32nd note)” checkbox to have the alternate note play as a doubled 32nd note.

“Omit first note” works together with the Double note feature to play only the second 32nd note.

When you exit the dialog box you will see that the note cell now has a red border indicating that an alternate note is located there.

Tip: All Band-in-a-Box styles must have at least one drum pattern, even if there are no drums in the style. In that case, open the Drum Grid Editor and enter a value of 0 on beat 1 of the pattern for any drum and then save the pattern.

Click on the [Exit] button to return to the Drum window.

The Drum Options dialog will open, click on [OK] and it will close.

These options determine how and when an individual drum pattern gets played.

Relative Weight (Usual Setting =5)

Relative Weight is the number that you assign to the pattern from 1-9. Numbers from 1-8 indicate how often you want the pattern to be played in relation to the other patterns on the same row. A weight of 9 is a special setting that ensures that the pattern will ALWAYS be played. Patterns assigned a weight of 9 usually have other options set which instruct the pattern to only be played at certain times (bar after a drum fill for example).
Playback Bar Mask (Usual Setting = 0)

Playback Bar Mask determines on what bars of the song the pattern will play. The bar #s are counted relative to the last part marker. Bar 1 is the first bar after a part marker for example. A bar mask setting of 0 is the default. This lets the pattern be played at any time.

Other bar mask settings:
- Bar 1 of 4
- Bar 2 of 4
- Bar 3 of 4
- Bar 4 of 4
- Bar 5 of 8
- Bar 6 of 8
- Bar 7 of 8
- Bar 8 of 8
- pre-fill - refers to the bar before a fill
- fill - refers to the bar of a fill. This is not applicable to drums because there is a special row for drum fills.
- post-fill - refers to the bar after a fill, which is the same as the first bar after a part marker.

Drum Fill On Substyle (Usual Setting = 0)

This setting is only relevant on the Drum Fills line. It lets you specify if you want the drum fill to be used on the “a” substyle, the “b” substyle, or either. The default setting is “either.”

Late Triplets (Usual Setting = 0)

This is only relevant in drum patterns with time base =12 (triplet feel). If you want the 3rd triplet to be played late, as is usually done in slow Jazz styles, then set a number from 0-10. The default is 0 = not late at all. A typical setting for a slow triplet style is triplets late =5 where one unit is 120/beat.

This type of pattern is found in earlier Band-in-a-Box styles. Later styles use live MIDI drums, which are edited as notation. The same options are used.

Editing Live Drums Patterns (or patterns imported from a MIDI file)

Live drum patterns are recorded in real time from a MIDI controller - either MIDI drum pads or a velocity sensitive MIDI keyboard. You can also import MIDI patterns from any standard MIDI file with the StyleMaker’s Pattern | Import Pattern from MIDI file command.

To edit these patterns, press the notation button in the StyleMaker toolbar to open a special StyleMaker Pattern Editor notation window. Edit the drum notes in the Editable Notation or Staff Roll view, just as you would edit regular notation.
RealDrums Styles

RealDrums are actual recordings of studio drummers, pieced together by Band-in-a-Box to create a unique "real" drum track that is played along with the MIDI tracks created by Band-in-a-Box styles.

It is possible to assign RealDrums (audio drums) to a particular Band-in-a-Box style in the Misc. Style Settings dialog.

RealDrums Settings (Audio Drums, instead of MIDI drums)

Enable "Style uses RealDrums (audio drums)" in order to designate a RealDrums style, then press the [RD] button to select your RealDrums style. Whenever the current style is played, it will use your RealDrums style provided that RealDrums are enabled in the RealDrums Settings dialog. There are also additional volume controls here.

To make your overall dB setting a bit higher or lower for this particular Band-in-a-Box style you can enter a setting here. There are also fields for adjusting the ‘a’ or ‘b’ subsection volumes only.

If you remove the check mark from either "Allow ‘a’ substyle RealDrums" or "Allow ‘b’ substyle RealDrums" the one with the checkmark remaining will be used for the entire song, regardless of what substyle is currently called for in the song.

See the following tutorial on Making RealDrums Styles.

Bass Patterns

Click on the button to the left of Bass to open the bass pattern window. Notice that the status bar gives the Row and Column number for the current pattern.

You’ll see that this window is different from the Drums window, it has rows for different lengths of patterns – 8 beat, 4 beat, 2 beat and 1 beat – for both the A and B substyles, and a row for endings.

To see a bass pattern, select any numbered box and click on the notation button. The StyleMaker Pattern Editor will open, showing the selected pattern as notation.

Click on the [N] button to enter the Editable Notation mode. In this mode notes can be edited, added, or deleted as in the regular notation.
A new pattern can be created by selecting an empty cell in the StyleMaker grid and then opening the StyleMaker Pattern Editor window to enter notes with your mouse. A quicker way to make a new pattern is to record it live from a MIDI keyboard or any other MIDI controller that is connected to your computer.

**Recording a New Pattern**

New patterns are recorded by playing them live in real time as the StyleMaker plays an accompaniment on the drums and other instrument parts for the style. If you don’t want to hear other parts - say you just want to play along to the drums – any part can be muted with a right mouse click on the instrument name in the Band-in-a-Box main screen.

Go to the correct row for the length of the pattern you want to record (8 beat, 4 beat, etc.) and click on an empty cell. Recording is started with the [Rec] button. When it is clicked, the drums and any other parts that are present will start to play but recording has not begun.

The StyleMaker gives you a 2-bar intro to get ready to record the new pattern, so you can play along with the intro for a “flying start” or just use the 2 bars to count yourself in. Recording then begins and continues for another 2 bars, no matter what length of pattern you are recording. If you are just recording a 4 beat pattern you will still hear the 2-bar intro and then another 2 bars of accompaniment while the pattern records. You would just play your 4 beat pattern and then wait until recording stops.

**Tip:** Remember that patterns can be edited in the StyleMaker Pattern Editor, so you don’t have to redo an otherwise good take because of a small mistake.

When recording stops, a Record Options dialog opens. The options determine how and when each individual Bass pattern gets played. They can always be changed after the style has been saved.

Click on OK to save the pattern with the default options. Click Cancel to erase the take and record the pattern again.

To hear the pattern you have just recorded click on the [Play] button or, better yet, click on the [Chord] button in the StyleMaker toolbar to hear how it sounds playing different chords.

### Bass Pattern Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Weight</td>
<td>5</td>
</tr>
<tr>
<td>Playback Bar Mask</td>
<td>0</td>
</tr>
<tr>
<td>PlayBack Beat Mask</td>
<td>0</td>
</tr>
<tr>
<td>Roman Numeral Mask</td>
<td>0</td>
</tr>
<tr>
<td>Chord Type</td>
<td>Any</td>
</tr>
<tr>
<td>Interval To Next</td>
<td>Any interval</td>
</tr>
<tr>
<td>Half Octave range</td>
<td>Full</td>
</tr>
<tr>
<td>Play Pattern Pushed how often</td>
<td>0 %</td>
</tr>
<tr>
<td># Ticks to push pattern</td>
<td>0</td>
</tr>
</tbody>
</table>

To use Macro Notes

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**Bass Pattern Options**

### Relative Weight (Usual Setting = 5)

Set this number higher/lower if you want the pattern to be played more/less often than the other patterns on the same row. This number is also displayed on the main StyleMaker screen. A setting of 9 (always) is a special setting that instructs the pattern to always be played instead of the other patterns on the same row. These patterns always have other options set which specify the times that this pattern would be eligible to be played.

### Playback Bar Mask (Usual Setting = 0)

Playback Bar Mask determines on what bars of the song the pattern will play. The bars are counted relative to the last part marker, and range from 1-8. Bar 1 is the first bar after a part marker for example.

Other bar mask settings:
- Bar 1 of 4
Special Bar Masks
- pre-fill - refers to the bar before a fill
- fill - refers to the bar of a fill (this allows you to put in "bass fills" for example)
- post-fill - refers to the bar after a fill, which is the same as the first bar after a part marker.

Playback Beat Mask (Usual Setting = 0)
Set the beat mask to a beat from 1-4 if you want the pattern to only be played on certain beat #s. 1= Beat 1, 2= Beat 2, 3= Beat 3, 4= Beat 4.

Roman Numeral Mask (Usual Setting = 0)
If you have a pattern that should only be played on the I chord or the IV chord (of the key), you can use these Roman Numeral Masks. This setting is rarely used.

Chord Type (Usual Setting = Any)
This setting is very useful. This allows you to record patterns that will only work on certain types of chords. For example you can record a specific riff that will only work on a minor 7th chord. You then play the pattern on a Cmin 7 (not a C7). There are chord types for most types of chords.

Interval To Next (Usual Setting = Any Interval)
This setting allows you to restrict the pattern to be played only if the next chord is a certain interval away. For example you can record a bass pattern that is walking up a fourth and then assign an Interval of Up 4th so that the pattern would only be played if you're going up a 4th.

Half Octave range (Usual Setting = Full Octave)
This is a new setting in the StyleMaker. Usually a pattern will be picked on any of the 12 roots. You can select a smaller range, either A to D, or Eb to Ab. In this case the pattern would only be picked if the chord in the song is in that range.

Play Pattern Pushed how often (Usual Setting = 0 %)
# Ticks to Push Pattern (Usual Setting = 0)
Pushed patterns are patterns that are played before the chord begins. Jazz styles typically use pushed patterns for the piano. Patterns are recorded in the normal way (non pushed) and then you assign the % of time and amount (in ticks, 120 ticks = 1 beat) to push the pattern. The pattern only plays pushed in the song, not when played in the StyleMaker window.

OK to use Macro Notes (Bass Usual Setting = No)
Bass macros are special notes that you record. When they are played back they are replaced by a function.

List of Bass Macro Notes
Note# 72 (C):  Pop Walking Note(s). Playback with the [F8] key and note #72 will be replaced by up to 4 intelligent notes per pattern walking in a Pop/Country mode to the next chord.
Note# 76 (E):  Note a semitone below root of next chord.
Note# 77 (F):  Root of next chord.
Note # 78 (F#): Note a semitone ABOVE root of next chord.
Note # 79 (G):  Best fifth (a fifth above or below the root depending on how high the root is. Stays on the root if in a slash chord (C7/E).
Remember that to get Bass Macros working you must:
- Hit the right note # (you may be out by an octave).
- Set “OK to use macros” to “Yes.”
- Playback the Pattern with [F8] key or [CHORD] button. The [F4] playback key gives you a literal playback with strange sounding high macro notes.

**Chord Selection Dialog Box**

This section is accessed by the [Chord] button, the **F8** key or by choosing **Pattern | Play Pattern on Chord** from the pull-down menu.

This plays back a pattern on a specific chord that you choose in either the key of C or the key of F. You can hear what patterns will sound like in a style by “trying them out” on certain songs. Macro notes recorded in a pattern will play their corresponding chords, smooth voice leading is demonstrated etc.

Just choose a chord and press OK.

**Note:** Does not apply to drum patterns, since drum patterns don’t play any differently on different chords.

**Assign Instruments to Style Dialog Box**

The [Pat.] button opens the **Assign Instruments to Style** dialog. When the song is played back using the style, these patch changes will be sent to your synthesizer.

General MIDI instrument patch numbers are used, and if your synthesizer or sound card supports GM2 patches they can be selected by clicking on the [+].

Check “Use separate patches for ‘a’ and ‘b’ substyle” to have the patches change when the substyle changes. This example shows patches for the ‘a’ substyle.

If you don’t require a specific instrument for the style, select (No Patch Change).

The patch changes take effect immediately in the style, so that when you are recording bass parts for example, you will hear the bass patch that you have selected.
Thru Patch
If you set the Thru Patch to other than 0 the instrument that the user plays along to your style will be the Thru patch that you set. If you're making a "Heavy Rock" style, you might want to set the Thru patch to be Overdrive Guitar if you expected that the user would want to play along on a rock guitar patch.

Melody Patch
If set to other than 0 all melodies will be played on the specified instrument. If you're making a "Grover W" style for example, you might want any melodies to be automatically set to saxophone.

Misc. Style Settings Dialog Box
This dialog box allows you to set some miscellaneous settings for the style.

Style Name
You can give a full 60-character name to the style.

Waltz?
If you want to make a waltz with the StyleMaker, check the “Waltz?” checkbox in the Misc. Style Settings dialog. Then the StyleMaker will record, and play patterns in 3/4 time. The “8 beat row” will record “6 beat “ (2 bar patterns), the ‘4 beat’ will record 3 beat (1 bar) patterns. The 2 beat and 1 beat still record 2 and 1 beat patterns. The new style is made as a waltz, and will play with a 3/4 lead in. There is no need to put a 3/4 time signature change in bar 1.

Jazz Style?
This lets Band-in-a-Box know if the style you've made is a Jazz style or not. If it’s a Jazz style it will use the Jazz Snare/Bass Drum instead of the Pop Snare/Bass Drum, and also makes some other decisions based on this setting.

Tempo
This allows you to set the default tempo for the Style. This is stored with the style. You can also change this tempo by the tempo button on the StyleMaker main screen. Tempos can also be changed by the [ and ] keys.

Resolution
Styles can either have Triplet (swing eighth notes) Straight (even eighth or sixteenth notes) resolution.

Use Latin Drum Kit
Check to use a Latin drum kit in this style with instruments like maracas, casaba, and agog.

Velocity Boost of pushes
Pushes can get a velocity boost, so that they are played louder than other patterns. A usual setting would be 10.

# ticks to push
Styles can be pushed with the StyleMaker. This will cause the patterns to be played a little ahead of the beat, a certain % of time, which gives your arrangement a more human (musical) feel.

Band-in-a-Box uses a resolution of 120 PPQ, i.e., 120 ticks to a quarter note.
- 30 ticks = sixteenth note
- 40 ticks = triplet eighth note (Swing)
- 60 ticks = eighth note
Choose the number of ticks for each push to use.

Substyle Pushes
The % of notes that are pushed can be set separately for each instrument part and for the “a” and “b” substyles.

In this example, the Bass part patterns will get pushed (randomly) 10% of the time in the "a" substyle and 20% of the time in the "b" substyle.

<table>
<thead>
<tr>
<th>Substyle Pushes</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bass</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>
Allow Volume Changes with Style (Usually = No)

Usually you don't want specific volume changes in a style. But if you decide to change the volume of instruments, you can do it by setting this to YES and then entering the Volumes you want in the settings below. (A better way to change the volume of a part is to use Pattern | Volume Adjust (Alt+W) to set the volume of each pattern individually.)

‘Riff’ voicing type uses chord tones

This is an option for piano, guitar, and string patterns. If selected, voicing modifies to match the chord and scale. Deselect for a simple transpose ignoring chord type.

Press the [More..] button for the additional Settings for Rests, Pushes dialog.

Since rests can be “shots” that play a chord on beat 1, the style can define what instrument to use for this, and at what volume.
Similarly, each push is accompanied by a drum stab, and the style can define what instrument to use and at what volume.

The **Lowest Bass Note** setting defaults to the low E on the bass guitar or acoustic bass. It can be changed to match the range of other bass instruments, such as a tuba, or to extend the range of the bass for keyboards or 5-string and 6-string basses.

**Guitar Macros**

These settings determine what type of guitar chords will be used, and only apply if the patterns are recorded using the guitar macro notes, and if the pattern is set to use guitar macro notes.

**Allow Late Notes**

This opens the **Settings for Making Late notes quieter** dialog. Notes played near the end of a pattern will usually conflict with the next chord. So it’s best to prevent notes near the end of a pattern from playing. There is a global setting for this in **Opt. | Preferences | Prefs2**.

**RealDrums Settings (Audio Drums, instead of MIDI drums)**

It is also possible to assign RealDrums (audio drums) to a particular Band-in-a-Box style. Enable "Style uses RealDrums (audio drums)" in order to designate a RealDrums style, then press the [RD] button to select your RealDrums style. Whenever the current style is played, it will use your RealDrums style provided that RealDrums are enabled in the **RealDrums Settings** dialog. There are also additional volume controls here.

To make your overall dB setting a bit higher or lower for this particular Band-in-a-Box style you can enter a setting here. There are also fields for adjusting the ‘a’ or ‘b’ subsection volumes only.

If you remove the check mark from either "Allow ‘a’ substyle RealDrums" or "Allow ‘b’ substyle RealDrums" the one with the checkmark remaining will be used for the entire song, regardless of what substyle is currently called for in the song.

**Piano, Guitar, and String Patterns**

Piano, Guitar and String patterns are recorded in the same way as live Drums or Bass patterns, but with added features and options. Guitar styles can be created with authentic strumming and rhythm patterns using correct fret positions.

**Piano/Guitar String Pattern Options dialog box.**

The StyleMaker shows summary information about non-default settings in a pattern at the top title bar, so they are easy to spot.
Relative Weight (Usual Setting = 5)
Set this # higher/lower if you want the pattern to be played more/less often than the other patterns on the same row. This number is also displayed on the main StyleMaker screen. A setting of 9 (always) is a special setting that instructs the pattern to always be played instead of the other patterns on the same row. These patterns always have other options set which specify the times that this pattern would be eligible to be played.

Playback Bar Mask (Usual Setting = 0)
Playback Bar Mask determines on what bars of the song the pattern will play. The bar #s are counted relative to the last part marker, and range from 1-8. Bar 1 is the first bar after a part marker for example.

Other bar mask settings:
- Bar 1 of 4
- Bar 2 of 4
- Bar 3 of 4
- Bar 4 of 4
- Bar 5 of 8
- Bar 6 of 8
- Bar 7 of 8
- Bar 8 of 8

Special Bar Masks
- pre-fill - refers to the bar before a fill
- fill - refers to the bar of a fill (this allows you to put in "bass fills" for example)
- post-fill - refers to the bar after a fill, which is the same as the first bar after a part marker.

Playback Beat Mask (Usual Setting = 0)
Set the beat mask to a beat from 1-4 if you want the pattern to only be played on certain beat #s. 1= Beat 1, 2= Beat 2, 3= Beat 3, 4= Beat 4.

Roman Numeral Mask (Usual Setting = 0)
If you have a pattern that should only be played on the I chord or the IV chord (of the key), you can use these Roman Numeral Masks. This setting is rarely used.

Chord Type (Usual Setting = Any)
This setting is very useful because it allows you to record patterns that will only work on certain types of chords. For example you can record a specific riff that will only work on a minor 7th chord. You then play the pattern on a Cmin 7, not a C7. There are chord types for most types of chords.

Interval To Next Chord (Usual Setting = Any Interval)
This setting allows you to restrict the pattern to be played only if the next chord is a certain interval away. For example you can record a bass pattern that is walking up a fourth and then assign a Interval of Up 4th so that the pattern would only be played if you're going up a 4th.

Half Octave Range (Usual Setting = Full Octave)
Usually a pattern will be picked on any of the 12 roots. You can select a smaller range, either A to D or Eb to Ab. In this case the pattern would only be picked if the chord in the song is in that range.

Play Pattern Pushed – how often (Usual Setting = 0 %)
# Ticks to push pattern (Usual Setting = 0)
Pushed patterns are patterns that are played before the chord begins. Jazz styles typically use pushed patterns for the piano. Patterns are recorded in the normal way (non pushed) and then you assign the % of time and amount (in ticks, 120 ticks = 1 beat) to push the pattern. The pattern only plays pushed in the song, not when played in the StyleMaker window.
OK to use Macro Notes (Usual Setting = No)
Piano Macros are special notes that you record. When they are played back they are replaced by a function, as listed below.

List of Piano Macro Notes (same as Guitar/String macro notes)
MIDI Note # 83 B  Pop Chord Diatonic Below
MIDI Note # 84 C  Pop Chord
MIDI Note # 85 C#  Pop Chord Diatonic Above
MIDI Note # 88 E  Jazz Chord Chromatic Below
MIDI Note # 89 F  Jazz Chord
MIDI Note # 90 F#  Jazz Chord Chromatic Above
Remember that to get macro notes working you must:
- Hit the right note # (you may be out by an octave).
- Set OK to use macros to Yes.
- Playback the pattern with [F8] key or [CHORD] button. The [F4] playback key gives you a literal playback with strange sounding high macro notes.

☑ Use Guitar Macros

Check “Use Guitar Macros” to enable guitar macro notes for this pattern.

Click the [Guitar Options..] button to specify guitar macro note parameters.

Transpose Root Pattern (Usual Setting = No)
This is a rarely used setting. It only is relevant when voice leading is set to smooth. It determines where the center of the pattern is considered to be. If set to “Yes,” the center of the pattern will be moved to the key of the song.

Embellish Pattern (Usual Setting = None)
If set to “embellish 1” the pattern will be embellished. This is useful in Jazz styles. “Embellish 1” embellishes the chord once in the pattern, whereas “embellish 2” changes the embellishment during the pattern.

Transpose Down Limit (Usual Setting = 6)
This setting is quite useful. It controls the range that the pattern will be played over. For example, if the transpose down range is set to =2 the pattern (recorded in C) will be transposed a maximum of 2 semitones down, and therefore up to 10 semitones up to play all 12 possible roots of the chords.

Voice Leading (Usual Setting=Transpose)
The easiest type of voice leading is transpose only. If the notes C-E-G-Bb were played as a C7 pattern, then Band-in-a-Box would transpose that voicing to an F7 chord as F-A-C-Eb, which is fine but not very smooth.
A more pleasant setting would be “smooth” voice leading. Then the F7 would be voiced automatically as C-Eb-F-A.

“Riff based” voicing is used when you have recorded a pattern with a melodic riff in it. This setting ensures that Band-in-a-Box will not try to transform any of the notes into chord tones.

Guitar Styles with the StyleMaker
Guitar Styles with incredible authenticity are possible in the StyleMaker. You can use new macro notes to be played back as a Jazz, Folk, or Pop guitar chord using correct fret positions for accurate guitar-friendly chords.

Playing back Guitar Styles
Guitar Styles are identified by the exclamation point (!) in the style name. This is not a requirement, but is usually present in the style name. For the typical user who is just using the styles for playback and isn't making their own styles there's not much that you need to know about the styles, since they play normally like other Band-in-a-Box styles.
You can see which tracks have intelligent guitar parts by looking at the title window of the Guitar fretboard, when
the track is highlighted. If it is a Guitar Style track, it will say [Guitar Voicings] after the name of the track. The
usual track that has the intelligent guitar styles is of course the Guitar Part. Some of the styles have more than 1
guitar, so the piano and/or strings part might also have an intelligent guitar part. In these cases, you can also view
the guitar on those tracks.

The styles can be set to use different types of voicings for guitar. For example, there are Jazz, Pop, and Folk (open
position) voicings. Also, some of the styles allow the guitar to play advanced chords and inversions. Some of
the styles play chord patterns, so the chord in the song might be F7, but the guitar plays a “walking-chord” pattern
of F7,Cm7/G, Abdim, F7/A on each beat. There can be fingerpicking styles that have a lowest note alternate between
root and 5th.

Guitar Parts use channels 11 to 16 for the notes, corresponding to strings 1 to 6 of the guitar. When you make a
MIDI file, the notes will all get written on a single guitar channel. Sequencers like PowerTracks Pro Audio will
recognize guitar parts on all 6 channels, so if you want to write the MIDI file from an intelligent guitar style, you
can set Band-in-a-Box to do this from the Opt | Preferences... | Write Guitar part on 6 channels option.

To make a Guitar Style:

Press the [Misc] button to enter the Misc. Style Settings window, and then press the
[Guitar Macros] button to launch the Settings for Guitar chord macros dialog.

In the Settings for Guitar chord macros dialog choose the tracks that you want to put guitar parts on. Use the
Piano and Strings to layer multiple guitar parts.
In the dropdown “Guitar Chord Types to Use” combo box, set the type of chords to use: Jazz, Pop, Folk, Half Note (sax), Ukulele, Mandolin, 5-string Banjo or alternate guitar tunings.

Set the complexity of the chords to use. These can be single chords, chords with variations, inversions, and chord “walking” patterns. If you want a simple guitar style, set the first one to 100%, and the rest to 0%.

Set the strum speed and fret range that should be played on the guitar.

The Guitar styles have an option to keep the same chord for the whole pattern when using databases that have changing chords within the pattern. If set, databases that have changing chords like the “Half Note (sax)” chords will only use the first chord in the pattern.

Exit the dialog and record a guitar pattern using Guitar Macro notes.

When the recording of the pattern finishes, set “OK to use Macros” and “Guitar Macros” to Yes.

Save the style, using the convention of putting an exclamation (!) somewhere in the name (e.g., as the first character in the filename) to indicate that it is an intelligent guitar style.
Guitar Macro Notes

**THE MACRO NOTES BELOW PLAY A GUITAR CHORD**
- C6: Full chord, back strum - half step above
- C6: Full chord, back strum
- F5: Full chord, back strum - half step below
- E6: Plays a full chord (like note C6), but omits the root
- D6: Full chord, faster strum
- C6: Full chord, slower strum

**THE MACRO NOTES BELOW PLAY A SINGLE STRING**
- E5: High E string.
- F5: D1A & G string if no available high E.
- E5: B string
- C5: G string
- G4: D string
- E4: Plays the 5th or 3rd above the root for fingerpicking
- D4: This plays the root of the chord for the NEXT BEAT of the pattern.
- C4#: Plays a note a chromatic above the root
- C4: Root
- B4: Plays a note a chromatic below the root
- G3: 5th of chord

**Tip:** Middle C is C5 or note number 60

The main Guitar Macro notes to use are:

**Strummed Chords**

C6 note  Plays a guitar chord, with a slow strum.
D6  Plays a guitar chord, with a faster strum.

For example, if you want a simple 4-in-the-bar pattern that plays a slow-fast-slow-fast strumming pattern, play the notes C6 D6 C6 D6 for the pattern.

Additional strumming macros are:

F#6  Back strum, chromatic below.
G6  Back strum.
G#6  Back strum, chromatic above.
A6  Back strum, chromatic above, fast strum.

**Single Strings in chord**

C4  Plays a single string that is the low root of the chord.
G4, C5, E5  Plays single string (D string, G string, B string).
G5  Plays high E string.
F5  Plays high E string, but if none available will play G string.

**Additional notes for fingerpicking, not part of chord**

G3  Fifth below the low root of the chord for fingerpicking.
E4  Fifth or 3rd above the low root for fingerpicking.

You don't need to set any Guitar Style Options, unless you want to override the settings already made in the **Misc. Style Settings** dialog, for this pattern only. In the StyleMaker window, press the **[Opt]** button and then the **[Guitar Options..]** button to see the options for the current pattern.
Check the “Over-ride Guitar Settings for this pattern only” checkbox to set new parameters for this pattern only.

**Guitar Chord Types to Use**
Use this feature to set the type of guitar chords to use for this pattern from the list, which includes alternate tunings.

**Single Chords**
The Single Chords feature will play the chord as intended in the pattern for the percentage value entered.

**Single Chord - slight variation**
This will play a slight variation of the specified chord for the percentage value entered.

**Chord with 5th in bass (inversion)**
This feature will play your chord with a 5th in the bass.

**Chord with inversion later in pattern**
This feature will play your chord with inversion later in the pattern.

**Starting on Chord Inversion**
This feature will play your pattern starting on chord inversion.

**Single Chord w/ some Chromatic movement**
This feature will play single chord with some chromatic movement.

**‘Walking’ pattern of chords**
Walking pattern of chords.

**Starting on chord substitution**
Walking pattern starting on chord substitution.

**Strum Speed (ms)**
This setting in milliseconds (ms) affects the rate in which the guitar chord is strummed.
Faster Strum Speed (ms)
The Faster Strum Speed setting affect the rate in which the guitar chord is strummed. Note that a lower setting in ms equals a faster strum.

Include Highest Note in Strummed Chord
Check to include the highest note (for Strummed Macros) when played as a macro.

Include Highest Note in Finger Picking
Check to include the highest note (for Single String Macros) when played as a macro.

Only include first chord of pattern
Check to play the first chord only.

Lowest Fret
The Lowest Fret feature will limit the notes not to be played beneath the fret specified.

Highest Fret
The Highest Fret feature will limit the notes not to be played above the fret specified.

Embellish pattern OK (Sax db)
This allows embellishment of the pattern from the Sax patterns database.

[Zeros]
Click this button to reset all percentage fields to zero.

[100s]
Click this button to set all percentage fields to 100.

Miscellaneous Style Settings

This dialog box allows you to set some miscellaneous settings for the style. They are:

Style Name
You can give a full 60-character name to the style.

Waltz?
If you want to make a waltz with the StyleMaker, check the “Waltz?” checkbox in the Misc. Style Settings dialog. Then the StyleMaker will record, and play patterns in 3/4 time. The “8 beat row” will record “6 beat” (2 bar patterns), the ‘4 beat’ will record 3 beat (1 bar) patterns. The 2 beat and 1 beat still record 2 and 1 beat patterns. The new style is made as a waltz, and will play with a 3/4 lead in. There is no need to put a 3/4 time signature change in bar 1.

Jazz Style?
This lets Band-in-a-Box know if the style you’ve made is a Jazz style or not. If it’s a Jazz style it will use the Jazz Snare/Bass Drum instead of the Pop Snare/Bass Drum, and also makes some other decisions based on this setting.

Tempo
This allows you to set the default tempo for the Style. This is stored with the style. You can also change this tempo by the tempo button on the StyleMaker main screen. Tempos can also be changed by the [ and ] keys.

Resolution
Styles can either have Triplet (swing eighth notes) Straight (even eighth or sixteenth notes) resolution.

Use Latin Drum Kit
Check to use a Latin drum kit in this style with instruments like maracas, cabasa, and agogo.
Velocity Boost of pushes

Pushes can get a velocity boost, so that they are played louder than other patterns. A usual setting would be 10.

# ticks to push

Styles can be pushed with the StyleMaker. This will cause the patterns to be played a little ahead of the beat, a certain % of time, which gives your arrangement a more human (musical) feel.

Band-in-a-Box uses a resolution of 120 PPQ, i.e., 120 ticks to a quarter note.
- 30 ticks = sixteenth note
- 40 ticks = triplet eighth note (Swing)
- 60 ticks = eighth note

Choose the number of ticks for each push to use.

Substyle Pushes

The % of notes that are pushed can be set separately for each instrument part and for the “a” and “b” substyles.

In this example, the Bass part patterns will get pushed (randomly) 10% of the time in the "a" substyle and 20% of the time in the "b" substyle.
Allow Volume Changes with Style (Usually = No)

Usually you don't want specific volume changes in a style. But if you decide to change the volume of instruments, you can do it by setting this to YES and then entering the Volumes you want in the settings below. (A better way to change the volume of a part is to use Pattern | Volume Adjust (Alt+W) to set the volume of each pattern individually.)

‘Riff’ voicing type uses chord tones

This is an option for piano, guitar, and string patterns. If selected, voicing modifies to match the chord and scale. Deselect for a simple transpose ignoring chord type.

Press the [More..] button for the additional Settings for Rests, Pushes dialog.

Since rests can be “shots” that play a chord on beat 1, the style can define what instrument to use for this, and at what volume.

Similarly, each push is accompanied by a drum stab, and the style can define what instrument to use and at what volume.

The Lowest Bass Note setting defaults to the low E on the bass guitar or acoustic bass. It can be changed to match the range of other bass instruments, such as a tuba, or to extend the range of the bass for keyboards or 5-string and 6-string basses.

Guitar Macros

These settings determine what type of guitar chords will be used, and only apply if the patterns are recorded using the guitar macro notes, and if the pattern is set to use guitar macro notes.

Allow Late Notes

This opens the Settings for Making Late notes quieter dialog. Notes played near the end of a pattern will usually conflict with the next chord. So it’s best to prevent notes near the end of a pattern from playing. There is a global setting for this in Opt. | Preferences | Prefs2.

RealDrums Settings (Audio Drums, instead of MIDI drums)

It is also possible to assign RealDrums (audio drums) to a particular Band-in-a-Box style. Enable "Style uses RealDrums (audio drums)" in order to designate a RealDrums style, then press the [RD] button to select your RealDrums style. Whenever the current style is played, it will use your RealDrums style provided that RealDrums are enabled in the RealDrums Settings dialog. There are also additional volume controls here.

To make your overall dB setting a bit higher or lower for this particular Band-in-a-Box style you can enter a setting here. There are also fields for adjusting the ‘a’ or ‘b’ subsection volumes only.

If you remove the check mark from either "Allow ‘a’ substyle RealDrums" or "Allow ‘b’ substyle RealDrums" the one with the checkmark remaining will be used for the entire song, regardless of what substyle is currently called for in the song.
Assign Instruments to Style Dialog Box

Select the [Pat.] button in the StyleMaker tool bar to open the Assign Instruments to Style dialog.

This dialog box allows you to assign instruments to a style. When the song is played back using the style, these patch changes will be sent to your synthesizer. Remember, these are General MIDI Instrument numbers, not the patch numbers of your synth (unless you have a General MIDI synth).

If you don't require a specific instrument for the style, leave the setting at 0 < No Patch Change >.

Styles can have different instruments (patches) for the “a” and “b” substyle. For example, you can have drum brushes on the “a” substyle, and sticks on the “b” substyle, or acoustic piano for the “a” and electric piano for the bridge.

You can see a list of multi-patch styles in the StylePicker, by looking at the “Styles with Instrument Changes” category.

The patch changes take effect immediately in the style, so that when you are recording Bass parts for example, you will hear the bass patch that you have selected.

Melody Patch/Soloist Patch

If set to other than 0 < No Patch Change >, all Melodies/Soloists will be played on the specified instrument. If you're making a "Grover Washington" style for example, you might want any melodies to be automatically set to saxophone.

Thru Patch

If you set the Thru patch to other than 0 < No Patch Change >, the instrument that the user plays along to your style will be the patch that you set. If you're making a "Heavy Rock" style, you might want to set the Thru patch to be Rock Guitar if you expected that the user would want to always play along on Rock Guitar.

Advanced Editing Of Patterns

Patterns can be “tweaked” with the other advanced features in the StyleMaker - Trim Pattern, Late Notes, and the Event List Editor.
Trim Pattern
The Trim Pattern routine deletes notes past the end of a pattern, or (optionally) a specified distance from the end of a pattern. This can be accessed from the Pattern | Trim Pattern(s), row(s) command.

In the dialog displayed, we are trimming 50 ticks from an 8 beat pattern. This means that all of the information past 8 beats (less 50 ticks) will be deleted. This feature is useful to erase “busy playing” that is present near the end of a pattern, and also delete notes that are just taking up space in the style.

Pattern Velocity Adjust
This function adds or reduces the velocity of a single pattern, row of patterns, or all patterns in an instrument. It is useful for reducing or increasing the volume of an entire instrument, or fine-tuning the velocities in a style. Choose the StyleMaker menu item Pattern | Velocity Adjust for 1 pattern, 1 row or all patterns, and input the velocity change to make for the pattern(s). This adds or subtracts a certain velocity value to the patterns.

Tip: There is another velocity command, “Volume adjust,” but it works differently. It will change the velocities to a certain value, useful for “smoothing out” velocities.

Late Notes
The [Late Note] button is found inside the StyleMaker’s Misc. Style Settings dialog. It opens a dialog with “Settings for Making Late notes quieter.” There are settings for allowing or not allowing late notes, and for how late the notes can be.

The global setting for late notes in Opt. | Preferences [Arrange] will reduce the volume of the late notes for a smoother transition from one chord to another.
Event List Editor

The [#] button in the StyleMaker Pattern Editor notation window opens an event list for editing, inserting, or deleting notes in the patterns.

Alternatives to Recording Patterns

It’s not always necessary to record every pattern for a style, or any patterns, for that matter. The import features in the StyleMaker make it possible to assemble an entirely new style from existing styles, or to import patterns from favorite MIDI files.

Hybrid Styles

The “Hybrid Styles” feature allows you to play and create a style that has instruments from up to five different styles! You can, for example, play a song with a Reggae bass, Rock drums, Salsa piano, or any combination of up to five styles that you want. Create a name for your hybrid style and you can save it with the song so that it will play that way in the future.

To use the Hybrid Styles feature, choose Styles | Make a Hybrid style or click on the hybrid [STY] button in the toolbar. You’ll then see the Make a Hybrid style dialog.

Your hybrid style can be up to five instruments, each from a different style. For example, you can have a Latin drum part, a Zydeco bass, and Jazz guitar part, and strings from a Classical style!

Select the instrument (e.g. Bass), and then select a style by pressing the [.STY] button. Repeat for up to five instruments.
When you’re ready to generate the Style, press [OK- (re) Generate style with name -->], and choose a name for your style.

Remember that style names in Band-in-a-Box can be a maximum of eight characters, with no spaces! (This is to insure compatibility with Macintosh and previous versions of Band-in-a-Box.)

Press [Play] in Band-in-a-Box and you can hear the results. You can revisit the Make a Hybrid style dialog to make any changes.

**Editing a Hybrid Style**

You can edit a hybrid style just like any other style. Open the StyleMaker to view the patterns. In addition, in the StyleMaker, if you press the [Misc] button, you’ll see a style memo listing the various styles that made up the hybrid style.

| Style Name | Hybrid Style, Drums =WORSHIP, Bass =YellowJax, Piano =R_MEDROK |

**Importing Instruments from Other Styles**

This is a great way to have fun with the StyleMaker, and to create great new styles in no time. The dialog is accessed from the Style | Import Instrument menu item.

Choose the instrument you want to import and select the desired options. Click on [OK] and a standard Windows Open dialog will be launched so you can select any style on your computer as the source for the instrument. Mix and match instruments from different styles to create fresh new arrangements.

Notice the selector box to choose an instrument to import and the destination instrument in “Import to this instrument.”

For example, to add a second guitar to your style, you could import it to the Strings part if it is empty (or if you want to replace the strings with another guitar).

Note that Piano/Guitar/Strings can be interchanged here, but Bass can only be imported from Bass, and Drums from Drums.

Try some instruments from dissimilar styles for fun and surprises! You can also add parts that were not present in the original style this way.

**Importing Patterns from a MIDI file**

You can use any MIDI file as a source for new StyleMaker patterns by accessing Pattern | Import Pattern from MIDI file menu item.

Use the options to specify the channels and the exact bars to import, and also to include or exclude controllers.

The import # patterns option allows you to import more than one at a time.
In the StyleMaker, when you choose Pattern | Import from a MIDI File (or clipboard or Melody track) the dialog shows a further option at the bottom.

For example, if you import 8 patterns, the 8 patterns will be inserted in the first available 8 positions on the current row. They will be offset by the # of beats present on the current row. For example, if you are on the “4 beat” row, the patterns will get inserted offset by 4 beats, so you’d get patterns for each bar in the 8 bars imported.

**Convert Track to C7 chord**

Choose Melody | Edit Melody Track | Map Melody track to C7 chord. The purpose of this function is to allow you to quickly import any MIDI file track into the StyleMaker and make a style from it.

Once you choose the option, you select whether it is a bass track to import, or a piano track (actually any part other than bass or drums). A bass track uses notes below C4 (MIDI note #48) and above the lowest note you select in the dialog.

If you select piano track the notes will all be mapped to a C7 chord, it is not important that the chords on the spreadsheet are correct. However, if you are importing a bass track, it **is** important that the chords are correct. You can select options to allow patterns that are anticipations, and also convert chords to “macro notes.” Force mapping to “tritones” is useful for guitar or string parts that you might only want 2 notes for.

Once you have mapped the track to the notes, you can examine the Melody track to make sure the results are what you want, and then use the Pattern | Import From Melody track command, and set the # of patterns to import, etc. This function allows you to read in any track of music from a MIDI file that you’ve created, and quickly convert it to
patterns in the StyleMaker. Since the StyleMaker requires all patterns based on a C7 chord, this function automatically maps the entire track to notes on a C7 chord. You can then import any # of patterns (using the function to choose the number of patterns to import).

**Editing Patterns**

**Slide Pattern X ticks**

This is another option available on the StyleMaker menu. This allows a pattern to be time shifted any number of ticks, based on a PPQ setting of 120.

The StyleMaker screen displays the number of patterns, which combined with the map to C7 function, allows you to quickly import any MIDI file track into the StyleMaker and make a style from it.

There are other additional StyleMaker features such as definable instruments on the drum grid, 32nd notes on the drum grid, “live” drums, the ability to load-in patterns from MIDI file to the drum grid or live drums, etc. to facilitate importing patterns from MIDI files.

**Velocity Adjust**

This function adds or reduces the velocity of a single pattern, row of patterns, or all patterns in an instrument. It is useful for reducing or increasing the volume of an entire instrument, or fine-tuning the velocities in a style.

Choose the menu items Pattern-Velocity Adjust (for 1 pattern, 1 row, or whole instrument) and input the velocity change to make for the pattern(s). This will add or subtract a certain velocity value to the patterns.

**Style Checker**

Analogous to a “Spell Checker,” this function analyzes your style-in-progress and identifies possible problems. The results are output to a text window, allowing you to examine the patterns and fix them if required. It identifies patterns that might be “too busy” or incorrect macro notes etc.

To access the Style Checker, open up the StyleMaker (Ctrl+F9), and choose Style | Style Checker. You'll then get a text report about the style, listing possible problems with the style. Here is a sample printout:

```
-----Start of style checking ------JAZQUINT.STY
Drums: Row 1, Column 1 First pattern of instrument shouldn't contain masks in it.  It should be generic.
Piano: Row 1, Column 3 Non Chord tones found (other than C, E, G, Bb) and pattern is not set to a chord mask, riff based, or MACRO.
```

**Style Summary**

This displays a text window summary of the style, including lots of information about the style such as # patterns, # patterns for each substyle, patches, pushes, volume changes, guitar patterns, and more. To access the style summary, from the StyleMaker, choose Style | Style Summary. You’ll then see a detailed text summary of the Style.

**Using the MIDI File to Style Wizard**

The Style Wizard converts any MIDI file to a Band-in-a-Box style. In this tutorial, we're going to load in the Violet.MID found in the 'bb' folder and convert it to a style - which we'll call Violet.STY.

Start with a new song and press the Style Wizard button or choose Styles | Style Wizard to launch the Style Wizard.

The dialog is largely empty because we haven't chosen a MIDI file yet.
Press the [Open] button and load in the file c:\bb\violet.MID. The Style Wizard then does the following automatically:

The chords for the MIDI file are interpreted and written on the Chordsheet.
The “part markers” for the file are displayed on the Chordsheet. For Violet.MID, the Style Wizard has found the correct part markers – by looking for drum fills and other signs of a part change – and has assigned substyle “a” to all of them. We’ll change some of them to “b” later.

The channels used in the MIDI file are displayed in the dialog, with the patches used and # of notes played on each channel. (For Violet.MID you can see that channels 2, 3, 4, 6, 7, and 10 are used.)

The Style Wizard analyzes the parts and guesses at which Band-in-a-Box part - Bass, Piano, Drums, Guitar, or Strings to use for each track. Band-in-a-Box has correctly assigned 5 instruments – not assigning a part to the Melody.

The Style Wizard suggests which bars (“snapshots”) to include in the style. The suggested bars are bars with all of the “BB Part” instruments.

<table>
<thead>
<tr>
<th>Chn</th>
<th>BB Part</th>
<th>Patch</th>
<th>#Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Bass</td>
<td>33 Acoustic String Bass</td>
<td>312</td>
</tr>
<tr>
<td>3</td>
<td>Piano</td>
<td>1 Acoustic Piano</td>
<td>842</td>
</tr>
<tr>
<td>4</td>
<td>--------</td>
<td>57 Trumpet</td>
<td>333</td>
</tr>
<tr>
<td>6</td>
<td>Strings</td>
<td>12 Vibes</td>
<td>220</td>
</tr>
<tr>
<td>7</td>
<td>Guitar</td>
<td>25 Nyion String Guitar</td>
<td>1630</td>
</tr>
<tr>
<td>10</td>
<td>Drums</td>
<td>1 Standard Drum Kit</td>
<td>860</td>
</tr>
</tbody>
</table>

The Style Wizard suggests which bars (“snapshots”) to include in the style. The suggested bars are bars with all of the “BB Part” instruments.

Usually you'll want to customize these snapshot bars to control which bars get included in the “a” or “b” substyle. In the Violet.MID style, the Style Wizard has offered to include Bars 9-101 (inclusive) and wants to put them all on the “a” substyle. Continuing on, we want to make a great sounding style, so it is important that we have the following two items correct:

- The “BB Parts” have to be correct. We can audition the MIDI file by playing a loop and listening to the MIDI file and muting channels by clicking on the “Channel” checkboxes. From that, we can hear the individual parts and assign them correctly, as we would like them in the style. By playing the MIDI file inside the Style Wizard we can tell which bars to use for the “a” and “b” substyles.

- The Snapshot Bars should be correct for the “a” and “b” substyle. You need to tell the program what bars to use for the “a” substyle and for the “b” substyle. The program makes an attempt to guess at this, but since MIDI files can contain many different substyles (and a Band-in-a-Box style allows only 2), you'll likely want control over these snapshots yourself.

**Tip to help you choosing which bars to use:**

To listen to the MIDI file, you can either exit the **Style Wizard** dialog and just play the song like any other Band-in-a-Box file, or play a looped section inside the Style Wizard using the [Play], [Stop], and “Loop at Bar” settings.

Note: The Style Wizard has entered some of these settings automatically – but you'll have to type in the data as shown.
OK, the Style Wizard has already made the correct settings for the “BB Parts” for us, so we don't need to make any changes there. Let's move to the Snapshots section, and enter the bar numbers that correspond to the substyles that we'd like for the Jazz tune. After listening to the tune, we notice that there is a “2-feel” Jazz section, and a “4-in-the-bar” section. We want those as “a” and “b” substyles, so we enter the bar #s that correspond to these settings.

<table>
<thead>
<tr>
<th>Bar Snapshots beginning at bar #s (eg. 1,3,7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Substyle</td>
</tr>
<tr>
<td>B Substyle</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Drum Fills (1 bar · A Substyle)</td>
</tr>
<tr>
<td>Drum Fills (1 bar · B Substyle)</td>
</tr>
</tbody>
</table>

In the Snapshots area of the Style Wizard:
- Enter “1-20” for the bars for the “A” Substyle.
- Enter “21-28, 37-68” for the “B” Substyle.
- Enter “12, 20” for the “A” Drum Fills.
- Enter “28, 36, 44, 52, 60, and 68” for the “B” Drum Fills.

Note: Of course you don't need to enter this much detail. You could just enter a single range like 1-20 for the “a” substyle and make a quickie style. We're illustrating “advanced” style-generation here.

Press [Generate NEW style…]; choose a name for your style, and the style will be made.

Let's call it Violet.STY. Now to hear your style! You could play the style with any song of course, by loading in a song and then loading in the Violet.STY. It is easily available from the Favorite Styles dialog (Shift+F9).

For this tutorial, load in the song V_TEST.MGU that we made for you. That's a Jazz Swing song using different chords than Violet, and it uses the Violet.STY (So you need to have made that style before you try to play the song or you'll get a “Violet.STY not found” message.)

Save the existing song before loading in the new song. When Band-in-a-Box saves a song that has an entire MIDI file on the Melody or Soloist tracks it gives it a special MGX extension. So you'll be saving the file as Violet.MGX. Alternatively, if you'd prefer to play the Violet.STY style without loading in another song, you can do it as follows. Since the Violet.MGX file currently has the entire MIDI file on the Melody track the first thing we need to do is Mute the Melody (Alt+9 or right-click on the Melody part at the top of the screen). The next thing is the Enable the Style, by choosing Style | Style is Enabled so that this item has a checkbox.

Auto Endings for Styles without Endings
If you've made a style, and haven't included an ending, a 2-bar ending can be generated automatically, based on the style. This makes it easier to make complete styles using the Style Wizard.

To hear an example, load in the song c:\bb\Tutorial – BB 2005\No Ending.MGU. This song uses NOENDING.STY, a style that doesn’t have an ending. An ending will be generated automatically for this style.

So we've made our first style! In summary, making styles with the Style Wizard is a process involving:
1. Loading a MIDI file into the Style Wizard.
2. Listening to the MIDI file by muting channels to identify parts.
3. Picking the channels to use for the BB Parts.
4. Picking the snapshot bars for the “a” and “b” substyle.
5. Pressing the [Generate NEW style…] button.

Making RealDrums Styles

Introduction to RealDrums
RealDrums are actual recordings of studio drummers, pieced together by Band-in-a-Box to create a unique “real” drum track that is played along with the MIDI tracks created by Band-in-a-Box styles. You can combine any RealDrums style with any Band-in-a-Box style, so the potential combinations are endless!

A RealDrums style consists of a wave file containing various bars of drum patterns, and a text file with instructions on how Band-in-a-Box should interpret the wave file. In order for the style to work, the text file needs to be located in the main Band-in-a-Box directory in the “Drums” folder, and then in a sub-directory that is the name of the style group. The file-name needs to be the same as the style group, followed by an underscore ( _ ) and a three digit number representing the tempo. Additionally, “Style” has to be in the filename after the tempo.

For example, for a “JazzBrushes” style that is 120 beats-per-minute, this text file needs to be present:

```
C:\bb\Drums\JazzBrushes\JazzBrushes_120_Style.txt
```

The wave file also needs to be in a subdirectory of the “Drums” folder. It is usually located in the same place as the text file:

```
C:\bb\Drums\JazzBrushes\JazzBrushes_120_Style.wav
```

However it can be in a different directory, and there are some instances where this is necessary (see “Reduced Styles” below).

“RealDrums style groups” are multiple RealDrums styles that have the same basic feel, but were recorded at different tempos. In the example above, “JazzBrushes” is the group, and “JazzBrushes_120_Style” is the style. In that particular example, the JazzBrushes group contains 10 RealDrums styles:

```
JazzBrushes_045_Style
JazzBrushes_060_Style
JazzBrushes_070_Style
JazzBrushes_100_Style
JazzBrushes_120_Style
JazzBrushes_145_Style
JazzBrushes_175_Style
JazzBrushes_210_Style
JazzBrushes_250_Style
JazzBrushes_300_Style
```

The easiest way to make a style is to use a text-file template.

**Making A RealDrums Style Using An Existing Template**


The information given below is all you need to create a RealDrums style using any of several provided templates.

---

**Recording your wave file**

For the wave file that will be used for your RealDrums style, you can either record a drummer, or you can piece together a wave file using drum loops. If you use drum loops, just make sure you have the necessary permission from the original artists and/or publishers of the loops.

Regardless of the method that you choose for creating your drum wave file, you need to have it conform to one of these descriptions in order to have it match the accompanying template:

1. 32_bars_of_drumming.txt
2. 32_bars_of_drumming_with_shots.txt
3. 32_bars_of_drumming_with_shots_two_endings.txt
4. 64_bars_of_drumming.txt
5. 64_bars_of_drumming_with_shots.txt
6. *64_bars_of_drumming_with_shots_two_endings.txt*

1. *32_bars_of_drumming.txt*

   bar# 1-2 – count-in for two bars (i.e., “one, two, one-two-three-four”)

   Bars 3-18 will use the same basic groove:
   
   3 – PostFill (usually a bar of playing with a cymbal shot at the downbeat, or some kind of bar that would sound good after a fill)
   4-9 – normal playing
   10 – Fill
   11 – PostFill
   12-17 – normal playing
   18 – Fill
   
   Bars 19-34 will use a slightly different groove (‘B’ section) than 3-18
   19 – PostFill
   20-25 – normal playing
   26 – Fill
   27 – PostFill
   28-33 – normal playing
   34 – Fill
   35-36 – ending, lasting two bars (usually the second bar ends on the downbeat, with a cymbal decaying)

2. *32_bars_of_drumming_with_shots.txt*

   This is exactly the same as 1, with these bars added:
   
   37 – single drum hit, which will be used for “shots” in Band-in-a-Box
   38 – single drum hit, which will be used for “pushes” in Band-in-a-Box

3. *32_bars_of_drumming_with_shots_two_endings.txt*

   bar# 1-2 – count-in for two bars (i.e., “one, two, one-two-three-four”)

   Bars 3-20 will use the same basic groove:
   
   3 – PostFill (usually a bar of playing with a cymbal shot at the downbeat, or some kind of bar that would sound good after a fill)
   4-9 – normal playing
   10 – Fill
   11 – PostFill
   12-17 – normal playing
   18 – Fill
   19-20 – two bar ending
   
   Bars 21-36 will use a slightly different groove (‘B’ section) than 3-20
   21 – PostFill
   22-27 – normal playing
   28 – Fill
   29 – PostFill
   30-35 – normal playing
   36 – Fill
   37-38 – ending, lasting two bars (usually the second bar ends on the downbeat, with a cymbal decaying)
39 – single drum hit, which will be used for “shots” in Band-in-a-Box
40 – single drum hit, which will be used for “pushes” in Band-in-a-Box

4. 64_bars_of_drumming.txt

bar# 1-2 – count-in for two bars (i.e., “one, two, one-two-three-four”)

Bars 3-34 will use the same basic groove:

3 – PostFill (usually a bar of playing with a cymbal shot at the downbeat, or some kind of bar that would sound good after a fill)
4-9 – normal playing
10 – Fill
11 – PostFill
12-17 – normal playing
18 – Fill
19 – PostFill
20-25 – normal playing
26 – Fill
27 – PostFill
28-33 – normal playing
34 – Fill

Bars 35-66 will use a slightly different groove (‘B’ section) than 3-18

35 – PostFill
36-41 – normal playing
42 – Fill
43 – PostFill
44-49 – normal playing
50 – Fill
51 – PostFill
52-57 – normal playing
58 – Fill
59 – PostFill
60-65 – normal playing
66 – Fill

67-68 – ending, lasting two bars (usually the second bar ends on the downbeat, with a cymbal decaying)

5. 64_bars_of_drumming_with_shots.txt

This is exactly the same as 5, with these bars added:

69 – single drum hit, which will be used for “shots” in Band-in-a-Box
70 – single drum hit, which will be used for “pushes” in Band-in-a-Box

6. 64_bars_of_drumming_with_shots_two_endings.txt

bar# 1-2 – count-in for two bars (i.e., “one, two, one-two-three-four”)

Bars 3-36 will use the same basic groove:

3 – PostFill (usually a bar of playing with a cymbal shot at the downbeat, or some kind of bar that would sound good after a fill)
4-9 – normal playing
Bars 37-70 will use a slightly different groove (‘B’ section) than 3-18

71 – single drum hit, which will be used for “shots” in Band-in-a-Box
72 – single drum hit, which will be used for “pushes” in Band-in-a-Box

Editing the text file

For the most part, the text files are ready-to-go. There are, however, a few small essential changes that you need to make to the text file, and some other small changes you can make to improve your style.

Essential Changes

The first thing you need to do is change the filename of the wave-file and the text file to match the RealDrums style group to which to which you want your style to belong. For example, if you want your style group to be called “MyFunkyStyle”, and the style you recorded was at 70 beats per minute, your wave file would have to be called “MyFunkyStyle_070_Style.wav” and your text file would have to be called “MyFunkyStyle_070_Style.txt”. Both files would have to be placed in your main Band-in-a-Box directory (usually C:\BB) in the “Drums” folder, and from there in a folder that is named for the style group. In this case, it would be C:\BB\Drums\MyFunkyStyle. The second thing you have to do is to change the first line of the text file so that it has the same name as the wave file. In this case, you would change “wavename=mystyle.wav” to “wavename=MyFunkyStyle_070_Style.wav” The last thing you would need to do would be that if your style were a waltz (3:4) style, you would need to change “TimeSig=4” to “TimeSig=3”. If, however, you are making a 4:4 style, your style is ready to be used!

Additional Changes

There are a few additional changes that could be made to fine-tune your style. The first is to enter a different value in the “Offset=” line. Drummers often hit a drum a few milliseconds before the beat, because the actual sound of the
drum tends to peak a few milliseconds after it is hit. Because of this, you want Band-in-a-Box to “grab” a bar of drums a few ticks (1 beat = 120 ticks) early to compensate for this. The amount entered in the template is –5 (ticks), but if you are finding that the drum hits at the beginning of bars are not starting properly, you can experiment by setting a different offset value. –6 or lower (since it’s a negative number “lower” means –7, -8, -9, etc.) will mean the bar is “grabbed” earlier, and a higher number (-4, -3, -2, -1, 0, etc.) means that it will be “grabbed” closer to the bar line.

Another thing you can change is the volume. If you are finding your style is too loud in Band-in-a-Box, you can reduce this by entering lower numbers in the “dbAdjust=” line. The default is 0, but if you enter –1, -2, -3, etc., the drum volume will be lowered.

For the patterns and the shots, all of the patterns that are entered in the templates will match your wave file, provided that the wave file was recorded to the specifications listed above. You can make changes to the patterns and shots, but it is a good idea to read further into the specific meaning of all of the elements of these lines. This can be done in the complete RealDrums style making documentation.

Testing your RealDrums style
Once you have made your RealDrums style, you can test it in Band-in-a-Box by loading a song and setting the tempo near to the tempo of the style you just created. You would then go into the RealDrums Settings dialog (either by selecting Opt. | Preferences | RealDrums or by pressing the RealDrums toolbar button) and make sure RealDrums are enabled. Put a checkmark beside “For this song only, use this RealDrum style”, and then select your style from the “RD” button. When you close the dialog and play your song, your RealDrums style should be playing as well. To make sure that it is playing, you can look at the Band-in-a-Box title bar. If your style is “MyFunkyStyle_070_Style”, you should see [RealDrums=MyFunkyStyle_070].

Elements of RealDrums Styles
For an in-depth explanation of all elements of creating a RealDrums style, please read below.

Elements of the Wave File
The wave file must contain a two bar count-in. This can be a metronome sound, a drummer actually counting in, or even a two-bar drum fill. These two bars will always be played at the beginning of a Band-in-a-Box song, unless the count-in is disabled in the preferences. It is important to note that the beginning of the wave file should not contain a bar of drum playing that is intended to be used in the middle of a song. If this bar were to chosen, there would likely be an audible gap of silence at the beginning of the bar when playing in Band-in-a-Box (this is due to the “ms offset” which will be discussed later)

The majority of the wave file can then contain any number of bars of drumming, keeping in mind that there are two “substyles” available in Band-in-a-Box. This means that the basic groove should be the same throughout the first half of the drum bars, and then the groove can change and should remain basically the same through to the end. Keep in mind also when you either record or piece together your wave file, that in each “substyle”, there need to be examples of fill, normal bars, and post-fills (bars specifically designed to come after fills, often containing a crash cymbal which completes a fill). You also need at least one 2-bar ending.

After the bars of drumming should be a short section of single drum hits. These will be used to mix in with the bars of drumming to emulate pushes and shots.

Example 1 shows an entire RealDrums style wave file. You can see that the first two bars contain the count-in, then the majority of the file is taken up by regular drumming (you can see that halfway through the pattern is different – this represents the ‘B’ subsection), then at the end there are 4 “shots” (single drum hits).
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Example 1: Wave form of an entire RealDrums style wave file

Elements of the Text File

The text file contains three main portions, **global settings**, **pattern definition**, and **shots definition**. We’ll examine each one separately.

**Global Settings**

**Wavename=x.wav**

The first line of the text file must be “`wavename=x.wav`”, where “x” is the name of the filename. For example, the first line of the JazzBrushes_120 text file is “`wavename=JazzBrushes_120_Style.wav`”. This file usually is in the same directory as the text file, but does not have to be. For example, you could make an alternate style that used JazzBrushes_120_Style.wav called JazzBrushesAlternate. The text file would have to reside in C:\bb\Drums\JazzBrushesAlternate\JazzBrushesAlternate_120_Style.txt, but the first line would still be “`wavename=JazzBrushes_120_Style.wav`”.

**ForceWavTempo=x**

This is only used if the tempo of the style in question is different from the tempo that is in the filename of the wave file being used. These are called “reduced” or “expanded” styles, and will be discussed further below.

**TimeSig=3**

This would be used if you are making a waltz style. The line can simply be omitted when making 4:4 styles.

**OFFSET=x**

Often a drummer will hit a drum or cymbal slightly before a beat so that the actual peak of the sound occurs on the beat itself. The offset determines how many ticks (1 beat = 120 ticks) before the downbeat a bar of drums will be taken from the style wave file, which is intended to compensate for any occurrence of this early playing on the drum track. It is important to note that if a bar is taken 10 ticks early from the style wave file, it is also placed 10 ticks early on the Band-in-a-Box drum track, so there will be no shifting of the actual groove.

If no offset amount is entered, the program defaults to an offset of 0.

To determine a good offset amount for a particular wave file, you can use an audio editor (such as Powertracks Pro Audio) to zoom in on the downbeats of all (or a sampling) of the bars. You can then measure the number of ticks between the start of the drum hits and the actual bar line. The highest example would be entered as the offset amount.

In example 2, the beginning of the drum hit at bar 15 occurs at 14:04:118, or 2 ticks before the downbeat of bar 15. If all other bars were similar, you would enter an offset of –2.
Example 2: The left edge of the highlighted area represents the beginning of the drum hit that occurs at bar 15, and the right edge of the highlighted area represents the actual downbeat of bar 15.

dbadjust=x

If a value is entered here, when the RealDrums track is played in Band-in-a-Box, the volume will be raised (or lowered if a negative value is entered) by the amount entered. This is used to balance the RealDrums against the other DXi instruments. This amount can be fine-tuned once the style is completed and it is possible to test it in Band-in-a-Box.

If no dbadjust amount is entered, the program defaults to an adjust of 0.

dbadjustA=x
dbadjustB=y

You can adjust the volume of the A section and B section patterns separately in the same manner as “dbadjust” using “dbadjustA=” and “dbadjustB=”. The final volume of the parts will be based on the “dbadjust” amount added to the adjust for the substyle in question. For example, let’s assume these values were entered:

\[ \text{Dbadjust} = -5 \]
\[ \text{DbadjustA} = -2 \]
\[ \text{DbadjustB} = 3 \]

The total volume adjust for the A section would be \((-5)+(-2) = -7\). The total volume adjust for the B section would be \((-5)+3 = -2\).

**Note:** The dbadjustA and dbadjustB features have not yet been implemented as of Band-in-a-Box version 2007 build 227, but are planned to be added in a future release. However, these lines of text can be added without causing any problems in the style, they will simply have no effect until the feature is implemented.

MultibarPatternPercent=x

When Band-in-a-Box is choosing a RealDrums pattern (see “patterns” below) for a particular bar in a song, it randomly selects from all possible patterns that fit based on their relative weight. If, however, a percentage is entered here, then before this step it determines whether the current bar will be use a multi-bar pattern based on the percentage. If this occurs, Band-in-a-Box eliminates all 1-bar patterns as possibilities for the current bar of music. For example, if “MultibarPatternPercent=20” is entered, then every time Band-in-a-Box searches for a pattern, there
is a 20% chance that it will eliminate 1-bar patterns as possibilities. If “MultibarPatternPercent=80” is entered, then every time there will be an 80% chance that 1-bar patterns will be eliminated as possibilities. If such an instance occurs, but no multi-bar patterns will fit in the Band-in-a-Box bar in question, a 1-bar pattern will be allowed.

If no amount is entered here, then Band-in-a-Box simply always picks between all possible patterns based on their relative weights.

**PushAmount8=x**

**PushAmount16=x**

When pushes are entered in Band-in-a-Box (with either "^" for an 8th note push or "^^" for a 16th note push, entered before a chord”), the RealDrums mix single drum hits with the bars of regular playing to emphasize the push. These settings determine how many ticks prior to a beat the pushes are played.

Mathematically, since 1 quarter-note is 120 ticks, in a straight 8th style the 8th-note will be 60 ticks and the 16th-note will be 30 ticks, and in a swing 8th style the 8th-note will be 40 ticks. However, since drummers (thankfully!) do not play mathematically, these numbers will vary based on their individual style, and the amount of “swing” in their playing. A good amount to enter for these values can be determined by closely examining the drummers playing in an audio editor and measuring the number of ticks between a few 8th-notes prior to beats.

In this straight-8ths style (example 3), this eighth note played prior to the downbeat of bar 6 is played at 5:04:058, or 62 ticks before the downbeat. The rest of the file could be examined in a similar fashion (or random samplings), but based on this example you would enter PushAmount8=62.

![Example 3: The left edge of the highlighted area represents the eighth note before the downbeat of bar 6, and the right edge of the highlighted area represents the downbeat of bar 6.](image)

If no amount is entered for these values, Band-in-a-Box determines the amount based on whether or not the Band-in-a-Box style being used is a swing or straight 8th style.

**ASubstyleAllowed=NO**

**BSubstyleAllowed=NO**

Using either one of these lines blocks all patterns for the specified substyle, and then uses the patterns of the remaining substyle for the entire song, regardless of the substyle selected in Band-in-a-Box.

This can be useful for altering an existing style. For example, if you have a style made that uses brushes at the A section and sticks at the B section, but you want to change it so that it only uses sticks, you can enter the line “ASubstyleAllowed=NO” into the text file. All of the B section patterns will be used for both A section parts and B section parts in Band-in-a-Box. This is also a useful tool in making “Alternate” styles (see “Alternate Styles and Expanded/Reduced Styles” below).
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It is important, however, to not enter both of these lines. If you do this, Band-in-a-Box will not be able to find any patterns at all, and you will get an error message.

**MSSlide=x**

This shifts the entire drum part either forwards or backwards by x number of milliseconds in relation to the MIDI parts. A negative amount will make it play slightly before the MIDI parts, while a positive amount will make it play slightly after the MIDI parts. This can be used to make slight changes to the overall feel of the drummer. Entering a negative amount will simulate a drummer playing slightly ahead of the beat, while entering a positive amount will simulate a drummer playing slightly behind the beat. Either scenario can be musically effective in it’s own way.

**Note:** The MSSlide feature has not yet been implemented as of Band-in-a-Box version 2007 build 227, but is planned to be added in a future release. However, this line of text can be added without causing any problems in the style, it will simply have no effect until the feature is implemented.

**Pattern Definition**

All patterns are defined in the text file using lines of text containing seven elements, with each of the seven elements separated by a comma. The seven elements are: 1) the text “pattern”, 2) type of pattern, 3) section definition (A, B or all), 4) weight (how often the pattern will be played), 5) Mask (restrictions on where the pattern can be played), 6) duration of the pattern in bars, 7) the location of the pattern in the style wave file.

Here are some examples of defined patterns:

- pattern,Normal,A,2,1,2,75
- pattern,Fill,A,1,0,1,58
- pattern,PostFill,B,8,0,8,3
- pattern,Ending,0,6,0,2,114
- pattern,Count-in,0,5,0,2,-1

As you can see, each example here starts with the text “pattern”. This simply lets Band-in-a-Box know that the line contains information regarding drum parts that will be inserted into the RealDrums track. The next element is the type of pattern, and here we have examples of “normal”, “fill”, “PostFill”, “Ending” and “Count-in” types of patterns. The next element is the section definition, and we have examples of “A” section patterns, “B” section patterns and “0” patterns, for which sections are not applicable. The next element is the weight. In these examples we have weights of 2, 1, 8, 6 and 5. The higher the weight, the more frequently the pattern will be chosen. The next element is the mask. There are examples here of “0” masks, which impose no additional restrictions on where the pattern can be played and a “1” mask, which does impose certain restrictions. The next element is the duration in bars, and we have examples here of patterns that last 1, 2 or 8 bars long. The final element is the location of the pattern in the style wave file. These numbers represent bars, however you’ll notice that one of the examples has a location of –1. This is because Band-in-a-Box uses a –1 based numbering system for bars of music in a song, which will be explained in more detail below.

The six elements that come after the text “pattern” are explained here in further detail:

1. **Type of pattern**

There are 5 different types of patterns, “Fill”, “PostFill”, “PreFill”, “Normal”, “Ending” and “Count-in”.

**Fills**

Fills always occur in the bar immediately prior to part markers. In Band-in-a-Box songs, part markers (A or B) are used to delineate musical phrases. Since drum fills are also used to conclude musical phrases, drum fills always occur in the last bar before a part marker. Unlike other patterns, fills can only be 1 bar long.

Here are some examples of Fill patterns defined:

- pattern,Fill,A,1,0,1,8
- pattern,Fill,B,6,0,1,32
- pattern,Fill,B,5,0,1,58

**PostFills**
As the name implies, PostFill bars occur after Fills. That means that PostFill bars always occur in bars in which there are part markers. Typically, PostFill bars are generally bars that have a cymbal crash on the downbeat, which is intended as a completion to the fill that occurred in the previous bar. PostFills can be any number of bars long.

Here are some examples of PostFill patterns defined:
- pattern, PostFill, A, 8, 0, 8, 1
- pattern, PostFill, A, 5, 0, 1, 9
- pattern, PostFill, B, 4, 0, 2, 17

PreFills

PreFill bars occur immediately before Fills. PreFills are not essential for a style to work, but can be useful in situations where a drummer begins an elaborate fill a bar early. When Band-in-a-Box picks patterns for bars that precede fills, it picks from among the pool of normal and prefill patterns. PreFills can either be 1 or 2 bars long. Prefills can be 1 or 2 bars long, with the 2-bar prefill containing the actual fill as well.

Here are some examples of PreFill patterns defined:
- pattern, PreFill, A, 4, 0, 2, 7
- pattern, PreFill, B, 7, 0, 1, 57

Normal patterns

Normal patterns generally make up the bulk of a Band-in-a-Box song. Any bar that is not immediately before or after a part marker, and is not a count-in or ending, will be taken from the pool of normal patterns.

Here are some examples of Normal patterns defined:
- pattern, Normal, A, 2, 0, 1, 3
- pattern, Normal, A, 5, 3, 2, 11
- pattern, Normal, B, 5, 1, 2, 75
- pattern, Normal, B, 2, 5, 2, 64

Endings

Endings are always 2 bars long, and generally have characteristics of fills for the first bar, but then end with a drum hit on the 2nd bar, sometimes with a cymbal on the downbeat, but also often with a particular rhythmic figure. You should check the ending in the Band-in-a-Box style that you will be using the RealDrum style with to see what kind of rhythm should be used in the drums to match up. Endings can only be 2 bars long, and you need to have at least one ending defined for a style to work.

Example 5: The two highlighted bars show where an ending is played in Band-in-a-Box.

Count-ins

Count-ins are always 2 bars long, and always occur at the beginning of a song (unless the count-in is disabled in settings). Count-ins are usually sidestick tapping “one… two… one, two, three, four”, but you can put anything in these two bars. You can have a person actually counting in, or you can have 2 bars of drum fills as your count-in, etc.

2. Section Definition

Band-in-a-Box styles and RealDrums styles have two “subsections”, an ‘A’ subsection and a ‘B’ subsection. When defining patterns, you need to specify whether the pattern is intended to be played during ‘A’ section or the ‘B’ section. For patterns to which the section is not applicable, you can fill this space with a “0”. These include the count-in and the ending. You can make an exception for the ending, if you want to specifically designate an ending.
to occur only when the preceding bar is ‘A’ or ‘B’. Instead of “0”, you would enter “Aending” or “Bending”. Just remember that if you do this, you need to cover both eventualities. If you enter a “0” ending, this on its own covers both cases.

Here are some examples of ‘A’ patterns:
- pattern,Fill,A,1,0,1,8
- pattern,PostFill,A,8,0,8,1
- pattern,PostFill,A,5,0,1,9
- pattern,PreFill,A,4,0,2,7
- pattern,Normal,A,2,0,1,3
- pattern,Normal,A,5,3,2,11

Here are some examples of ‘B’ patterns:
- pattern,Fill,B,6,0,1,32
- pattern,Fill,B,5,0,1,58
- pattern,PostFill,B,4,0,2,17
- pattern,PreFill,B,7,0,1,57
- pattern,Normal,B,5,1,2,75
- pattern,Normal,B,2,5,2,64

Here are some examples of ‘0’ patterns:
- pattern,Count-in,0,5,0,2,-1
- pattern,ending,0,1,0,1,33

Here are some examples of special-case endings:
- pattern,ending,Aending,5,0,2,37
- pattern,ending,Bending,5,0,2,77

3. Weight

Every time that Band-in-a-Box needs to find a RealDrums pattern to insert into a Band-in-a-Box bar, it first finds all possible patterns that would fit (based on the type of pattern, the section definition, the mask and the length), and then it picks randomly from those patterns based on the weight assigned.

The weight is a number between 1 and 8 (there are special cases where you can use 0 or 9 which we will examine at the end of this section). When Band-in-a-Box has amassed the list of possible patterns, it then adds up the weights of all of these patterns, and then the chances that each pattern will be selected is based upon a percentage determined by the weight of the pattern divided by the total.

For example, if Band-in-a-Box is finding a “normal” pattern for bar 3 of the song, and it has determined that these four patterns are the only possibilities:
- pattern,Normal,A,5,1,4,11
- pattern,Normal,A,1,0,2,17
- pattern,Normal,A,7,3,2,13
- pattern,Normal,A,2,1,1,20

The first thing it would do would be to add up all of the weights. In this case, 5+1+7+2=15. The chance that each pattern will be picked in this instance is determined by its own weight divided into the sum. Here then, are the chances for each pattern to be picked in this instance:
- pattern,Normal,A,5,1,4,11: 5/15=0.333 or 33%
- pattern,Normal,A,1,0,2,17: 1/15=0.066 or 7%
- pattern,Normal,A,7,3,2,13: 7/15=0.466 or 47%
- pattern,Normal,A,2,1,1,20: 2/15=0.133 or 13%

When 9 is entered as a weight, the program treats it slightly differently. A 9 weight means that any possible patterns that have a weight of 8 or less are completely eliminated as possibilities.

With the previous example, if you changed the weight of the first two patterns to 9, but left the last two as 7 & 2, then the last two would be eliminated as possibilities, and the percentages would change to:
- pattern,Normal,A,9,1,4,11: 50%
- pattern,Normal,A,9,0,2,17: 50%
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- pattern, Normal, A, 7, 3, 2, 13: 0%
- pattern, Normal, A, 2, 1, 1, 20: 0%

It is therefore important that you are very careful when using a weight of 9. It is usually used in conjunction with a mask (masks will be explained in greater detail below). For example, if you had a mask that stated that a normal pattern could only be played 7 bars after a part marker, if you then gave it a weight of 9, any time Band-in-a-Box needed to find a pattern 7 bars after a part marker it would always use that pattern. However, it would not affect any other bars.

The other special case is a 0 weight. This is only used for fills. When Band-in-a-Box finds possible patterns, if a particular pattern is going to end where a fill is required due to the part-marker placement, then the pattern will only be included as a possibility if that bar in the style wave file has been designated as a fill at some point in the text file. Likewise, a pattern that ends with a fill will not be considered a possibility if the fill doesn’t match up in the Band-in-a-Box song.

For example, let’s say that Band-in-a-Box is searching for a pattern to place at bar 5, where bar 6 will need to be a fill:

Example 6: Pattern needed for bar 5.

It will be looking for a normal pattern, and it can use a normal pattern that is 1 or 2 bars long. However, if it picks a 2 bar pattern, it needs to make sure that in the style wave file, the second bar is designated as a fill.

Let’s assume that this pattern is entered in the text file:

- Normal, A, 5, 0, 2, 15

This is a 2-bar normal pattern beginning on bar 15 of the style wave file. This pattern could only be picked in this instance if there was another line somewhere in the text file defining bar 16 of the style wave file as a fill:

- Fill, A, 0, 0, 1, 16

However, it may be that this fill would not work well as a stand-alone bar (perhaps there is a cymbal decay that crosses over bars 15 & 16 that you do not wish to break up – see “Duration” for more information on this). In this case, you would still want to define the bar as a Fill, so that multi-bar patterns ending in this fill would be used at the right place, but you would never want the fill to be picked on it’s own. In this case, you could give it a weight of 0:

- Fill, A, 0, 0, 1, 16

4. Mask

A Mask can be used to specify that a pattern should only be used a certain number of bars after a part marker. It only applies to Normal patterns, and all other patterns should be given a weight of 0 (0 means no mask).

Here is a list of the possible masks, and what effect they will have:

- 0 – No mask: This pattern can be used anywhere
- 1 – Odd bars only: 3, 5, 7, 9, 11, 13, etc. bars after a part marker
- 2 – Even bars only: 2, 4, 6, 8, 10, 12, etc. bars after a part marker
- 3 – 3, 7, 11, 15, etc. bars after a part marker
- 4 – 4, 8, 12, 16, etc. bars after a part marker
- 5 – 5, 13, 21, etc. bars after a part marker
- 6 – 6, 14, 22, etc. bars after a part marker
- 7 – 7, 15, 23, etc. bars after a part marker
- 8 – 8, 16, 24, etc. bars after a part marker
- etc.

Many drum beats use 2-bar rhythms that then repeat, so it’s very common for the “1” and “2” masks to be used. If you have assigned a “1” mask to several Normal patterns, and a “2” mask to several others, you will always be sure that the 2-bar grouping remains consistent. Just remember that you have to make sure that there are enough patterns
to cover all possibilities. If you have only patterns with “1” masks, and no patterns with “2” masks, then Band-in-a-Box will not be able to find any patterns for even bars. The safest thing to do is to use a mask of “0”, but this may not be the most musical approach. A mask of 4 is often used for more subtle fills that would highlight 4 bar phrases. Masks higher than 8 are not commonly used, as it would mean that the pattern would be played very rarely.

Example 7: Normal pattern needed for bar 13.

In example 7, if Band-in-a-Box is trying to find a normal pattern for bar 13, it will look for patterns with a mask of 0, 1 (because it is an even number of bars from the part marker) or 5. If it were trying to find a normal pattern for bar 14, it would look for patterns with a mask of 0, 2, or 6.

5. Duration

PostFill and Normal patterns can be any number of bars long, however there is a practical range that is commonly used. Other patterns are restricted to a certain number or range of bars. Here is a list of the pattern types, and the ranges of durations:

- Fills – 1 bar long only
- PostFills - 1 bar or higher, generally no higher than 8 bars
- PreFills – 1 or 2 bars long only
- Normal – 1 bar or higher, generally no higher than 8 bars
- Endings – 2 bars long only
- Count-ins – 2 bars long only

The difference between favouring short patterns and long patterns is a balance between consistency and variation. Long patterns may sound more consistent, because you will be hearing large portions of raw audio, exactly as the drummer played it. On the other hand, with short patterns, there will be more variety in the phrases, because there will be many more possible combinations when single bars are mixed and matched together. Many people will favour a combination of long and short patterns. Also, while it is possible to have very long patterns, it is important to remember that patterns will not cross part markers, so if you designate 16 bar patterns, but in your Band-in-a-Box songs you have part markers every 8 bars, those 16 bar patterns will never be played.

Example 8: Normal pattern needed for bar 5.

In example 8, if Band-in-a-Box is trying to find a Normal pattern for bar 5, it can pick a 1, 2, or 3 bar pattern, or a 4 bar pattern that ends with a fill. It can not pick a pattern that is more than 4 bars long.

Another thing to keep in mind is that for any given bar in the style wave file, you can have as many different patterns defined as you like. So, for example, you can define a 1 bar pattern that starts at bar 5, you can then also define a 2 bar pattern that starts at bar 5, a 4 bar pattern, 8, etc.

In deciding what lengths of phrases will work well, an important thing to consider is whether or not certain bar lines make good cut-off points. For example, let’s assume that in a style wave file, at the 4th beat of bar 15 there is a crash cymbal that decays into bar 16, but fades out before the end of bar 16. Bar 15 would likely not be very good as a 1 bar pattern, because you would have situations where bar 15 would be used, and would then go directly to a different random bar that likely does not have a cymbal decay, so you would hear an abrupt cut-off which would greatly reduce the musicality of the drum part. In situations like these, you would then make sure that other patterns did not end with bar 15 as well. For example, a pattern at bar 14 would not be good as a 2 bar pattern, because it would cut off in the same place, but it would be good as a 3 bar pattern. Conversely, bar 16 would not likely make a good pattern at all, because it will start with a cymbal decay that had no start to it. This doesn’t mean that bar 16 will never be used, it will just never be the start of a pattern.
A good rule to follow is to try and have at least one 1-bar PostFill, Normal, and Fill patterns for each subsection, just to make sure that all possible circumstances will be covered. Once you have that, you can determine what other patterns will work well based on the phrasing of the drummer.

6. Location

The final element in pattern definition is the location of the pattern in the style wave file. This number represents the bar number in the wave file, but it is important to remember that this is a –1 based numbering system. The first two bars of the wave file are reserved for the count-in, which are considered to be bars –1 and 0. The drumming starts at the third actual bar of the wave file, but is referred to as bar 1. So, if you are viewing bars in an audio editor, remember that when you reference these bars in your text file, you need to subtract 2 before you enter them in the patterns.

If this is confusing to you, there are two ways you can simplify this. Some audio editors allow you to designate bar “1” at any point in a wave file. Simply go to bar 3 and designate that as bar 1. Then, any bar number you see will directly match what needs to be entered into the text file. The other thing you can do is that while you are actually working on the style, you can cut the 2 count-in bars, which will shift the rest of the track back by 2 bars, and any bars you see will be the same bar numbers you need to enter into the text file. Once you have finished the text file, you can then paste the count-in back in to the beginning of the file.

Shots Definition

In Band-in-a-Box, shots and holds are entered by putting either 2 or 3 periods after a chord (2 periods for a shot, 3 for a hold). With RealDrums, when a shot or hold is entered, the drums stop for the duration of the chord, and a single drum hit is played in place of the drum beat. Pushes are entered by typing either 1 or 2 caret symbols (“^”) before the chord in question (1 caret for an 8th-note push, and 2 carets for a 16th-note push). With RealDrums, when a push is entered, the regular drum beat continues throughout, but a single drum hit is added to the mix to emphasize the push.

Example 9: Bar 1 shows a shot, bar 3 shows a hold, bar 4 shows an 8th-note push, and bar 7 shows a 16th-note push.

The single drum hits are generally recorded at the end of the wave file, after the main drum groove, but they do not have to be.

Like patterns, shots are also defined in the text file using lines of text containing several elements: 1) the text “shot”, 2) type of shot (0 for shot or hold, 1 for pushes), 3) the bar number of the shot in the style wave file, 4) the number of ticks (1 beat = 120 ticks) before or after the bar number the shot occurs, 5) the duration of the shot in ticks, 6) weight, 7) volume of the shot

Here are some examples of defined shots:

```
Shot,1,82,-2,455,1,100
Shot,0,83,5,360,1,90
Shot,1,171,240,200,1,80
```

The six elements that come after the text “shot” are explained here in further detail:

1. Type of shot

The type of shot needs to be either 0 or 1. If 0 is entered, the shot will be used when chords are entered with two periods (shot) or three periods (hold). If 1 is entered, the shot will be used when chords are entered with two or three carets before them (8th & 16th note pushes).

2. Bar number in style wave file

Like with patterns, you need to remember that RealDrums styles use –1 based numbering, so you need to subtract 2 from the bar number as you see it in your audio editor. More than one shot can be played in a single bar, and you would use the tick adjust amount to distinguish between the two.
3. Tick adjust

The shots do not necessarily have to occur at the bar lines, and the tick adjust can be used to tell Band-in-a-Box exactly where the shot starts. Simply measure the number of ticks from the downbeat of the bar number entered to the start of the shot, and that is the number that should be entered here. If the shot starts before the bar number that was entered, a negative number should be entered here.

For example, if a shot is recorded at bar 82, but on closer examination it appears that the shot was played two ticks early, it would be entered as such:

- Shot,1,82,-2,455,1,100

In another example (see example 10 below), a shot is played at the third beat of bar 171. In this case you need to use the tick adjust to indicate that it a full two beats after bar 171. Since one beat is 120 ticks, two beats would be 240 ticks, and it would therefore be entered as such:

- Shot,1,171,240,200,1,80

Example 10: Here the shot begins at bar 171 (173-2), at the third beat, or 240 ticks into the bar.

4. Duration

Unlike patterns, which use numbers of bars for durations, the shots use ticks for durations. So, for example, if a shot lasts for three beats, you would enter 360 (3 beats * 120 ticks per beat).

Here is an example of a shot that lasts for three beats:

- Shot,0,83,5,360,1,90

For the best effect, the sound of the shots should decay naturally, and the entire length of the shot including the decay should be entered in the text file. This is especially important when all other instruments are silent, and all you hear is the decaying sound of the drum hit.

5. Weight

The weight for shots works exactly the same as the weight for patterns, except that there is no need for the use of 0 or 9 weights. This number should be between 1 and 8, with higher numbers representing a greater chance that the shot will be selected each time.

6. Volume

The volume of the shots is represented by a number between 1 and 127. If 90 is entered, the volume will not be adjusted at all. If a number between 1 and 89 is entered, the volume will be lowered accordingly, and if a number between 91 and 127 is entered, the volume will be raised accordingly. It is generally easiest to test the volume amounts once the style has been completed.
Additional Entries in the Text File

Bars Blocked

During the testing of your style, you may come across instances where a particular bar from the style wave file simply does not sound good going into another specific bar from the style wave file. When this happens, you can enter a “BarsBlocked” line into your text file to ensure that these bars are never played back-to-back.

When “BarsBlocked” is typed into the text file, followed by bar numbers separated by commas, Band-in-a-Box takes the first number, and all of the bar numbers that follow are “blocked” from ever following the initial number. So, for example, if this line is entered:

- BarsBlocked,24,35,41

then bar 24 can **never** be followed by bars 35 or 41.

However, when using this feature you need to be very careful that you are not creating situations where Band-in-a-Box will not be able to find a possible match for a bar. When you block a bar, you need to make sure that there are patterns defined starting on other bars that would also work.

Comments

When you create your style, you may want to add comments into the text file as reference points, or as reminders about certain aspects of the style. This can be done in two ways: 1) semicolon comments 2)Pascal-style comments.

If you type a semicolon into the text file, whether it’s at the beginning of a line, or at the end of a pattern definition, and text that is typed after the semicolon is ignored, which allows you to type comments. For example:

- \this entire line will be ignored by Band-in-a-Box
- pattern,normal,A,5,0,4,15;this text will also be ignored by Band-in-a-Box

Pascal-style comments are comments that are enclosed by { and } characters. Any text enclosed by these characters will also be ignored by Band-in-a-Box. Unlike the semicolons, these comments can occur in the middle of a pattern definition, and the line can continue after the comment. For example:

- \{this entire line will be ignored by Band-in-a-Box\}
- pattern,normal,\{this text will be ignored\}A,5,0,4,15

Alternate Styles & Expanded/Reduced Styles

Alternate Styles

It is possible for a wave file to be used for more than one style. For example, you may want to duplicate a style, but omit certain fills, or assign different weights to certain patterns.

In this case, you still need to create a new RealDrums style group by creating a new sub-directory in the “Drums” folder, and the text file for the style needs to be present. The only difference is that in the text file you would have the name of the wave file you are using, and that name will be different from the text file name.

For example, if you have a “MyFunkyStyle” style at 90 bpm, these files would be present:

```
C:\BB\Drums\MyFunkyStyle\MyFunkyStyle_090_Style.txt
C:\BB\Drums\MyFunkyStyle\MyFunkyStyle_090_Style.wav
```

To make an alternate style, you could create this file:

```
C:\BB\Drums\MyFunkyStyleALT\MyFunkyStyleALT_090_Style.txt
```

The first line of this text file would be:

```
wavename=MyFunkyStyle_090_Style.wav
```

Expanded/Reduced Styles

Often you will find examples of drum grooves where the pulse can be treated as 8th notes or 16th notes. For example, different musicians may disagree on whether a groove is 90 bpm with a 16th note pulse, or 180 bpm with an 8th note pulse. In Band-in-a-Box, some styles are treated as 8th note styles and others are treated as 16th note styles, and you may find examples where a drum beat that is intended for 8th note styles may work equally well on 16th note styles at half the tempo. In these cases, you can create two separate styles that both point to the same wave file, and treat it as two different tempos. The same method as described in “Alternate Styles” above could be used,
with one addition. For the style in which the tempo is different in the text file then it is in the wave filename, you would need to add the “ForceWavTempo=” line to the text file.

For example, if you have a “MyFunkyStyle_90” Style, the following files would be present:

C:\BB\Drums\MyFunkyStyle\MyFunkyStyle_090_Style.txt
C:\BB\Drums\MyFunkyStyle\MyFunkyStyle_090_Style.wav

For an expanded style, you could create this file:

C:\BB\Drums\MyFunkyStyleEXP\MyFunkyStyleEXP_180_Style.txt

The first line of this text file would be:

wavename=MyFunkyStyle_090_Style.wav

And an additional line would be needed:

ForceWavTempo=180

There some additional points in making expanded and reduced styles. First of all there is the issue of bars correctly matching up. If the number of bars in a particular group of bars in the higher tempo version are an odd number, this can throw off the slower tempo version. For example, if your high tempo version has an A Postfill, an A Normal, and an A Fill, then a B Post, this will mean that in the slower tempo version, the A Postfill and A Normal will become a single PostFill bar, which is fine, but the A Fill and the B Post will also become a single bar, which will not work. This could then mess up everything that came after. It would have been better if the high tempo version had an A Postfill, an A Normal, another A normal, then the A Fill, and then the B Post. For this reason, if you know a drum part is going to be used at two tempos, it is quite a bit easier to record or piece together the drum part with the slow tempo version in mind first, and this can then be expanded.

The other things you need to take into account are the count-in and endings. The count-in will be different for the two tempos, so it’s best to record two completely different count-ins. The alternate one can be pasted onto the end of the file if necessary. For endings, it’s also good to simply record two versions of them, which also can be at the end of your file.

Testing Your RealDrums Style

Once you have made your RealDrums style (or, depending on the level of completion, even during the making of it) you can listen to it and test it in Band-in-a-Box. If your text file is named with the convention detailed in the introduction, and is located in the correct directory, it should automatically appear in Band-in-a-Box. The easiest way to select your RealDrums style is to enter the RealDrums Settings Dialog in Band-in-a-Box (“Opt| Preferences| RealDrums”, or simply pressing the RealDrums toolbar button). Make sure RealDrums are enabled, and then put a checkmark beside “For this song only, use this RealDrums style”. If you then click on the RD button, a list of all available RealDrums should appear, and your style should be among them. When you exit this dialog and play your song, you should be hearing your RealDrums style.

You can make and save changes to the text file, and when you press play again in Band-in-a-Box, any changes in the text file will take effect. If, however, you make any changes to the wave file, the wave file needs to be reloaded for the changes to take effect. To do this, simply select a song that uses different RealDrums, press play. Then stop and reload the song you were working on.

Adjusting volume levels

If the balance between the RealDrums and the MIDI instruments needs to be adjusted, you can do this by simply adjusting the dbadjust= setting in your text file, saving it, and pressing play again in Band-in-a-Box. You can continue to do this until you have found a good balance.

For the volume levels of the shots and pushes, the best way to test this is by testing one at a time. If you have more than one shot or push, you can “comment-out” all but one, then you will always be hearing only that shot or push. For example, let’s assume you have three shots entered:

- Shot,0,82,120,547,1,110
- Shot,0,83,188,1151,1,90
- Shot,0,85,380,1058,3,90

To test the first one, add a semicolon to the beginning of the 2nd and 3rd lines:

- Shot,0,82,120,547,1,110
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• ;Shot,0,83,188,1151,1,90
• ;Shot,0,85,380,1058,3,90

Band-in-a-Box will therefore ignore those lines, and you will only hear the first shot. You can then adjust the volume level until you have it right, then do the same with the second shot, etc.

**Developer Mode**

It is also extremely useful when testing RealDrums styles to use “Developer mode.” This is a checkbox in the RealDrums settings. When it is turned on, Band-in-a-Box does two things. First of all it spell-checks your text file when you play a song. If it finds an error, it reports the error to you before beginning the song. When Developer mode is off, if there are typos in the text file, the entire pattern definition is simply ignored. For example, if you misspell “pattern” as “pattrn”, you will see an error message when you start that will tell you the typo as well as the line number where you can find it in the text file. When you press OK, the song resumes.

The other thing that developer mode does is generate a “DrumAudioResults.txt” text file every time you press play. This text file tells you exactly what patterns from your text file were picked for every Band-in-a-Box bar. The file also has other global and statistical information. This information can be extremely valuable as you fine-tune your style.

**DrumAudioResults.txt file**

The first information that the DrumAudioResults.txt file gives you is global information about the style and song. It tells you the wave file that was used, the song tempo, the total number of bars, and the total number of times you’ve played the song in the current session.

The next information it displays is a separate line for every bar of the song. The first item for every bar is the actual bar number in the song, but the type of information that is displayed after that depends on whether the bar represents the start of a pattern, or a subsequent bar in a multi-bar pattern.

**Here is an example of a bar where a pattern begins:**

• Bar# 12, relbar=4, MaxBars=5, Chose pat#21, line #26
  Normal,a sub.,mask=2,dur#bars=2, wrote 2,WavBar=14, Candidates=11 ,time=0:26

**Here is an example of a bar where a pattern is continuing:**

• Bar #13  WavBar=15 ,time=0:28

For bars where patterns begin, here are the items that follow the bar number:

1. **relbar=x**

This number represents the number of bars since the last part marker. This number therefore determines whether or not Normal patterns with masks assigned can be used. For example, if relbar=4, a normal pattern with a mask of 0, 2 or 4 could be chosen, but patterns with masks of 1, 3, 5, 6, etc. could not be chosen.

2. **MaxBars=x**

This number represents the number of bars to the next part marker. Since patterns can not cross part markers, any patterns that have a duration greater than the MaxBars= amount can not be chosen.

3. **Chose pat#x, line #y**

This is the actual pattern selected, shown in two different ways so that it’s easy to identify in the text file. If you count down from the first pattern in the text file, pat#x will show you how many patterns to count to find the one that was used, and does not take the global info at the beginning of the file into account. Line #y shows you the actual line of the text file, which would include lines for the global settings and any comment lines. If your text editor has line numbers, this is the easiest way to find the pattern that was chosen.

4. **Type, subsection, and mask**

The next information is the type (Normal, PostFill, etc.), subsection (A or B) and mask of the pattern chosen.

5. **dur#bars=x, wrote y**

The dur#bars= amount tells you the number of bars in the pattern, and the “wrote y” amount tells you the actual amount of bars written. In most cases, this number should be the same, because Band-in-a-Box will always try and keep the defined patterns intact. Sometimes, however, multi-bar patterns may need to be cut short, for example if it needs a 1 bar pattern but you have only designated 2 bar patterns.
6. WavBar=x
This tells you the bar of the actual style wave file that was used for the current Band-in-a-Box bar. Remember that this is using –1 based numbering.

7. Candidates=x
This tells you how many possible patterns there were for Band-in-a-Box to choose from for the current bar. If there were 3 or less possible candidates, this line appears instead as “FEWCandidates=x”. This lets you know that perhaps there are not enough of a certain type of pattern. As long as there is at least 1, you will not get any actual errors, but for the sake of variety, the more possibilities the better. If there are no possible candidates, you will get an error message “****** Unable to pick a drum audio bar for bar #x”. In this case, you need to examine your text file to see why this is occurring. It could be because there are simply not enough patterns defined, but it could also be because of the overuse of the “barblocked” feature.

8. time=
This tells you the time in minutes and seconds where the bar is located. This is useful if you have rendered a file, and you are listening to the rendered audio file for problems.

For bars where patterns are continuing, the only items shown are “WavBar=x” and “time=”. The one exception is where Fills are concerned, in which case you may see one of two messages tagged on to the end of the line. “BB song has fill, WAV is at end of multi bar pattern. WAV file has a fill also” means that a Fill was designated in the text file, and the current pattern is ending with that Fill. The other message you may see is “**** BB song has no fill, but WAV has a fill *** (Could be Error2 if mask0)” This means that Band-in-a-Box has recognized that a bar that is designated as a Fill occurred within the pattern, but not at a place where a Fill is required. Fills often sound good 4 bars into phrases, even if no fill has been designated, so in these cases, this could be fine. If, however, the Fill sounds out-of-place, you made need to examine this further in your text file.

At the end of the DrumAudioResults.txt file there is statistical information about the song you just played. Because of the random nature of styles, this information will likely be different every time you play the same song, however you may see some patterns develop that can help you fine tune your style.

The total bars will always be the same for the same song, but the number of patterns written will be different depending on how many short or long patterns were randomly selected. The average bars per pattern gives you an overview of the length of patterns selected. Long patterns are desirable because they generally sound more consistent, while short patterns are desirable because they lend themselves to greater variation. It’s therefore good to get a balance between the two, and a good average is between 2 and 4 bars.

It’s also good to have a high average candidates amount, as this is also a sign that your style will have good variation. If any Band-in-a-Box bars had 3 or less patterns to choose from, they were flagged as “FEWCandidates”, and the total number is listed at the bottom. This lets you know if you need to define more patterns.

“MultiBarPatternPercent=” simply lets you know the setting you have entered in your text file.

Using your RealDrums style in Band-in-a-Box
As we have shown above, you can select your RealDrums style for a particular song in the RealDrums Settings. It is also possible to assign your RealDrums style to a particular Band-in-a-Box style. This is done in the StyleMaker. If you have either a new or existing Band-in-a-Box style open in the StyleMaker, simply select “Style| Misc. Settings” or press ctrl-F10. This opens the Misc Style Settings dialog. At the bottom of this is the RealDrums Settings.

Example 11: RealDrums settings in the StyleMaker.
You can enable “Style uses RealDrums” in order to designate a RealDrums style. If your style is in the correct directory, it should appear when you press the “RD” button. You can then select your RealDrums style, and whenever the current style is played, it will use your RealDrums style (provided that RealDrums are enabled). There are also additional volume controls here. If you have your dB setting exactly where you want it in your style file, but with this particular Band-in-a-Box style you want it a bit higher or lower, you can enter a setting here. There are also fields for adjusting the ‘A’ or ‘B’ subsection volumes only.

You can also remove the check mark from either “Allow ‘a’ substyle RealDrums” or “Allow ‘b’ substyle RealDrums”, which means that for this style, the one with the checkmark remaining will be used for the entire song, regardless of what substyle is currently called for in the song.

The Harmony Maker

The Harmony Maker allows you to create or edit your own or existing harmonies. This can be used in the program to harmonize melodies or for live playing on the Thru channel. Sophisticated options control usage of passing harmonies (diatonic, dominant approach and chromatic), drop octave voicings (e.g., drop 2), octave doubling, patch selection, and more.

You'll see the voices down the left side of the dialog box.

<table>
<thead>
<tr>
<th>Voice</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Voice 1 is the melody</td>
</tr>
<tr>
<td>2</td>
<td>Voice 2 is a chord tone below the melody</td>
</tr>
<tr>
<td>3</td>
<td>Voice 3 is 2 chord tones below the melody</td>
</tr>
<tr>
<td>4</td>
<td>Voice 4 is 3 chord tones below the melody</td>
</tr>
<tr>
<td>[5]</td>
<td>Voice 5 (rarely used) is an additional chord tone usually the 9th or 11th in the scale</td>
</tr>
<tr>
<td>MelDoub</td>
<td>These voices are used to double the melody</td>
</tr>
<tr>
<td>MelDoub2</td>
<td>The LH Chord feature is not implemented in this version</td>
</tr>
<tr>
<td>LH Chord</td>
<td></td>
</tr>
</tbody>
</table>

Each harmony can use up to 3 channels.
Harmony Channel A, B, and C. If your harmony only has one instrument, then you will use Channel A for all the voices. If your harmony uses Flute and Bass, then you could use Flute on Channel A and Bass on Channel B.
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Settings For Each Voice

<table>
<thead>
<tr>
<th>Voice</th>
<th>Chan</th>
<th>Octave</th>
<th>Low</th>
<th>High</th>
<th>O. Double</th>
<th>V. Boost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (melody)</td>
<td>A</td>
<td>0</td>
<td>0</td>
<td>127</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tip: When you want to hear the harmony as you are developing it, have a song with a melody playing before you enter the Harmony Maker. After you have made changes to the harmony, hear the changes by pressing the [Update] button.

Chan. A 1-instrument harmony will use Channel A only. Additional instruments can use Channel B and C.

Tip: These channels are set to numbers in the Harmony Channels Dialog box, accessible by selecting the [Harmony] button under the Opt | MIDI Channels, options... menu.

Octave This allows the harmony to “drop-down” or “go up” by a number of octaves. This octave change will only happen in a certain range, as chosen in the LOW, HIGH settings.

Tip: There is also an Overall Harmony Octave setting that changes the octave of the entire harmony setting (accessible by pressing the [More] button).

O. Double (Octave Double) This setting lets you double any voice. Usually you want to do this by doubling an octave below (i.e. octave = -1), but you can set the octave from -2 to +2. The doubling will always be on the same channel, if you want a different instrument to double the voice, and then use the Melody Doubling Voices.

V. Boost (Velocity Boost) This allows you to increase or decrease the velocity (loudness) of each voice, to make the voice stand out more or less in the harmony. Default = 0.

The Patches setting at the bottom allows you to assign a patch to the harmony. If you set “No patch,” the harmony won't change the patch. This is a useful setting for making a generic harmony that doesn't change the patch of the Melody or Thru channel, for example.

Changes that you make to the harmony settings won't take effect until you press the [Update] button.

You may Copy a Harmony to the clipboard, and then move to a new harmony and Paste the harmony to the new location.
Because the harmony is saved automatically for you, you won’t need to ever press these buttons.

All of the 256 harmonies are saved in a single .har file called DEFAULT.HAR. If you have run out of harmonies, you can start a new harmony file by pressing the [Save As] button. For example, if you make a 3rd party disk of add-on harmonies, save it as your name MYNAME.HAR. Then you can load in your bank of harmonies (from the Harmonies | Edit a Harmonies File) without disrupting the existing DEFAULT.HAR file.

Each .har file has 256 harmonies, so you probably need only 1 DEFAULT.HAR for all your harmonies. However, if you’ve made a great harmony and want to give it to a friend, you can export a single harmony as an .h1 file. Your friend can then import this harmony into their own .har file.

The best way to develop a harmony is to hear it as it’s playing. The preferred way to do this is to have a song playing that has a melody in it. Any changes to the harmony will be heard on the melody as soon as you press the [Update] button.

You can also play along as the song is playing, and hear the new harmony on the Thru channel.

If you don’t want to have a song playing, and want to hear the harmony, then set the [Test Chord] to a certain chord. If set to CMAJ7, then you can play on the MIDI keyboard (with no song playing) and hear your harmony. This allows you to examine exactly what notes the program is using to make your harmony.

Additional Harmony Options

Press the [More…] button to launch the Additional Harmony Options dialog.

### Use Close Harmony
This only applies to 2 and 3 part harmonies.
If set to = 0 it will use only close harmonies, mainly 3rds for 2 part harmonies.
If set to = 1 it will use mostly 3rds, with some 6ths for 2 part harmonies.
If set to = 99 it will use mostly 6ths, with some 3rds for 2 part harmonies.
If set to = 100 it will use only wide harmonies, mainly 6ths for 2 part harmonies.
If set to > 2 < 98 it will vary between close and open harmonies.

### Use Passing Chords (melody)
DEFAULT = 100 %
Band-in-a-Box will sort out when to use passing harmonies, based on factors like the duration of the note, the next note, the chord tone, the velocity, previous notes, and other factors. You can visually see when the harmony is using a passing chord. The harmony display is usually blue, but when there is a passing chord, it displays as RED. If you don’t want passing chords set this value to 0.
Lowest Harmony Note
You can set a lowest note for the harmony to play. When the melody is low, harmonies begin to sound “muddy,” so you can avoid the harmony being played below a certain note.

Overall Harmony Octave
This sets the overall octave of the harmony. For example, in the 5-part Trumpets harmony the harmony is always be played an octave higher than the recorded melody. This is because the 5-part harmony is spread over 2 octaves.

No Harmony if duration less than nn milliseconds
You can specify a harmony to only occur for notes longer than a given duration. If every note is harmonized unrealistic harmonies result, since a piano player doesn’t harmonize notes of a short duration. You can specify a harmony to only occur for notes longer than a given duration. Notes shorter than that will not be harmonized. There are also options for how the program “fixes” the harmony when chord changes occur during a sustained note harmony.

OK to make new harmony with new chord
Most harmonies have a feature that changes the pitch of the harmony voices under the Melody note when the chord changes if the underlying voice wouldn’t be a chord tone. For some harmonies it would be unrealistic for the instruments to change the inner voicings in this manner. Deselect this option and the voices that conflict with the new chord stop playing instead of changing to new notes.

Use Guitar Harmony Voicings
Harmony Maker will use real guitar chord voicings that display correctly on the guitar fretboard. Selecting this checkbox means that guitar chord voicings will be used, instead of any other voicings specified in the Harmony Maker. Check out Harmony #32 (J Pass) for an example of this

Use voicings in 4ths
Modern Jazz harmonies often voice chords in 4ths. For example, a C chord with C melody might be voiced C, G, D, A, E. You can select 4ths voicings easily in Band-in-a-Box to harmonize the Melody, Soloist, or Thru parts using 3, 4, or 5 part voicings in 4ths. We’ve added presets for these harmonies, so you can easily select them. Use these sophisticated 4ths harmonies on your existing melodies to create a new sound.

Tip: To quickly hear what some of the 4ths harmonies sound like, look in the c:\bb\ Tutorial - BB 2005 demos folder for pre-made songs with 4ths harmonies.

To use the harmonies with any song, choose harmonies in the range 213 to 219. Each of these is a harmony using 4ths. For example, Harmony 218 uses 4 trombones in 4ths.

To make your own harmony using 4ths for the harmonies, enter the Harmony Maker, press the [More] button, and select the “Use Voicing in 4ths” checkbox.

Then the harmonies will be voiced in 4ths. You can make a 2, 3, 4, or 5 part harmony (+ melody doubling, + low root note).
The Soloist Maker

This module allows you to define your own soloists. For example, let’s say you want to create a soloist in a style similar to John Coltrane - the legendary jazz saxophonist. The Soloist Maker allows you to define the parameters essential to the particular soloist’s playing, such as instrument range (i.e. tenor saxophone), extra legato playing, playing more on top of the beat than most Jazz musicians, and playing straighter 8th notes than usual swing 8th notes.

In addition, you can set phrasing options, such as how long the phrase should be, and how much “space” to leave between phrases. You can also set how “outside” the playing should be. (For Coltrane it would be set to maximum!)

Access the Soloist Maker by pressing the Soloist Maker [Edit] button within the Select Soloist dialog.

**Tip:** To share Soloists with your friends, use the [Export] button to save your Soloist to a disk, and use the [Import] button to bring in a soloist from a disk. You can save your soloist to another Soloist file (*.s1) by pressing the [Save As] button.

Insert the title of your ‘soloist’ in the Title box, and any memo note you wish to add. (The Num field will be filled in for you.)

For the Memo box, you can put in information like "extra legato, straighter 8th notes, on top of the beat, laid back, etc.

The “Soloist is” box allows you to define what type of notes the Soloist will play (i.e. swing 8th notes, straight 8th notes, 16th notes, etc.)

There are several databases of Solo ideas to choose from. Select the database (*.ST2 or ST3) appropriate for the type of song the Soloist will be playing over (e.g., J_SWING.ST2 for Jazz Swing..."
songs) by pressing the [*ST2] button.

**Note:** If you have an .ST3 database available for the style of soloing you want to generate, you can still choose the .ST2, and the program will automatically substitute the appropriate .ST3 file if, (a) it is available and, (b) you have selected the “Use Large Soloist files” checkbox in the “Select Soloist” dialog.

Press the [Choose] button in the Soloist Editor to select the instrument the Soloist should play (i.e. Tenor Saxophone).

You may also select an instrument from the “Patch Change” window, but selecting an instrument with the [Choose] button also fills in the specific note range for that instrument.

If you wish to have a harmonized solo, select the harmony type by clicking on the Harmony box and choosing from the drop-down list.

To Modify (if required) the “Phrase Length,” “Space Length,” and “Outside Range” parameters, simply click in the box you wish to change and type-in the new number.

For example, change the “Legato Boost %” to 10%. This will add 10% to the duration of the notes.

Adjust the lateness by -5 to have the Soloist play the notes more "on the beat" than other Jazz soloists. Adjust the 8th Note spacing by -5 to have your Soloist play 8th notes in a more even feel than other jazz soloists.

“Change Instrument” allows you to quickly set how the Soloing will “take turns” with other instruments. Use this option to change instruments every chorus, every 4, 8, 16 bars, etc. Press the [Set..] button to choose the instruments you would like to change to, including the appropriate note range for each instrument.

The Sub-Soloist checkboxes are for use ONLY with add-on hybrid soloists such as the ones found on the SOLOISTPAK for Band-in-a-Box. These checkboxes can be used to “sub” a different instrument and playing style in a Soloist which contains more than one playing style, such as BG_BAND.ST2 found on Soloist Disk Set #5. For more information on additional Soloist Disk Sets and the additional features available with them, contact PG Music.

Use the [Import] button to bring a soloist in from a disk, and use the [Export] button to save your Soloist to a disk to share Soloists with your friends.
You can also save your soloist to another Soloist file (*.s1) by pressing the [Save As] button.

Press the [OK] button when you are satisfied with your choices.

You can control the maximum number of notes per quarter note that the Soloist will use.

For example, you can set a “Rock Guitar” Soloist to use nothing shorter than 16th notes. This would produce less “guitar hero” solos with bursts of 32nd notes etc. Or you could create a Jazz solo that uses only quarter notes or longer to help with sight-reading or student study.

10 easy steps to make a Soloist
1. Bring up the Soloist window by pressing the [Soloist] button.
2. Select a blank spot in your list of soloists and press the [Edit] button.
3. Insert the title of your soloist and any memo note you wish to add. The Num field will be filled in for you. Call this one Bebop Saxophone. The memo might say, “extra legato, straighter 8th notes, on top of the beat.”
4. Choose the type of soloist (i.e. swing 8th notes, straight 8th notes, 16th notes, etc.) This should be set to Swing 8ths.
5. Press the [Choose] button to select the instrument the soloist should play (i.e. Tenor Saxophone).

   Tip: You may also select an instrument from the Patch Change window, but selecting an instrument with the [Choose] button will also fill in the note range information specific to that instrument. You'll notice that the correct range for tenor saxophone has been filled in to the Note Range settings.

6. Modify (if required) the phrase length, space length, and outside range parameters.
7. Change the Legato Boost to 10 %. This will add 10% to the duration of the notes. Press the [Help] button in the Soloist Editor window if you require additional details.
8. Adjust the Lateness by -5. This will play the notes more “on the beat” than other Jazz soloists.
9. Adjust the 8th Note Spacing by -5. This will play the 8th notes in a more even feel than other Jazz soloists.
10. Press [OK], and you're done. Then, give the program a few moments to load its “knowledge base” of solo ideas and new parameters, and a few moments more to analyze the chords. Playback will begin automatically as soon as the Soloist has performed the operations mentioned above.

Custom Solo Generation
It is possible to generate and regenerate parts of the solo, so that you can redo any part of the solo that you don't like! This dialog allows you to set the range that you'd like for the solo:

This button in the Select Soloist Dialog launches the Generate Solo for a Specific Range of Bars dialog.

   Tip: You can have these values preset to the values you'd like by first selecting the range of bars that you'd like from the Spreadsheet screen, and then clicking on the [Soloist] button.
OK to solo for an extra beat
Usually, Soloists end a little after a bar’s end – they play a couple of extra notes, spilling over to the next bar. Selecting this option gives Band-in-a-Box soloist this ability also.

Overwrite existing solo in range
If you want to “overdub” a solo and have multiple solo tracks going at once, deselect this checkbox, and avoid getting a little messy.

Generate Solo Now
Once you press this button, the portion of the solo that you have selected will be generated. The song will start playing two bars before the new part, so you can quickly hear the new solo. Remember that the custom solo generation can be used with different soloists, so you can use a “tenor sax jazz” soloist for a few bars, and then insert a custom “bluegrass banjo” soloist for four bars and so on.

Tip: Band-in-a-Box even solos over the “slash chords.” The Band-in-a-Box Soloist feature analyzes slash chords like C/Bb to determine the best scale type to use (e.g. Bb Lydian). There’s nothing you need to do, as this happens automatically!

The Melodist Maker

In addition to the Melodists supplied with the program, this module lets you define or edit your own Melodists. You can choose the parameters to control the type of chords, melody and intro to be generated, as well as a number of settings controlling song form, theme continuity, endings type, anticipations, feel, style, harmony, soloist, patch changes and more.

Press the Melodist Maker [Edit] button from the Select Melodist dialog to launch the Melodist Editor.
Num
The Num selection box allows you to select the Melodist that you'd like to edit.

The top area of the Melodist Maker screen also allows you to set the Title of the Melodist and supply a Memo.

Choose ST2 Database
Select the associated ST2 database for the Melodist. Some ST2 Melodist databases are MEL1.ST2 = Jazz Swing (8th notes), MELPOP1.ST2 (Pop Ballads, 16th notes), MELWLZ1.ST2 (Waltzes, 8th notes), and MELROK1.ST2 (Rock, 8th notes).

Tip: Soloist databases also have extensions of ST2, but they are not compatible with Melodists. Melodist databases are easily identified, they all begin with MEL.

Patch Change
The Patch Change area allows you to select an instrument and Harmony, and to set Change Instrument setting for when you would like to change to a new Melody patch (e.g. Each Chorus).

Harmony

Change Instrument

The Change Style to .. window you can choose a style for the Melodist, and specify the feel for the style in the .STY is box.

Legato Boost %
Legato Boost % changes the legato (length) of the notes generated. Instruments like Saxophone have longer legato phrasing.

Increase lateness by (/120ppq)
Increase 8th note spacing by (/120ppq)
Increase Velocity by (/120ppq)

Increase lateness by (/120ppq) refers to how much after the beat the notes are played. This is normally left at zero for Melodists.

Increase 8th note spacing by (/120ppq) is usually left at zero (0). If set to a nonzero value, the 8th notes will be farther apart (based on units of 120 PPQ).

The rest of the settings in the Melodist Maker allow you to select options that control what type of melody will be generated.

Unique Themes
This is normally left at 100%. But if you want to force the Melodist to stick with the same theme throughout the song, set this to a lower value (say 80%). It shouldn't be set much lower than 80. Default = 100.

Unusual Placed Phrasing
The Melodist tries to make phrases that are appropriate for the position in the song. For example, the first 2 bars of the melody are appropriate for “opening phrases.” But if you want to experiment with phrases that don't follow these rules, set the Unusual Placed Phrasing to a value higher than 0%. Default = 0.

Simple 1st and 2nd Endings
This setting only applies to Melodists that are using the Jazz Swing (MEL1.ST2) or Waltz (MELWLZ1.ST2) databases. This determines the % of time that endings of the A sections (in AABA forms) will be simple endings (1 or 2 notes) instead of complete phrases. Usually AABA tunes end with simple phrases at the end of the A section, so this option is normally left at 80% or higher. Default = 80%.

Choose Unusual Chord Progressions
If set to a value other than zero, the Melodist will generate atypical chord progressions. For example, instead of a Dm7 | G7 | Cmaj7, the Melodist might generate Dm7 | Db7 | Cmaj7 Am7. Default = 0.

Force Long Phrases
This determines the % of time that the Melodist will try to generate long phrases (4 bars or more). The downside to setting it higher than 20 will be a loss of uniqueness in the phrases generated. The setting shouldn't be set much higher than 20. Default = 20.
Mix Minor and Major Chord Progressions
Typical major key chord progressions have progressions like (in the key of C) Dm7 | G7 | Cmaj7, whereas in the key of Am, they would be |Bm7b5| E7 |Am6. This setting determines how much the two types of progressions should be mixed in a single song. Default = 0.

Chord Substitutions Throughout the Form
Normally an AABA song has identical chords for each A section. If this setting is greater than zero, the Melodist will generate chord substitutions throughout the various A sections, while preserving the identical melodies! Default = 0.

Number of Variations to Choose From
As the Melodist is determining what type of phrase to generate, it will narrow the possibilities to the number of variations set in this variable. Setting a higher number results in more interesting melodies, but the chord progressions are more unusual. Default = 15.

Tempo Range / Auto Tempo
The Tempo Range setting determines the tempo range that the tune will be created with (it will be a random tempo in the range). The Auto Tempo setting must be set on the Melodist Selection screen for the tempo range to work. Default from 110 to 180 bpm.

Transpose A2 Section
In songs with an AABA form, it is common for the second “A” section to be transposed. For example, the first “A” section might be in the key of Eb, and the second would be transposed up to the key of Gb. Melodists store these settings, and some Melodists are set to transpose the A2 sections. This setting determines the % chance that the song will be generated with a transpose. The transpose will be usually 2, 3 or 4 semitones. The song will only get transposed if the A2 transpose setting isn't set to “none” on the Melodist selection screen. Default = 30.

Anticipations in Phrases
Melodic phrases often begin a little before the beat. This is referred to as anticipation. This setting determines what % of the phrases will be anticipated. Default = 20.

Always Use this Soloist
Since Melodists can also generate Solos, a specific Soloist can be set in this setting. If set to “0 - no Soloist” the program will intelligently make a selection from all of the Soloists in the list.

The Guitarist Maker
Band-in-a-Box will intelligently arrange any melody to a guitar chord solo by inserting real guitar voicings throughout the piece. There are many preloaded Guitarists to choose from, or you can customize existing Guitarists’ settings or make your own Guitarists from scratch in the Guitarist Maker.
within the current position. If set to 5 (for example), the chords will be limited to chords that can be played within the current position and up to 5 frets away from the current position.

### Force Open Position

This option forces all of the guitar voicings to the open position. The exception is when the Melody notes are so high that they can't be played using open position voicings. If the Melody is in a high range, and you want a "forced open position" you should likely transpose the Melody to a lower octave prior to generating the solo.

The settings for Note Duration thresholds to get a chord refer to how long a note must be before a chord will be generated. (Quarter note = 120 ticks.)

Looking at the settings above these would be interpreted as follows:
- If a note occurs and it is the “First Note of a New Chord” and the note is not followed by another note for at least 50 ticks (120 ticks = 1 quarter note), then a chord will get voiced 90% of the time.
- If a note occurs (not the first note of a chord), that is on “Beat 1 of a bar,” and the note is not followed by another note for at least 50 ticks (120 ticks = 1 quarter note) then a chord will get voiced 90% of the time.
- Similar interpretations for notes occurring on “Beat 2, 3 and 4.” You can see that the threshold is higher for notes on beat 2 and 4, which is how a guitar player makes chord solos.
- “Passing notes” are defined as short duration notes that aren't on the beat, and are followed by a note that is on the beat. In this example, passing notes will never be voiced as chords since the tick threshold is set to zero.

A further threshold is applied to the possibility that a note is voiced to a chord. These are defined as durations in milliseconds. In the settings shown, if the note occurs less than 100ms (Time to Previous Note) after the previous note, the note will not be voiced as a chord. If the note is followed by another note within 80ms (Time to the next note), the note will not be voiced as a chord.

### Strumming Settings

If the Guitar Chord is all played at the same time, it will sound as if it was plucked. Guitar playing is more typically a strum.

#### Speed of the strum

If the setting is 80ms, then the guitar chord will be “strummed” over a period of 80 milliseconds.

#### Delay start time of strum by %

If the Delay start time is left at zero, the strum will end at the original time of the melody note. If you set it to 50% delay, the strum will be in its midpoint at the original start time of the Melody note, while if it's set to 100%, the strum won't start till the time of the original note. The most musical setting is about 50% delay. A delay of 0% also sounds good, and has the added advantage that it doesn't shift the actual time of the Melody note (relevant if you keep regenerating the solo on the Melody track).

#### Plucked / Strummed

Pressing these buttons will set the settings to preset values.

### Chord Types to Include

You can decide which types of chords should be included in the chord solo.

#### Best Chords

The most commonly played chords by pro guitarists.
Chapter 11: User Programmable Functions

Good chords
Popular alternate chords.

Advanced chords
Chords that are difficult to play, advanced voicings.

Unusual chords
Voicings that should be avoided in most cases but have some uses.

Barre chords
Chords that require the index finger to be played in a Barre position.

Include Open Strings
If set to Never, no chords that require and open string will be played.
(Never/ Sometimes/ Favor) If set to Favor, it will play open strings whenever possible.
Sometimes is a “middle ground” setting.

Include Chords with this # of Notes
You can select the # of notes for chords to be included in the chord solo. In the example above, chords with 2-6 notes will be included.

Embellish Chords

Embellish how often: Allows you to specify the frequency of embellishment.

Embellishment type: Allows setting of the types of embellishments to do.

- Pop Guitarists should be set to use 9ths only. This will change C7 chords to C9 and Cm7 to Cm9.
- The “7ths/9ths” setting should be used for Jazz. This adds the embellishments of C to Cmaj7 and Cm to Cm7.
- The “7/9/11/13” embellishment should be used for “Advanced Jazz” Guitarists add 11ths and 13ths voicings.

If you make changes to the Guitarist settings, you need to manually save them by pressing the [Save As] button and then finding the ‘/bb home directory and saving the file as DEFAULT.GIT.

Individual Guitarists can be copied, pasted, exported, or imported to/from disk.
Chapter 12: Tutors, Wizards, and Practice Aids

Audio Chord Wizard (“Chords from MP3”)

This amazing wizard automatically figures out the chords from any MP3, WAV, or WMA (Windows Media Audio) file and displays them in Band-in-a-Box. Just load an audio file and you’ll instantly see the chords.

As well as the chords of the song, the Audio Chord Wizard also figures out,
- the tempo of the file,
- bar lines throughout the song,
- fine tuning detection (e.g. 5 cents sharp from A440),

Note: Audio Chord Wizard estimates the chord progression of an audio file. It is NOT an Audio-to-MIDI transcriber, which would be a much more elaborate program.

Opening Files

To open your audio file in the Audio Chord Wizard you can click on its toolbar button or use the File menu command to Open Audio w/Chords.

Use the Launch Audio Chord Wizard command if you already have a file with audio loaded in Band-in-a-Box.

When you select a file to open you will see a series of Progress messages.
The **Audio Chord Wizard** first opens the audio file and makes initial calculations, finding audio beats and estimating a tempo map, and then displays your audio file.

### Audio Chord Wizard Window

**Primary Program Controls**

- **Play**: Toggle Play/Pause (Space bar or Multimedia Play/Pause key).
- **Stop**: Stop play, rewind to start with Esc key.
- **Tap Barline (F8)**: Moves nearest bar line to current play position. F8 or Enter keys also set bar lines.
- **Time Sig.**: Song time signature, 2/4 to 12/8 supported.
Average tempo, right-click for options.

Song key signature.

Use to correct pitch of song if necessary.

Exit and send chords to Band-in-a-Box.

Exit without sending chords to Band-in-a-Box.

**Chord Detection**

Chord Detection accuracy depends on the accuracy of the bar lines. If bar lines are not well-aligned then the Chord Detection can be expected to be rather poor. It is quick and easy to align the bar lines on most songs, once you get the hang of it.

The first task is to locate the beginning of Bar One. Since an audio file could have an arbitrary amount of silence at the beginning of the song, and many songs begin with a pickup partial bar, ACW cannot easily guess the first bar without a hint from you.

The shortcut keys and mouse playback controls make it easy to find Bar One. Tap the space bar to begin play, watch the Location Cursor, and listen for the downbeat. If the Location Cursor passes the downbeat and you were not completely certain of the location, you can tap the W key to rewind to the song beginning and replay the first part of the song, to audition the downbeat as many times as necessary to make sure of its location.

You can also single-click in the Chords panel to jump the playback position. If the rhythm is unusually complicated near the downbeat, you could repeatedly click just a little before the suspected Bar One location, to zero-in on the exact downbeat.

In the following example song, we have discovered the downbeat of Bar One, so we Right Click on that location to Set Bar One.

Now the Bar One bar line is red (shown below). The red Triangle bar indicator indicates that we have edited that bar line. The Red Triangles are called Good Bar Lines (GBL's). The green Triangle bar indicators are bar lines which ACW has automatically inferred from its automatic tempo detection PLUS your edited Good Bar Lines. We call the green automatic bar lines Inferred Bar Lines (IBL's).

On this example song, the initial automatic tempo detection did a pretty good job. Simply setting Bar One has caused the first four bars to be properly aligned to the music. On some songs, Set Bar One is the only action necessary to get good bar alignment for the ENTIRE tune.

As playback continues in this example (below), we notice that ACW has made its first error approaching Bar 5. Audio Chord Wizard has estimated the tempo of Bar 4 too slow. But that is easy to fix. If you prefer real-time control, just tap F8 or the Enter key where the downbeat should actually be.
If you prefer stopped-time editing, you can either mouse-drag Bar 5 to its desired position, or drag the Playback Location Cursor to the desired position and then tap F8 or the Enter key.

Keyboard Shortcuts

Keyboard shortcuts make it easier to navigate the song and tap in barlines without having to work the mouse with start/stop/scroll actions.

Play/Pause- SPACE BAR, or MultiMedia keyboard PLAY/PAUSE key or (certain keyboards) PLAY key
Stop- ESC key, or PAUSE key, or MultiMedia keyboard STOP key
Tap Barline- F8, or ENTER key
Jump To Song Start- W key, or HOME key
Jump To Song End- END key
Jump Forward One Bar- RIGHT ARROW key
Jump Back One Bar- LEFT ARROW key
Jump Forward Four Bars- PAGE DOWN key, or DOWN ARROW key, or MultiMedia keyboard NEXT TRACK key
Jump Back Four Bars- PAGE UP key, or UP ARROW key, or Multimedia keyboard PREVIOUS TRACK key

Special Cases

Time Signature:
If a song is not in the default 4/4 time signature, set the Time Signature very early before you do anything else.
Bad Initial Tempo Estimates

Double/Half Tempo:
Sometimes Audio Chord Wizard will guess double or half of the tempo you might prefer.

Slightly Wrong:
Sometimes syncopated songs can have musical anticipations which make ACW guess a tempo slightly too fast or slightly too slow.

Completely, Horribly Wrong:
Some songs have rhythms difficult for a computer to understand. Sometimes a song's rhythmic beats are spaced in such a way that a song with a perfect Tempo of 120, might mathematically BETTER fit the audio beats at some simple (but wrong) related ratio such as 80, 100, 160, or 180 BPM.

If the initial Tempo Estimate is pretty good, the Tap Bar line function will be the easiest way to fix such errors, requiring only a few keyboard taps during playback.

But if the initial tempo estimate happens to be horribly wrong, it helps to make the initial tempo "in the ballpark" BEFORE you tap a few F8's to make it completely right.

Right-click the Avg Tempo control for some easy automatic fixes.

Note: If you want to use the Avg Tempo Menu functions, use the menu very soon after you have opened a song, before you have done much bar editing. If you invoke the Avg Tempo Menu functions after you have laboriously edited a lot of bar lines, the automatic nature of these functions can ruin your previous editing.

In some cases, there is a good reason to initially set the tempo artificially slow by using the "Find Best Half Tempo" function.

For example, if the initial tempo estimate is considerably faster than the tempo that you want to tap in, the Tap Bar line function can mistakenly think that you want a very fast tempo, which fills the remainder of the song with unwanted fast-tempo bars. In that case, if you initially set the tempo very slow, ACW will be unlikely to misinterpret your Tap Bar Lines.

Set Key Signature
Once the chords look reasonable, for instance if your song looks like it is probably in the key of F, set the Key Signature control to F for better chord spelling. This only affects the cosmetic display of notes and chords (flats and sharps). The Key Signature control does not currently affect the basic accuracy of Chord Detection.

Adjust Fine-Tuning
If a song is significantly mis-tuned from concert pitch, the notes are "in the cracks," which makes Chord Detection less accurate.

If your Chords look reasonable, there is no need to bother with Tuning. Most songs are recorded pretty close to Concert Pitch.

But if you see numerous Chord errors, it may help to adjust the Fine Tuning control.

If you are playing along with a song on your keyboard, you might decide to make an ear-estimate of how far out-of-tune is the song:

For instance, you could adjust the fine-tuning control on your keyboard until your keyboard matches the song's pitch (according to your ear). Then you could look at your keyboard's tuning readout, and adjust ACW's Fine Tune Control to match. Either click-drag ACW's Fine Tune control (like a slider control), or right-click the Fine Tune control then type in a number.
The Fine Tune Control currently does not change the pitch of playback (though that would be an excellent future feature). Currently ACW's Fine Tune control only improves Chord Detection on mis-tuned songs.

The Fine Tune control is calibrated in cents, 1/100th of a semitone. Therefore, if a song is perfectly in the key of C, but if you set Fine Tune to +100 Cents, ACW would display chords in the key of B. Similarly, if you set Fine Tune to -100 Cents, it would display that song's chords in the key of C#.

That simple use of the Fine Tune control is just a backwards way to transpose the Chords. But if you set Fine-Tune somewhere in the middle, ACW looks for notes that are somewhere “in the cracks” between the piano keys. For instance, if your song SHOULD be in the key of C, but it was unfortunately recorded 50 Cents sharp--

There could be many reasons that a song was recorded off Concert Pitch. Maybe the recording studio had a broken tape recorder. Perhaps the Piano Tuner was smoking Crack, or the singer couldn't quite hit the highest note. Maybe the vinyl record cutter was off-speed, or some Record Executive decided that the song was 10 seconds too long for airplay, and instructed the Mastering Engineer to speed it up a little bit. In such cases ACW can get confused, mis-identifying some pitches too high and other pitches too low, detecting nonsense Chords.

So if your favorite song was unfortunately recorded 50 Cents sharp, you can set the Fine-Tune control to +50 Cents so that ACW will properly display in the 'original' key.

**Auto Estimate Tuning**

ACW can automatically estimate the tuning, which helps in some cases. Since the estimation is math-intensive, ACW only analyzes one bar of music at a time.

Right-click somewhere inside a bar and pick the Estimate Tuning function.

After the process is finished, up pops the results dialog.

As advised in the dialog, results can be improved by carefully picking the bar. Bars with relatively long notes are easier to analyze, compared to bars containing flashy fast melodies.

It can be useful to spot-check a few bars. If several spot-checks give similar answers (within a few cents), you have good confidence that the results are actually meaningful, not being randomly affected by out-of-tune melodies or loud drums.

However, if the first estimate reads +43 and the next measurement reads -12, then it probably means that your song is not a good candidate for automatic Tuning Estimation.
Odd Length Bars and Drastic Tempo Changes

If a 4/4 song contains occasional bars of 3/4, 5/4, or whatever, or if there are sections where the music has an extreme ritard or accelerando, sometimes you can just Tap Bar Lines to adjust it.

But it is sometimes more convenient to manually add or delete bar lines. The following example song has an overall Time Signature of 4/4, but Bar 9 should have a time signature of 2/4. If you simply Tap Bar Line on 9:3 to shorten the bar, then ACW will mistakenly decide that you wish to make all the following bar lines double-tempo 4/4.

Solution

First, Right-Click on the beat 9:3, and Insert a bar line.

Now a new barline is added, and three new GBL bar lines are flagged red.

Right-Click on the new shortened Bar 9 and set the Time Signature to 2/4.
Change Bar 10 to its desired duration. Hover the mouse over the red triangle marker at Bar 11, and the mouse cursor becomes a drag cursor. Click and drag the barline to the location marked 11:3

Now we have edited bar 9 to have its proper 2/4 Time Signature and preserved the song tempo on both sides of the 2/4 bar.

**Notes Display**

The Notes Display looks like a MIDI Piano Roll, but it is not exactly the same as a MIDI Piano Roll. Audio Chord wizard detects the strongest frequencies found in each eighth-note time slot, and displays them in the Notes Display. Sometimes the displayed frequencies REALLY ARE instrument notes played in the audio file. But they could be spurious information, such as the accidental loudest frequency of a drum beat. A midrange frequency note-bar might be showing the sum of harmonics from several instruments, each instrument's harmonics contributing to the strength of that frequency.

The Notes Display information is real and useful, but try not to assume that every displayed note-bar is a real note in the audio.

**Display Controls**

**Horizontal Scroll Bar**

Scroll forward/back in the wave file.

**Plus/Minus Zoom Buttons**

Zoom the display to show more or less detail.
Audio Chord Wizard Utilities Dialog

The **Audio Chord Wizard Utilities** dialog box can be launched at any time from the menu item (File- Audio Chord Wizard Utilities, or Audio – Audio Chord Wizard Utilities).

It is also launched automatically after returning from the Audio Chord Wizard

**Automatic detection of key signature based on the chords only.** This is useful for a song from the Audio Chord Wizard, where you forgot to set the key signature or for any song without the key signature set.

If you agree with the analysis, you can accept the chord signature recommended for the song, by pressing the “Set the song key signature to …” button.

**Make a Tempo Map**

After an audio song (MP3/WAV/WMA) has been loaded into the AudioChordWizard, there will be bar lines assigned automatically by ACW, and perhaps modified by you. If you would like Band-in-a-Box song file to follow these bar lines, so that the BB file will play in sync with the audio file, press the “MAKE A TEMPO MAP” button.

You will then see red boxes on the BB chord sheet, indicating tempo changes and the presence of a tempo map.

Press “Erase Tempo Map” to remove the Tempo map, and the ‘red boxes’ will disappear around the bar lines.

**Note:** You can always get the tempo map back, by pressing “Make a tempo map” at any time.
Erase the Audio WAV file in BB

This erases the audio track from BB. If you have loaded in an MP3 file, the audio track isn’t the MP3 file, it is the WAV file copy that BB has made of it. So you wouldn’t be erasing your MP3 file! Note that you also have to SAVE the BB file to have the erasure be complete.

Enable MIDI style

If you enable the MIDI style, you’ll be hearing the audio file as well as the BB MIDI style. Otherwise you can mute the BB style by disabling it here.

Open Audio Chord Wizard...

You can revisit the Audio Chord Wizard by pressing this button (this can also be done from the Audio menu). Revisiting the AudioChordWizard is useful to refine the bar lines.

Tip: How to preserve chords if you revisit the AudioChordWizard

If you do revisit the AudioChordWizard, and want to preserve the chords that you may have edited, first select all of the chords, and choose Edit-Copy, and then, after the AudioChordWizard, choose Edit-Paste. Otherwise the AudioChordWizard might re-interpret your chords!

Help

The Help button launched the help file (BBW.CHM file) with a topic describing the dialog, and the AudioChordWizard.

Manual

The “Manual” button launches a PDF manual of the Audio Chord Wizard with latest features described. This manual is in BB AudioChordWizard folder.

MIDI File Chord Interpretation Wizard

Many MIDI files lack chord symbols, making them difficult to play along with by ear. Now you can open up any MIDI file in Band-in-a-Box, and Band-in-a-Box will automatically figure out the chords of the song for you. The chords are written onto the Band-in-a-Box chordsheet like any other song. You can also read tracks into the Melody and Soloist tracks.

Importing Chords

You can import the chords from a MIDI file. To do this, first blank the chordsheet, by choosing File | New. Then select the menu item File | Import Chords from MIDI file to launch the Interpret Chords from MIDI file dialog.
Press the [Open (Change)…] Button to select the MIDI file that you'd like to import.

Once you've selected the file, you can press the [INTERPRET CHORDS NOW] button.

When you do that, the chords will be interpreted from the MIDI file, and written onto the chord sheet. Prior to pressing the [INTERPRET CHORDS NOW] button, you might want to make some custom settings.

When you load in the MIDI file, Band-in-a-Box interprets many things from the MIDI file for you automatically. Normally you'd want this to happen, but if you'd prefer to make the settings yourself, you can set the Auto Interpret settings from MIDI file to false.

Once you have loaded in the MIDI file, and assuming that you have the “Auto Interpret” set to true, you'll see that the dialog displays the settings that the Chord Wizard has found for the key signature, and channels used for the song.

Let's work with an example song called Violet Song.MID. This should be included in your c:\bb directory.

- Start with a blank worksheet by choosing File | New.
- Choose the MIDI File chord Wizard dialog by choosing File | Import Chords from MIDI file.

Press the [Open (Change)…] button to select the MIDI file, and then choose the file that you'd like to import. In this case it is “c:\bb\Violet Song.MID.”

Once you load in the MIDI file, you'll see that the Chord Wizard has analyzed it and made these determinations.
It has automatically determined that the “Violet Song.MID” file
- has 2 bars of lead-in.
- has 103 bars of chords.
- is in the key of F with a 4/4 time signature, and a tempo of 120.
- has the Bass Part on channel 2.
- has the chording (comping) parts on Channels 3, 6 and 7.
- has the Melody on Channel 4.
- has no other parts like the Melody to put on the Soloist track.

Now, after loading in the MIDI files, you'd normally have a look at these settings above, to see if they seem reasonable for your MIDI file. If not, you can change the settings. For example, if you knew that the Melody channel was on channel 3, you could override the Chord Wizard settings.
Once you have done that, you should choose one of the Presets, to quickly put the settings to the type of song that we are trying to interpret.

**Chord Options**

When you choose one of these presets, it makes a number of settings in the Chord Options section of the dialog. You can override them in this dialog.

**Chord Resolution**

This is the minimum number of beats for a chord. For example, if you set it to “2 beats” then the Chord Wizard will never attempt to come up with different chords that are only a beat apart. If you have a song that has a short section that does include chords every beat, you can redo that section of the song with a “1 beat” resolution. (Default = 2 beats)

**Include Slash Chords**

If set, the Chord Wizard will include “slash chords” like F7/A or Cm/G.

**Bass Part Type**

You can set this to “Root,” “Root-3-5,” or “Walking Bass.” If you choose “Root,” the chord Wizard will assume that any bass note is the root of the chord. Choosing “Root-3-5” will cause the Chord Wizard to assume that the bass pattern is mainly on the root, 3rd and 5th of the chord. If you choose “Walking bass,” it will assume that the bass notes can be changing and can include many notes beside the root. Setting the Walking bass line will likely result in fewer chords overall than setting the “Root only” option.

**Allow Suspended (Sus) Chords**

The setting for “Allow Sus chords” determines if chords like Csus or Bbsus7 will be included. The “Allow 7th chords” specifies if 7th chords like C7 or Bbm7 would be allowed. Simple Rock songs might not have 7th chords or Sus chords. Allowing chords with no thirds should be set in a hard rock song, or similar song with “power chords” that might not contain the 3rd of the chords.
Delay Lowest Bass Note

Usually a bass player plays the root of the chord at or near the time when the chord changes. But in solo piano playing or some bass styles, the bass doesn’t state the root until later on, and this setting should be set to “delayed” in a solo piano style of this type.

Primary Style

<table>
<thead>
<tr>
<th>Method:</th>
<th>Jazz Lead Sheet</th>
<th>Jazz Lead Sheet</th>
<th>Pop/Country</th>
</tr>
</thead>
</table>

Set the primary style of the song to Jazz or Pop using the Lead Sheet Method combo box.

Using the Chord Options Presets to quickly make settings

For the song “Violet Song.MID,” we know that this is a Jazz Swing type of song, so we press the Preset Called “Jazz Standard.” By doing this, we see that the chord options have then been set to Chord Resolution of 2 beats, no slash chords, walking bass, sus chords, 7th chords, and Jazz lead sheet. These settings look OK for our Jazz song, if we wanted to customize it (e.g., to allow slash chords) we could do it at this point.

So, to recap, using the Chord Wizard is a 3-step process.

1. Open (Change)...
   We've loaded in the song “Violet Song.MID.”

2. Jazz Standard
   Pressing the preset button called [Jazz Standard], we then looked at the Chord Options settings for the various channels and they looked OK, so we didn't make any changes.

3. INTERPRET CHORDS NOW
   We then press [INTERPRET CHORDS NOW] – this gets the Chord Wizard to interpret the chords, and write them onto the Chord Sheet.

Once we've pressed the [Interpret Chords Now] button, we can see the results, by looking at the chord sheet. Here are the chords that were interpreted.

<table>
<thead>
<tr>
<th></th>
<th>F6</th>
<th>G7</th>
<th>C7</th>
<th>FMaj7 D7</th>
<th>Gm7</th>
<th>C7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>F6</td>
<td></td>
<td></td>
<td></td>
<td>G7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C7</td>
<td></td>
<td></td>
<td></td>
<td>C7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>FMaj7</td>
<td>Gm7</td>
<td></td>
<td></td>
<td>F6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>C7</td>
<td></td>
<td></td>
<td></td>
<td>G7</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Bb6</td>
<td>Bdim</td>
<td>F6</td>
<td></td>
<td>Gm7</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dm7</td>
<td>G7</td>
<td></td>
<td></td>
<td>BbMaj7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>FMaj7</td>
<td></td>
<td></td>
<td></td>
<td>Gm7</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>C7</td>
<td></td>
<td></td>
<td></td>
<td>F6</td>
<td></td>
</tr>
</tbody>
</table>

So that we can see how well the Chord Wizard did, we can compare it to the “correct chords” of the song, input by a musician listening to the song.

<table>
<thead>
<tr>
<th></th>
<th>F6</th>
<th>G9</th>
<th>C13</th>
<th>FMaj7 D7+</th>
<th>Gm7</th>
<th>C13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>F6</td>
<td></td>
<td></td>
<td></td>
<td>G7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>C7</td>
<td></td>
<td></td>
<td></td>
<td>C7</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>FMaj7</td>
<td>Gm7</td>
<td></td>
<td></td>
<td>F6</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>C7</td>
<td></td>
<td></td>
<td></td>
<td>G7</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Bb6</td>
<td>Bdim</td>
<td>F6</td>
<td></td>
<td>Gm7</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dm7</td>
<td>G7</td>
<td></td>
<td></td>
<td>BbMaj7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>FMaj7</td>
<td></td>
<td></td>
<td></td>
<td>Gm7</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>C7</td>
<td></td>
<td></td>
<td></td>
<td>F6</td>
<td></td>
</tr>
</tbody>
</table>

Chapter 12: Tutors, Wizards, and Practice Aids
As you can see, by comparing the two sets of chords, the Chord Wizard got almost all of the chords correct in this example. The Chord Wizard purposely avoids chords like “C13.” It will put a simpler “C7” instead, since this is more like a typical lead sheet.

If you’ve read in the entire MIDI file, you have 103 bars of chords on the Chord sheet. This actually contains 3 choruses of the song. You might want to reduce that to a single chorus by setting the chorus end of the song to bar 36 and then erasing the excess bars (after bar 36) by choosing Edit | Erase.

**Examining the song that has been interpreted by the Chord Wizard.**

You’ll notice that the title (Violet Song), key (F), and tempo (120) have been set to the values found in the file. Part markers are not set; the Chord Wizard doesn’t try to guess where part markers might be occurring. You need to put the part markers in yourself. You also need to choose the style to use (a Jazz Swing style in this case). If you examine the Melody track (by opening the Notation window and right clicking on some notes or pressing the Event List (#) button), you’ll notice that the Melody track contains notes from Channel 4, which is what we specified in the Chord Wizard dialog.

**Importing Part of a MIDI file or re-doing a section of the Chord Sheet**

<table>
<thead>
<tr>
<th>Import Complete song</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insert to BB starting at bar #</td>
<td>1</td>
</tr>
<tr>
<td>How Many Bars to import?</td>
<td>103</td>
</tr>
</tbody>
</table>

(Normally we’d want to import an entire MIDI file worth of chords. But if you only want to import some bars, you can deselect the “Import Complete song” checkbox, and then specify where to start in the MIDI file (i.e. the number of lead-in bars in MIDI file) and what bar to start at in Band-in-a-Box (Insert to BB starting at bar #) and the number of bars to import (How Many Bars to import?).

For example, using the song “Violet Song.MID,” we could redo a section of the song using different settings. (For example, a chord resolution of 1 beat instead of 2 beats.) If we were unhappy with the results at bar 7 and 8, we could redo this by making the settings as follows:

| # of lead-in bars in MIDI file | 2 |
| Import Complete song | 7 |
| Insert to BB starting at bar # | 2 |

**Other Settings for the Chord Wizard**

- **OK to use PG Music Chord names from MIDI File**: Band-in-a-Box and PowerTracks Pro Audio songs contain special events that write the exact chord names into the MIDI file. So if the Chord Wizard sees these events, it will use them instead of interpreting the chords, since they are likely to be completely accurate. If you’d prefer to ignore these chord events, set the “OK to use PG Music Chord names from MIDI File” to false.

- **Write Chord Summary Notes to Soloist track**: The setting for “Write Chord Summary Notes to Soloist Track” is only used for diagnostic or special purposes. When set, the Soloist track will contain a special track that has a chord written every 2 beats (or whatever the setting for chord resolution is) that contains every note found for the chord. This shows you the type of logic that the Chord Wizard is basing its decisions on. If you encounter a song that gives incorrect results for the chords, you can try this setting and then examine the Soloist track to see the actual notes of the chords. Chord-stepping through the track (using [Ins] and [Del] on the Numpad) allows you to quickly hear the chords.

- **Include continuous controllers and pitch bend**
- **Include Patch changes**
- **Include Lyrics**

You can optionally include controllers, pitch bend, patch changes, and lyrics from the MIDI file.
Practice Window

The Practice Window allows convenient “1-click” access to many Band-in-a-Box features that help you with practicing.

These include the Ear Training dialog, games (Pitch Invasion etc.), Metronome, CopyMe, Sight Reading, 101 Riffs series, and more.

To launch the Practice Window, press the [P] practice button on the toolbar, or choose Window | Practice Window (hot keys Alt+Shift+L).

There are several purposes for the Practice Window.

Quick access to your favorite/preferred “practice” folders, so that you can setup load in songs without having to navigate dialogs.

One-click access to many of the education-related features of Band-in-a-Box (play along soloing, Ear Training, games).

Handy buttons for on-screen transposition for non-concert instruments.

One button access to many of the Band-in-a-Box add-ons “101 Riffs” series and “Master Solos.”
One button access to many other PG Music educational programs and lessons.

Most of these items are “add-on” products, available separately, and are not included in the Band-in-a-Box program. If you have these items installed to your hard drive, the Practice Window will find them if they are installed them to the default directories, and if not, you will be able to point the program to the location of the program, which will be remembered in future sessions.

For items that you don’t have, you can choose to display or not display them on-screen using the “Show add ons if N/A (not available)” setting.

More information about all of the add-on programs can be found at www.pgmusic.com/practice.htm

Making and Using Practice Folders

If you are preparing for a performance or a jam session with friends, you likely have a list of songs that you are working on. Let’s say they are in a folder called “c:\Bob’s Tunes”

Click on the Folder icon. You’ll then see a menu that lists a Manage Folders submenu, allowing you to create/remove Practice Folders.

This is list of all Practice Folders defined (there likely won’t be any to start with, so you can add them using the Manage Folders menu command). Add a folder that you use frequently to this list.

Note: Practice Folders are limited to 200 songs, because they display on a menu for quick access. So don’t use this feature for folders with hundreds of songs, use the Song List dialog for that.

After the list of Practice Folders, you see a list of “Favorite Folders” – these are the folders that you have visited recently.

Once you have selected a folder, you then press the [Songs] button, and you’ll see a pop-up menu of the file names for that folder, with the current song having a check mark. Load in a song by choosing the menu item.

Ear Training Tutor

Ear training is an important exercise for all musicians. Now you can practice your ear training with help from Band-in-a-Box. In addition to the common interval exercises (perfect 4th, minor 2nd, etc.), learning to “play-by-ear” for
Jazz and Pop music is further enhanced by ear training exercises to recognize common chord types (e.g., Major, Minor, Dominant, etc.).

For example, Band-in-a-Box will play a chord and you will have to identify the correct root and chord type. Your score can be tracked, allowing you to monitor your progress. Clicking on the various chord types lets you instantly hear the differences between various chords. Other options include “types of roots and chords to use,” and “voicing types” (open, closed, etc.) – allowing you to customize the ear training exercises for beginner through to advanced. Interval recognition is also customizable from beginner to advanced, with such options as instrument type, octave range, up/down intervals and more.

Click the on-screen ear training button, or press Ctrl+Shift+J, or go to Window | Ear Training Window to launch the Ear Training Window. There are 2 modules in the Ear Training Window:
1. The Interval Tutor plays note intervals for you to identify.
2. The Chord Tutor plays chords (root + extension) for you to identify.

**Interval Tutor**

Click on the [Interval Tutor] button to launch the Interval Tutor module.

Click on the intervals to hear them. For example, click on “Minor 3” to hear a minor 3rd interval.

Set the interval types to guess. Pressing the [Easy] button will set it to the easiest (within one octave, second note is always higher, etc.).
Start the game by pressing the [Guess Interval] button.

You can control the starting note and the second note in the dialog.

**First Note**
- **Start On this note:** Root of Key
- **Start in Octave:** 5
- **Vary by:** 1

**Second Note**
- **Second note is:** Higher
- **Within:** 1 Octaves
- **Second note is a:** Any note

Once the game starts, click on the interval that you think is being played.

<table>
<thead>
<tr>
<th>Up Intervals</th>
<th>Down Intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unison</td>
<td>Unison</td>
</tr>
<tr>
<td>Minor 2</td>
<td>Minor 2</td>
</tr>
<tr>
<td>Major 2</td>
<td>Major 2</td>
</tr>
<tr>
<td>Minor 3</td>
<td>Minor 3</td>
</tr>
<tr>
<td>Major 3</td>
<td>Major 3</td>
</tr>
<tr>
<td>Perfect 4</td>
<td>Perfect 4</td>
</tr>
<tr>
<td>Flat 5</td>
<td>Flat 5</td>
</tr>
<tr>
<td>Perfect 5</td>
<td>Perfect 5</td>
</tr>
<tr>
<td>Minor 6</td>
<td>Minor 6</td>
</tr>
<tr>
<td>Major 6</td>
<td>Major 6</td>
</tr>
<tr>
<td>Minor 7</td>
<td>Minor 7</td>
</tr>
<tr>
<td>Major 7</td>
<td>Major 7</td>
</tr>
<tr>
<td>Octave Up</td>
<td>Octave Down</td>
</tr>
</tbody>
</table>

**Chord Tutor**
Click on the [Chord Tutor] button to enter the Chord Tutor module.

**Play Tonic C**
Press the [Play Tonic] button to familiarize yourself with the root note of the scale as a reference point.
- Click on any of the other note names to hear that root.
- Click on any of the chord extensions to hear that sound.
Guessing the root

You can test yourself on roots only or root AND extension. Press “Guess a New Root” and you'll hear a root played.

Press this button to hear the root-to-guess replayed. If you need help, press [Play Tonic – C] to hear the root again.

When you think you know the root, press the root name on the list of note names at the left.

If you guess incorrectly, you'll see a message that says “Wrong Root.” You'll then hear the note that you guessed playing, followed by the root-to-guess note again.

If you guess correctly, you'll see a confirmation of that, and can play again.

Press the [Stop] button to stop the game.

Guessing the Root and the Extensions

The Guess a New Chord game works in the same way as the Root game, except that here you are guessing chord extensions. The root is always the same, whatever the setting is at the left. Click on the extension to guess, and [Replay Chord] button to hear the chord again.
In this mode, you need to guess both the Root and the Extension. You can guess them in any order.

Click on the root, and when you get it correct you can move on to the extension.

**Types of Roots to Include**
For the Roots, you can choose which types of roots to include. This can be any of the 12 semitones, or just the scale tones, or just the 1-4-5 of the scale.

**Extension to Include**
For the extensions, you can include all of the extensions listed in the dialog, or just the subset that are common extensions.

**Types of Voicings to Include**
The chord extension will be played using the voicing type that you specify in the voicing types combo box. These can be open, closed, or root position voicings. This setting also applies to the voicing used when you are previewing a chord.

**Show notes on piano during guessing**
If you were an advanced musician, seeing the notes on the piano during the guessing game would be “cheating,” since you'd probably quickly recognize the chord. However, a beginner might benefit from seeing the notes played on the piano screen. If this “show notes on piano during guessing” option is selected, these chords will play on the small piano located on the main program screen.

The score is displayed on the window. You can reset these results to zero by pressing the [Reset] button.

**Ear Training Games**
Learning is best when it’s fun, so we’ve included these exciting games in the Band-in-a-Box Ear Training module for fun times in “the woodshed.”

The programs are available via buttons in the ear training dialog, or by dedicated buttons on the toolbar.

**Pitch Invasion**
Pitch Invasion helps to develop perfect pitch as you shoot down “alien” notes invading from above. You hear the note sound and click on the on-screen piano/MIDI or QWERTY keyboard to shoot it down.
For Pitch Invasion, choose a level that will specify the # of note types that will be invading. The LEVEL determines the speed of the notes.

To shoot the aliens, click on the on-screen keyboard, MIDI keyboard or QWERTY keys.

The program settings allow you to customize the game.

Press the HELP button for more information.

Music Replay

Music Replay develops your pitch, rhythm, and melody recognition by replaying what the program plays, in note, rhythm, or melodic modes.

For Music Replay, choose the MODE of the game.

There are three modes:
1. Note Replay
2. Rhythm Replay
3. Melody Replay

Set the Level to make the game harder.

Press the HELP button for more information.

Vocal Wizard

The “Vocal Wizard” displays the best song keys for your vocal range!

This feature helps you choose the best song key for your vocal range. Open the Vocal Wizard, enter your vocal type (baritone, tenor, etc.), or choose a custom range. Then the wizard analyzes the song and recommends the best keys
for that song. Options available to “include/exclude falsetto range,” “restrict choices to these keys […],” and “transpose now.”

Before we enter the **Vocal Wizard**, we’re going to load in the song *Old Folks at Home* (present in the `c:\bb\Tutorial - BB 2005` folder). The song *Old Folks at Home* is in the key of F, we’ll use the Vocal Wizard to find the best key for a baritone.

To enter the **Vocal Wizard**, choose the menu item *Window | Vocal Wizard*, or press the Vocal Wizard button on the toolbar. This launches the Vocal Wizard.

Here’s the dialog that you see when you enter the **Vocal Wizard**.

You can see from the screenshot that the Vocal Wizard has picked the key of D (colored green) as the best key for the song, using the baritone vocal range. Other recommended keys are colored yellow. Un-recommended keys are colored grey, and include the current key of the song (F).

Let’s explore the areas of the **Vocal Wizard** screen.

There are 4 areas that require your input.

1. **Entering your Vocal Range.**

Here you enter your “comfortable” vocal range, from lowest note to highest note. If you can sing falsetto, you can also enter the highest falsetto note, and the % of falsetto notes that would be acceptable as falsetto notes.

You can also select a preset (like Baritone Male or Contralto Female). Or you can select one of 8 “User Preset slots” to enter and save a custom range (if you press the [Save & Name User Preset] button)
2. Selecting the keys that would be “allowable.”

Most musicians have favorite keys, so this area allows selection of keys that would be acceptable for the Vocal Wizard to choose. For example, if we choose “Jazz” keys, we’ll see that the Vocal Wizard now recommends the key of C instead of D.

3. Setting the range of the song to analyze (usually the whole song). Normally you’d want to analyze the whole song, but this allows you to select a partial range.

4. Selecting the track to analyze. You’d usually pick the Melody track, but can also choose the Soloist track.

You can then analyze the Melody by pressing the [Analyze] button.

Most functions automatically re-analyze the song, but pressing the [Analyze] button forces a re-analysis of the song. This displays the analysis of the song.

1. A purple area describes the current range of the song, low note to high note, and compares it to your vocal range.

2. The radio buttons show each of the 12 semitone keys, and show a score for each key. The lowest score is the best. Keys are also colored – green (best key), yellow (good key), and grey (bad key for the song).
In the example *Old Folks at Home*, you can see that D is the best key (“green”), but any of the keys from G to Db are also good keys in the selected vocal range.

The area in black at the bottom gives an analysis of the vocal range if the song was transposed to the chosen key.

For the key of D, you would transpose the melody down 15 semitones. The melody range would then be from note 50 (D 4) to note 64 (E 5). 180 total melody notes, 180 in your range, 0 in falsetto, 0 too-many falsetto, 0 too-low, 0 too-high.

Now that the Vocal Wizard has told us the best key for this song, we can either close the dialog, or transpose it now to the recommended key (or any other key that we have selected with the radio buttons).

The Vocal Wizard can also work in an automatic mode, transposing a song to the best key as soon as it is loaded, without having to visit the Vocal Wizard dialog. This is done by checking the “Auto-transpose” checkbox. By doing this, you can insure that any song you load will be in the best key for your vocalist! And if the key isn’t deemed to be ideal, just visit the Vocal Wizard to see an analysis of the ranges to pick an alternate key.

**Reharmonist (Chords for a Melody)**

**Generate Chords for a Melody**

Generate chords for a melody, or an improved chord progression for a melody, with the new “Reharmonist” feature. This feature generates a chord progression in the chosen genre, based only on the melody.

The idea of the Reharmonist is to generate a completely new chord progression for a melody, in a genre that you choose (Jazz, Country, etc.). This ignores any existing chords in the song.

There are 2 separate windows for the Reharmonist feature.

1. Reharmonize entire song with a new chord progression.
2. See a list of possible reharmonizations for a given area of a song.

**Generate a New Progression**

To generate an entirely new chord progression for a complete song or a portion of a song:

Press the Reharmonist button (or menu option *Window | Auto-Generate Chord Reharmonization*).

You will then see the Select Re-Harmonist dialog.
The first thing you should do is set the “Genre” for the reharmonization. For example, if you want “Jazz Swing” genre, choose that in the genre drop down.

![Genre dropdown](image)

You’ll then get typical Jazz chords.

Verify that the key is correct. Band-in-a-Box analyzes the melody, and gives its best guess as to the best key for the song. If it is different than the current key, Band-in-a-Box will suggest the new key, and you can press the button to set the key to the new key.

![Key analysis](image)

Set the region of the song that you want reaharmonized. Usually this will be the “Whole Song.”

![Set Range](image)

Press [OK-Reharmonize]. You’ll now get a brand new chord progression for the melody.

![OK-Reharmonize button](image)

See a List of Possible Reharmonizations

Use the feature interactively by displaying a menu of possible chord progressions for a portion of the melody, and audition them to choose the best one using the “Bar Reharmonist.” This allows you to hear some new chord progressions for existing melodies, or brand new progressions for tunes without chords.

To do this, choose Window | Chord Reharmonist Dialog (choose your own). This shows you the current bar in the song (for example, bar 7). It shows a list of suggested chord progressions for the current melody, based on the melody and genre that you choose.
Choose a chord progression, and press [Do-Reharmonize NOW] and the program will insert that progression.

The progressions are sorted in alphabetical order, or from “best to worst” depending on this setting.

**Chord Substitution Wizard**

Reharmonizing a song with the Chord Substitution Wizard is a fun and educational way to perform or practice a familiar song in a brand new way. For example, if you had chords such as “Dm7 G7 Cmaj7,” a list of substitutions including the tritone substitution “Dm7 Db7b5 Cmaj7” would be offered to you for use in your song.

There are 2 ways to get chord substitutions
1. Let Band-in-a-Box show you a list of possible substitutions to pick from yourself by accessing Window | Chord Substitution Dialog menu item.
2. Let Band-in-a-Box pick them automatically by accessing Window | Auto-Generate Chord Substitutions menu item.
Chord Substitution Dialog

This dialog depends on what chords were present at the bar that was currently highlighted. This bar number is shown in the dialog and may be changed.

In the example shown, the chord was an F7 chord, so the substitutions shown are for an F7 chord. The substitutions shown may work for up to 4 bars, depending on the substitution. In the examples above, the substitutions work for 2 bars.

**Jazz Substitutions / Pop/ Country**

You can control what types of substitutions to see by using these checkboxes. Some substitutions include more chords than the original, and some simplify the progression, and these can be viewed using the checkboxes. You can elect to exclude substitutions that have a chord on each beat.

**Types of Subs. to include**

This combo box will filter the substitutions to include only the best substitutions or all of them.

**Recompile**

The [Recompile] button is only used if you have edited the CHORDSUB.TXT file to add your own substitutions. This recompiles the file and takes about 1 to 2 minutes.

**Do Substitution NOW**

Press this button once you see a substitution that you like so that you can enter it onto the worksheet directly. Double clicking on the substitution line will also accomplish the same. You can then move the current bar to the next part of the song that you need a substitution for and repeat the process.

**Restore / Restore ALL**

You can UNDO the substitution by pressing the [Restore] button, or the [All] button to UNDO all substitutions.
Auto Chord Substitutions
You can quickly auto-generate substitutions for an entire song, or portion of a song using the auto-substitution dialog, which is accessed with the menu command Window | Auto Generate Chord Substitutions.

For example, we can generate substitutions for the !Freddie.MGU song. Here is the original chord progression.

By using the auto-substitution dialog, we can generate substitutions for the whole song, and we get this result:

You can see that Band-in-a-Box chose the substitutions for about 70% of the chords in the song (that's what we told it to do in the dialog). It began by replacing the F6 chord with an Fmaj7 Gm7 Abdim Am7 progression. Some of the substitutions chosen are even more advanced than that (replacing two bars of Bbmaj7 with Bb6 Ebmaj7 Dm7 Gm7 | Bbmaj7 Cm7 Dbdim Dm7 for example).

Here are the settings in the auto-substitution dialog that produced this result:

- Style
  - Jazz
  - Pop
  - Jazz or Pop
- Choose substitutions with:
  - More chords
  - Less Chords
  - More or Less Chords
- % to substitute: 70%
- Only choose substitution if Melody is Compatible
- Include subs with Chords each beat
- Range
  - Whole Song
  - Part of Song
- Set Range for part of song
  - Bar: 1
  - Tip: Bar -1 (negative 1) is the very beginning of the song
- Defaults
- OK - Do Substitutions now
- Cancel
- Help
If you'd like Band-in-a-Box to only generate chords for a certain range of bars, you should highlight that range of bars in the chordsheet first, and then launch the dialog. The Range will then be set to “Part of Song” and the “Bar” and “# bars” settings will also be set. You can override these settings with manual settings, if necessary.

**Chord Builder**

You can right-click on any chord to instantly hear how it sounds, or use the Chord Builder feature to audition different chords until you find the one that sounds best to you. In other words, you can enter chords “by ear” - without having to know the actual chord names or any music theory. This feature also illustrates the differences between various chord types.

Launch the Builder by pressing the Builder button, or right clicking on the chordsheet and pressing the Builder button, or by choosing the User | Chord Builder menu option to open the Chord Builder dialog.

The Chord Builder is designed so it fits entirely above the Chordsheet. This means that it can be left open as you work entering chords into Band-in-a-Box. Remember that you can also play chords in from the MIDI keyboard by pressing Ctrl+Enter after you've played a chord.

You can click on the root of the chord in the “Root” group, and the Extension (Maj7 etc.), and also an alternate “slash-note” root. For example, to make the chord F9/A, you would click on the “F” root, the “9” extension, and the Slash Root of /A. As you click on them, you'll hear the bass note played on the Bass part, and the extension played on the Piano track.

If you are happy with the sound of the chord, you can press the [Enter Chord] button to enter the chord at the bar and beat specified. If you would like the chord to be inserted automatically when you click on the note/extension names, select the “Enter chord when clicked” option. This will advance the Bar/Beat position. You can change the Bar/Beat settings to move to a different bar.

**Rhythm Guitar Chord Tutor**

Use the Guitar Tutor to analyze any song. This feature will show the chords that are playing on the virtual guitar fretboard, in your choice of a Jazz, Pop, or Folk perspective. The Guitar Tutor is a fun way to learn about new guitar chords while playing along with your favorite Band-in-a-Box tune.

The Rhythm Guitar Chord Tutor is most useful on styles that aren't guitar styles, because the guitar styles already have a guitar part that you can learn from. Using the tutor, you can see (and optionally hear) guitar chords played on the guitar fretboard. This teaches you how to play the chords on guitar.

To turn the Rhythm Guitar Chord Tutor on, launch the Guitar window and press the [Tutor] button.

**Enable Chord Tutor Display**

This setting silently displays the chords on the guitar fretboard.

The **Display Chords EARLY by (120/PPQ)** is an “anticipate” mode that plays the next chord X beats in advance, allowing time for the user to prepare. If set to 120, the tutor chords will appear a full beat early.

**Play Chords through MIDI**

To hear the chords, select the “Play Chords through MIDI” checkbox.
Tip: The Tutor uses the MIDI THRU part to playback on. You can control volume, panning, etc. by using the THRU settings on the main Band-in-a-Box screen.

Guitar Patch
You can select the patch to use directly from the Tutor dialog.

Type of chords to display
The tutor will display Jazz, Pop, and Folk voicings in easy, medium, and advanced forms. The advanced forms use inversions, and changing patterns of chords, while the easier ones just stick to the common “campfire” chords.

Half Note (sax) chords use the advanced Jazz Guitar “highest-4-strings-comping mode.” This usually plays on the 4 highest strings, and it plays several chords over a single chord. For example, for 2 bars of Cmaj7 it might play Cmaj7-Dm7-Ebdim-Em7 all played as half notes.

There are also tutors for the alternate tunings like DADGAD, Open G, etc. They can be selected from this drop-down list.
Show muted high note of 3 note comping
One of the tutors uses 3 note Jazz voicings to simulate the famous Big Band chord guitar comping styles. If you use this, you'll only see 3 notes in the chords of course. Since it sometimes helps to see the entire 4 chord voicing in this case, there is the option to show the muted note as well.

Note: This applies to the guitar tutor. There is also the option to show this for the guitar styles. This option is present in the Guitar Options dialog.

Copy to melody track / Copy to Soloist track
Pressing either one of these buttons will send the chord to the appropriate track.

The Guitar Tutor stays enabled until you change the Guitar track to another track (for example, to change it to the Bass track). You can easily re-enable it by clicking on the [Tutor] button again.

Chord “Breaks”
This feature is great for practicing tempo control.
Select the # of bars, and Band-in-a-Box will play for, say 4 bars (selectable), and then will rest all instruments for the next 4 bars. During the silence, you keep playing (comping, drums, melody, etc.), trying to stay in tempo. Drummers can mute the drum part. When the band comes back in after the 4 bars, you’ll get instant feedback on how well you have maintained the tempo, as indicated by whether the band comes back in time with you or not.

Once set, this feature works automatically with all songs until you turn it off.

To access the Chord Breaks feature, press the [Chord Breaks] button from the Practice Window and then select “Insert Breaks.” (It can also be launched from [Pref] [Arrange] Arrangement Options). You then choose how many bars the program should play, and how many bars the program should not play.

This setting remains in effect for all songs. Turn it off if you want to resume normal playing of songs.

MIDI File to Style Wizard
Making styles with the Style Wizard is a process involving:
- Loading a MIDI file into the Style Wizard.
- Listening to the MIDI file by muting channels to identify parts.
- Picking the channels to use for the BB Parts.
- Picking the snapshot bars for the “a” and “b” substyle.
- Pressing the [Generate NEW style…] button.

This section will discuss the various items in the Style Wizard dialog and the Style Wizard Additional Settings.

The Style Wizard is used to generate a Band-in-a-Box Style from a MIDI file. The Style Wizard does this by analyzing the file and creating patterns emulating the notes and rhythms for the style. First off, you'd need to get a MIDI file to use.

Important: You should use a MIDI file that you have composed and arranged – if not, you need to first get permission of the composer and arranger before making a style from the MIDI file.

Style Wizard Dialog
Open the Style Creation Wizard dialog with the Style Wizard button or from the Styles menu by choosing the Style Wizard menu item.

Once you open the dialog, you should select a MIDI file. You'll then see the name of the MIDI file in the MIDI file label.

Once chosen, the Style Wizard will display the channels, patches, and number of events in the “Tracks Area” of the Style Wizard. It will look like this…
Here's a sample row from the Tracks Area.

<table>
<thead>
<tr>
<th>Chn.</th>
<th>BB Part</th>
<th>Patch</th>
<th>#Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Bass</td>
<td>33 Acoustic String Bass</td>
<td>312</td>
</tr>
<tr>
<td>3</td>
<td>Piano</td>
<td>1 Acoustic Piano</td>
<td>842</td>
</tr>
<tr>
<td>4</td>
<td>.....</td>
<td>57 Trumpet</td>
<td>333</td>
</tr>
<tr>
<td>6</td>
<td>Strings</td>
<td>12 Vibes</td>
<td>220</td>
</tr>
<tr>
<td>7</td>
<td>Guitar</td>
<td>25 Nylon String Guitar</td>
<td>1630</td>
</tr>
<tr>
<td>10</td>
<td>Drums</td>
<td>1 Standard Drum Kit</td>
<td>860</td>
</tr>
</tbody>
</table>

This indicates that "Channel 2" is used in the file. The checkbox indicates that it will sound when the [Play] button in the Style Wizard is pressed. Deselecting this checkbox will mute the channel during playback. Muting/Playing the channels is essential in auditioning the MIDI file to determine which "BB Parts" to use, and what bars to use for "Snapshot bars."

The "Channel selector" presets help with the selection of the channels as described above. The [None] button de-selects (mutes) all of the channels. The [All] button selects (plays) all of the channels.

The [Solo] button will "solo" the last channel that was pressed before the Solo button was pressed.

The "BB" part button selects all of the channels that are currently using the "BB Parts," i.e., the Drums/ Bass/ Piano/ Guitar/ and Strings.

The "BB Part" section is the area that you choose which channels to use for the "BB Parts" in your style. There are 5 possible instruments in the style – Drums, Bass, Piano, Guitar, and Strings. Tracks that are not part of the rhythm section (i.e., melody or soloist parts) or "extra" instruments that you don't want to use in the style should be assigned to a BB Part setting of None (----), "Melody," or "Other."

The Style Wizard automatically sets these "BB Parts" for you, but you should over-ride these settings to your own choices for the style. For example, if the program has chosen an instrument for Band-in-a-Box part of Strings, and you don't want strings in the style, then change that BB Part setting to "----" (none) or "Other."

The Patch setting is the patch (instrument) that is found in the MIDI file, and it is the suggested one to use in the style.

You can change the patch if you'd like to use a different patch in the Style.

The #Notes column reports the number of notes that are found on each channel. This is helpful information in deciding which BB Parts to assign. For example, if only 10 notes are used on the channel, it's unlikely that the channel is playing much in the file, and shouldn't be used as a BB Part in the style.

The [Auto-Set...] button instructs the Style Wizard to re-make the settings for the Tracks Area and Snapshots of the Style Wizard. The Auto-Settings are already invoked when you load a MIDI file, so you would rarely need to press this button explicitly.
Chords from MIDI file dialog (the Chord Import Wizard) to allow you to tweak settings controlling the chord interpretation. For example, if the interpretation of the chords isn't accurate, use this button for different settings.

The [=] button will re-load a MIDI file that is already on the Melody track. For example, if you've loaded in a MIDI file to the Melody track (outside of the Style Wizard), and would now like to make a style from it, you just need to load in the MIDI file from the Melody track to the style wizard. This won't cause an interpretation of the Chords; it uses the current chords on the Chordsheet.

Play Looped Sections

The [Play] and [Stop] buttons and “Loop at Bar” allows playback of a region of the MIDI file. As you hear the playback, you audition various channels for the style by using the “Channel” checkboxes to mute/un-mute tracks. The “Loop at Bar” setting is the bar for the loop to begin. The # bars is the number of bars for the loop following the “Loop at bar” setting.

Snapshot Regions

This area is for the “snapshots” for A substyle, B substyle, and A, B drum fills. For the “A” substyle enter the range of bars that you would like to be included in the “A” substyle. You can enter values separated by commas “1, 2, 4,” or ranges “1-7, 9-14,” or combinations “1-4, 9, 11, 12-24.” To determine which bar numbers to enter, you'll need to listen to the MIDI file, by either using the PLAY/STOP buttons to loop a section or exiting the dialog and playing the MIDI file (insuring that the Style is Disabled from the Styles menu so that you only hear the MIDI file on the Melody track).

Pressing the [Auto-Generate Snapshot bars] button will generate a list of bar numbers for the snapshots. This list is based on the part markers in the BB Chordsheet, so you should first exit the Style Wizard to insure that the part markers are correct before pressing this button.

This is similar to the “Auto-generate snapshot bars,” except when you select this button; a menu of choices will appear to allow selection of all bars, or only bars that include all of the instruments.

The [Clear] button removes the current snapshots from the snapshot areas.

The “Add looped bars as a snapshot” adds the current looped area as a snapshot. You can of course type the information directly into the snapshot areas.

The Defaults button sets the Style Wizard settings to their default state, including the settings in the “More” dialog.

The “Resolution” is set automatically, and should be confirmed. It is set to Triplets for style with a “shuffle” feel such as Jazz Swing or any style with a triplet feel to the 8th notes (or a swing feel to the 16th notes). The other setting is Straight for styles with straight 8th or straight 16th notes.

The Jazz checkbox setting is to indicate whether the style is a “Jazz” type style with Jazz chords or a “Pop” type style with Pop chords.
The “Copy Melody to Melody Track” is a utility function that should only be used when the style is “finished.” Prior to executing this command, the Melody track contains the entire MIDI file with all of the parts. This “MIDI-file-on-the-Melody-track” is used to create the style. Once the style is created, you might want to extract the actual Melody track from the MIDI file to put on the Melody track. The channels used are the channels that have the BB Part set to “Melody.” When you do this command, you are prompted to save the MGX file (i.e. the file with the MIDI file on the Melody track), so that you can revisit the file. This “Copy Melody to Melody Track” is useful to audition your new style, because you can then hear just the Melody along with your style.

“Copy Melody to Soloist track” works in a similar way except that it doesn't erase the MIDI file part on the Melody track.

“Generate NEW style…” makes a new style. The Style Creation Wizard dialog is exited, and a file dialog allows you to pick a name for the style.

“Add to existing style…” allows you to add the patterns to an existing style.

The [More] button launches the Style Wizard – Advanced Settings and Preferences dialog.

### Style Wizard “More…” Dialog

This dialog is launched from the [More…] button in the Style Wizard.

#### Style Wizard - Advanced Settings and Preferences

<table>
<thead>
<tr>
<th>Substyles</th>
<th>Voicings</th>
<th>Include Empty patterns</th>
<th>Veloc. Adjust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drums</td>
<td>A&amp;B</td>
<td>Auto Select (Live Drums or Grid)</td>
<td>None</td>
</tr>
<tr>
<td>Bass</td>
<td>A&amp;B</td>
<td>Auto-select bass notes</td>
<td>None</td>
</tr>
<tr>
<td>Piano</td>
<td>A&amp;B</td>
<td>Auto Voicings</td>
<td>None</td>
</tr>
<tr>
<td>Guitar</td>
<td>A&amp;B</td>
<td>Auto Voicings</td>
<td>None</td>
</tr>
<tr>
<td>Strings</td>
<td>A&amp;B</td>
<td>Auto Voicings</td>
<td>None</td>
</tr>
</tbody>
</table>

**Preferences**

- Save settings with songs
- Leave Stylemaker open after creating style
- Auto-interpret MIDI file
- Delete existing MIDI file (when adding to style)
- # columns to leave unused in style
- Generate new pattern after # duplicates

There are 2 sections to this dialog.

#### Advanced Instrument Settings

The advanced instrument settings allow settings for the instruments (drums / bass / piano / guitar / strings) to be included in the style. The settings are:

- **Substyles** determines whether the instrument is included in the “A,” “B,” or both “A&B” substyles. For example, if you want to make a style that only uses the strings on the “B” substyle, set the strings instrument part to “B” only.
The Voicings settings determine, for the various instruments:

**Drums (“voicings”):** Whether the patterns will use live or grid style patterns. Default mode is “auto,” which normally uses live patterns, but you can force it to use live or grid style patterns. Live patterns have higher resolution and more instruments.

**Bass (“voicings”)** determine if the bass part will use All notes / Scale tones only / Root 3rd, 5th, 7th / Root, 3rd, 5th / Root and 5th / or just the Root. The default is “Auto-select” which usually allows all 12 semitones.

**Piano, Guitar, and Strings Voicings** determine how the Piano patterns will be voiced. The choices are Auto, Include Full Voicings, and Tritones only (3rd/7ths). The auto-setting usually uses the “Include full voicings.” If the part uses 2-note chords, you should over-ride this setting to “use tritones” so that the most important chord notes (the tritone) are included.

The Embellish checkbox determines if the patterns for piano, guitar, and strings will be embellished. If embellished, on a chord like D7 (in the key of C) 13ths, 9ths, and #11 notes might be added to embellish the chord.

The “Include Empty patterns Threshold” setting defaults to None. Possible settings are None / 2 beat / 1 bar / 2 bars. If set to none, the instrument will always play in the style, if set to “1 bar” there will be “spaces of silence” up to 1 bar long (perhaps longer if chained together) in the style for that instrument. So if an instrument is used sparsely in a style, set this setting to something higher than none.

The Velocity Adjust will make an instrument louder or softer in the style.

When set, the Style Wizard will set the channels, BB Parts, and snapshots for you. Normally this setting should be left on.

If this option is set when you create style patterns to add to an existing style, the entire instrument will be erased in the style for any instrument used in the new style. When you generate a style by adding to an existing style, the StyleMaker allows you to pick a new name for the style (to preserve the existing style).

If set to zero (the default), the Style Wizard can create the biggest style possible – filling up the rows completely with patterns. But if you set this to a non-zero value it will limit the # of patterns that can be made. Since there are 30 rows in the StyleMaker, you can set this setting from 0 to 29.

The Style Wizard won’t insert patterns unless they are unique compared to the ones already entered. At the default setting of 8, after 8 duplicates of the same pattern, a 2nd pattern will be entered that is a duplicate of another pattern. Setting this to zero would mean that every pattern would be entered (regardless of whether it was unique); setting it to a high number like 200 would mean that only truly unique patterns are entered. To maintain the correct balance in the style, since the maximum weight of a pattern in the StyleMaker is 8, this setting should be left at 8 in most situations. If your style is “filling up” all of the available columns, then set this to a higher number.

If set, pitch bend data present in the MIDI file will be included in the style. Make sure that the MIDI file pitch bend range = 2 semitones.

If set, the style will allow pushes. This is done by setting the push values in the individual pattern options.
Repeats and Endings Wizard

Tutorial

For this tutorial, we’ll be using demos from the “Tutorial– Repeats and Endings” folder.

Load in the Song “Miles1 Tutorial (no repeats yet)” from the Tutorial – Repeats and Endings folder. You’ll notice that this is a 1-32 bar form. There are no repeats and endings entered for this song. We’ll be adding them now.

First of all, when you load in a song, you’ll notice some new “Form Marker” features that happen for any Band-in-a-Box song.

Repeat symbols are drawn at the beginning and end of the entire form (bars 1, 32 in this song) and “end” is written on bar 33, which is the ending.

Bars past the end of the song are colored gray.

These form markers are present for every song, unless you disable them by Preferences | Display. These are not the type of repeats/endings we’re referring to here however. The repeats/endings we are talking about now occur during the form, and are the 1st/2nd endings, DS al Coda and other repeat types that you see on a typical lead sheet.

So, in our song “Miles1 Tutorial (no repeats yet),” we can have a look at it and see if there are any repeats/endings.

It appears from looking at the chordsheet that this 32 bar form consists of two 16 bar sections, with a 1st ending at bar 9, and a 2nd ending at bar 25.

So now we’d like Band-in-a-Box to display it like that, with the first and second ending markings.

Since we want to insert the 1st/2nd ending on bar 9, we right click on the chord sheet on bar 9, and select Repeats/Codas/1st-2nd Endings.
We then see the **Edit Repeats and Endings** dialog.

![Edit Repeats and Endings dialog]

Click on the 1st/2nd endings radio button, and enter the following.

- Repeat begins at bar 1.
- 1st ending begins at bar 9.
- 1st ending lasts for 8 bars.
- Type of Repeat/Ending = 1st/2nd endings.

By entering this data we’ve defined the complete 1st and 2nd ending. If the 1st ending begins at bar 9 and lasts for 8 bars, the 2nd ending must begin at bar 17 + 8 = 25 (there’s an 8 bar repeated section from bar 1 to 8).

Now, this was a pre-existing song, and it already has all of the bars laid out. So we make sure that we *don’t* select the “Generate (insert) new bars” checkbox.

Click on [OK-Make Repeat], and the repeat gets made, and the chordsheet redraws with the 1st/2nd repeat showing.

Make sure you have Fake Sheet mode selected on the chordsheet.

As you can see there is a 1st ending at bar 9. At bar 16 there is a repeat symbol, indicating that the form goes back to bar 1 for 8 bars, and then will go to the bar after bar 16 for the 2nd ending. The 2nd ending is marked there. The bar # is 25, because the bars are numbered in linear fashion, and it is the 25th bar of the song as it would be played. Then the song goes to the end which is bar 32.
Now we can see a LINEAR view of the same song, similar to the way it was before we put the 1st/2nd endings on it. To do this, deselect the Fake Sheet checkbox on the main page. You’ll then see the song like this.

This shows all of the 32 bars, including the bars that are part of the repeat – these are highlighted in gray. Exposing these bars shows the linear view of the song, the way the song would be played. It also allows you to enter custom information for any of the bars, including the bars in the “gray area.” For example, if you wanted the chord at bar 21 to be an Em9 instead of an Em7, just type it in, even though it’s in the repeated section leading to the 2nd ending.

You can toggle between the 2 views for the traditional lead sheet view with the Fake Sheet mode, and the “normal” (linear) view with Fake Sheet mode OFF.

The List of Repeats/Endings allows you to manage the repeats/endings that have been entered.

Delete/ Append/ Insert a repeat or ending using this list, which opens with the [Edit List] button in the Edit Repeats and Endings dialog.
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Roland VSC3 Virtual Sound Canvas

An important part of Band-in-a-Box is the band that you actually hear. This is determined by the MIDI driver that you use for output. The Roland Virtual Sound Canvas (VSC) is a top-quality software synthesizer.

You should install both the Roland VSC and VSC DXi, which are separate installations from the Band-in-a-Box program. When you install the VSC, you'll see a “Roland VSC” MIDI Output driver listed in the Band-in-a-Box MIDI Driver Setup dialog (Opt. | MIDI driver setup...).

Use the Roland VSC3 with Band-in-a-Box and any other MIDI program that supports MIDI Drivers (almost all of them do). To use the Roland VSC3 for your output sounds, choose Opt. | MIDI driver setup... and select the “Roland VSC” as the MIDI Output Driver.

The VSC3 has a latency of 430ms, which means that it takes 430 milliseconds for the VSC3 to produce the sound after instructed to do so by Band-in-a-Box. Set the latency to 430ms in the MIDI Driver setup dialog. Band-in-a-Box will likely do this for you.

To use the superior quality of the Roland VSC DXi synthesizer, check the “Use DXi Synth” box in the MIDI Driver setup dialog and then select the VSC DXi under the Synth tab in the DirectX Plugins window.

The latency for the VSC DXi is set automatically by Band-in-a-Box.

In addition to using the Roland VSC DXi for output, it is the default choice for direct rendering of Band-in-a-Box songs to audio wave files.

TranzPort® Support - Wireless Remote Control

The Frontier Design TranzPort® is a wireless remote control hardware unit (Electronic Musician Editors’ Choice 2006) that now allows you to control Band-in-a-Box through walls from 30 feet away!

The backlit LCD provides a two-line readout, and buttons and a wheel allow control of many Band-in-a-Box features. Select songs and play/stop/pause/loop. Select/mute/solo tracks and volume/tempo changes are all supported. And best of all, when the song is playing, the chords of the song are displayed in time on the backlit LCD screen.

You can, for example, put the TranzPort unit on your piano at home (or your music stand on a gig) and load/play/control and view chords for songs, all while far away from your computer – all wirelessly up to 30 feet – even through walls! Selectable transpose lets the TranzPort show chords in a non-concert key (e.g. Eb Alto) while the computer shows concert - great for jam sessions! Or display the scrolling lyrics of the song on the TranzPort for a wireless Karaoke session! The TranzPort also works “right-out-of-the-box” with other popular music software, including Sonar®, Logic®, and many others.

Note: the TranzPort is sold separately by PG Music Inc. www.pgmusic.com
Using TranzPort with Band-in-a-Box.

First, you need to purchase a TranzPort unit, and install it.

Now, make sure that the TranzPort is installed and working. You can determine that it is installed and working by running Band-in-a-Box, and looking at the list of MIDI Drivers (Options-MIDI Drivers). If “TranzPort” appears on the list of MIDI-IN and MIDI-OUT drivers, then the TranzPort is installed correctly.

**Important:** DO NOT SELECT the TranzPort drivers, since it is not a sound module. Band-in-a-Box will automatically find the TranzPort unit to send/receive data.

<table>
<thead>
<tr>
<th>MIDI Input Driver</th>
<th>MIDI Output Driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>In USB Midi 1x1</td>
<td>Microsoft GS Wavetable SW Synth</td>
</tr>
<tr>
<td>&lt;No MIDI/sound input&gt;</td>
<td>&lt;No MIDI/sound output&gt;</td>
</tr>
<tr>
<td>In USB Midi 1x1</td>
<td>Microsoft GS Wavetable SW Synth</td>
</tr>
<tr>
<td>TranzPort</td>
<td>Roland VSC</td>
</tr>
<tr>
<td></td>
<td>Out USB Midi 1x1</td>
</tr>
<tr>
<td></td>
<td>TranzPort</td>
</tr>
</tbody>
</table>

**To start using the TranzPort**
- While Band-in-a-Box is running, “wake up” the TranzPort by pressing a key on the TranzPort (STOP key for example).
- The TranzPort display will show “Title of BB song” <tempo> <Current Track> <track volume> <patch #/name>

For example, the screen might say
- “My Tune”
- 120 Mel v 122 p1 Acoustic Piano
- Track < and Track> buttons change the current track Bass/Drums/Piano/Guitar/Strings/Melody/Soloist/Thru

**Controlling Patches/Tempo/Volume**
- The WHEEL changes the tempo.
- Shift-WHEEL changes the volume of the ALL TRACKS.
- [Prev] [WHEEL] changes the volume of the current track.
- [ADD] [WHEEL] changes the patch of the current track using Favorite Patches.
- [NEXT] [WHEEL] changes the patch of the current track, cycling through all patches.
- MUTE AND SOLO mutes or solos the current track.
- [SHIFT] MUTE, will mute/un-mute ALL tracks.

**Loading Songs**
- [IN] button opens the “Favorite Songs” dialog. The LCD screen of the TranzPort displays the current song, and the WHEEL cycles through the various songs. When you’ve found the song that you want, press PLAY to load and play the song (or “Solo” to function like the OK button in the Favorite Songs dialog, note if “Play song when chosen is set or not in that dialog). Press UNDO to cancel the dialog.
- [OUT] button functions in a similar manner, except it uses the Song List dialog.
- [Shift]-[IN] loads the previous song in alphabetical order, by filename, in the same folder.
- [Shift]-[OUT loads the next song in alphabetical order, by filename, in the same folder.

**Playing Songs**
- PLAY button plays the song.
- [RED button beside play] pauses the song.
- STOP button stops the song.
- [<<] and [>>] buttons jump to the previous or next section of the song. You can define custom sections of the song (using the Conductor in Band-in-a-Box), but if you haven’t, the sections default to lead-in, intro, first chorus, middle chorus, last chorus, ending.
- LOOP button will loop the current section
- SHIFT LOOP button loops 4 bars
- UNDO is panic button (turn MIDI notes off)
Playback Display
During playback, you will see the chords (and/or lyrics) to the song, scrolling along in time to the music. For example, you might see this…

```
*5| D       | D7       |
  7| G       | Gm
```

The * marks the current bar (bar 5), which is a D chord. The screen always scrolls to show you 2 bars ahead of the current time.

TranzPort Dialog
There is a TranzPort Settings dialog inside Band-in-a-Box with additional settings.

If you are a non-concert instrument player, you can set the transpose display in Pref | TranzPort. For example, an Alto sax player would press the “Eb Alto” button, and then the TranzPort display would show chords transposed to his key. This feature is useful if you have a friend over for a jam session. One of you can look at the PC screen, and the other can look at the TranzPort, and they can be in different keys for non-concert instruments!

If you want lyrics to display on the TranzPort during playback, set these options in Pref | TranzPort.

- [REC] has no action.
- [PUNCH] has no action
- [Footswitch] has no action

Guitar Tuner
The Guitar Tuner is optimized for guitar and bass, though it may be useful with other instruments. Connect an electric guitar or bass to your computer’s sound card Line-In, or tune an acoustic instrument using a microphone connected to the sound card Mic input. Play a pitch and the tuner will auto-range to determine the nearest note, and display the intonation of your instrument.

Press the on-screen [Tuner] button or select the GM | Guitar Tuner menu item to launch the Tuner Window.

Tip: There are detailed Guitar Tuner instructions in the online Help topic Connecting an Instrument.
The Guitar Tuner must be able to receive audio from your instrument via the line-in or microphone input of your sound card. Please make sure that either the Microphone In or Line-In is enabled in the Recording Properties of the Windows Mixer (or the appropriate Mixer application for your sound card).

**Master Tuning**

This function allows you to tune your sound card or module to another instrument, as well as adding a testing function to see if your sound card supports Master Tuning. This is useful if you're playing along with an instrument or recording that can't easily be re-tuned like an acoustic piano. A setting of 0 is the default A = 440.

Select the GM | Master Tuning menu item to launch the Master Tune dialog.

![Master Tune Dialog](image)

**Tip:** Not all sound cards/modules support the Master Tuning feature. To see if your sound card supports Master Tuning, press the [TEST] button in the dialog shown above.

**Dynamic 3D Drum Kit Window**

This sizeable drum window is an animated 3D display of a complete MIDI drum kit with all 61 drum sounds displayed on their respective instruments. Watch the drums being played or play-along/record by using QWERTY keys or a mouse.

To launch the Drums window, click the Drums button in the View Panel. You can do several things with the Drums Window:

- Watch the Drum part being played on the Drums window in real time.
- Play along with the drums in real time by mouse clicking on the drum instruments, or using the QWERTY keys. The computer keyboard, the piano key number, and sound names can all (optionally) be made visible on the hint line by moving your mouse cursor over a given instrument.
- Record a drum part into PowerTracks.

**Drum Display**

All the General MIDI percussion instruments are shown. Some percussion instruments are triggered by multiple MIDI notes. When a sound is controlled by more than one MIDI note, a percussion instrument will show different behavior in response to the different notes. For instance, the Hi-Hat responds differently to Close Hat, Pedal Hat, and Open Hat MIDI notes.
The Drum Kit window can be resized to tile or fit with other windows of interest, or the drums can be moved off-screen. The window looks best if your computer display is in High Color (16 bit) or True Color (32 bit) video mode.

The onscreen instruments may be played by mouse clicking or by pressing the appropriate computer keys. There is an option to display all the QWERTY names on the drums at the same time, so that you can see what keys to hit without having to mouse over the instrument. When playing by mouse click or computer keys, the Shift key can be used to switch the velocity between two user-specified levels (i.e. loud=100 and soft=50).

The drums that you play show up in green; the computer played drums are red.

The multi-note instruments send different MIDI notes to your sound source, depending on where you “click” on the instrument. For instance, the Kick Drum can send three different notes: Ac. Bass Drum (MIDI note 35), Bass Drum 1 (MIDI note 36), and Square Kick (MIDI Note 32).

Tip: The hint line at the top of the window describes the current control under the mouse cursor. Use the hint line to learn the mouse-responsive areas of each drum instrument.

Control Buttons:
- **Record**: Puts Band-in-a-Box in Record mode so drums can be recorded.
- **Play**: Starts song playback.
- **Rewind** and **stop** to song start.
- **Stop**: Stops song playback.
- **Size Buttons 1/1 - 1/2 - 1/4**: Clicking on these buttons changes the size of the drums window to full size, half size, or quarter-size. (You can also resize the drums window to any size by dragging a window border.)
- **Settings**: Adjusts program behavior. See settings window section below.
- **Help**: To launch the drum Help File, press F1.
Press computer keys to play drums.

Drums are grouped on the computer keyboard by category. The kick, snare, and hi-hat sounds are on the lowest keyboard row. The lower-middle row contains toms and cymbals. The upper-middle row contains Latin drums, and the top row contains Latin hand percussion. The Numpad keys contain the rest of the Latin hand percussion plus the electronic tones.

**Multi-Note Instruments**

- Kick Drum - Ac. Bass Drum, Bass Drum 1, Square Kick
- Snare - Acoustic Snare, Side Stick
- Hi-Hat - Closed, Pedal, Open
- Floor Tom - Low, High
- Electronic Pad - Multi-zoned for Hi-Q, Slap, Electric Snare
- High Conga - Mute, Open
- Surdo - Mute, Open
- Cuica - Mute, Open
- Metronome - Bell, Click
- Whistle - Long, Short
- Triangle - Mute, Open
- Guiro - Long, Short
- Scratch - Push, Pull

**Settings Dialog**

Press the Settings button (to the left of Rewind button), to adjust the various Drum Kit Settings.
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Drum window is always on top
Use this checkbox to keep the Drums window on top of other program windows.

Note Velocity
When playing drums with a mouse or computer keys, the shift key toggles between two levels of note velocity. The two velocity levels can be set any way desired. For instance, if you want the shift key to send quieter notes you can set the shift velocity lower than the non-shift velocity.

Randomize
Use this checkbox to enable the program to send random velocity levels when playing the drums. This is handy when using non-velocity sensitive devices. “Range” controls the amount of velocity randomization. Usually a small range works best, around 10% to 30%. For example, if velocity is set to 127, and the random range is set to 20%, notes would randomly vary between a maximum velocity of 127 and a minimum velocity of 102.

Instrument Hints
Customize the appearance of the Hint line.
- Show Note Name
- Show MIDI Note Number
- Show Computer Key

Show
“Show All Instruments” shows all instruments in the drum window.
“Show Used Instruments” displays the basic trap kit, but does not display any extra instruments unless they are used in a song.

The drum window is cleared each time Play or Stop is pressed.

MIDI Monitor
MIDI Monitor displays a listing of data received from computer MIDI Input and/or Band-in-a-Box output, useful for educational or diagnostic purposes.

The MIDI Monitor opens with the [MIDI] button on the main screen toolbar, or with the menu command Window | MIDI Monitor.
The MIDI Monitor main window.

Tip: To display the data received from the computer MIDI input, the MIDI THRU option must be enabled in Band-in-a-Box.

The MIDI Monitor has options for 1-based patch numbering and patch name display. Quick View Filter presets (such as “Notes Only,” “Controllers Only,” “Program Changes Only,” “Programs including Bank Changes”).

**MIDI Monitor- Main Window**

**MIDI Display Controls**
- **Event**: The current event number since the display was last cleared.
- **Clear**: Clears MIDI Display, Event counter, and Channel Activity panel.
- **Save Text**: Save a tab-delimited text file of the data in the MIDI display. The file can be opened with a word processor or spreadsheet program, for printing or further study. Various Save Text options can be adjusted in the Settings window.
- **Settings**: Open the Settings dialog, to adjust display behavior. The display can be modified to suit the task at hand.
- **Filter**: Open the Filter dialog, where receive settings can be adjusted.

**Sequencer Control**
- The [Play], [Rewind], and [Stop] buttons control song playback without the need to return to the main Band-in-a-Box screen.

**Timer**
A millisecond timer useful for viewing timing relationships between messages.
To use Band-in-a-Box to measure in milliseconds- set Band-in-a-Box PPQN to 480, and Band-in-a-Box tempo to 125 BPM. With this special resolution and tempo, tick values in the Event List window will correspond to milliseconds.
Current Time - The millisecond count since the timer was last started. Click anywhere in the Timer area to clear the Current time, setting it to zero.

Channel Activity Panel
This panel has an array of “LEDs” to show which channels are active.

MIDI Display Area
The MIDI Display area at the bottom of the main window, displays the data generated by Band-in-a-Box and/or data received at the computer MIDI input. Each row is a single MIDI event.

<table>
<thead>
<tr>
<th>Evt #</th>
<th>Event number, starting from when the display was last cleared.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time (mS)</td>
<td>The time in milliseconds of the event, from when the timer was last cleared.</td>
</tr>
<tr>
<td>Source</td>
<td>Int means the event was generated by Band-in-a-Box, and Ext means the event was generated by an external MIDI Device attached to the computer MIDI In port.</td>
</tr>
<tr>
<td>Raw</td>
<td>The raw bytes representing each MIDI message. Most MIDI Message types contain three bytes, but some messages contain one or two bytes. Sysex messages can contain an arbitrary number of bytes. This field is blank in the case of Sysex messages. With Sysex messages, up to 16 “Raw” bytes are displayed in the Data fields. Long SysEx messages are displayed on multiple lines, 16 bytes per line.</td>
</tr>
<tr>
<td>Status</td>
<td>Text name of the Event type.</td>
</tr>
<tr>
<td>Chan</td>
<td>MIDI channel of the Event. This field is blank for System messages (values from $F0 to $FF). System messages do not have an associated channel.</td>
</tr>
<tr>
<td>Data 1</td>
<td>Text name for the meaning of the first data byte of the MIDI message. For some messages such as Pitch Bend or Song Position Pointer, the value of both data bytes 1 and 2 are calculated and displayed in Data 1.</td>
</tr>
<tr>
<td>Data 2</td>
<td>Text name for the second data byte of a MIDI Message.</td>
</tr>
</tbody>
</table>

Note: Some MIDI messages, such as Program Change or Channel Pressure, have only a single Data byte, and the Data 2 field will be blank. Also, some MIDI Messages have no data bytes, in which case both Data fields will be blank.

Display Filter
The Display Filter dialog allows you to select what MIDI events will be recognized by the MIDI Monitor program.
Tip: Virtually any combination of display events can be selected in the filter. It is therefore possible to select combinations that do not display any MIDI events at all. The MIDI Monitor will warn you about the more obvious “nil” combinations, but if you find that you are not receiving what you expected, carefully re-examine these filter settings.

Sound Blaster Support

There is direct support for the Sound Blaster series of sound cards. This includes a built-in *AWE Editor*, allowing you to edit the synthesizer sounds on the AWE 32/64 series and to directly load Sound Fonts. There are also on-screen buttons to launch the Sound Blaster applets that control the MIDI Synthesizer (*AWE Control*) and *Mixer* on the Sound Blaster card.

Press the [SB] button at the right of the main screen toolbar, or select GM | Run Other Program to run the AWE 32 Applet.

Example: Install the GS Sound Font on the Sound Blaster. This will install the “Drum Brushes” sounds that Band-in-a-Box styles use on some Jazz Styles. Once you launch this applet, click on the Synthesizer Panel, and then select GS from the Available Synths, and press the [Apply] button.

Tip: If pressing these buttons doesn't result in the AWE Control Panel or the Mixer being launched, it means that either you don't have a SB card capable of loading Sound Fonts (e.g. a SB16/128 has no Sound Font capability) or there is an error in the text file c:\windows\sbwin.ini

AWE 32/64 editor

Edit Sound Blaster AWE 32/64 synthesizer sounds directly using this built in editor. Save/Load files with new sounds. The AWE Editor is a patch editor for the Creative AWE32 and AWE64 sound cards’ EMU 8000 synthesizer chip. AWE Editor also works with the Creative Sound Blaster Live sound card.

Event List Editor

You can edit events including all MIDI events and lyric events using the Event List Editor. It can be launched in several ways.

- In the *Melody* menu, choose *Edit Melody Track* | *Step Edit Melody*.
- In the *Soloist* menu, choose *Edit Soloist Track* | *Step Edit Soloist Part*.
- In the *Notation* menu, choose *Event List Editor*…

or in the Notation window by pressing the event list button (#).

Different colors are used for different event types in the event list, to visually distinguish notes, patch changes, etc. The Event list for the notation colors the events differently as follows:

- Notes starting near the beat boundary are dark pink.
- Notes starting on the off-beat are light pink.
- Patch changes are cyan.
- Controller changes are yellow.
- Pitch Bends are grey.

The Event List Editor allows you to modify, insert, and delete notes:

- Double-click on an event to edit it (or press the [Edit] button.)
- [Insert] puts an event before the current event.
- [Append] puts an event at the end of the track.
- [Delete] removes an event.
- [Update] redraws the notation screen.
Event List Filter

There is a filter for the Event List Editor, allowing you to, for example, quickly spot all patch changes. For example, to examine all of the patch changes on the Melody track.

Choose “Use Event Filter,” and then press the [Filter…] button.

In the Event List Filter select the type of information you want to display. In this case, it is program changes (patches) only.

The track will then display with the program changes only.
The Event Type to Edit dialog opens when either the [Insert] or [Append] buttons are pressed in the Event List Editor. This dialog allows you to select which type of event to insert or append—note, controller, pitch bend, etc.—and then opens the selected edit dialog.

PG Vinyl DirectX Plug-In

Remove clicks and pops from your old vinyl record collection with the new PG Vinyl plug-in. If you no longer have a phono preamp, just attach your turntable to your mixer console. PG Vinyl can provide RIAA equalization for better tone. PG Vinyl can reduce broadband noise, and remove clicks on digital audio tracks.

Though PG Vinyl was not designed as a distortion remover, in some cases it can reduce clipping distortion on digital audio tracks which were recorded too loud.

PG Vinyl Tool Features

Enable Plug-in Checkbox

Toggle the checkbox to compare the original recording to the plug-in output. This helps avoid excessive settings. PG Vinyl Tool uses look-ahead buffering, so if you bypass the plug-in, the output will “jump in time.” This is expected, because there is some added delay when PG Vinyl Tool is enabled.

RIAA EQ Checkbox

If you recorded from a stereo tuner or other gadget with a phono input jack, DO NOT enable the RIAA EQ section. The RIAA EQ option is for folks who do not have a turntable preamp, having recorded with an ordinary mixer.

RIAA EQ was designed to overcome the shortcomings of vinyl. RIAA pre-emphasis is applied when vinyl discs are mastered. High frequencies get boosted, and low frequencies get cut. This makes high frequencies compete better
against the inevitable vinyl pops, clicks, and surface noise. Pre-emphasis also prevents low frequency signals from bouncing the stylus out of the groove.

When you play a record, the preamp's RIAA de-emphasis will reverse the EQ. High frequencies are cut, and low frequencies are boosted. If you do not apply RIAA de-emphasis, either with a phono preamp or in the software, vinyl will sound too bright and shallow.

**HF Boost**

If you recorded the disc with a mixer which has high-impedance inputs (preferably 1 MegOhm or better), set HF Boost to zero, for “pure” RIAA de-emphasis.

Most audio mixer instrument/line inputs have impedance in the 10 KOhm to 100 KOhm range. A turntable's magnetic cartridge will be “loaded” by the lower-than-expected mixer impedance. This won't damage the turntable, but will affect the frequency balance. A 10 KOhm mixer input could cut the highs quite a bit, and even a 100 KOhm mixer input could cut the highs a perceptible amount.

There is no way to predict the characteristics of your turntable cartridge and the input impedance of your mixer. Adjust HF Boost by ear until the frequency balance sounds right. You may not get the frequency response as precisely as the mastering engineer intended, but if you are happy with the result, who cares?

Some PG Vinyl Tool options can cut highs. If a record is damaged so much that subsequent PG Vinyl Tools cut high frequencies along with the noise, you could increase the HF Boost by ear, to make up the loss.

**Rumble Filter Checkbox**

Cheap or worn-out turntable platters can make subsonic vibrations. Slightly warped records can also make undesirable low-frequency noise. Use the Rumble Filter to block unwanted low frequencies.

The Rumble Filter is a 24 dB per Octave Butterworth High Pass filter, which attenuates undesirable low frequencies. In most situations, it will do no harm to always enable the Rumble Filter.

**Rumble Filter Frequency**

At the default of 40 Hz, signals below 40 Hz are attenuated, and signals above 40 Hz are unaffected.

Vinyl mastering engineers typically avoided frequencies lower than 40 Hz. It is difficult to make vinyl cleanly reproduce very low frequencies. Also, most consumers, even audiophiles with expensive stereos, did not have speakers capable of reproducing lower than 40 Hz.

Unless you are dubbing classical organ records, it is doubtful that there is anything of interest below 30 or 40 Hz. While adjusting PG Vinyl Tool, you can experimentally toggle the Rumble Filter on/off to make sure the filter is not removing important audio features.

**DeCrackle Checkbox**

Enable the DeCrackle section. PG Vinyl Tool defines crackle as high frequency defects in the range of 2000 Hz to 20,000 Hz.

A single microscopic speck of dust, or a tiny static discharge, can cause an isolated “tick” which is too short to be considered a “click.” The DeCrackle section removes these isolated ticks. Crackle is a cluster of high-frequency ticks. If there are multiple close-spaced ticks, the ticks are perceived as a crackling sound.

First disable the DeClick Checkbox, and adjust DeCrackle. On a clean record in good condition, DeCrackle may be the only necessary section. Normally you would only enable the DeClick section if DeCrackle can't adequately clean up the mess.

**DeCrackle Amount**

This adjusts the sensitivity of what PG Vinyl Tool considers to be a tick/crackle. At zero, nothing is removed. As the DeCrackle Amount is increased, PG Vinyl Tool will mute additional “tick suspects.” If the control is set too extreme, PG Vinyl Tool will partially mute musical features, such as hand percussion or high-hat notes. Only set the control high enough to remove ticks and crackles. If longer clicks remain, enable the DeClick section for additional cleaning.

**DeCrackle Activity**

This displays the percentage of audio which is muted. Except for very worn records, adjust the DeCrackle Amount so that the DeCrackle Activity reads no higher than a few percent. On very good discs, one might get “perfect”
results with less than one percent of DeCrackle Activity. Strive to mute only the minimum necessary to clean your record.

**NOTE:** If DeCrackle is set outrageously high, the DeCrackle Activity reading can exceed 100 percent. This is not a bug. The DeCrackle section does three processing passes in progressively lower frequency bands. It might happen that the first pass will "heal" a click, but subsequent bands will "heal" the left-over residue of that click. Sometimes a bad click might be repaired in multiple processing stages, until the defect can no longer be detected. With absurdly high DeCrackle settings, the DeCrackle Activity can exceed 100 percent, because several stages incrementally repair the same bad clicks.

**DeCrackle Fill Gaps**

When a tick is detected, it is smoothly “snipped out” of the high-frequencies, without affecting the lower frequencies. High-frequency ticks last less than one millisecond. Each muted section is very short, only a few samples.

If Fill Gaps is set to zero, this tiny high-frequency-muted region is replaced by nothing. It behaves like a very brief high-frequency dropout. On a clean record, occasional muted ticks are never noticed. But on a dirty scratched disc, if many snips are made, it will sound like a reduction in high frequencies.

As you increase the Fill Gaps knob, PG Vinyl Tool will extrapolate the signal in the vicinity of the click, synthesizing a “guess” at what the signal might have been in the tiny muted region. If you set Fill Gaps to 100, it will insert this extrapolated guess at the same level as the original signal. This allows many ticks to be snipped from a dirty record, without reducing the high frequency content.

One might encounter a badly damaged record where the audio is so damaged that the guesses are not good enough. In these problem cases, try setting Fill Gaps to 70, or 50, filling the gaps with lower-amplitude guesses, which may sound less obnoxious.

Set Fill Gaps to 100, unless it sounds bad.

**DeClick Checkbox**

Enable the DeClick section. PG Vinyl Tool defines clicks as midrange frequency defects, in the range of 500 Hz to 2000 Hz.

**DeClick Amount**

Adjust the sensitivity of what PG Vinyl Tool considers to be a click. At zero, nothing is removed. As the DeClick Amount is increased, PG Vinyl Tool will mute more “click suspects.” If the control is set too high, it can partially mute musical features, like snare drum hits. Adjust this control only high enough to remove clicks.

**NOTE:** A long-duration defect (longer than a couple of milliseconds) might sound like a click or pop until the high and mid frequency defects have been fixed. On long-duration defects, the left-over defect might sound like a “thump.”

**DeClick Activity**

This displays the percentage of audio which is being muted. Except for very worn records, it is advisable to adjust the DeClick Amount so that the DeClick Activity reads no higher than a few percent. On very good discs, one might get “perfect” results with much less than one percent of DeClick Activity. Strive to mute only the minimum necessary to clean your record.

**NOTE:** If DeClick is set outrageously high, the DeClick Activity reading can exceed 100 percent. This is not a bug. The DeClick section makes two processing passes, in different frequency bands. It can happen that the first pass will “heal” a bad click, but the next pass will “heal” the left-over residue of the click. Sometimes a bad click will be repaired in multiple processing stages, until the defect can no longer be detected as a tick or click. With absurdly high DeClick settings, the DeClick Activity can exceed 100 percent, because both stages incrementally repair the same bad clicks.

**DeClick Fill Gaps**

When a click is detected, it is smoothly “snipped out” of the midrange spectrum, without affecting the lower-frequencies at that point. A typical click might last 0.5 to 2 milliseconds. Each muted section is very short.

If Fill Gaps is set to zero, this small muted region is replaced by nothing. It behaves like a very brief mid-frequency dropout. On a clean record, occasional muted clicks are never noticed. But on a dirty scratched disc, if many snips are made, it can sound like a reduction in high and mid frequencies.
As you increase the Fill Gaps knob, PG Vinyl Tool extrapolates the midrange signal in the vicinity of the click, synthesizing a guess of what the signal might have been in the tiny muted region. If you set Fill Gaps to 100, it will insert this extrapolated guess at the same level as the original signal. This allows many clicks to be snipped from a dirty record, without reducing the mid-frequency content.

On many recordings, the extrapolated guesses are quite good. Frequent clicks can often be removed without audible side-effects.

One might encounter a badly damaged record where the audio is so damaged that the guesses are not good enough to be completely transparent.

In these problem cases, you could try setting Fill Gaps to 70, or 50, filling the gaps with lower-amplitude guesses, which may sound less obnoxious.

Set Fill Gaps to 100, unless it sounds bad.

**Smoothing**

Some badly damaged records (particularly worn-out 45's and 78's) have high frequency noise approaching “crackle on steroids.” The surface noise sounds like bacon frying. Crackle atop crackle, atop even more crackle.

The Smoothing section could be useful with severe surface noise. The Smoothing section is a very gentle Gaussian low pass filter with 6 selectable intensities.

Gaussian low pass filters are “about as good as it gets” for attenuating random noise while having minimal effect on music transients.

However, a Gaussian filter is still a low pass filter. All low pass filters reduce high frequencies along with surface noise. You should only enable the Smoothing section if it is necessary for a badly damaged record. Experiment with the Smoothing Level to find an acceptable tradeoff between reduction in surface noise versus reduction of musical high frequencies.

**DeNoise Checkbox**

PG Vinyl Tool DeNoise is a “hiss gate.” It gradually attenuates quiet High Frequencies below the Denoise Threshold. Think of it as a sliding high frequency dynamics expander.

Many vinyl discs were made from reel-to-reel tape masters. The best quality reel-to-reel tape recorders of yesteryear had more hiss than modern digital recorders. A vinyl disc in excellent condition could contain an accurate copy of the original tape hiss. In some cases, carefully adjusted DeNoise may give a perceived improvement over the original noise level.

DeNoising may also be beneficial on low level disc surface noise (slightly worn discs). If you have low level “frying bacon” surface noise, DeNoise might work better than Smoothing.

With loud “frying bacon” surface noise, you could try a judicious combination of Smoothing and DeNoise.

**DeNoise Amount**

This control sets the DeNoise threshold, in dB.

For instance, if you set it to -40 dB, high frequencies louder than -40 dB are passed unaltered. High frequencies quieter than -46 dB are completely silenced. Levels between -40 and -46 dB are gradually faded down to complete silence.

If the audio level at 8000 Hz happens to be below threshold, but the audio level at 4000 Hz happens to be above threshold, the 8000 Hz signal would be muted but the 4000 Hz signal would pass un-altered. This is “Multi Band Single-Ended Noise Reduction.”

The DeNoise section can slide the filter all the way down to 500 Hz; so on “silent” sections of a record, the DeNoise silence can be pretty silent.

Carefully adjust the DeNoise Amount so that desirable high frequencies in the music are minimally affected, but hiss in the quiet sections of the music is removed. Even a 1 dB difference can be easy to hear when tweaking the DeNoise Amount. Many high fidelity vinyl records didn't have much information higher than 10 KHz (another common mastering decision in the good old days). On many records, frequencies above 10 KHz can be squelched most of the time without noticeably affecting the sound.

A suggestion for tweaking the DeNoise Amount: first increase the setting until the music is obviously losing high frequencies. Then gradually reduce the level until the music is unaffected. This can ensure that any noise below the
minimum music level is exterminated. Be sure to check the DeNoise Amount against the quietest parts of the recording, because the quiet locations are most likely to be affected if the DeNoise Amount has been set too high.

**Conclusion**

PG Vinyl Tool offers many tools which can clean vinyl records.

But there is a limit what can be done for severely damaged discs (without investing in very expensive tools). On very damaged records, you may be forced to decide between a “natural” sound which contains a few residual defects, versus a more heavily processed sound which has collected new annoying artifacts to replace the old annoying defects.

**PG RTA DirectX Plug-In**

The PG RTA Real Time Analyzer plug-in displays a third-octave frequency graph of a single track or the entire mix, to find proper equalization settings.

The PG Real Time Analyzer is ONLY a frequency measurement tool. PG RTA never modifies the audio.

---

![Graph of frequency resolution](image)

**Control Descriptions**

**Enable Plug-in Checkbox**

Toggle the checkbox to turn the RTA ON or OFF.

PG RTA only does processing when:

1. The plug-in is enabled.
2. The plug-in is visible.

If PG RTA is not enabled or it is not visible, it does not add to the computer load during playback.

It does no harm to leave several instances of the plug-in assigned to various Tracks, Aux Returns, or Masters.

When you don’t have the plug-in visible on-screen, it will not load down the computer.

**Frequency Resolution**

The Octave button displays ten bands, representing the level of each octave in the audio. The Third-Octave button displays 28 bands, representing the level of each third of an octave in the audio.

There may be situations where it is more useful to have a 'general' overview at octave resolution, but the main reason you might prefer Octave resolution is to reduce the CPU load. Compared to third-octave resolution, Octave resolution only presents one third of the computer load.
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Channel View
Channel View is only meaningful when metering a stereo track, or Aux/Master inserts (which are almost always stereo). The Channel View setting has no effect on a mono track.

If metering a stereo insert, select the Left+Right button to view the summed frequency response of both the Left and Right channels. Select the Left or Right buttons to view only one of the channels.

Zoom In/Out (Adjust the vertical amplitude resolution in dB.)
If a track has wide dynamics, zoom out to see all the bands without scrolling. If zoomed out too far, it can be difficult to visually judge frequency levels. All the bands may appear about the same level.

Zoom In to see the best amplitude resolution. For instance, in the screenshot above, the display was zoomed to 3 dB per ruler line, which emphasizes the differences between loud and quiet frequency bands.

View Range Scroll
Adjust the Scrollbar to center the display to taste. When zoomed-in on a quiet track (as in the screenshot above), you would scroll down to get a good view of the frequency distribution.

PG Vocal Remover Plug-In

The PG Vocal Remover plug-in can reduce the level of lead vocals on many recordings. You can fine-tune the vocal removal frequency range, and optionally reduce the level of residual vocal reverb.

PG Vocal Remover exploits a common mixing technique; the lead vocal is often center-panned (i.e., the left and right stereo channels have identical vocal loudness). Typically the bass and kick drum is centered, and often snare drum is centered. However, most accompaniment instrumental tracks and backup harmony vocals are side-panned (louder on one side than the other).

On typical recordings, we can subtract one stereo channel from the other, which removes “common mode” lead vocal, but leaves side-panned accompaniment tracks relatively unaffected.

Operation

Enable Plug-in Checkbox
Toggle the checkbox to compare the sound with/without the Vocal Remover activated.

Balance Slider
Fine-tune with the Balance slider. The center position is typically as good as it gets, but some recordings have accidentally mismatched Left-Right balance. This is common with vinyl or cassette recordings, or CD-reissues of Oldies. You may get improved vocal cancellation by twiddling the Pan slider to find a “sweet spot.”

Lo Limit and Hi Limit Sliders
Adjust these sliders to fit the nature of the vocal. The default settings are fine for many tunes. Frequencies below the Lo Limit and above the Hi Limit are not processed, preserving fidelity except in the vocal midrange. Set the Lo Limit slider just low enough to attenuate low vocal notes. Set the Hi Limit slider just high enough to attenuate high vocal harmonics.

Obviously the best settings are different for a Baritone, Tenor, Alto, or Soprano voice. They are best set by ear. Some sopranos have warm low tone, but some Baritones have very bright tone, so the mid-frequency vocal range may be wider than expected.

Reduce Reverb Checkbox
Toggle the checkbox to compare with/without Reverb Reduction.

Reduce Reverb Amount Slider
Reverb Reduction behaves like a dynamics compressor, but the loudness of the center channel affects the loudness of the side channels. Move the slider to the right to increase the effect. The effect compares the relative level
between center and side channels, so no processing takes place unless there is a significant difference between the loudness of the center versus side channels.

Vocal is not the only sound which can trigger the compressor. Any loud midrange center instrument could trigger the compressor, so if you crank the Amount too high, snare drum or other loud center instruments may unpleasantly “pump” the side channels.

**Reduce Reverb Attack Slider**
Works like a compressor Attack control. Move the slider to the left for faster response to sudden increase in loudness (when the vocalist starts a phrase). Move to the right for a slower response to sudden increase in loudness.

**Reduce Reverb Release Slider**
Works like a compressor Release control. Move to the left for faster recovery after the loudness diminishes (when the vocalist ends a phrase). Move right for slower recovery.

**Adjusting Reverb Reduction**
Experiment to get a feel for what works. There may be some songs where the reverb can't be improved, and in those cases just disable the Reduce Reverb Checkbox.

Some vocals have short pre-delay and reverb tails. Short attack and release would make sense.
Some songs (especially ballads) have loud “balloon” reverb tails with long pre-delay. Since the reverb comes in after the vocal phrase begins, and lasts a long time after the vocal phrase ends, longer attack and release would make sense. Adjust the Attack so that the compression kicks in about the same time as the pre-delay reverb, and adjust the release long enough to hold back the reverb after a vocal line is finished.

Don't expect miracles. You can reduce the reverb level, but will rarely completely eliminate vocal reverb. Judiciously use just enough compression to avoid ruining the overall fidelity.

Compare the dry sound against the processed sound. The maximum vocal reduction setting could be extreme enough to ruin the instrumental quality. Sometimes it is better to allow some vocal leakage to achieve the best-sounding instrumental quality. Is it better to allow some low voice leakage to improve the bass response? Is it better to allow some high voice leakage to improve the cymbals and acoustic guitar?

After the PG Vocal Remover is adjusted as good as it gets, try inserting an Equalizer plug-in downstream. Notch some frequencies to improve the effect.

If the output amplitude is inconsistent, try inserting a compressor or peak limiter plug-in downstream.
Chapter 14: Reference

Band-in-a-Box Menu Descriptions

This chapter gives line-by-line descriptions for all Band-in-a-Box menus.

File Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>Blank the chordsheet and start a new song.</td>
</tr>
<tr>
<td>Open (BB song)</td>
<td>Load a Band-in-a-Box file.</td>
</tr>
<tr>
<td>Open MIDI file</td>
<td>Load a MIDI file into Band-in-a-Box.</td>
</tr>
<tr>
<td>Open Audio (WAV, WMA, MP3, WMV, CDA)</td>
<td>Load an audio file into Band-in-a-Box.</td>
</tr>
<tr>
<td>Open Audio w/Chords (WAV, WMA, MP3, WMV, CDA)</td>
<td>Load an audio file with chords.</td>
</tr>
<tr>
<td>Launch Audio Chord Wizard (WAV, WMA, MP3, WMV, CDA)</td>
<td>Open the Chord Wizard to analyze chords in an existing Band-in-a-Box song.</td>
</tr>
<tr>
<td>Import Chords from MIDI File</td>
<td>Import chords from a MIDI file into Band-in-a-Box.</td>
</tr>
<tr>
<td>Open Karaoke (KAR) File</td>
<td>Load Karaoke files directly into Band-in-a-Box.</td>
</tr>
<tr>
<td>Open Special</td>
<td>Opens a sub-menu with more options for opening songs.</td>
</tr>
</tbody>
</table>

New is used to blank the chordsheet and start a new song.
Open (BB song) is used to open an existing Band-in-a-Box song.
Open MIDI file loads a MIDI file into Band-in-a-Box and the MIDI file will play with the chords intelligently interpreted on-screen.
Open Audio (WAV, WMA, MP3, WMV, CDA) will open an audio file in WAV, MP3, Windows Media Player (WMA, WMV) or CD Audio (CDA) format. Play back at 1/2, 1/4, or 1/8 speed for transcribing or analyzing.
Open Audio w/Chords (WAV, WMA, MP3, WMV, CDA) command will open a WAV, WMA, MP3, WMV, or CD Audio file and also figure out the chords and bar lines.
Launch Audio Chord Wizard (WAV, WMA, MP3, WMV, CDA) will open the Chord Wizard to analyze chords in an existing Band-in-a-Box song (that has a WAV file on the audio track).
Import Chords from MIDI File uses the MIDI File Chord Wizard to interpret chords from any midi file, and also read tracks to the melody and soloist tracks.
Open Karaoke (KAR) File opens Karaoke files directly in Band-in-a-Box, displaying the lyrics and chord symbols for the song.
Open Special opens a sub-menu with more options for opening songs.
Open (Using Custom Dialog) uses the custom dialog that allows long-file-names, font selection, and even remembers its settings (unlike the standard windows 95/98 dialogs).

Open Using Standard Dialog uses the standard windows 95/98 dialog.

Open with Melodies lists only song files that have melodies (*.mg?).

Open Song by Title allows selection of songs by displaying the full title of the song (not 8 character file name). A search function allows you to search the title list for a word or phrase to quickly find a title. For example, type in “Oldfolks” and the search will find the song title “Old Folks at Home,” as well as any other songs with “Oldfolks” in the title.

Open Favorite Songs opens the dialog that shows the last 150 songs played.

Open Next Song and Open Previous Song will open the next/previous song in alphabetical order. If the song loaded has a file name of “Paul,” choosing load-next-file will find the next file in alphabetical order after Paul, maybe it would be “Peter.” Shift+F8 and Ctrl+Shift+F8 are the hot keys for this.

Import Chords from PG Music MIDI file will read in the chord symbols from PG Music MIDI files made by programs like Band-in-a-Box or PowerTracks Pro Audio. Note that it won’t read in the chords from a MIDI file that doesn't have special chord symbols typed in to it, i.e., it doesn't interpret chords.

If you want to interpret chords from any midi file, use the File | Import Chords From MIDI File option instead.

Save song saves current song under original title.

Save song As... is to save songs (*.?G?).

Save Song with Patches & Harmony. If you would like to save certain patches with a song, then type in the number of the patch (instrument) that you would like. Leave the other instruments at zero (0) for No Patch change. Remember that - as with all other Band-in-a-Box functions - you use the General MIDI number for the instrument, regardless of the synth you are using.

Favorite Folders... opens a list of recently used folders for quick access.

File utilities... opens a sub-directory of file utilities.

Tip: If you're working with a lot of Band-in-a-Box songs doing editing etc., remember the “Open Next Song” commands – they will save you a lot of time!
**Run Explorer in Current Directory** launches Explorer. Pressing **Ctrl+Shift+F3** is the usual way to get to this item, and will quickly open Explorer. Once Explorer is open, you could double click on a song or style to load it in. (Assuming that there is a file association for Band-in-a-Box songs and styles made in Explorer.)

**Auto-rename song files to Long File Names** will rename all song files in the current directory to long file names, using the song title as the name.

**Rename Any File on disk…** or **Rename CURRENT song filename** allows you to rename files.

**Delete File from disk** deletes a song file without exiting the program.

**“Nuke It!” (Delete CURRENT song file from list)…** deletes the current song.

**Associate File types (songs, styles) with Windows…** / **Remove File Associations (songs, styles) with Windows…** will associate (or remove associations for) the file types for Band-in-a-Box songs and styles in Explorer. Once set, this means that you can double click on a song or style in Explorer and Band-in-a-Box will open up with that song or style.

**Batch create MIDI files** convert an entire folder of BB songs to MIDI files. You can choose the file names to be based either on the original file name or song title name. This feature is also accessed with the [Batch mode…] button in the MIDI file dialog.

**Make Standard MIDI File** makes a standard midi file. You can save in Type 1 (multi-tracks) or Type 0 (single track) files. Karaoke MIDI files are also supported.

To save a MIDI file as a Type 0, 1, or Karaoke file, press the MIDI file button, and choose the desired MIDI file type.

**Choose Destination for Standard Midi File**

- **Violet Song**
- **102K “Standard MIDI File” successfully prepared**

**MIDI File type**
- **Type 1 (multi-track) Normal**
- **Type 1 (multi-track) Normal**
- **Type 0 (all on a single track)**
- **Karaoke File (.KAR)**
- **Drums on separate tracks**

**Destination for Standard Midi**
- **File on Disk**
- **Batch mode…**

There is also an option to save Drums on separate tracks. This is a special type 1 MIDI file with each individual drum instrument - such as kick drum, snare, and hi-hat - on its own separate track. When you load this type of MIDI file into a sequencer like PowerTracks Pro Audio it easy to fine-tune the level of each percussion instrument in the drum kit.

This button saves a MIDI File to Disk. You can then load the MIDI File into your sequencer for further editing.

This button copies the MIDI File to the Windows Clipboard. Then you can clipboard-paste Band-in-a-Box MIDI data to PowerTracks Pro Audio, Cakewalk, etc.

The [Options] button opens the **MIDI file options** dialog box to control how the Melody, Solo, and Harmony are written to a MIDI file.

Normally the MIDI file would get made for the whole song, but if you want to specify a range press this button.

The “Batch create MIDI files” function allows you to generate multiple MIDI files in one step, one MIDI file for each Band-in-a-Box song in a folder.

**Print Song - Chords/Melody** opens the Print Options dialog.
Print Multiple Songs... prints all songs, or just selected songs, in a song directory.

Make Song Titles allows you to assign long, full titles to song filenames.

Load User Style allows you to choose a user style. (See Selecting Styles.)

Exit to exit completely from the Band-in-a-Box program.

The last five files opened are listed at the bottom of the menu, numbered 0 through 4.

Edit Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undo Transpose</td>
<td>Ctrl Z</td>
</tr>
<tr>
<td>Redo</td>
<td>Shift Ctrl Z</td>
</tr>
<tr>
<td>Cut</td>
<td>Ctrl X</td>
</tr>
<tr>
<td>Copy</td>
<td>Ctrl C</td>
</tr>
<tr>
<td>Paste</td>
<td>Ctrl V</td>
</tr>
<tr>
<td>Copy From ... To ...</td>
<td>Alt C</td>
</tr>
<tr>
<td>Copy Rests...</td>
<td></td>
</tr>
<tr>
<td>Copy/Move Tracks...</td>
<td></td>
</tr>
<tr>
<td>Erase From ... To ...</td>
<td>Alt C</td>
</tr>
<tr>
<td>Intro Bars-AutoGenerate (or Remove)...</td>
<td></td>
</tr>
<tr>
<td>Insert Bar(s)...</td>
<td></td>
</tr>
<tr>
<td>Delete Bar(s)...</td>
<td></td>
</tr>
<tr>
<td>Nudge Chords/Melody...</td>
<td></td>
</tr>
<tr>
<td>Repeats/codas/st-2nd endings...</td>
<td></td>
</tr>
<tr>
<td>Reduce (durations of chords by 1/2)</td>
<td></td>
</tr>
<tr>
<td>Expand (durations of chords by 2)</td>
<td></td>
</tr>
<tr>
<td>Unfold (convert to 1 BIG chorus)</td>
<td></td>
</tr>
<tr>
<td>Fold (convert 1 chorus to multiple)</td>
<td></td>
</tr>
<tr>
<td>Set: Time Signature (range of bars)...</td>
<td></td>
</tr>
<tr>
<td>Transpose</td>
<td></td>
</tr>
<tr>
<td>Song Memo...</td>
<td></td>
</tr>
<tr>
<td>Auto-Generate Song Title</td>
<td></td>
</tr>
<tr>
<td>'Jazz Up' the chords...</td>
<td>Alt F5</td>
</tr>
<tr>
<td>'Jazz Down' the chords...</td>
<td></td>
</tr>
<tr>
<td>Search/Replace Chords...</td>
<td></td>
</tr>
<tr>
<td>Chord Settings...</td>
<td>Alt F5</td>
</tr>
<tr>
<td>Settings for Current Bar...</td>
<td>F5</td>
</tr>
<tr>
<td>Settings for This Song...</td>
<td>Ctrl-N</td>
</tr>
</tbody>
</table>

Edit | Undo and Edit | Redo allow you to undo or redo most operations.

Edit | Cut functions like a delete command to remove bars from a song.

Edit | Copy and Edit | Paste are to copy chords. Copying a section of chords can be done in the same manner as copying text in a Windows word processor.

Note: If you select (highlight) a region by dragging the mouse and then choose one of the Edit menu commands the dialog box will automatically adjust to the correct values, based on the region that you've highlighted.

Copying Chords to the Windows Clipboard
Select the region to copy.
Place the mouse cursor at the bar to begin the selection. Then, holding down the left mouse button, drag the mouse over the region. As you do this you will see that the region will be inverted (i.e. looks dark).

When you have selected the desired region of chords to copy, release the mouse button. Copy the selected region to the clipboard with the on-screen copy button, the keystrokes Ctrl+C, or select the Edit | Copy menu item.

**Pasting Chords from the Windows Clipboard**

Assuming you have already copied some chords to the clipboard, you are then ready to paste the copied chords into another part of your chordsheet.

Move the highlight cell to the bar to begin the paste of chords.

Copy the chords at the highlighted bar with the on-screen paste, the keystrokes Ctrl+V, or choose the Edit | Paste menu item.

**Tip:** The copied section remains in the clipboard and can be used repeatedly. If your song is in the form verse-verse-bridge-verse, you can simply copy the first verse to the clipboard, and then paste in the other verses. The clipboard contents remain even if you load in a new song, so you can copy and paste between songs.

**Copy From…To… / Copy Rests / Erase From… To…**

One of the best ways to copy chords is the Copy From… To… command in the Edit menu, or pressing Alt+C, which launches the Copy Chords and/or melody dialog. The Edit | Copy Rest command will similarly bring up the Copy Rests dialog to allow copying of rests. The Edit | Erase From… To… command launches the Erase Chords and/or melody dialog. These dialogs allow you to specify the number of bars to copy or erase, the location to copy to, and the option to copy or erase the Chords, Melody, Soloist, and/or Lyrics.

The Copy/Move Tracks command in the Edit menu opens the Track-to-Track Copy/Move/Delete dialog, which allows copying from one track to another.
Inside the dialog, you should choose the “Source Track” and the destination track to Copy/Move selected channels to.

Source track can be any of the Band-in-a-Box tracks – Bass, Drums, Piano, Guitar, Strings, Melody, or Soloist. The track to “Copy/Move selected channels to ->” can be Melody or Soloist (since these are the only tracks that are editable in Band-in-a-Box).

For copying from Melody or Soloist track, you can also specify which channels to include in the copy, or delete or move certain channels.

There is also an option to “merge with existing data…” on the destination track.

**Intro Bars - Auto Generate (or Remove)**
This command will launch the Generate Intro dialog where you can specify the characteristics of the intro you wish to generate. For more information on this feature please refer to the Automatic Intro section.

**Insert Bar(s)** inserts a certain # of bars into the chordsheet.

**Delete Bar(s)** removes a certain # of bars from the chordsheet.

**Nudge Chords/Melody** feature allows moving a range of chords by any number of bars and beats.

**Repeats/codas/1st-2nd endings**
You can add repeats and endings so that the Lead Sheet window will display and print using 1st /2nd endings. You can add your own repeats and endings by choosing this menu command to open the Edit Repeats and Endings dialog.
Reduce (durations of chords by 1/2) cuts chord durations by 50% (e.g., 4beats>>2beats; 2beats>>1beat).

Expand (durations of chords by 2) doubles the durations of chords (e.g., 1beat>>2beats; 2beats>>4beats).

Unfold (convert to 1 BIG chorus)
Choose this command to unfold a multi-chorus song into one BIG chorus. When selected, Band-in-a-Box will display all choruses and verses of a song without loops or repeats. It is useful, for instance, when you have a song with 3 choruses and want to convert it to a single large chorus, or to customize a song with the “Edit Settings for Current Bar” feature to change meter, tempo, patches, styles, and/or harmonies and generate a MIDI file for export.

1 \cdot 32 \times 3 \quad \text{becomes} \quad 1 \cdot 96 \times 1

Fold (convert 1 chorus to multiple) converts a song with a single big chorus to multiple smaller choruses based on the information you enter in the Fold Song dialog (chorus begins, chorus ends, tag etc.).

If you have imported a MIDI file, you might have a file that is 96 bars long, but really consists of 3 choruses of 32 bars each. You can convert this to a 32-bar song by using the Edit | Fold song option, including inserting tag endings, and 2-bar endings.

1 \cdot 96 \times 1 \quad \text{becomes} \quad 1 \cdot 32 \times 3
Set Time Signature (range of bars)

In Edit | Set Time Signature (range of bars) you can assign a specific time signature at any bar and apply it to a range of bars, as often as you want. For example, to have one 5/4 bar, bar 13, select this menu item, and toggle the 5/4 button. Then, type in the bar beginning (13) and number of bars (1) in the space provided.

This menu command opens a submenu with both manual and automated options for transposing the complete song or selected parts of the song.

Transposing a particular section of the song can be done manually or you can transpose a portion of a song by highlighting the region you wish to have transposed, selecting this menu item, and typing in the new key you wish to transpose to.

Transposing the entire song can be done while the song is playing. Band-in-a-Box will pause briefly, and then resume playing in the new key at the same place in the song.

Transposing opens a dialog where you can type in the number of semitones to transpose the song.
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Song Memo...

A song memo of up to 2000 characters may be added. When a song has a memo associated with it the word Memo highlights in pink.

Clicking on the [Memo] button launches the **Song Memo** dialog, where you can type or edit a memo about the song and select an “Auto-open” option that will show the memo each time the song is loaded.

The Song Memo has an option to close automatically during playback. When this option is set, the Memo button will close when play is pressed, and not reopen when stop is pressed. This setting, in combination with the “Auto-open” setting, ensures that the memo opens when the song opens, but closes during playback.

The Song memo has a “summary” checkbox. If selected, you’ll see an additional window that automatically displays a full summary of the song (title/tempo/patches used in the song), as well as other special features, like substyle patch changes or harmonies.

Auto-Generate Song Title allows you to generate a title for a song. There is also a button on the main screen for this.

‘Jazz Up’ The chords

This *Edit* menu command will “Jazz Up” the chords by changing chords like C and Cmaj to 7th and 6th chords. Song embellishment will be turned on for the song. Select the type of 7ths from the list box, and then click on the [OK – Jazz UP] button.

‘Jazz Down’ The chords

This will “Jazz Down” the chords by changing chords with 7ths (e.g. C7) to triads (e.g. C) and 9ths and 13ths to 7th chords. Song embellishment is turned off. Press [OK – Jazz Down] to proceed.

Search/Replace Chords will search and replace chords, including support for asterisks (*) as wildcards.
Also a “simplify Jazz chords” option will simplify chords like C13#11#5 to simply C9.

**Chord Settings**
This launches the **Chord Options** dialog box, where you can put in rests and pushes. You can launch the Preview, Chord Builder, or Chord-Substitution Functions from this window.

The **Chord Options** dialog box can also be opened with the chord options button, with the keystrokes Alt+F5 or with a right mouse button click on the chordsheet.

**Settings for Current Bar**
This command opens the **Edit Settings for Current Bar** dialog where you can change meter, tempo, patches, styles, and/or harmonies at the current bar. This dialog is covered in detail elsewhere in this manual and in the online Help.

**Settings (for This Song)**
The **Song Settings** dialog can also be accessed by pressing the [S] settings button on the main screen under the song title. These settings are fully explained in the PowerGuide chapter.

**Styles Menu**

- **StyleMaker**
  - Make a Hybrid style…
  - Style Wizard… (Auto-Create Style from MIDI file)

- **Style is Enabled**

- **OK to load style with songs**

- **Open a User Style from disk…**
  - F9

- **Browse Styles with info…**
  - Ctrl F9

- **Select Favorite Styles…**
  - Shift F9

- **Load Previous Style**
  - Ctrl Alt Shift F8

- **Load Next Style**
  - Alt Shift F8

- **StyleAliases**

- **Choose from 24 Built-in Styles**
**New - Make A New Style**

This function allows you to begin to create a new style, using the StyleMaker feature. See online Tutorial #6: StyleMaker - Making a New Style.

**Edit a Style**

This allows you to edit an existing style (*.STY) from disk. The resulting style can then be saved with the same name or a different name. This function uses the StyleMaker. See online Tutorial #5: StyleMaker – Editing Styles.

**Edit Current Style**

This allows you to quickly get into the StyleMaker to edit the current style. The current style is the style that is displayed in the Style Box on the main screen.

Usually you would use Ctrl+F9 to do this quickly. See online Tutorial #5: StyleMaker – Editing Styles.

**Make a Hybrid Style**

The “Hybrid Styles” feature allows you to play and create a style that has instruments from up to five different styles! You can, for example, play a song with a Reggae bass, Rock drums, Salsa piano, or any combination of up to five styles that you want.

**Style Wizard (Auto-Create Style from MIDI file)**

Launches the **Style Creation Wizard**, which automatically converts a MIDI file (.MID) to a Band-in-a-Box Style (.STY). Simply open a MIDI file, select your options, and press “Save-As Style.”

**Style is Enabled**

This item will Enable or Disable the style. When disabled, the name of the style will have an X at the beginning, which indicates a disabled style. The disabled style won't sound or write any data to the MIDI file. The most common use for disabling a style is when a MIDI file is loaded to the Melody track. Then the style won't sound and conflict with the full arrangement on the Melody track.

**OK to load style with songs**

This allows you to keep a style in memory. This way, all subsequent songs that are loaded will not change the style (even if they have a different associated style), so you can easily play songs in the same style. If you've found a new favorite style, you can try it out in all kinds of songs without having to reload the style each time.

For example, let’s say we’ve discovered the GARNER style, and want to try it out on many different songs.

Select Styles | OK to load styles with songs to ensure the item is NOT checked.

Then when you load a song the saved style associated with the song doesn’t load and the song will play in GARNER.STY.

You can over-ride this style by loading in another style using the [STY] button or the Styles menu. The new style loaded will stay in until you choose another one, or until you turn off the forced styles option and load a song that uses a different style.

**Open a User Style from disk…**

Styles can be selected and loaded with Long File Name dialogs.

**Browse Styles with info…**

Opens the **StylePicker** window with complete style information.

**Select Favorite Styles…**

Opens the Favorite Styles dialog, which contains a list of the most recent 150 styles used. Since these are ordered based upon how often they are used, we call this the “favorite styles” list. Since you can also store user-definable favorite lists, we also refer to them as Set Lists.

**Load Style demo for current style** loads the demo song for the currently loaded style. This feature is also available with a click on the name of the style on the main screen. The menu that displays will include the option to “Load Song Demo” for the current style.

**Load Previous Style, Load Next Style.**

This function, like the Load Next Song function, loads in the previous (or next) style in alphabetical order of the file name. These functions are in the Styles menu, and accessible with the hot keys Ctrl+Alt+Shift+F8 (or Alt+Shift+F8).
Style Aliases
You can create an alias so that when Band-in-a-Box looks for a style, it will load its alias instead, so when you have found a new favorite style just change the alias and you don’t have to change all of your songs.

- To create a new alias, click on an empty spot in the Alias list, or click on the alias you wish to edit if you wish to change an existing alias.
- Press the [Choose] button below the Original Style box and select the style you wish to be replaced.
- Press the [Choose] button below the Substitution box and select the replacement style (alias).
- If you want to type in a style name use the [Custom] button.

When you have successfully made an alias, you will notice that there will be a small arrow in the Styles box on the main screen indicating that you have an alias loaded.

Tip: You can temporarily totally disable the Alias feature by disabling the Allow Any Style Aliases checkbox found in the dialog. You can also have confirmation of alias substitutions by enabling the Confirm Substitution checkbox.

Choose from 24 “Built-in” Styles
Use this list as a convenient way to make a quick pick from the list of 24 original Band-in-a-Box styles. Once you load a style, the song will be played back using your chosen style and you can change the style any time.

Opt. Menu

MIDI/Audio Driver setup...
Use/Set ALTERNATE MIDI output driver for session...

Return to Factory Settings...
What add-ons do I have?...

Utilities
Language Selection...

Preferences... Ctrl E

MIDI/Audio Driver setup...
Select MIDI Input and MIDI Output drivers and choose a Synthesizer / Sound Card patch map. Select the [Run Driver Wizard] button for help with your selection. Click on the [Audio Settings] button if you need to set up audio drivers, such as ASIO drivers. This topic is discussed in detail in the MIDI and Audio Setup instructions.

Use/Set ALTERNATE MIDI output driver for session
The Opt. menu item Use/Set Alternate MIDI Driver for session, allows you to set a temporary MIDI Driver for a session, useful when your main MIDI Driver is “in-use” by another application.

Return to Factory Settings
Choosing this command will reset all settings to the default at the time of shipping. Return to Factory Settings also offers to nuke the drum kit and MIDI Driver choice, making the return to factory settings complete.
If you choose MOST settings, the patch map and drum kit will be left intact, and not reset.

If you choose ALL settings, all settings will be reset to factory.

What add-ons do I have?...
An intelligent dialog, also accessible from the Help menu that will search your directory to tell you which add-ons you have and which you don’t.

Utilities

Edit Chord Shortcuts file (shortcut.txt)... Refresh Chord Shortcuts...

Save Default Configuration (Mysetup.DK file)
Save alternate Drum/Patch File .DK...
Load alternate Drum/Patch File .DK...

Display General MIDI Patch Numbers...
Send a Sys-Ex file (*.SYX)
Choose Patch from General MIDI Patches...
Choose Patch from Higher Bank...

Make an Advanced Patch map

Edit Chord Shortcuts file (shortcut.txt)... / Refresh Chord Shortcuts...

If you have found a chord that Band-in-a-Box doesn't recognize, you can add your own shortcuts in a text file that you make yourself called \c:\bb\shortcut.txt and Band-in-a-Box will allow you to type in that chord in the future. Click on this menu command to open or create your own chord shortcuts file. Make sure to save the file after editing. Changes won’t take effect until you choose Edit | Refresh Chord Shortcuts...

The text file \c:\bb\shortcut.txt allows you to add new chord shortcuts. If you find a chord that Band-in-a-Box won't accept, like Csus2 when it expects C2 instead, you can enter this on a single line (without the quotes) "Csus2@C2." Then Band-in-a-Box will enter the chord C2 whenever you type in Csus 2. You can also use it for shortcuts. For example, if you entered j@maj7 Band-in-a-Box would let you type Cj for CMaj7. See the file \c:\bb\pgshortc.txt for examples of shortcuts.

Note: The shortcut.txt file doesn't ship with Band-in-a-Box or it would overwrite your file! The file \c:\bb\pgshortc.txt should be used only by PG Music Inc. for shortcuts supplied with Band-in-a-Box.

Save Default Configuration (Mysetup.DK file)
This will rewrite the Band-in-a-Box configuration file mysetup.dk with your current settings. This file contains:
- MIDI Channels/Patches/Volumes/Reverb/Chorus/Bank
- Patch Map
- Favorite Patches, Favorite Combos settings
- Drum Kit

Save / Load alternate Drum/Patch File .DK
Allows you to save different custom drum kits or load preset or custom kits.

Display General MIDI Patch Numbers
This opens the General MIDI Patch List for reference.
Send a SysEx file (*.SYX) is a command that sends SysEx information to your MIDI device.
Whether you want to load different patches (or ones you have “tweaked” with a patch editor/librarian such as the SC-Pro Editor/Librarian) into your MIDI device or whether you have a synth that requires a SysEx to set it to a certain mode, you can easily send SysEx files with a configurable delay (the default is 100 ms).

If you would like to send a SysEx file to your MIDI device automatically at the start of each session, you need to make a file called STARTUP.SYX, and put it in your `c:\bb` directory. Then, each time the program is started, it will send the appropriate SysEx commands contained in this file to your MIDI device.

If you need to send a SysEx file at any time during a session, choose the `Opt. | Utilities | Send a Sys-Ex File (*.SYX)` option. This launches a window from which you can choose a file to send. Since some MIDI devices require a delay time between parts of a SysEx message, there is a default delay value of 100 ms between each part of the message.

If you need to change the default delay, go to the `Options | Utilities | Make an Advanced Patch map` menu item and enter the `Sys-Ex Delay` to a value in milliseconds (ms). If it is set to 0 ms, the program will revert to the default of 100ms. The smallest delay setting is 1(ms).

**Technical Notes:**
 SysEx files are files that can be made with programs such as PG Music's PowerTracks Pro Audio or SC-Pro Editor/Librarian. They begin with a F0(hex) byte and end with a F7 byte.

Examples where you might want to use a SysEx file with Band-in-a-Box are:
- Employing a custom setting or patch you have made with the SC-Pro Editor /Librarian.
- Sending a General MIDI mode ON message automatically when Band-in-a-Box boots up.

**Choose Patch from General MIDI Patches...** allows you to select a patch for the currently selected instrument from an organized list of GM patches.

**Choose Patch from Higher Bank...** allows you to select a patch using the advanced search and higher bank/patch support capabilities.

**Make an Advanced Patch map**
 Patch maps contain information for mapping the patches and drum notes to your synthesizer as well as Velocity offset, Octave offset, bank Controller 0 setting, bank Controller 32 setting, etc. There are also advanced options like sending a SysEx file by loading the .DK file.

Edit these settings in the `Opt. | Utilities` submenu by choosing `Make an Advanced Patch map`. 

![Make a Patch Map (Advanced Settings)](image_url)
These options are useful either if you have a newer synthesizer that supports bank changes and has nice patches in higher banks or if you have an older synth that requires custom mapping of sounds. To access these features tick the Enable Advanced Settings checkbox. Then, type in the values you would like to change. Say, for example, you have some great string sounds on your synth on Bank 4, Controller 32. With this feature you can save them as part of your Band-in-a-Box setup by clicking the [Save] button. This will append your MYSETUP.DK file to include all of the patches you like to use, regardless of where they are on your synth.

Some basic soundcards don't have volume responsive drums. The result of this limitation can be rather unpleasant, since the drums might be too loud and there is no way of lowering the volume. Band-in-a-Box overcomes this so that you can boost or reduce the velocity of the drums on virtually any sound source.

To adjust the drum velocity, access Opt | Utilities | Make an Advanced Patch map and tick the option to “Enable Advanced Settings.” Then, enter a Number from -127 (quietest) to +127 (loudest) in the “Drum Velocity Boost” box.

Whether you want to load different patches (or ones you have "tweaked" with a patch editor/librarian such as the SC-Pro Editor/Librarian) into your MIDI device or whether you have a synth that requires a SysEx to set it to a certain mode, you can easily send SysEx files with a configurable delay (the default is 100 ms).

If you would like to send a SysEx file to your MIDI device automatically at the start of each session, you need to make a file called STARTUP.SYX, and put it in your c:\bb directory. Then, each time the program is started, it will send the appropriate SysEx commands contained in this file to your MIDI device.

If you need to send a SysEx file at any time during a session, choose the Opt. | Utilities | Send a Sys-Ex File (*.SYX) option. This launches a window from which you can choose a file to send. Since some MIDI devices require a delay time between parts of a SysEx message, there is a default delay value of 100 ms between each part of the message.

If you need to change the default delay, go to the Options | Utilities | Make an Advanced Patch map menu item and enter the Sys-Ex Delay to a value in milliseconds (ms). If it is set to 0 ms, the program will revert to the default of 100ms. The smallest delay setting is 1(ms).

Language Selection
This item in the Opt. menu allows you to change language from English to another language for display. If there are other languages supported by your version of Band-in-a-Box, then they will be displayed in this dialog box. International language versions are available for download from www.band-in-a-box.com.
The Preferences dialog box allows you to set various settings that are saved in the Band-in-a-Box for Windows configuration file called INTRFACE.BBW. You can open the dialogs with keystrokes by typing the underlined letter shown on the tabs. For example, you can open the “Arrange” Prefs tab by the keystrokes
- Ctrl+E to open the Prefs dialog, then
- A to open the Arrangement Options.

Note: Items that were previously found in the Preferences (2) dialog are now included in the Preferences dialog (Opt. | Preferences). Other Preferences (2) settings are now found in dialogs such as the MIDI Options Dialog, Arrangement Options Dialog, and Display Options Dialog.

Environment Options

OK to Save/Load Reverb, Vol etc. w/Songs
Select this checkbox in the Preferences dialog if you wish to embed Reverb, Volume, Pan, Chorus, and Bank information with songs for later recall, or if you wish to enable any such embedded information with songs that are loaded. The last settings that are in effect on the main screen instrument panel when you save the song will be recorded. Individual settings can be enabled/disabled in the File | Save Song w/Patches and Harmony menu item.

OK to Prompt to Reduce/Expand Song
If a style is changed with a different feel (16th notes instead of 8th notes), Band-in-a-Box will automatically offer to expand or reduce the duration of the chords, and change the tempo to accommodate the new style.

StylePicker defaults to current style
Since the StylePicker can now default to the current style, this option is available. If you want the StylePicker to stay at the style that you left it, de-select this item.

Use custom filename dialog
When selected, the [Open] button, or the menu command File | Open, or the F3 key will launch the custom Open File dialog. The custom Open File dialog has several advantages over the traditional Windows dialogs:
- The window is much bigger than the traditional one, allowing more room.
- There is a selectable font size and typeface.
- You can adjust the widths of the various columns.
- The Window remembers your settings.
- There are tabs at the top that allow sorting by name, date etc.

OK to “beep” with messages
Now that people have their sound cards hooked up to big speaker systems, a simple “beep” issued by Windows when an incorrect key is pressed can seem loud enough to “wake your neighbors.” Setting the “silent beep” option allows Band-in-a-Box to visually flash the window title bar to get your attention, instead of generating an audible “beep.”

**Always save songs with “U” extension**
Older Band-in-a-Box songs had additional extensions for last letter (1-9, A-O) to indicate style type. Setting this will resave those old songs with a “U” extension, MGU or SGU (if no melody is present).

**At program boot up...**
On session start, you can elect to have the last song or style that was used loaded in automatically. Or not.

**Boot up in directory of the last session**
On program boot up, the current directory will get set to the last directory used in the previous session.

**Reduce other part volumes when clicking past 127**
If this is checked, on the main Band-in-a-Box screen when the volume of a part is at maximum (127) further increases will decrease the volume of all other parts.

**Keystroke Options**

**Enter Key Advances Highlight Bar**
The Enter key advances the highlight bar on the chord sheet. This speeds up the entry of songs for people who prefer to use the Enter key. When you enter a chord on the chord worksheet, press the Enter key to place your chord in the highlighted cell. The highlighted region will then move automatically to the next cell. The right arrow key can also be used to move the highlight cell.

**SPACEBAR Key**
There are three options for spacebar operation.
- Enters no chord (deletes current chord)
- Plays from current position (Ctrl – Space from start)
- Plays from start (Ctrl – Space from current pos.)

**Simulate NUMPAD keys (for notebook users)**
Notebook users often don't have a number pad so they can't use the Band-in-a-Box looping features (Ctrl+NUMPAD 1-6 keys). With this option the regular numbers can be used to trigger the looping feature. For example, pressing Ctrl+2 will start playback of looped choruses.

**Pause Play until MIDI or Key received**
This allows playback to be started by a MIDI note received at the MIDI In port, or by pressing a key on the computer keyboard. Band-in-a-Box generates its arrangement, and then “stands by” for your start command.

**Text Hints**
Choose to enable or disable the fly-by text hints, the comprehensive program hints, and/or the dialog box hints. Set the time delay in ms before the hint pops up, and the length of time it will display.

**Preferences Buttons**
Most program settings and options can be accessed from the rows of buttons at the top of the Preferences dialog.

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**Display Options**
The [Display] button opens the Display Options dialog.
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Toolbars

**Toolbar mode** settings are for the main toolbar. The Normal mode shows toolbar icons with text labels. Options are Text only, Icons only, or No toolbar.

**Show on-screen piano** shows or hides the on-screen piano.

**Floating Toolbars Always Show Text** toggles floating toolbar text off or on.

**Song Title area font** allows the selection of any installed font the song title.

Chordsheet

**Enable display of Repeats/Endings** allows repeats signs and 1\textsuperscript{st}/2\textsuperscript{nd} ending markers to be shown on the chordsheet.

**Display bars higher than end of song in gray** will “gray out” the bars on the chordsheet after the end of the song.

**Show chords with push/rest characters**
The push character is the caret symbol (^). So a C chord with a push is displayed as ^C. The rest character is a period (.) so a C chord with a rest is displayed as C. (C period). If you prefer to not see these characters displayed, then set this to false. These characters won’t show up on the printout regardless of this setting.

**Show chords with pushes/rests in color**
If set to YES, pushes are displayed in GREEN and rests are displayed in RED. This only applies to the Chordsheet, not the notation.

**Chord display**
Use this setting to change the chord display from normal to Roman Numeral, Nashville, or Solfeggio.

**Display ‘C9sus’ as ‘C11’**
This option allows display of “9sus” chords as “11” (e.g., Bb11 instead of Bb9sus). This only affects how the chord is displayed, not how it is stored. And you can type either C11 or C9sus to enter the same chord.
For Roman Numerals of Chords in minor keys, use relative major
For minor keys, base roman numerals on the relative major. For example in key of Am, Am is either the Im chord or the VIm chord.

Chordsheet Font
You can choose the font to use for the chordsheet.

- If you choose a Custom font, you can choose the size as well. If you choose one of the preset fonts, the size is set automatically to fit into the height of the chordsheet row.
- If you click on the [Jazz Symbols] button then “Jazz Chord Symbols” will be selected and you will see shorthand Jazz chord symbols on the chordsheet.
- The Default font button selects Comic Sans MS as the chordsheet font.

To revert to the classic style that used a small System font and lots of rows, you can choose that as the type of font “Small font (system).”

Number of rows
The number of rows displayed on the chordsheet screen can be selected manually to best match your screen size and resolution. There is also an option to make this adjustment automatically.

If “Auto-adjust # rows” is set, when songs are loaded the number of rows will change depending on the number of bars in the song, and the number of rows will vary within the supplied “Range:” of rows.

Transpose
This will visually transpose the chordsheet and notation display by a number of semi-tones for concert or non-concert instruments, either by typing in a number or choosing a preset.

Arrangement Options
The [Arrange] button opens the Arrangement Options dialog.

**Arrangement Options**

- **Boost Velocity of pushes by**
The pushes in Band-in-a-Box are the chords that get played before the beat. Typically pushes are played a little louder than other patterns. You can leave this setting at 0, or set it to between 0 and 10.
- **Boost shots by**
Shots can be accented with this setting.
- **Boost ‘Holds’ by**
Use this setting to boost the velocity of held chords.
Allow Any Rests
You can disable the rests feature. You might want to do this if you’ve got a song with a lot of rests in it, and are then having difficulty recording a melody because you don’t hear the drums providing the beat (due to the drums resting). If so, you can temporarily disable the rests so that you can record and listen to the drums.

Allow Any Pushes
If for some reason you don’t want a style or a song to have pushes, you can set this to no.

Allow Style Pushes
If for some reason you don’t want a style to have pushes, you can set this to no.

OK To Load Style With Songs
This loads the style that is saved with the Band-in-a-Box song. Set it to NO if you don’t want the saved styles to load, perhaps to audition a new style with several different songs.

Concert Pitch Adjust
This is useful for non-concert instruments such as Saxophone or Trumpet. The output is transposed so that you see the music in one key, and it plays in another.

Trumpet players and other Bb instruments should set Concert Pitch Adjust to –2.

Alto Sax and other Eb instruments should set Concert Pitch adjust to +3.

Note: This concert pitch adjust setting is an old one. It is preferable that you use the Notation-Transpose Option instead.

Allow Any Endings
You can disable the endings from all the songs by using this setting.

Lowest Bass Note
Styles will normally play bass notes (down to the low E) if the pattern won’t go below a low E note. This happens with all styles automatically, but there is also an option to set the lowest note that the bass can go real low (so you can get a low C if you want to!).

Prevent “too low” guitar notes
For styles using a guitar patch on the Guitar, Piano, or Strings part this will prevent any note from being lower than the low E on a guitar.

Allow late notes in pattern, just before chord change
Styles will normally play notes near the end of a pattern, before a chord change. Sometimes this makes the style sound “too busy.” If you set this to, say 70%, then 30% of the time, the note at the end of the pattern will play quieter, typically at half the volume.

Drum Brushes
Most GM modules have brushes available on patch 41 on the drums. On some Sound Blasters you need to load a GS sound font for this to occur, and you need to use the Sound Blaster software to do this (AWE Control Panel). On the Yamaha XG, you likely need to send a “GS mode on” message from the GM menu in Band-in-a-Box. But if your module just doesn’t have brushes available, then you can set this option, and the style will remap the notes to different drum instruments that don’t have brushes.

First bar of first chorus of song gets a drum cymbal crash
If selected, the first bar of the song (following the intro) might get a cymbal crash. Usually this is left unselected, since most drummers wouldn’t play a crash cymbal on bar 1 of the song.

Normalize MIDI velocities to
If performing live, or at a jam session, it helps to have the volume of all of the songs be similar. With the “Normalize MIDI velocities” feature, you can level the volumes to a setting you enter. For example, you can set all volumes to be 70 and the program will make each song play within those levels.

Note: When you have set the normalize to “on” the title window at the top of the screen reports that Normalization is set to 70, and that the velocity of the currently playing song has been increased from 49 to 70.

Including Melody, Soloist
The normalization will affect bass, drums, piano, guitar and strings. If you select the “Including Melody, Soloist” option, the normalization will also affect the Melody and Soloist parts.
When a song is loaded, but the required style is not found

In this group of settings you can control the behavior of the program when a required style is not found. Text files like c:\bb\A_PGMUSIC.NA list the substitute styles to use.

You can make your own *.NA file, but call it something like MYSTYLES.NA. Don’t edit the A_PGMUSIC.NA file.

OK to substitute with a similar style

If set this will enable the substitution of styles using the c:\bb\A_PGMUSIC.NA text file and any other *.NA files supplied by third-party styles developers.

If nothing similar found, use this style

This is the style that will be substituted if no better substitute is found in the A_PGMUSIC.NA text file or any other *.NA files.

Message if no style or substitution found

If no substitute style is found, what type of message (if any) should be displayed?

Message if substitution style found

When a substitute style is found, what type of message (if any) should be displayed?

Insert Breaks (silence) in arrangement

This feature is great for practicing tempo control. Select the # of bars, and Band-in-a-Box will play for, say 4 bars (selectable), and then will rest all instruments for the next 4 bars. Once set, this feature works automatically with all songs until you turn it off.

Count-in and Metronome Options

This Preferences button opens the Count-in and Metronome Options dialog.
Drum Lead-in options

Allow Lead-In Bars
People who use Band-in-a-Box for soloing practice will likely turn the lead-in off to allow endless looping uninterrupted by the lead-in count. To eliminate the lead-in count, select Allow Lead-In Bars to = NO, this will start the song from bar 1 with no lead-in.

1 bar lead-in
If this is set, the count-in will be a single bar instead of 2 bars.

Play Lead-In Even If Intro Present
If a song has an intro, it’s usually not necessary to play the 2 bar lead-in count. There’s a new option to always OMIT the lead-in if an intro is present.

Lead-in type
This can be drum patterns instead of “1-2-1234.” You can specify to play two bars of drum patterns instead of the count-in. You may prefer hearing the drum beat to a simple count-in, since it provides more information about the upcoming groove. If you’re playing with Band-in-a-Box live on a “dance floor,” this setting will avoid “dead air” between songs, and keep the drumbeat going. Includes options to have “a” or “b” drum fills or patterns play for the two bars.

Audible Lead-In/Volume
Enables audible count-in. If you would like the lead-in bars to be played, but just want the drum lead-in quieter (or silent) set the Drum Volume to = 0 (for silent).

Instrument/ Pattern
You can select any drum instrument for the count in. You can choose different count-in rhythms, e.g., tap on 2 and 4 instead of 1-2-3-4. There’s a new “smart lead-in” option to silence the drum count-in if a melody lead-in has begun.

Smart Lead-in
A smart lead-in avoids playing the count-in drum sound during a Melody pickup.

Lead-in drum count if drums muted/disabled
Previously, when the drum track was muted (or disabled in a song), the count-in drum click wouldn't play. This option can play the drum count-in in all circumstances. Drummers who play along with BB by muting the drum track should find this feature useful. To set this option, choose Opt. | Preferences and set “Lead-in drum count if drums muted or disabled” to true (default is true).

Metronome Options

Visible Metronome
You can display a visible metronome on-screen during the entire song (or just the lead-in). Choose the screen position (top-right or center), and the size (up to near full screen size). Also choose the visual metronome pattern (1234, 1-3, 1---, or –2-4). Seeing a metronome on-screen is a great way for a student to learn to keep on the beat, and with a settable size, students can view this from across the room.

Audible Metronome
The three settings for the audible metronome are None, During Record, or During Record and Play.

MIDI File Options

The Preferences [MIDI File] button opens the MIDI file options dialog.

Include Patch Changes in MIDI files will include the patch (instrument) changes.

Include Part Marker text markers will write descriptive text markers to the MIDI file, such as “bar 23, part A.” Text markers are also read in from MIDI files, and displayed as Section Markers on the Notation.

Include 2 bar lead-in in MIDI file is selected if you don’t want to create a MIDI file containing the first 2 bars of the 1—2—1-2-3-4 count-in. If there is a Melody pickup, then the 2 bar lead-in will remain in the file.

Write Lyrics in General MIDI or PG Music format
The GM specification has agreed upon specific requirements for writing lyrics in MIDI files, which are now supported, so that lyrics that you save in Band-in-a-Box should show up identically in other MIDI programs. To set this option, choose either General MIDI format or PG Music format. We recommend the GM format.
Write Section Text as Text Events
Your section text can be included in the MIDI file as text events.

Include Volume/Reverb/Chorus/Panning
This will include the volume, reverb, chorus, and panning settings that you have made in the Band-in-a-Box synth window in your MIDI file.

Include Forced Channel Meta Event
This will include the forced channel META event. It is recognized by PowerTracks Pro Audio and other PG Music Inc. programs only.

Include Guitar Position Controller
This will insert a controller 84 which PG Music uses to indicate the fret position. Since some synths also use this for Portamento Control, you should use this setting with caution.

Write Soloist Part On Channel 5
Normally the program writes the Soloist part on channel 8. Since that could also mean the left hand of a piano track using the convention of channel 8/9 for piano, this option allows you to write it on channel 5 instead.

Write Harmony To MIDI File
If set to YES, the harmony will be written to the MIDI file. If not, just the melody will be written to the MIDI file.

MIDI File Harmony on separate tracks
If set to YES, the harmony will be written to the MIDI file on separate tracks for each voice. You could use this to print out individual parts to your printer for example.

Write Guitar part on 6 channels
If set to YES, the styles that are Intelligent Guitar Styles will result in a MIDI file that has the Guitar part written on 6 channels (11-16). Then, when you read it in PowerTracks, or another sequencer that uses the convention of 11-16 for guitar strings, the guitar part will display correctly.
For partial range MIDI files, chop of sustaining notes at end
If you have made a MIDI file for part of the song this setting controls whether the notes will sustain at the end of the range in the MIDI file or be cut off.

If song has RealDrums
- Also generate MIDI drums in the MIDI file - If your song uses RealDrums for the drum track you may want to uncheck this option.
- Also generate RealDrums in xxxx_RealDrums.WAV file - saves RealDrums audio track as a separate wave file so it can be imported into another program for editing.

MIDI Driver Setup

The [MIDI Driver] button launches the MIDI Driver Setup.

MIDI Input Driver
Select the Driver that you would like to use for input from a MIDI keyboard. If you don't have a MIDI keyboard, you can select <No MIDI/sound Input>.

MIDI Output Driver
Select a Driver For MIDI Output. This also includes Sound Card output (like Sound Blaster).

Perhaps the easiest way to configure Band-in-a-Box is to press the [Run Driver Wizard.] button. This launches the MIDI Output Driver Wizard.

The MIDI Output Driver Wizard dialog will take you step-by-step through the process of auditioning and selecting an appropriate driver. This assumes that the appropriate Windows sound drivers are installed and correctly configured.

MIDI Driver Setup

MIDI Input Driver
- SB Audigy MIDI IO (D800)
- <No MIDI/sound input>
- SB Audigy MIDI IO (D800)

MIDI Output Driver
- Run Driver Wizard...
- General MIDI Instrument Misc.

Synthesizer / Sound Card
- General MIDI 2 (GM2) support
- GM2 support (128 extra patches)
- Roland VSE
- Yamaha sound modules
- Soft synths
- DXi Synth Settings...

Synthesizer / Sound Card
Every sound card or General MIDI sound module can chose “General MIDI Instrument Miscellaneous.” Only older non-GM external modules require a custom patch. Selecting the type of synth allows Band-in-a-Box to
automatically load in the appropriate Drum/Patch kit file (*.DK). If you leave this as <synth card not listed> it will automatically default to the General MIDI patch list.

**Get Patch/Drum Kit Info**
This contains information on setting up custom patch/drum kits.

**Use DXi Synth**
Check the Use DXi Synth checkbox to enable DXi playback.

To use this option, you must have a polyphonic DXi synthesizer installed on your computer, such as the Roland/Edirol VSC DXi. It will also be most convenient if your DXi synthesizer can use General MIDI or GM2 patches.

**Route MIDI Thru to MIDI Driver**
If this is unchecked, MIDI Thru (live playing) will be routed to the DXi synth rather than the MIDI Thru drive while the song is playing. (Applies with MME audio drivers only.)

**DXi Synth Settings**
To select the DXi synthesizer, click the [DXi Synth Settings] button, which will open the ** DirectX Plugins** window. Select your DXi synth and apply real time DirectX effects.

**Driver Latency**
Software synths (like the Roland VSC) have a specific timing issue associated with them; “latency.” This means that it takes about 430ms from the time Band-in-a-Box sends the MIDI information to the Virtual Synthesizer to generate and hear the sound. To keep everything (i.e. the notation display, etc.) “in sync,” you should set this latency option. In most cases, Band-in-a-Box will prompt you to do this. If you are using a regular sound card or MIDI module you should not encounter any latency, so you should set the latency option to zero (0) if it's not already set this way.

Latency is set automatically for DXi/VSTi software synths. Click [Latency Adjust] to manually offset the latency of your driver with the **Soft Synth Latency Adjust** routine.

**GM2 support**
The type of GM2 support is set here. The choices are:
- General MIDI 2 support: If you're using the Roland VSC3, or a newer Sound Canvas (i.e. newer than 1999, or newer than the Roland SC88), then choose this GM2 support.
- Roland GS (older Modules): “Older” Sound Canvases (SC55/SC88) support GS, but not GM2. The good news is that they have the same patches available, just at different locations. So if you choose this option, Band-in-a-Box will find the patches at the “GS” locations instead of the “GM2” locations. If you have a newer GS module like the SC8820, it supports both GM2 and GS - you should likely choose GM2.
- No GM2 support: Most sound cards (Sound Blasters etc.) don't have GM2 support yet, so just support the 128 sounds. Band-in-a-Box will use the closest instrument in these cases.

The [Audio Settings] button opens the **Audio Settings** dialog to set up audio drivers.

**MIDI Options**

This Preferences button opens the **MIDI Options** dialog.

**Send GM Mode On at startup / Send XG Mode On at startup**
You can elect to have Band-in-a-Box automatically send a GM or XG Mode On command every time the program is started. Toggle this option ON if you have a GM or XG unit to ensure that it is always set to the appropriate mode.

**Local ON (Ext. Keyboard):** If you are hearing the information played on your keyboard played twice (an echo effect) then set Local ON to “No.” If you can't hear what you are playing at all, set Local ON to “Yes.”

**Turn External Keyboard’s Local ON at end of session**
If you have set the Keyboard Local to Off (usually to eliminate MIDI echo) this setting turns it back on at the end of your Band-in-a-Box session.

**MIDI Thru:** Set to “No” if you don't want the information played on your MIDI keyboard to be sent through Band-in-a-Box to the output driver.
Controllers Thru: Guitar synthesizers and wind controllers contain large amounts of additional MIDI data which may not be required for Band-in-a-Box and may only serve to hinder the system performance of your computer. To prevent this information from being sent Thru, set this option to “No.”

Use Thru Channel: Band-in-a-Box uses the Thru channel as a part, just like the Bass/Drums/Piano, etc. The Thru Channel is re-channeled to the Thru channel as assigned in the MIDI settings dialog. If you would prefer to set the Thru channel yourself from your MIDI controller, set this to “No.”

Boost THRU Velocity by
When playing along on a keyboard to the Band-in-a-Box “band,” if the sound of your keyboard is too quiet and increasing the THRU Volume doesn't help enough, use this option to boost the THRU velocity and make your THRU playing louder.

Output Sync/Start info: Syncs Band-in-a-Box with an external sequencer.
Send Extra Note Offs: Leave this option set to “No” unless you are having trouble with “Stuck Notes” when you press [Stop]. If you set this option to “Yes” the program will send a “global sweep” of all notes off in addition to the selected notes off that are playing when you press the [Stop] button.
Allow Any Patch Changes: Set to “No” to disable All Patch changes.
Song Patch Changes: Songs can be saved with patch changes. If you want to prevent specific instruments loading for a given song, set this option to “No.”
Style Patch Changes: Styles contain patch change information for the instruments that were used when the Style was created. To use your own instrument selection, not the original instruments, change this setting to “No.”
Drum Patch Changes: To disable patch changes in Drums, set to NO.
Drum Bank Changes: This should usually be left unchecked since most synths don’t use bank changes on drums. But, if you require drum bank changes then select this option.
Allow Volume Changes: To prevent any volume changes set to “No.”
Style Volume Changes: To stop embedded style volume changes set to “No.”

MIDI Settings
The [Channels] button opens the MIDI Settings dialog.
**MIDI Channels**: Range 0 to 16. If set to 0 the part will be Off/Disabled, which is not the same as muted.

**Octave**: Adjusts the octave of the part. Range (-2 to +2). Usually set to 0. (Bass is usually set to -1 for most General MIDI (GM) instruments.)

**Patch**: Range 0 to 128. These are General MIDI patch numbers.

**Volume**: Range 0 to 127. Average volume setting is = 90. This can also be set from the main screen.

**Note**: Only General MIDI, XG, and GS instruments respond to Reverb, Chorus, and Bank changes.

**Reverb**: Range 0 to 127. Default setting = 40.

**Chorus**: Range of 0 to 127. Default setting = 0.

**Panning**: Panning refers to the stereo placement (i.e. Left to Right) of a given part's sound. The range of this parameter is -63 to +63. A setting of 0 is centered in the middle of the stereo field.

**Bank0 and LSB(32)**: Many General MIDI instruments have extra instruments available on higher banks. Usually set to 0. Other settings are multiples of 8 (0, 8, 16 etc.).

These can use either Controller 0 (Bank 0), which is also know as MSB for Most Significant Byte, or Controller 32, also called LSB for Least Significant Byte, or combinations of the two controllers.

**Harmony**

The [Harmony] button opens the Harmony Channels and Settings dialog where settings for the harmonies are made.

**Harmony Settings**

**OK to Load Harmonies With Songs**

If set to YES, the harmony settings for each song will be loaded and saved with each song. If set to NO, the harmony setting won’t be saved or leaded with the songs. If you are using a certain harmony, you should set this setting to NO, otherwise you’ll have to keep re-selecting the harmony when you load in new songs.

**Change Harmony With New Chords**

Example: If a harmony is played on bar 1 on a C chord, and then the note is held as the chord changes to a Fm7 chord, (if this setting is set to YES) the harmony notes will change so that they will be still be playing chord tones.
If they don’t the harmony sounds dissonant. Leave this setting to YES, unless you have a specific reason to disable it. The harmony is changed by moving the voices to the nearest chord tone.

**Overall Harmony Volume Adjust**

Sets a level for the overall harmony in a range of -128 to 128, with 0 leaving the settings as programmed in the Harmony file.

**Harmony Channels**

Band-in-a-Box already uses 7 channels (Bass, Drums, Piano, Guitar, Strings, Melody and Thru channels). Adding these 4 harmony channels produces potentially 11 channels of information.

**Soloist**

The [Soloist] button launches the More Soloist & Melodist Settings dialog.

Set “Use MIDI Volume for Soloing Wizard” to true if you want MIDI velocity information sent to the Soloing Wizard. If you have a velocity sensitive MIDI device attached to your computer and you want to control the dynamics of the Soloist, you should enable this feature.

Set the “Trigger Playback Early” to true to enable song playback to start before the Soloist has actually completed composing a solo. Otherwise, Band-in-a-Box will completely compose a solo before song playback begins.
Soloist – Prefer Long Phrases
Set this checkbox to “True” (enabled) if you would like the Soloist to use the longest musical phrases it “knows.” This setting is normally used in conjunction with the Use Large Soloist files setting.

**Note:** This option may also increase Soloist creation times. Disable this feature if you are using a slower or low-memory equipped computer.

Soloist/Melody Velocity Adjust
This box allows you to quickly boost or reduce the volume of the Soloist part relative to the other instrument parts. For a realistic mix the soloist instrument is set slightly louder than the other instruments/parts in a song. The default is 5.

**Improved solo (but slower creation)**
- Use large soloist files (ST3) uses larger databases with improved phrases when checked.
- Create Long Phrases, when set to “True” (enabled) instructs the Soloist to use the longest musical phrases it “knows.” Normally used in conjunction with the “Use large soloist files” setting.

Colors
The [Colors] button in the Preferences dialog opens the Color Selection dialog.

You can choose from several color sets using the 256-color palette in Windows. Choose from pre-made color schemes or make your own. This is like changing the Windows color scheme in the control panel.

To select a pre-made color scheme, press the [Import..] button and choose from the list of schemes. Select [OK] to make the changes permanent. Use the [Export..] button to save and share your customized color schemes.

To make your own color scheme, click on the name of the element you wish to change (Chord Area, List Box, etc.), then click on the [Choose…] button to bring up the Windows Color palette and click on the color you desire. Or you can enter the appropriate Red, Green, and Blue values in the boxes provided.
Patch Map

This opens the General MIDI Patch Edit dialog, where you can make a customized General MIDI patch map.

General MIDI Patch Edit (1 - 64)

<table>
<thead>
<tr>
<th></th>
<th>Acoustic Piano</th>
<th>17</th>
<th>Home Organ</th>
<th>18</th>
<th>Jazz Organ</th>
<th>33</th>
<th>Acoustic Bass</th>
<th>49</th>
<th>Strings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Bright Piano</td>
<td>19</td>
<td>Rock Bass</td>
<td>34</td>
<td>Finger Bass</td>
<td>50</td>
<td>Slow Strings</td>
<td>51</td>
<td>SynthString1</td>
</tr>
<tr>
<td>3</td>
<td>Elect Grand</td>
<td>20</td>
<td>Church Bass</td>
<td>52</td>
<td>FREE Bass</td>
<td>55</td>
<td>SynthVoice</td>
<td>55</td>
<td>SynthVoice</td>
</tr>
<tr>
<td>4</td>
<td>Honk Tonk</td>
<td>21</td>
<td>Reed Bass</td>
<td>53</td>
<td>Slap Bass1</td>
<td>54</td>
<td>Voice Ohhs</td>
<td>56</td>
<td>Cymbal Hit</td>
</tr>
<tr>
<td>5</td>
<td>Rhodes Elect</td>
<td>22</td>
<td>Accordion</td>
<td>57</td>
<td>Synth Bass</td>
<td>58</td>
<td>Trombone</td>
<td>59</td>
<td>Tuba</td>
</tr>
<tr>
<td>6</td>
<td>Elvst Piano2</td>
<td>23</td>
<td>Harp</td>
<td>39</td>
<td>Synth Bass2</td>
<td>60</td>
<td>muted Trumpet</td>
<td>61</td>
<td>French Horn</td>
</tr>
<tr>
<td>7</td>
<td>Harpsichord</td>
<td>24</td>
<td>Bandoneon</td>
<td>40</td>
<td>Synth Bass</td>
<td>62</td>
<td>Brass Sect</td>
<td>63</td>
<td>Synth Brass1</td>
</tr>
<tr>
<td>8</td>
<td>Clav</td>
<td>25</td>
<td>Nylon Garlu</td>
<td>41</td>
<td>Violin</td>
<td>64</td>
<td>Synth Brass2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Celeste</td>
<td>26</td>
<td>Acoustic Guitar</td>
<td>42</td>
<td>Viola</td>
<td>58</td>
<td>Trombone</td>
<td></td>
<td></td>
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<tr>
<td>10</td>
<td>Glockenspiel</td>
<td>27</td>
<td>Jazz Guitar</td>
<td>43</td>
<td>Cello</td>
<td>59</td>
<td>Tuba</td>
<td></td>
<td></td>
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<tr>
<td>11</td>
<td>Music Box</td>
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<td>El Guitar</td>
<td>44</td>
<td>Contra Bass</td>
<td>60</td>
<td>-muted Trumpet</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>Vibraphone</td>
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<td>El Guitar</td>
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<td>French Horn</td>
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<td></td>
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<tr>
<td>13</td>
<td>Marimba</td>
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<td>OverDrive Gt</td>
<td>46</td>
<td>Pizzicato</td>
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<td>Tubular Bells</td>
<td>32</td>
<td>Harmonics</td>
<td>48</td>
<td>Timpani</td>
<td>64</td>
<td>Synth Brass2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Type in the patch number that your synth uses for each instrument listed. For example, if your sound source has its Acoustic Piano at patch location 41, select the box to the left of Acoustic Piano and type 41. Do the same for all of the instruments in the General MIDI patch list. If your synth doesn't have an exact match, use a close sounding patch that it does have. Once you have made a patch map in this way, whenever Band-in-a-Box encounters Acoustic Piano (which is General MIDI instrument #1), it will look up this Patch Map Location and then send out Patch 41 to your synth/sound module.

Drum Kit

If you have been unable to find a preset drum map that matches your synth's drum notes, then you may need to type in the drum notes that your sound source uses. To do this, you need to hook your MIDI controller up to play the drum sounds from the keyboard. Play up and down the keyboard to hear all the drum sounds.

Here's a way to figure out where the MIDI note numbers are on your synth.

We took this screen shot while playing MIDI note 36 on a MIDI controller. If you have MIDI In hooked up, you can play various “C” notes until it matches the location shown (below the word “Bass”). Then you can mark that note on your controller as note 36. The notes are then numbered (chromatically) 36, 37(C#), 38(D) etc. (Some people call note 36 C3; others call it C2.) This is note 36 (C3) played on a MIDI controller.
Type the MIDI note numbers for the various instruments as you find them on your drum machine or keyboard. Press the [Save] button to save the kit as MYSETUP.DK. If you are making a kit to save under a different name then save the kit under Opt. | Utilities | Save Alternate Patch/Drum Kit.

**Customize the Relative Volumes of the Drum Kit Instruments.**

Perhaps when you listen to Band-in-a-Box you feel that the crash cymbal is too loud or the kick drum is too quiet.

The [Set Drum Volumes] button allows you to make the crash cymbal 10% quieter, boost the kick-drum by 15%, and turn off the “tambourine” entirely. Changes apply to any song when this feature is enabled, and playback and written MIDI files will reflect the changes.
The default settings are to change the volumes by 0 %, which would leave them as they are. If there were a drum note with a velocity of 50, it would be affected as follows:

+40% would change it from 50 to 50+(40%\times50)=70
-40% would change it from 50 to 50-(40%\times50)=30

The current settings for your drum velocities are saved in the intrface.bbw configuration file.
**Favorite Instruments**

This button opens the **Favorite Instruments** dialog.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>91</td>
</tr>
</tbody>
</table>

For each of the Band-in-a-Box parts you can assign up to 10 “favorite” General MIDI instruments. **Note:** If you use a custom patch map it will convert your synth’s non-GM patch numbers, always enter GM patch numbers for the favorite instruments.

The [Patch List] button displays the **General MIDI Patch List** of instrument names and patch numbers. The [Combos] button opens the **Favorite Combos** dialog.
The **Favorite Combos** dialog box allows you to save up to 10 of your favorite instrument combos. For example, you could set up Combo #1 to be an Acoustic Jazz combo which would send out patches like Acoustic Bass, Acoustic Piano, Acoustic Guitar, Flute, etc. After you have finished typing in the instrument patch numbers select the [Save] button.

**Output Chords on Channel**

The Preferences [OutputCh.] button opens the **Output Chords on Channel** dialog. Some external music hardware devices require chords played in root position to drive them in real time. An example of this is the TC-Helicon Voice Live, which lets you sing into a microphone and harmonize your voice according to the chords that are input to the device.

Band-in-a-Box has the capability of outputting a separate channel with the chords in root position to support such external devices automatically.

**Transpose**

The Preferences [Transpose] button opens the **Settings for transposing songs when loaded or “Do it Now”** dialog.
When playing along on your MIDI keyboard, you can set the Thru transpose to transpose semitones or octaves. You can define a “favorite key” and Band-in-a-Box will optionally transpose any and all loaded songs to that key. This is a great feature for practicing in a certain key.

You can also set the THRU transpose to the favorite key to transpose the THRU part so that you can always play along in your favorite key (regardless of the actual key of the song). To activate this feature by key strokes press Ctrl+Shift+K.

To practice a song in different keys, have it transpose by a specified number of semitones each chorus, or let Band-in-a-Box transpose it a random number of semitones for more of a challenge.

This launches the Vocal Wizard, which shows the best keys given a singer’s vocal range.

When “Auto-transpose to best VOCAL key when a song is loaded” is checked the song will automatically transposed to the best key for a vocalist, depending on the settings in the Vocal Wizard.

If you have an external keyboard, enable the “Use Wizard for Thru part” option and also the Wizard checkbox on the main screen. Band-in-a-Box will make sure you never hit a wrong note when playing live!

**Record Filter**

The Preferences [Rec. Filter] button opens the Record Filter dialog.

Record Filter supports all MIDI controllers and sustain pedal. You can record any type of MIDI information to the melody or soloist tracks by using the Record Filter feature to select which types to include. With this window you can choose what types of MIDI information Band-in-a-Box will record.

**Notation**

The [Notation] button opens the Notation Window Options. If the Notation window is not open the program will launch it.
These settings are described in the Notation chapter and in the online Help.

Lead Sheet Options

The [Lead sheet] button opens the Lead Sheet Options dialog. If the Lead Sheet window is not open the program will open it.

These settings are described in the Notation chapter and in the online Help.
Audio Settings

The Preferences [Audio] button opens the Audio Settings dialog.

Audio Driver Type

You’ll see the following options for Audio Driver Type: MME or ASIO.

MME is the default audio driver type that is used in Windows. MME is good, but there is latency (delay) associated with MME drivers.

For this reason, Steinberg developed a faster type of audio driver system, called ASIO. It allows for much lower latency than ordinary MME drivers do.

Note: Most low-end sound cards do not include an ASIO driver, so you may not have an ASIO driver yet. In this case, you’ll need to get an ASIO driver from the Internet.

ASIO Audio Driver

When you select ASIO the ASIO Audio Drivers dialog will open.

This ASIO driver dialog lets you choose an ASIO driver. You can arrive at this dialog in 3 different ways:

1) If you haven’t used ASIO drivers, but Band-in-a-Box detected them, and you answered “Yes” when Band-in-a-Box asked if you want to use an ASIO driver.

2) If, within the Audio Preferences, you change the Audio Driver Type from MME to ASIO.

3) If the Audio Driver Type is already set to ASIO, but you later press the [Audio Drivers...] button in the Audio Preferences.

The “Select one ASIO Driver” list box lets you select an ASIO driver to use. You can only select one ASIO driver at a time.
Once you have selected an ASIO driver, you will see the Input Port and Output Port list boxes filled with your driver’s input and output ports. By default, the first of each will be selected. You are allowed to select different ports (but only one input and one output port at a time can be selected). The ports you selected will be available for output within Band-in-a-Box. If you do not hear input or output, then you may need to try different ports than the defaults. You may need to read your sound card’s instructions to determine the correct ports to use.

The ASIO Driver’s Control Panel button launches the Control Panel for your driver. This usually lets you adjust the latency by letting you choose different buffer sizes in milliseconds. Some drivers might let you choose the buffer size in samples, which is less convenient than milliseconds. The smaller the buffer size, the lower the latency, and the faster the response. Smaller buffers require more CPU power and if you hear dropouts or artifacts, you may need to increase the buffer size.

Since many ASIO drivers do not support multiple sample rates, Band-in-a-Box has a built-in resampler which lets you play and record songs that have a different sampling rate than the rate(s) directly supported by your ASIO driver. For example, if the driver does not support 44.1K sampling rate, but supports 48K, then Band-in-a-Box will use the resampler to convert to 48K when playing back, and to convert FROM 48K when recording. The Resampler Quality combo lets you choose Fast, Good, Better, or Best. Fast is the quickest, but is the lowest of the four levels of quality. Best is the slowest (uses more CPU time), but the most transparent and accurate quality.
The **ASIO Driver’s Control Panel** button launches a settings dialog specifically provided by your driver manufacturer. This usually lets you adjust the latency, and usually you will have a choice between buffer sizes in milliseconds.

**Show Warning for Untested Soundcard Formats** can be unchecked if you do not want to see the warning message for ASIO drivers that have not been tested in Band-in-a-Box.

The **Driver Info** field shows various characteristics of your driver. The **Name** is the driver’s name.

The **Version** is the version number of your driver.

**Input Channels** is the total number of mono input channels that your sound card has. (Note: Band-in-a-Box groups each into a stereo pair.)

**Output Channels** is the total number of mono output channels that your sound card has. (Note: Band-in-a-Box groups each port into a stereo pair.)

The **Allowed Sample Rates** field shows the sample rates are allowed by your sound card’s ASIO driver. Band-in-a-Box has a built-in resampler which lets you play and record files that aren’t directly supported by your ASIO driver.

The **Buffer Sizes In Samples** shows the range of allowed buffer sizes. The “Pref” is the preferred size, and this is the size that Band-in-a-Box uses. Your driver may alter the preferred size if you’ve launched the ASIO Driver Control Panel and have selected a new buffer size from within the driver’s Control Panel. If your driver changes the preferred size, then Band-in-a-Box will be aware of the new preferred size.

**MME Audio Drivers**

If your PC has multiple sound cards, the [Audio Drivers] button lets you choose which one to use. Most people have a single sound card, so don’t require this feature. But if you have added an audio device (such as a USB Audio Adapter), you would have multiple audio devices, and are now able to choose which one to use.

Choose MME as the “Audio Driver Type” and click on the [Audio Drivers] button to select which audio driver to use. This launches the **Audio Drivers** dialog.

The **DMA Size** and **DMA Offset** settings are set automatically by the auto-testing of the sound card. This test can be repeated by pressing the [Get from sound card…] button. The default value for all of these settings is 0 (zero). You can override these settings if required, but it is usually not necessary.

The **Offset in mS** is not a setting that gets set automatically. It defaults to zero. This allows you to adjust the timing that the sound card plays audio in relation to MIDI. Normally you'd leave this at zero, but if you need to fine tune the synchronization of audio to MIDI you could try changing this setting.

**Audio Latency in mS**

DirectX audio plug-ins and DXi synthesizer plug-ins can have playback latency (the delay between when a note is played, and when it is heard). Adjust “Audio Latency in mS” to fine-tune for your computer. If you have a fast
computer and excellent sound card, the audio latency can be adjusted rather low. However, if you hear audio dropouts, you can set the latency as high as 2000 milliseconds.

**Audio Track Type for THIS song**
You can choose between mono and stereo for the audio track. Tracks can be edited in either format, and converted from stereo to mono or vice versa.

<table>
<thead>
<tr>
<th>Audio Track Type for THIS song</th>
<th>Stereo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred default track type for new songs</td>
<td>Stereo</td>
</tr>
<tr>
<td></td>
<td>Mono</td>
</tr>
</tbody>
</table>

You can change a project from mono<>stereo at any time. For example, if you have already recorded a MONO track, changing the setting will convert the track to stereo for you.

**Preferred default track type for new songs.**
This setting (mono/stereo) sets the default recording type for new songs that you record. For example, if you have a stereo microphone, you should likely record in stereo.

**When opening songs, show message if WAV file not found**
A Band-in-a-Box song called "My Song.MGU" will have the associated wave file called "My Song.wav." If Band-in-a-Box loads this song file and it can't find its associated file, it will put up a message to that effect. If the warning message is distracting, and for some reason you don't have the wave files that were recorded with the songs then you can disable that message with this option box (disable).

**Peak Limit Enable**
Check the “Peak Limit Enable” checkbox to restrict excessive levels from being recorded (Filter).

**Mixer requires keystrokes to open Record Panel (Windows 95 only)**
If you are running Windows 95, check this box to allow access to the Record Panel from Band-in-a-Box. Do not check if using Windows 98 or greater.

**Use Realtime DX Audio Plugins**
The advantage of real time processing is that you can set effects today, and if you decide you don’t like the effects tomorrow, the settings can be easily changed, since the real time effects did not permanently affect your audio track on the hard disk. Check “Use Realtime DX Audio Plugins” in the Preferences [Audio] settings to enable real time DirectX audio plug-ins.
Guitar Settings

The Preferences [Guitar] button opens the Guitar Settings dialog.

The Guitar Settings dialog allows you the ability to adjust various parameters on the virtual guitar fretboard so that music can be displayed effectively (and easily) on this window, regardless of the original instrument intended for the track data. It also offers the ability to enter notation using the virtual guitar and play back track data in specific fretboard positions for educational and sight-reading purposes.

Click on the [Help] button for detailed online descriptions.

Big Piano Settings

This Preferences button opens the Big Piano Settings dialog.

This dialog allows you to set various options on the Big Piano.
- You can set a specific range for the Big Piano, a starting note and a number of octaves, by over-riding the “auto” settings.
- “Show out-of-range notes” ensures that all notes will be displayed.
- If the “Send Notes to Notation Window” checkbox is enabled, clicking a virtual key on the big piano will insert a note to the notation track. (Note: the notation window must be opened and set to editable notation mode.)
- If “Note Guides” is selected guide notes will be shown on the keyboard. The guide notes can be scale tones, chord tones, or roots only.
- Note Names and Note Colors can be used as in the Notation settings.
- There is an option to Show Out-of-Scale notes in Yellow.
- The size of the piano keyboard can be entered in pixels, or set with the preset buttons, or set by dragging the bottom border of the window.

**Lyric Window Options**

The [BigLyrics] button opens the **Lyric Window Options**.

Individual color elements can be picked, or choose one of the presets.

**Display Chord Symbols** will interleave the chord symbols with the lyrics.

**Show chord symbols above the lyrics** will show the chords on a separate line.

With the **Scroll lyrics a page at a time** option selected the Big Lyrics scroll a page at a time. When the lyric cursor reaches the next-to-last line of the lyrics it will scroll to the top of the page, allowing uninterrupted reading of lyrics.

**Auto-open lyrics window for songs with lyrics** automatically opens the Big Lyrics window when a song with lyrics is opened in Band-in-a-Box.
Print Options

The [Print] button opens the Print Options dialog.

These options are described in the Notation chapter and in the online Help.

Overrides

Global Song overrides allow you to set the overall song looping (always OFF, always ON, or as set in the song).

For example, if you want every song loaded to have looping set to on, then set “Always set loop to ON.”

But if you are going out on a playing job, and don’t want any songs to loop, then set it to “Always set loop to OFF.”

If you want the settings to work the same way they did in previous versions, use the “As set in the song” setting, or press the DEFAULTS button.
Similar overrides are available to see which other information gets loaded from a file, such as patches, harmonies, volume/reverb/chorus/panning/banks. For example, you can set every song to load with looping ON, and don’t load any reverb settings from songs.

**RealDrums**

The RealDrums button opens the **RealDrums Settings** dialog.

Select the "Enable RealDrums" checkbox to hear RealDrums.

**Tip:** Try turning off the RealDrums by de-selecting "Enable RealDrums." You can do this even while the song is playing. When you do, you will then hear the MIDI drums – this is a good A/B comparison test to hear the differences.

There are several ways to hear RealDrums with your Band-in-a-Box songs.

**Misc** Styles (.STY) can have RealDrums (e.g. "-ZZJAZZ.STY"). This is in the StyleMaker’s **Misc, Style Settings** dialog.
We provide many styles that already have RealDrums. These styles can be identified by the style name beginning with a minus sign. For example "-ZZJAZZ.STY" is a version of the ZZJAZZ.STY that uses RealDrums.

You can set the RealDrum style inside the StyleMaker, by pressing the MISC button, and then typing the name of the RealDrum style.

The StylePicker has a special category that lists a lot of RealDrum styles that are included with the program.

RealDrums can be substituted for MIDI drums on existing styles.

This will substitute RealDrums for MIDI styles. You can change the setting from 1 to 5. If set to 1, almost all MIDI drums will get substituted by RealDrums. If set to 5, only RealDrum styles that match the style perfectly will get substituted.

Technical note: The text file a_pgmusic.ds provided by PG Music controls this, and users can make other files MySubs.ds if they make their own RealDrums styles.

Songs can have RealDrums added to them.

To do this, set the desired style in this dialog, or the "File-Save With Patches etc." dialog. This will let the current song use the specific RealDrums style.

Tranzport

TranzPort is a wireless hardware device that provides remote control for Band-in-a-Box. The TranzPort unit is sold separately.

First, make sure that the TranzPort is installed and working. This can be determined by running Band-in-a-Box, and looking at the list of MIDI Drivers (Opt. | MIDI/Audio driver setup). If "TranzPort" appears on the list of MIDI-IN and MIDI-OUT drivers, then the TranzPort is installed correctly.

Enable TranzPort support for Band-in-a-Box in the Tranzport Settings dialog.

If you want lyrics to display on the TranzPort during playback, set these options. Players of non-concert pitched instruments can use “Transpose the display.” For example, an Alto sax player would press the "Eb Alto" button, and then the TranzPort display would show chords transposed to his key.
Practice

The **Practice Window** allows convenient “1-click” access to many Band-in-a-Box features that help you with practicing.

There are several purposes for the **Practice Window**.

- **Quick access to your favorite/preferred “practice” folders**, so that you can setup load in songs without having to navigate dialogs.
- **One-click access to many of the education-related features of Band-in-a-Box** (play along soloing, Ear Training, games).
- **Handy buttons for on-screen transposition for non-concert instruments**.
- **One button access to many of the Band-in-a-Box add-ons “101 Riffs” series and “Master Solos.”**
- One button access to many other PG Music educational programs and lessons.

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Chapter 14: Reference
Most of these items are “add-on” products, available separately, and are not included in the Band-in-a-Box program. If you have these items installed to your hard drive, the Practice Window will find them if they are installed them to the default directories, and if not, you will be able to point the program to the location of the program, which will be remembered in future sessions.

For items that you don’t have, you can choose to display or not display them on-screen using the “Show add-ons if N/A (not available)” setting.

### Play Menu

<table>
<thead>
<tr>
<th>Command</th>
<th>KeyboardShortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Play</td>
<td>F4 or &lt;Sp&gt;&lt;Sp&gt;</td>
</tr>
<tr>
<td>Stop Playback</td>
<td>&lt;Esc&gt; or &lt;Sp&gt;</td>
</tr>
<tr>
<td>Hold (pause)</td>
<td>Ctrl H</td>
</tr>
<tr>
<td>Replay</td>
<td>Ctrl A</td>
</tr>
<tr>
<td>Play (loop) Highlited</td>
<td>F10</td>
</tr>
<tr>
<td>Section</td>
<td></td>
</tr>
<tr>
<td>Play From Bar…</td>
<td>Ctrl F</td>
</tr>
<tr>
<td>Play From Current Position</td>
<td>Ctrl G</td>
</tr>
<tr>
<td>Go (Open and Play)</td>
<td></td>
</tr>
<tr>
<td>Step Advance</td>
<td></td>
</tr>
<tr>
<td>Slide Tracks…</td>
<td></td>
</tr>
<tr>
<td>Looping</td>
<td></td>
</tr>
<tr>
<td>Tempo</td>
<td></td>
</tr>
<tr>
<td>JukeBox Play…</td>
<td>F3</td>
</tr>
<tr>
<td>Previous JukeBox Song</td>
<td></td>
</tr>
<tr>
<td>Next JukeBox Song</td>
<td></td>
</tr>
</tbody>
</table>

- **Wizard Playalong feature**
- **Wizard uses "Smart" notes**
- **Panic !**

**Note:** Most commands in the Play menu are performed by onscreen buttons, or by the keystrokes listed to the right of the menu command.

Play
- Generates a new arrangement and plays the song.

Stop Playback
- Stops playback. To resume either use the Play From Current Position command or the [From] button the play from the start of the current bar, or use the [Play] or Replay [+ ] buttons to play from the start of the song.

Hold (pause)
- Pauses the song. Repeating this command resumes play from the exact location where the song was paused.

Replay
- Plays the current arrangement from the start without regenerating the parts. Edits to accompaniment parts are kept.

Play (loop) Highlited Section
- Drag the mouse cursor to select a region of bars in the chordsheet and then use this command to play the selected region as a loop.

Play From Bar…
- Choose a chorus and bar to play from in the current arrangement. Parts are not regenerated. Use this command during playback to jump to any bar in the song.

Play From Current Position
- When the song is stopped this command starts playback again at the bar with the highlight cell.

Go (Open and Play)
- Launches an Open File dialog for selection of any song in any directory. The selected song loads and plays automatically in Band-in-a-Box.
Step Advance submenu
- When a song is paused these commands can be used to navigate step-by-step through the currently selected track. For example, if the current track is set to the Melody track using the row of buttons on the Notation window, Lead Sheet window, or Guitar window; pressing the advance buttons will display the next note or chord of the melody on the piano display, guitar display, lead sheet and notation. This is a great way to study the notes being played, and to navigate around the track.

<table>
<thead>
<tr>
<th>Command</th>
<th>Tag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step Advance One Chord</td>
<td>NUMPAD DEL</td>
</tr>
<tr>
<td>Step Back One Chord</td>
<td>NUMPAD INS</td>
</tr>
<tr>
<td>Step Advance One Note</td>
<td>Shift &lt;RIGHT&gt;</td>
</tr>
<tr>
<td>Step Back One Note</td>
<td>Shift &lt;LEFT&gt;</td>
</tr>
</tbody>
</table>

Slide Tracks
- This allows you to move any of the Bass, Drums, Piano, Guitar, Strings or Melody track ahead or behind by a certain amount. You could, for example, slide the Bass track so it plays a little ahead of the rest of the band. This has the effect of making the bass player “drive the band,” and is useful in Jazz styles to make the music sound more exciting.

Looping
- You can loop any section of the song. The program will then start playback at the first loop point and play the looped section until stop is pressed or looping is turned off.
- Looping of a section of the song is enabled by the “LoopSec” checkbox, with the Loop section Enabled command, or with the keystroke NUMPAD 1.
- Open up the Loop Section Settings dialog with the menu command, by clicking the Loop button in the toolbar, or pressing NUMPAD 2. The Loop settings dialog will then display; see its online Help for detailed instructions.

Tempo
- You can quickly enter a specific tempo for a song with the Set Tempo... command (hot key is Ctrl+Alt+T), or by clicking on the tempo. A dialog opens up where you can type in a tempo.
- You can quickly change to different speeds with the menu commands or hot keys. For example, choosing Half Speed (or the hot keys Ctrl -) will change the playback speed to half, and Normal Speed (Ctrl =) will revert to normal speed.
- Load an audio file and use the tempo feature to play it at reduced speed without changing the pitch, a big help for analyzing and transcribing songs.

Juke Box Play
- Opens the Options for Juke Box dialog to select and play a jukebox list.
**Wizard Play Along feature**
- The Wizard is a play along feature that allows you to use the QWERTY keyboard or your connected MIDI keyboard to play along with Band-in-a-Box. The Wizard is only active during playback.

**Wizard uses “Smart” notes**
- Toggle this on so the Wizard will only play notes based on the chord/key of the song. Toggle “Smart” notes OFF (unchecked) to have the Wizard provide you access to the chromatic scale.

**Panic!**
- Select this if your MIDI notes are stuck ON and it’s driving you crazy! Hung DXi/VSTi notes are also cleared.

---

**Lyrics Menu**

<table>
<thead>
<tr>
<th>Command</th>
<th>Shortcut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Lyrics at current bar</td>
<td>Ctrl L</td>
</tr>
<tr>
<td>Big Lyrics Window</td>
<td>Ctrl Shift L</td>
</tr>
<tr>
<td>Lyric Document Window</td>
<td>Ctrl Alt Shift L</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Copy Lyrics to Clipboard</td>
<td></td>
</tr>
<tr>
<td>Copy 1st chorus Lyrics to whole song</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Erase all Lyrics</td>
<td></td>
</tr>
<tr>
<td>Erase Note Lyrics only</td>
<td></td>
</tr>
<tr>
<td>Kill Lyrics Choruses</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Move Lyric ahead to timeline</td>
<td></td>
</tr>
<tr>
<td>Move Lyric back to timeline</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Timeshift Lyrics (ticks)</td>
<td></td>
</tr>
<tr>
<td>Insert Beat(s) in Lyrics</td>
<td></td>
</tr>
<tr>
<td>Delete Beat(s) from Lyrics</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit Lyrics as Event List</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Line based Lyrics</td>
<td></td>
</tr>
</tbody>
</table>

**Enter Lyrics at current bar**
- Opens the Lyric entry box at the current location of the timeline or highlight cell.

**Big Lyrics Window**
- Opens the Big Lyrics window for viewing lyrics and, optionally, chord symbols.

**Lyric Document Window**
- Displays a full screen of formatted lyrics. Easily copy and paste lyrics to and from your favorite word processor.

**Copy Lyrics to Clipboard**
- This function allows you to copy a song's lyrics (and/or the chords) to the Standard Windows Clipboard. By pasting this data into a word processor, you can print out the lyrics in the font of your choice. The dialog has options to allow copying of note-based and/or line-based lyrics. With either option you can choose to include the chord symbols, have double or single line spacing, and make margin settings.

**Copy 1st chorus Lyrics to whole song**
- Copies the note-based lyrics for the first chorus to the rest of the song.

**Erase all Lyrics**
- Erases note-based and line-based Lyrics.

**Erase Note Lyrics only**
- Erases only the note-based lyrics.

**Kill Lyrics Choruses**
- Select from a list box to kill lyrics in the selected chorus.

**Move Lyric ahead to time line**

**Move Lyric back to time line**
- If you have a note-based lyric that you want to time shift ahead or back, you can click on the time line at the destination that you want, and then choose this item. You can also shift lyric times using the Lyric Event list.

**Timeshift Lyrics (ticks)**

**Insert Beat(s) in Lyrics**

**Delete Beat(s) from Lyrics**
- These are functions that apply to the entire lyric track. They are useful when you're inserting bars or beats into the song and need to move the lyrics around to keep them in sync.

**Edit Lyrics as Event List**

Opens the Edit Lyrics dialog with Edit, Insert, Append, and Delete functions.

**Line-based Lyrics** opens a special submenu for line based lyrics. These are lyrics that are entered line by line as text. They are not directly linked to the corresponding melody notes. To enter line-based lyrics in the Notation window, either press Ctrl+L or open up the Notation window.

<table>
<thead>
<tr>
<th>Copy Line Lyrics to Note Lyrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move Line Lyrics to Note Lyrics</td>
</tr>
<tr>
<td>Auto-Update all songs in folder to Note based Lyrics</td>
</tr>
<tr>
<td>Move Lyrics Up or Down row(s)…</td>
</tr>
<tr>
<td>Erase Line based Lyrics only</td>
</tr>
</tbody>
</table>

**Copy Line Lyrics to Note Lyrics** converts line-based lyrics to note based lyrics. It is imprecise, because the line-based lyrics don't correspond to individual notes. But you can edit the positions of the note-based lyrics using the event list or the Move Lyric back/ahead to time line functions discussed above.

**Move Line lyrics to Note Lyrics** works like the Copy Line lyrics to Note Lyrics function, except it erases the Line-based lyrics.

**Auto-Update all songs in folder to Note-based Lyrics** will update an entire folder worth of songs, copying the Line Lyrics to Note Lyrics. Only Note-based Lyrics get displayed in the Big Lyrics Dialog, so this feature will allow you to see these lyrics in the Big Lyrics window.

**Move Lyrics Up or down row(s)…** moves a line of line-based lyrics up/down a number of rows.

**Erase Line-based Lyrics only** erases only the line-based lyrics, preserving the note-based lyrics.
### Melody Menu

<table>
<thead>
<tr>
<th>Track Type [Single Channel]</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Melodist - Generate Melody and Chords</td>
<td>Shift F5</td>
</tr>
<tr>
<td>Melody Maker</td>
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<tr>
<td>Embellish Melody during playback</td>
<td>Ctrl-Alt-E</td>
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<tr>
<td>Embellish Melody Dialog…</td>
<td>Ctrl-Alt-L</td>
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<tr>
<td>Mute Melody during Middle choruses</td>
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</tr>
<tr>
<td>Sequencer Window for multi-Channel Melody</td>
<td></td>
</tr>
<tr>
<td>Edit Melody Track</td>
<td></td>
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</tbody>
</table>

### Track Type

Normally you'd leave the track type set to Single. But you can set it to:

- **Single Channel**
- **Multi (16) -Channel**
- **Guitar (Standard tuning)**
- **Piano**
- **Bass**
- **Ukulele**
- **Mandolin**
- **Banjo (5-string)**
- **Violin**

- **Guitar - Drop D Tuning**
- **Guitar - DADGAD Tuning**
- **Guitar - Open G Tuning**
- **Guitar - Double Drop D**
- **Guitar - ETuning**
- **Guitar - High Strung**
- **Guitar - Drop D (High Strung)**
- **Guitar - DADGAD (High Strung)**
- **Guitar - Open Tuning (High Strung)**
- **Guitar - Double Drop D (High Strung)**
- **Guitar - ETuning (High Strung)**

**Melodist – Generate Melody and Chords** launches the Melodist feature.

**Melody Maker** submenu items allow you to edit Melodist files using the Melody Maker.

<table>
<thead>
<tr>
<th>Melody Menu Options</th>
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<tr>
<td>Start a Melodists File</td>
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<td>Edit a Melodists file</td>
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<tr>
<td>Edit Current Melodists File</td>
<td></td>
</tr>
<tr>
<td>Refresh Melodists</td>
<td>Shift F7</td>
</tr>
</tbody>
</table>

**Embellish Melody during playback** launches the Embellisher dialog. This optionally embellishes the Melody during playback.

**Embellish Melody Dialog** allows you to customize the settings of the Embellisher, choose an embellisher type from presets, and make a particular Embellishment permanent.

**Mute Melody during Middle Choruses** to allow for soloing.
Sequencer Window for multi-Channel Melody

There are 2 tracks in Band-in-a-Box to add your own recordings. These are the Melody and Soloist tracks. Normally you would want a single part on each of them. But, since MIDI information can have separate channels, it is possible to store 16 separate parts on each of the Melody and Soloist parts.

When the Melody or Soloist track has been set to “Multi (16)-Channel” we refer to this as “Sequencer Mode.” Selecting this command will then launch the Sequencer Window. Then you can customize which channels will play and display.

In the example picture, we have set Channel 2 (Bass) and Channel 4 (Trumpet) to show on the notation, and have set all of the channels to play (to hear them).

For a specific channel, (e.g. channel 3: piano), we see the following information.

Channel 3: Acoustic Piano (this is the patch name found on the track).

There are 842 events in the track, usually every note is an event.

We have customized the piano track so that it can be heard (play=true), but not seen in notation (show=false).

There is a small button at the right of the track line that allows you to delete/rechannel or merge the channel with another channel.

You can increase or decrease the velocity of the track and move it to the Soloist track.

You can also change the patch (instrument) for that track by using the instrument patch combo box.

So now that we’ve customized the display, we are seeing the bass and trumpet on the notation, and hearing the entire track.
**Edit Melody Track submenu**

<table>
<thead>
<tr>
<th>Import Melody from MIDI File</th>
<th>Import Melody from Clipboard</th>
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<td>Record Melody</td>
<td>R</td>
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<tr>
<td>Record Melody From any bar</td>
<td>R</td>
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</table>

- **Step Edit Melody**
- **Quantize Melody**
- **Humanize with Straight Feel**
- **Humanize with Swing Feel**
- **Humanize Melody…**
- **Transpose Melody only…**
- **Copy 1st chorus to whole song**
- **Kill entire melody**
- **Kill Melody Choruses**
- **Adjust Level of melody**
- **Timeshift Melody (ticks)**
- **Insert Beat(s) in Melody**
- **Delete Beat(s) from Melody**
- **Copy to Soloist Track**
- **Move to Soloist Track**
- **Swap Melody and Soloist Track**
- **Map Melody track to C7 chord**
- **Convert Harmony to Melody Track…**
- **Remove Harmony (or guitar solo) from Melody Track**
- **Generate Guitar Chord Solo**
- **Rechannel to Guitar Display…**
- **Utilities**

**Import Melody from MIDI File** allows you to import MIDI data from a file (*.MID) into the Melody track.

**Import Melody from Clipboard** allows you to import MIDI data that has been pasted into the clipboard (e.g., from a sequencer such as PowerTracks).

**Record Melody** launches the Record Melody dialog to record a MIDI melody.

**Record melody From any bar** starts recording at the current location of the highlight cell after playing a two bar lead-in.

**Step Edit Melody** allows you to enter/edit a melody in step time from the Notation window. This uses an event list.

**Quantize Melody** opens the **Quantize Melody Options** dialog. The **Humanize Melody…** feature is an advanced version of this function.
**Quantize Melody Options**

- **Resolution.** Choose the division you would like the track quantized to. Choosing 16 will Quantize to 16th notes.
- **Starting at Bar# and Chorus #.** Quantization will begin at the place you select and applied for the number of bars.
- **% strength.** Choose 100% if you want the notes quantized exactly to the division. Otherwise, the notes will be moved the % toward the target quantization.
- **Quantize Start Times.** By default, this option is set to “Yes.” If you don't want the beginnings of the notes quantized, set it to “No.”
- **Quantize Durations.** This quantizes the END of the notes. By default, this is set to “Off.”

**Humanize with Straight Feel / Humanize with Swing Feel**

Band-in-a-Box uses intelligent humanization routines, which can humanize a melody from one feel to another, from one tempo to another, and vary the amount of swing in 8th notes (but not randomly). The results are very musical with natural sounding MIDI melodies.

**Humanize Melody**

Opens the **Melody: Quantize to New Tempo or Feel** dialog. The humanize effect is broken down into 5 main categories: Tempo, Lateness, 8th Note Spacing, Legato, and Feel.

**Transpose Melody only…** allows you to transpose the melody track without affecting the other tracks in the song.

**Copy 1st chorus to whole song** stretches the melody track out over the entire song (i.e. first, last, and middle choruses).

**Kill entire melody** erases the melody track and any data that was contained therein.

**Kill Melody Choruses** eliminates the Melody from the First Chorus, Middle Choruses, or Last Chorus as selected from a list box.
Adjust Level of melody allows you to increase or decrease the volume (velocity) of the Melody track without affecting the other tracks.

Timeshift Melody (ticks) allows you to move the Melody forwards or backwards in small increments relative to the rest of the song tracks. (Measured in ticks or parts per quarter, PPQ).

Insert Beat(s) in Melody allows you to insert a blank beat or beats into the song relative to the current time signature.

Delete Beat(s) from Melody allows you to delete a beat or beats from the song relative to the current time signature.

Copy to Soloist Track copies the entire contents of the Melody track to the Soloist Track. Useful for a temporary holding area for your Melody or bouncing tracks.

Move to Soloist Track copies the entire contents of the Melody track and erases the original data from the Melody track, preparing it for a new track or data.

Swap Melody and Soloist Track performs a “double copy/move” so that the data that was in the Melody track gets transferred to the Soloist track and visa versa. This is also known as track bouncing.

Map Melody track to C7 chord is a useful tool when making styles.

Convert Harmony to Melody Track... converts a single line Melody track to include the current harmony selection.

Remove Harmony (or guitar solo) from Melody Track removes a harmony from a track, providing that the harmony was put there by Band-in-a-Box in the first place using the Convert Harmony to Melody Track command.

Generate Guitar Chord Solo opens the Guitar feature dialog for generating a guitar chord solo.

Rechannel to Guitar Display converts channels on a track to channels 11 to 16. Channels 11 to 16 are used by Band-in-a-Box to indicate strings 1 to 6 of a guitar. It uses the current position marker on the guitar for this command.

Utilities
There is a Utilities sub-menu that has utility functions to convert the pitch bend range of a track, insert pitch bend note events, transpose, and transform melodies.

<table>
<thead>
<tr>
<th>Utilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminate Note Overlap - Preserve Double Stops</td>
</tr>
<tr>
<td>Eliminate Note Overlap - Remove Double Stops</td>
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<tr>
<td>Loosen up Start times</td>
</tr>
<tr>
<td>Change Pitch Bend Range</td>
</tr>
<tr>
<td>Insert Guitar Bend events when pitch bend found</td>
</tr>
<tr>
<td>Transpose One Octave DOWN Ctrl Alt 1</td>
</tr>
<tr>
<td>Transpose One Octave UP Ctrl Alt 2</td>
</tr>
<tr>
<td>Piano Hard-Split</td>
</tr>
<tr>
<td>Transform Waltz Melody &amp; Soloist to 4/4</td>
</tr>
<tr>
<td>Transform 4/4 Melody &amp; Soloist to Waltz</td>
</tr>
</tbody>
</table>

Eliminate Note Overlap – Preserve Double Stops / Eliminate Note Overlap – Remove Double Stops opens a Choose Range dialog to select the range of bars where note overlap will be eliminated while double stops are either preserved or eliminated.

Loosen up Start Times is a dedicated function to vary the start times of notes on the Melody or Soloist tracks, with options for what notes to affect (harmony, chords) and amount of variance.
Change Pitch Bend Range… lets you set the range in semitones.

Insert Guitar Bend events when pitch bend found… will insert controllers so the guitar will display bends.

Transpose One Octave DOWN / Transpose One Octave UP transposes the Melody part one octave in either direction. This is often useful if the Melody instrument has been changed. Transposing can be done while the song plays.

Piano Hand-Split manually splits a piano part on a Melody or Soloist track using the intelligent hand-splitting routines. The left/right hands display in red/blue on the big piano, and on bass/treble clefs on the notation. Import a piano MIDI file to the Melody track to get a split-hands display and printout.

Transform Waltz Melody & Soloist to 4/4
If you have a song with a 3/4 time signature, you can instantly hear it as a 4/4 feel. Simply load the Waltz song and then change the style to a 4/4 style. Band-in-a-Box uses intelligent algorithms to transform the melody to the new time signature.

Transform 4/4 Melody & Soloist to Waltz
You can automatically transform any 4/4 song/melody to a Waltz 3/4 feel. Simply load in any 4/4 song and change the style to a Waltz style. The program will offer to transform the melody so that it works as a Waltz. It’s fun and educational to hear and play familiar songs in a Waltz feel.
Soloist Menu

Track Type

Normally you’d leave the track type set to Single. But you can set it to:

- Single Channel
- Multi (16) -Channel
- Guitar (Standard tuning)
- Piano
- Bass
- Ukulele
- Mandolin
- Banjo (5-string)
- Violin
- Guitar - Drop D Tuning
- Guitar - DADGAD Tuning
- Guitar - Open G Tuning
- Guitar - Double Drop D
- Guitar - ETuning
- Guitar - High Strung
- Guitar - DropD (High Strung)
- Guitar - DADGAD (High Strung)
- Guitar - OpenTuning (High Strung)
- Guitar - Double Drop D (High Strung)
- Guitar - ETuning (High Strung)

Generate and play a Solo...

Opens the Select Soloist dialog where a preset Soloist style can be selected or your own Soloist can be defined.

Soloist Maker submenu

Start a Soloists File
Edit a Soloists file
Edit Current Soloists File

Refresh Soloist

OK to Load Soloists With Songs
Allow Soloist Harmony (on THRU Harmony)

Start a Soloists File allows you to make and edit Soloist styles saved under the filename of your choice. See Soloist Edit dialog for additional details on importing/exporting/saving Soloists.

Edit a Soloists file opens an Open File dialog where you can select any Soloist file (*.SOL) to edit. To edit the soloist you are using, use the Edit Current Soloist File command.

If you want to make your own soloists or modify an existing Soloist, use the Soloist Maker (edit) module. The Soloist Maker allows you to define the parameters essential to a soloist’s playing, such as instrument range (i.e. tenor
saxophone), extra legato playing, playing more on top of the beat, playing straighter 8th notes than usual swing 8th notes. In addition, you can set phrasing options, such as how long the phrase should be, and how much “space” to leave between phrases. You can also set how “outside” the playing should be.

**Edit Current Soloists File** opens the Select Soloist dialog with the currently installed Soloists file.

**Refresh Soloist** allows the Soloist full access to all solo ideas contained in its database. Use to refresh after several Soloists have been made.

**OK to Load Soloists w/Songs** Enable this option if you want Soloists to be automatically loaded with a song that was saved with Soloist information.

**Allow Soloist Harmony (on THRU Harmony)** Enable this option to permit the Soloist to utilize the Harmony features. This will allow the Soloist to make a harmonized solo with the harmony of your choice. See the Select Soloist dialog for additional details.

**Sequencer Window for multi-Channel Soloist**

There are two tracks in Band-in-a-Box to add your own recordings. These are the Melody and Soloist tracks. Normally you would want a single part on each of them. But, since MIDI information can have separate channels, it is possible to store 16 separate parts on each of the Melody and Soloist parts.

When the Melody or Soloist track has been set to “Multi (16)-Channel” we refer to this as “Sequencer Mode.” Selecting this command will then launch the Sequencer Window. Then you can customize which channels will play and display.

In the example picture, we have set Channel 2 (Bass) and Channel 4 (Trumpet) to show on the notation, and have set all of the channels to play (to hear them).

For a specific channel, (e.g. channel 3: piano), we see the following information.

Channel 3: Acoustic Piano (this is the patch name found on the track).

845 There are 842 events in the track, usually every note is an event.
We have customized the piano track so that it can be heard (play=true), but not seen in notation (Show=false).

There is a small button at the right of the track line that allows you to delete/rechannel or merge the channel with another channel.

You can increase or decrease the velocity of the track and move it to the Melody track.

You can also change the patch (instrument) for that track by using the instrument patch combo box.

So now that we’ve customized the display, we are seeing the bass and trumpet on the notation, and hearing the entire track.

**Edit Soloist Track** is a sub-menu of editing options.

- Import to Soloist Part from MIDI File
- Import to Soloist Part from Clipboard
- Record To Soloist Part
- Record to Soloist Part From…
- Step Edit Soloist Part
- Quantize Soloist Part
- Humanize Soloist Part w/Straight Feel
- Humanize Soloist Part w/Swing Feel
- Humanize Soloist Part…
- Transpose Soloist Part
- Copy 1st chorus to whole song
- Kill entire Soloist Part
- Kill Soloist Choruses
- Adjust Level of Soloist Part
- Timeshift Soloist Part (ticks)
- Insert Beat(s) in Soloist Part
- Delete Beat(s) from Soloist Part
- Copy to Melody Track
- Move to Melody Track
- Swap Melody and Soloist Track
- Convert Harmony to Soloist Track…
- Remove Harmony (or guitar solo) from Soloist Track
- Generate Guitar Chord Solo
- Rechannel to Guitar Display…
- Utilities

**Import to Soloist Part from MIDI File** allows you to import MIDI data from a file (*.MID) into the Soloist track.

**Import to Soloist Part from Clipboard** allows you to import MIDI data that has been pasted into the clipboard (e.g., from a sequencer such as PowerTracks).

**Record To Soloist Part** in the Soloist | Edit Soloist Track submenu records a MIDI part to the Soloist track instead of recording to the Melody track, so you can record a second Melody track.

**Record to Soloist Part From…** starts recording at the current location of the highlight cell after playing a two bar lead-in.

**Step Edit Soloist** allows you to enter/edit a soloist in step time from the Notation window. This uses an event list.
**Quantize Soloist** opens the **Quantize Soloist Options** dialog. The *Humanize Soloist Part...* feature is an advanced version of this function.

**Humanize Soloist Part w/Straight Feel / .../Swing Feel.** Band-in-a-Box uses intelligent humanization routines, which can humanize a Soloist from one feel to another, from one tempo to another, and vary the amount of swing in 8th notes (but not randomly). The results are very musical, with natural sounding MIDI solos.

**Humanize Soloist Part...** opens the **Soloist: Quantize to New Tempo or Feel** dialog. The humanize effect is broken down into 5 main categories: Tempo, Lateness, 8th Note Spacing, Legato, and Feel.

**Transpose Soloist Part** allows you to transpose the Soloist track without affecting the other tracks in the song.

**Copy 1st chorus to whole song** stretches the Soloist track out over the entire song (i.e. first, last, and middle choruses).

**Kill entire Soloist Part** erases the Soloist track and any data that was contained therein.

**Kill Soloist Choruses** eliminates the Soloist from the First Chorus, Middle Choruses, or Last Chorus as selected from a list box.

**Adjust Level of Soloist Part** allows you to increase or decrease the volume (velocity) of the Soloist track without affecting the other tracks.

**Timeshift Soloist Part (ticks)** allows you to move the Soloist forward or backwards in small increments relative to the rest of the song tracks. (Measured in ticks or parts per quarter, PPQ.)

**Insert Beat(s) in Soloist Part** allows you to insert a blank beat or beats into the song relative to the current time signature.

**Delete Beat(s) from Soloist Part** allows you to delete a beat or beats from the song relative to the current time signature.

**Copy to Melody Track** in the **Soloist | Edit Soloist Track** submenu copies the entire contents of the Soloist track to the Melody Track. Useful for a temporary holding area for your soloist or for bouncing tracks.

**Move to Melody Track** copies the entire contents of the Soloist track and erases the original data from the Soloist track, preparing it for a new track or data.

**Swap Melody and Soloist Track** performs a “double copy/move” so that the data that was in the Soloist track gets transferred to the Melody track and vice versa. This is also known as track bouncing.

**Convert Harmony to Soloist Track**... converts a single line Soloist track to include the current harmony selection.

**Remove Harmony (or guitar solo) from Soloist Track** removes a harmony from a track, providing that the harmony was put there by Band-in-a-Box in the first place using the **Convert Harmony to Soloist Track** command.

**Generate Guitar Chord Solo** opens the Guitar feature dialog for generating a guitar chord solo.

**Rechannel to Guitar Display** converts channels on a track to channels 11 to 16. Channels 11 to 16 are used by Band-in-a-Box to indicate strings 1 to 6 of a guitar. It uses the current position marker on the guitar for this command.

**Utilities**

There is a Utilities sub-menu that has utility functions to convert the pitch bend range of a track, or to insert pitch bend note events.

<table>
<thead>
<tr>
<th>Command</th>
<th>Modifier</th>
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<tbody>
<tr>
<td>Eliminate Note Overlap - Preserve Double Stops...</td>
<td></td>
</tr>
<tr>
<td>Eliminate Note Overlap - Remove Double Stops...</td>
<td></td>
</tr>
<tr>
<td>Loosen up Start times...</td>
<td></td>
</tr>
<tr>
<td>Transpose One Octave DOWN</td>
<td>Ctrl Alt: 3</td>
</tr>
<tr>
<td>Transpose One Octave UP</td>
<td>Ctrl Alt: 4</td>
</tr>
<tr>
<td>Piano Hand-Split</td>
<td></td>
</tr>
</tbody>
</table>

**Eliminate Note Overlap – Preserve Double Stops / Eliminate Note Overlap – Remove Double Stops** opens a **Choose Range** dialog to select the range of bars where note overlap will be eliminated while double stops are either preserved or eliminated.
Loosen up Start times Loosen up Start Times is a dedicated function to vary the start times of notes on the Melody or Soloist tracks, with options for what notes to affect (harmony, chords, and amount of variance).

Transpose One Octave DOWN / Transpose One Octave UP transposes the Soloist part one octave in either direction. This is often useful if the Soloist instrument has been changed. Transposing can be done while the song plays.

Piano Hand-Split manually splits a piano part on a Melody or Soloist track using the intelligent hand-splitting routines. The left/right hands display in red/blue on the big piano, and on bass/treble clefs on the notation. Import a piano MIDI file to the Soloist track to get a split-hands display and printout.

Audio Menu

The Record Audio function is used to Record Audio using a microphone plugged into your sound card or a guitar (or mixer) plugged into the line-in on your sound card. This launches the Record Audio Dialog and the Record Audio – Keep Take dialog.
The next two items, **Record Audio and MIDI (Melody)** and **Record Audio and MIDI (Soloist)** refer to the situation where you want to simultaneously record an audio track (vocals etc.) as well as a MIDI piano part. You can record the MIDI to the Melody or Soloist track.

The **Plugin** menu command refers to running a plug-in audio effect. This applies an audio effect such as Reverb or Chorus to the already recorded audio part.

Band-in-a-Box comes with a large selection of high quality audio effects built-in, such as Compressor, Gate, Distortion, Reverb, Echo, Chorus, Flanger, Ring Mod, Tremolo, Tone Control, Graphic EQ, Parametric EQ, Gain Change, De-Ess, Auto-Wah, Pitch Shift, Exciter, Enhancer and Hum Filter. DirectX plug-ins from PG Music and other makers are also supported.

The plug-ins are fully documented in the online Help.

### Edit Audio submenu

| Copy 1st chorus to whole song |
| Kill entire Audio |
| Erase Audio Choruses |
| Erase Region of Audio… |
| Adjust Output Level of Audio (Quick) |
| Adjust level of region of .WAV file (permanent)… |
| Timeshift Audio (ms)… |
| Insert Bar(s) in Audio |
| Delete Bar(s) from Audio |

**Copy 1st chorus to whole song** copies the first chorus of audio to the rest of the song.

The **Kill entire Audio** menu item is used to erase the Audio Track.

**Erase Audio Choruses** will erase the First Chorus, Middle Choruses, or the Last Chorus as chosen from a list box.

**Erase Region of Audio** will erase a specified region of bars/beats of audio.

**Adjust Output Level of Audio (Quick)** uses the Windows mixer to adjust the output level of the audio track. You can also use the Windows mixer directly by pressing the yellow speaker icon.

**Adjust level of region of .WAV file (permanent)…** changes the volume of the audio track itself. It uses a sophisticated peak-limiting algorithm to ensure that increases in the volume do not result in clipping of the sound, which would be heard as a loud distortion. It accepts units of decibels (dB). Zero means no change in the level, whereas +6 would be a doubling of the sound, and −6 halves the sound level.

**Timeshift Audio (ms)…** is used to time shift the whole audio track a certain number of milliseconds. Normally you wouldn't have to time shift a track at all. There are settings in the Audio-Options Dialog (see below) that can adjust for synchronization differences between your sound card and MIDI devices (for example, the VSC has a 430ms latency). But the time shift audio command can be useful in special cases.

**Tip:** 1000ms = 1 second. Positive values move the audio track ahead, negative values move it back.
**Insert Beat(s) in Audio** and **Delete Beat(s) from Audio** are used to insert, silence, or remove parts of the audio track. You can specify the region to use. For example, if you decide to add an extra 2 bars to the intro in Band-in-a-Box, and you've already recorded an audio track, you should insert 2 bars (8 beats in a 4/4 time signature) into the audio track as well.

**Mute Audio** is a toggle switch to mute and unmute the audio track.

**Render MIDI to Stereo .WAV file etc…** This command launches the dialog that allows you to Render (convert) the Band-in-a-Box song (with or without an audio track) to a stereo .WAV file.

**Burn an Audio CD (using CD-R, CDRW Drive)** takes you to the **Render to Audio File** dialog where you can launch the built-in MiniBurn program with the [‘Burn’ to Audio CD] button.

---

**Playback Mixer / Playback VU Meter** takes you directly to the Windows Playback control to adjust volumes on your sound card. Note that not all sound devices have VU meters.

**Recording Mixer / Recording VU Meter** takes you directly to the Windows Recording control to adjust volumes on your sound card. Note that not all sound devices have VU meters.

**Export Audio to Sequencer…** gives instructions on how easy it is to use your Band-in-a-Box wave file in any audio sequencer, like PowerTracks Pro Audio.

**Import Audio (WAV, WMA, MP3, WMV)** will open an audio file in WAV, MP3, Windows Media Player, or CD Audio format.

**Launch Audio Chord Wizard** will open the Audio Chord Wizard to analyze chords in an existing Band-in-a-Box song (that has a WAV file on the audio track).

**Audio Window** launches the audio edit window where the wave file can be viewed and edited.
Audio Harmonies & Pitch Tracking opens the Generate Audio Harmonies dialog. There are three uses of the Audio Harmonies in Band-in-a-Box, namely:
- Pitch tracking (fixing) of the melody.
- Harmonizing your voice using Band-in-a-Box harmonies (when a MIDI melody is present)
- Harmonizing your voice to the chords of the song (when no MIDI melody is present)

DXi Synth Settings opens the DirectX Plugins dialog to the Synth Track where you can select a DXi synth and apply real time effects to its audio output.

Realtime DX Audio Settings opens the DirectX Plugins dialog to the Audio Track where you can apply real time effects to the Band-in-a-Box audio track.

Audio Drivers/Settings opens the Audio Settings dialog where you can set up audio drivers, for example, select ASIO drivers if you have them on your system.

**GM Menu**

<table>
<thead>
<tr>
<th>Roland GS</th>
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</thead>
<tbody>
<tr>
<td>Send MIDI Message</td>
</tr>
<tr>
<td>Master Tuning...</td>
</tr>
<tr>
<td>Master (Combo) Volume Adj</td>
</tr>
<tr>
<td>Set Panning to MONO</td>
</tr>
<tr>
<td>Set Panning to Stereo</td>
</tr>
<tr>
<td>Run Other Program</td>
</tr>
</tbody>
</table>
| Convert Patch list from PowerTracks or Cakewalk... | The GM functions work on MIDI sound devices that support the GM (General MIDI) standard, which includes most newer MIDI Keyboards and sound cards.

The GS functions work on instruments that support the Roland GS specification. This includes the Roland Sound Canvas, SCC1, and JV-30.

The XG functions work on instruments that support the Yamaha XG specification.

**Roland GS submenu**

<table>
<thead>
<tr>
<th>Reset Roland GS (Quick)</th>
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<tbody>
<tr>
<td>Reset GS (all ID's)</td>
</tr>
<tr>
<td>Set Reverb Type (GS Module)</td>
</tr>
<tr>
<td>Set Chorus Type (GS Module)</td>
</tr>
<tr>
<td>Assign Part/Channel etc. for GS Module</td>
</tr>
</tbody>
</table>

Reset Roland GS (Quick) and Reset GS (all ID’s) reset the module to factory settings.

Set Reverb Type or Set Chorus Type (GS Module): Roland GS instruments allow different type of reverb and chorus settings. These settings boxes allow you to select them.

Assign Part/Channel etc. for GS Module The GS Part settings are for GS compatible synthesizers only. These synthesizers have 16 parts. The default is for part 1 to be channel 1, part 2 channel 2 etc., but you can change a part to another channel. This allows you to use the same channel for 2 parts, so that you hear a layer of 2 instruments playing the same part.

**Send MIDI Message submenu**

| Send General MIDI mode ON, & BB Patches | Ctrl-Alt-Q |
| Send General MIDI mode ON (no patches) |
| Send GS Mode On Message (Roland)      |
| Send XG Mode On Message (Yamaha)      |
| Auto-Send GM Mode On at startup       |
| Auto-Send GS Mode On at startup       |
| Auto-Send XG Mode On at startup       |

Turn Local OFF (external MIDI keyboard)  
uctive MIDI keyboard)  

✓ When program quits, turn Local ON
Send General MIDI mode ON, & BB Patches sends a General MIDI mode ON message to the external MIDI device and the sends the startup Band-in-a-Box patch changes.

Send General MIDI mode ON (no patches) sets the external module to General MIDI mode. This command will ensure that the module is ready to accept GM-specific MIDI data such as Bank, Controller, and Patch information.

Send GS Mode On Message (Roland) / Send XG Mode On Message (Yamaha): Since the inception of the GM (General MIDI) standard, there have been two major subsets/extensions of this standard; GS (Roland) and XG (Yamaha). Therefore, in addition to the GM Mode-on menu item feature there are additional commands to send a GS mode ON or a XG mode ON message at any time by accessing the GM menu.

Auto-Send GM Mode On at startup sends a “General MIDI mode on” message when the program boots up.

Auto-Send GS Mode On at startup sends a Roland GS system on message when the Band-in-a-Box program boots up.

Auto-Send XG Mode On at startup sends a Yamaha XG system on message when the Band-in-a-Box program boots up.

Turn Local OFF / ON (external MIDI keyboard)
“Local” refers to music playing on an external MIDI keyboard. If set to “Off,” Band-in-a-Box will play the keyboard via the THRU part. If set to “On,” both Band-in-a-Box and the keyboard might be playing the same Thru part.

When program quits, turn Local ON automatically turns the external MIDI keyboard back on at the end of the Band-in-a-Box session.

Master Tuning… allows you to master tune your sound card or sound module. This is useful if you're playing along with an instrument or recording that can't easily be re-tuned like an acoustic piano. A setting of 0 is the default A = 440.

Master Volume uses MIDI messages instead of GS/GM SysEx should be set by all users except if you have a Roland GS synth, Roland Sound Canvas, or Roland VSC. If set, the Combo settings will allow Master Volume and other MIDI settings to work. This submenu allows you to set whether to use Roland - GS or General MIDI for Master Volume messages. Unless you have a Roland you should select General MIDI.

If you want to “turn it all up or down,” this can be done quickly with menu commands or hot keys to set the Master Volume. There are also hot keys that control the overall volume by reducing (or increasing) volumes on all parts by 5 to simulate a Master Volume effect (especially useful for sound cards that don't support Master Volume changes). These items also have hot keys as listed on the menu (Ctrl+Alt+Shift Q, W, and E). Commands and hot keys are also provided to change the volume of the current part only.

Set Panning to MONO sets the panning of your Band-in-a-Box parts (Bass, Drums, Piano, etc.) to mono.

Set Panning Mode to Stereo sets the panning of your Band-in-a-Box parts (Bass, Drums, Piano, etc.) to a typical stereo setup, which is saved with the preferences.
Run Other Program submenu

<table>
<thead>
<tr>
<th>Soundcard Volume / Playback VU Meter</th>
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<tr>
<td>Soundcard Recording / Recording VU Meter</td>
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<tr>
<td>SoundBlaster AWE Control Panel…</td>
</tr>
<tr>
<td>SoundBlaster Mixer</td>
</tr>
</tbody>
</table>

| Run Windows Control Panel…  |
| Run Other Application… [\\WE\AUDIOHC\AUDICHQU.EXE]  |
| Choose 'Other Application…  |
| Run DLL or EXE plugin… []  |
| Choose DLL or EXE PlugIn…  |

**Sound card Volume / Playback VU Meter** launches the Windows mixer to adjust volumes on your sound card with the Playback panel.

**Sound card Recording / Recording VU Meter** launches the Windows Mixer to adjust volumes on your sound card with the Recording panel.

**Note:** This uses the c:\windows\sndvol32.exe Mixer program. You may need to have the Windows 98 version of this program for the Recording Panel to open properly. If you don’t, you’d see the “Volume Control” panel and will have to manually set it to the Recording Panel (by choosing Options | Properties | Recording).

**SoundBlaster AWE Control Panel** applies only to users with a SoundBlaster. This function launches the “AWE Control” application.

**SoundBlaster Mixer** is also for Sound Blaster users only, and launches the mixer for volumes.


**Run Other Application…** and Choose [Other Application…] allows you to specify and run any other application (mixer application, PowerTracks etc.).

**Run DLL or &EXE plugin…** and Choose DLL or EXE PlugIn… allows you to run a plug-in that has been made specifically for a PG Music product.

**Convert Patch list from PowerTracks or Cakewalk…**

This will let you convert a PowerTracks Pro Audio .INI file or a Cakewalk .INS file to a Band-in-a-Box .PAT file.
Harmony Menu

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<th>Harmony Menu Options</th>
<th>Key Combination</th>
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<td>Alt F10</td>
</tr>
<tr>
<td>Thru Harmony (select)…</td>
<td>Alt F11</td>
</tr>
<tr>
<td>Favorite Melody Harmonies…</td>
<td>Ctrl F10</td>
</tr>
<tr>
<td>Favorite Thru Harmonies…</td>
<td>Ctrl F11</td>
</tr>
<tr>
<td>Start a New Harmonies File</td>
<td></td>
</tr>
<tr>
<td>Edit a Harmonies File</td>
<td></td>
</tr>
<tr>
<td>Edit Current Harmonies File</td>
<td></td>
</tr>
<tr>
<td>OK to Load Harmonies With Songs</td>
<td></td>
</tr>
<tr>
<td>Save Harmony with this song</td>
<td></td>
</tr>
<tr>
<td>Change Harmony with new chord</td>
<td></td>
</tr>
<tr>
<td>Allow Melody Harmony</td>
<td>Shift F10</td>
</tr>
<tr>
<td>Allow Thru Harmony</td>
<td>Shift F11</td>
</tr>
<tr>
<td>Allow Soloist Harmony (on THRU Harmony)</td>
<td></td>
</tr>
<tr>
<td>Convert Harmony to Melody Track…</td>
<td></td>
</tr>
<tr>
<td>Convert Harmony to Soloist Track…</td>
<td></td>
</tr>
<tr>
<td>Use Passing harmonies for THRU</td>
<td></td>
</tr>
<tr>
<td>Only THRU Harmonize if note held down 36 (C 3)</td>
<td></td>
</tr>
<tr>
<td>Real Time MIDI Harmonies …</td>
<td></td>
</tr>
<tr>
<td>Audio Harmonies &amp; Pitch Tracking…</td>
<td></td>
</tr>
</tbody>
</table>

**Melody Harmony (select)…**
This option brings up the complete Harmony styles list, and allows you to choose one for the current Melody track.

**Thru Harmony (select)…**
This option brings up the complete Harmony styles list, and allows you to choose one for the current Thru track.

**Favorite Melody Harmonies**
This option brings up your favorite 50 Harmony styles (based on recent usage) and allows you to choose one to use on the Melody track.

**Favorite Thru Harmonies**
This option brings up your favorite 50 Harmony styles (based on recent usage) and allows you to choose one to use on the Thru track.

**Start a New Harmonies File**
Allows you to make and edit Harmony styles saved under your own filename.

**Edit a Harmonies File**
Allows you to edit a Harmony file that is in your \bb directory.

**Edit Current Harmonies File**
Allows you to edit the Harmony file that is currently loaded on your system.

**OK to Load Harmonies With Songs**
Toggle this option “On” if you want to load any harmony settings that were saved/embedded in a given song.

**Save Harmony with this song**
Toggle this option “On” to allow Band-in-a-Box to embed the harmony settings for the current song so that they may be recalled automatically at a later time.

**Change Harmony with new chord**
Toggle this option “On” to allow the program to vary the harmony characteristics (i.e. inversions) each time a new chord is encountered in the song.

**Allow Melody Harmony**
Toggle this option “On” to allow harmonies on the Melody MIDI channels.
Allow Thru Harmony
Toggle this option “On” to allow harmonies on the Thru MIDI channels.

Allow Soloist Harmony (on THRU Harmony)
Toggle this option “On” to allow the Thru MIDI channels to utilize the harmony features for the Soloist track.

Convert Harmony to Melody Track…
Converts a single line Melody track to include the current harmony selection, with options to convert the whole song or specify a range of bars, to eliminate note overlaps, and loosen note start times.

Convert Harmony to Soloist Track…
This converts a single line Soloist track to include the current harmony selection (On the Thru harmony), with options to convert the whole song or specify a range of bars, to eliminate note overlaps, and loosen note start times.

Use Passing Harmonies for THRU
When playing along on a MIDI keyboard (or the Wizard) using a Thru harmony, you can use passing harmonies. For example, on a C7 chord, with an Ab note, the harmony might be a B diminished chord, which is a passing harmony.

Only THRU Harmonize if note held down = 36 (C3)
By setting this option you can specify to only harmonize the note if a certain note is held down. (The default note is a C two octaves below middle C.)

Real Time Harmonies
This feature allows you to play harmonies in real-time. Use this with your MIDI keyboard (while Band-in-a-Box is stopped). Hold a chord down with the left hand and play notes with the right hand. The notes will be harmonized according to the chord that you're playing in the left hand.

Audio Harmonies & Pitch Tracking
You can apply a harmony to the audio part – allowing you to automatically create up to 4 part vocal harmonies from your singing. The Choir Effect can create up to sixteen voices.

Band-in-a-Box generates the harmonies using the world-leading TC-Helicon Vocal Technologies engine. Once you have recorded a vocal part into Band-in-a-Box, you can use this feature in many ways, including:
- Pitch tracking (fixing) of the melody.
- Harmonizing your voice using Band-in-a-Box harmonies (when a MIDI melody is present)
- Harmonizing your voice to the chords of the song (when no MIDI melody is present), including unison voices.
Notation Menu

Notation/\text{edit}/note roll mode \quad \text{Ctrl-Alt-N}
Print…
Note Insert mode
Mono Entry Mode
\checkmark \text{Clean Display Mode}

Event List Editor…

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<th>Action</th>
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<td>Play Previous Screen</td>
<td>\text{&lt;arrow&gt; up}</td>
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<tr>
<td>Play Next Screen</td>
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</tr>
<tr>
<td>Instrument Displayed</td>
<td></td>
</tr>
<tr>
<td>Switch to Next Track</td>
<td>\text{Ctrl F5}</td>
</tr>
<tr>
<td>Switch to Previous Track</td>
<td>\text{Ctrl Shift F5}</td>
</tr>
</tbody>
</table>

Notation/\text{edit}/\text{note roll mode} moves the notation window through its various entry modes.
Print… brings up the print dialog box.
Note Insert mode
Toggling this to “on” allows you to insert notes graphically with your mouse or keyboard on the notation window.
Mono Entry Mode
Toggle this “on” if you are inserting single notes (not chords) on the notation window.
Clean Display Mode
Toggle this “on” if you want notes displayed on your notation window in a quantized view (does not affect song playback).

Event List Editor
This opens the Event List window. You can edit events including all MIDI events and lyric events using the Event List Editor. You can edit the Melody, Soloist, Lyrics, or StyleMaker patterns using this event list. The information in the Event List is color coded by channels for multi-channel Melody and Soloist tracks.

The event list can also be launched from the Notation window by pressing the event list button (\#).

Play Previous Screen
Backs the song up four bars.
Play Next Screen
Moves the song to the next four bars.

Instrument Displayed
Since there is not enough room on the screen to display the notation for all instruments, only one is displayed at a time. You can choose which one you want to display from this menu option or with the instrument buttons on the Notation window.

Switch to Next Track / Switch to Previous Track
Select parts from left to right in the Instrument row buttons.
## Window Menu

<table>
<thead>
<tr>
<th>Window Menu</th>
<th>Shortcut</th>
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<tr>
<td>Movable Notation Window</td>
<td>Ctrl D</td>
</tr>
<tr>
<td>Lead Sheet Window</td>
<td>Alt W</td>
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<tr>
<td>Big Lyrics Window</td>
<td>Ctrl Shift L</td>
</tr>
<tr>
<td>Lyric Document Window</td>
<td>Ctrl Alt Shift L</td>
</tr>
<tr>
<td>Big Piano Window</td>
<td>Ctrl Shift N</td>
</tr>
<tr>
<td>Drum Kit Window</td>
<td>Ctrl Shift D</td>
</tr>
<tr>
<td>Guitar Window</td>
<td>Ctrl Shift G</td>
</tr>
<tr>
<td>Audio Edit Window</td>
<td>Ctrl Shift A</td>
</tr>
<tr>
<td>Moveable Audio Edit Window</td>
<td></td>
</tr>
<tr>
<td>Piano Roll Window</td>
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</tr>
<tr>
<td>Moveable Piano Roll Window</td>
<td></td>
</tr>
<tr>
<td>Put Notation/Chords on Top</td>
<td>Ctrl T</td>
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<tr>
<td>MIDI Monitor</td>
<td></td>
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<tr>
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<td></td>
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<tr>
<td>AWE Editor</td>
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</tr>
<tr>
<td>Chord Substitution Dialog (choose your own)</td>
<td></td>
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<tr>
<td>Auto-Generate Chord Substitutions...</td>
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<tr>
<td>Chord Rerharmonist Dialog (choose your own)</td>
<td></td>
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<tr>
<td>Auto-Generate Chord Rerharmonization...</td>
<td></td>
</tr>
<tr>
<td>Generate Soundtrack...</td>
<td></td>
</tr>
<tr>
<td>Ear Training Window</td>
<td>Ctrl Shift J</td>
</tr>
<tr>
<td>Practice Window</td>
<td>Alt Shift L</td>
</tr>
<tr>
<td>Vocal Wizard...</td>
<td></td>
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<tr>
<td>Chord Builder...</td>
<td></td>
</tr>
<tr>
<td>MIDI Chord Detection...</td>
<td></td>
</tr>
<tr>
<td>Conductor Window</td>
<td>Ctrl ~</td>
</tr>
</tbody>
</table>

- **Notation (or chords) Window** toggles between the notation and the chordsheet views.
- **Movable Notation Window** opens a movable and resizable notation window.
- **Lead Sheet Window** launches the lead sheet notation.
- **Big Lyrics Window** launches a window that displays lyrics in a Karaoke format.
- **Lyric Document Window** displays a full screen of formatted lyrics. Easily copy and paste lyrics to and from your favorite word processor.
- **Big Piano Window** launches a window that displays a Big Piano.
- **Drum Kit Window** launches the animated Drum Kit. Once launched, press [Help] to get more information about the Drum Kit.
- **Guitar Window** launches an on-screen Guitar.
- The **Audio Edit Window** allows you to edit audio data, using copy, cut, and paste. You can zoom the audio in to the sample level so that you can see the actual sine waves present.
- **Moveable Audio Edit Window** opens the regular Audio Edit Window but lets you reposition it on the screen.
- **Piano Roll Window** launches the Piano Roll window where you can edit the Melody or Soloist track in a traditional piano roll format.
Moveable Piano Roll Window opens the regular Piano Roll window, but lets you move and reposition it on the screen.

Put Notation/Chords on Top moves the notation window to the top of the main screen and moves the piano roll at the bottom of the main screen.

The MIDI Monitor, Guitar Tuner, and AWE Editor items launch the selected module. Each one has extensive help available inside the module. There are also buttons available for these items.

Chord Substitution Dialog (choose your own)
This allows you to see a list of possible chord substitutions for the current chord progression. You can also access it from a right mouse click on the chordsheet, and by pressing the Chord Substitution button.

Auto-Generate Chord Substitutions...
This will automatically pick chord substitutions for all or part of the song.

Chord Reharmonist Dialog (choose your own) shows you the current bar in the song with a list of suggested chord progressions for the current melody, based on the melody and genre that you choose.

Auto-Generate Chord Reharmonization generates an entirely new chord progression for a complete song or a portion of a song. Selecting this menu option opens the Reharmonist dialog.

Generate Soundtrack launches the SoundTrack feature, which allows you to generate music in the style you choose for any length of time you specify. As the "producer," you select the genre, length of time, instruments, and fade-in/fade-out options. The SoundTrack adjusts the tempo and duration to match the settings, and then allows you to save the file as a WAV, WMA (Windows Media Audio), or MP3 file.

Ear Training Window
You can practice your ear training with help from Band-in-a-Box. In addition to the common interval exercises (perfect 4th, minor 2nd, etc.), learning to play-by-ear for Jazz and Pop music is further enhanced by ear training exercises to recognize common chord types (e.g., Major, Minor, Dominant, etc.)

You'll also see buttons that launch musical games for fun while you train your ear.

Pitch Invasion helps to develop perfect pitch as you shoot down “alien” notes invading from above (you hear the note sound, and click on the on-screen Piano, MIDI or QWERTY keyboard to shoot them down).

Music Replay develops your pitch, rhythm, and melody recognition by replaying what the program plays in note, rhythm, or melodic modes.

Vocal Wizard selects and transposes the song to the best key for the singer’s vocal range.

Practice Window allows convenient “1-click” access to many Band-in-a-Box features that help you with practicing. These include the Ear Training dialog, games (Pitch Invasion etc.), Metronome, CopyMe, Sight Reading, 101 Riffs series, and more.
Chapter 14: Reference

Chord Builder submenu

```
Chord Builder...  Ctrl Shift B
Play Current Chordsheet Chord  <Shift> Enter
```

*Chord Builder...* Allows you to build up chords using mouse clicks.

*Play Current Chordsheet Chord* This function plays the current chord on the chordsheet. It is most commonly accessed by pressing *Shift+Enter* on the chordsheet.

**MIDI Chord Detection...**

This *Window* menu command brings up a submenu for entering chords from a keyboard.

```
MIDI Chord Detection...
Insert current MIDI keyboard chord  <Ctrl> Enter
Insert current MIDI keyboard chord - next beat  <Ctrl> Shift Enter
```

Select *MIDI Chord Detection...* and play any chord on your MIDI keyboard. Band-in-a-Box will then provide you with up to 4 interpretations of the chord you played, with its best suggestion at the top and alternates below.

Tip: You can also insert chords this way without opening up this dialog. Just press Ctrl+Enter keys at any time to insert the last chord that you've played on your MIDI keyboard onto the worksheet.

**Conductor Window**

As the song is playing, many “single key” hot keys are available to control the playback and looping of the song.

For example, pressing the “4” key will insure that the middle chorus is the next one played, and pressing the “S” key will insure that the middle section is looped. This would be useful to extend a song that has the last chorus playing. Custom loop points can also be set for each song.

These settings are ideal for live performance, or “jam sessions” where you aren’t entering new Band-in-a-Box songs, but want full control of the playback. These loops happen seamlessly at the end of the chorus, so are suitable for the “dance floor.” In addition, you can control Band-in-a-Box from a standard MIDI keyboard, pressing MIDI keys corresponds to program functions. For example, load the next song, play/pause/tempo adjust/change thru patch/jump to middle choruses/open the notation or lead sheet window – all from your MIDI keyboard!
Help Menu

<table>
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<tbody>
<tr>
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Using help

How to...

Shift F1

Basics

Tutorials

Show help hints

Update, Add/On and other Product info

ReadMe (for Latest info not in manual)

Newest Features

Tip of the Day

What add-ons do I have?

Display Program Manual...

Display Program UPGRADE Manual...

Web www.pgmusic.com

About Band-in-a-Box

Index
Lists all of the Help topics. Type in a keyword under the “Index” tab to go to the topic you want.

Topic Search
Opens the Help file where you can search the Table of Contents or the Index, or use the Search feature to find your topic.

Using help
Has Windows tips for using Help files.

How to...
Opens a categorized list of topics. It’s a fast way to find out about a particular feature or operation.
Basics
Goes directly to the “Basics” introduction to Band-in-a-Box.

Tutorials
Provide detailed, step-by-step instructions for Band-in-a-Box.

Show help hints

| Show NO hints |
| Show hints on main screen only |
| Show all hints (main screen and dialogs) |
| Show hints are displayed, show Comprehensive hints |
| Customize hint settings... |

Band-in-a-Box has comprehensive fly-by hints that appear when you move over an item. These include hints for the dialog boxes and various windows. You can set the hints to display none, basic, or detailed information.

Update, Add/On and other Product info
Other Band-in-a-Box add-ons, PG Music Inc. products, and contact information.

ReadMe (for Latest info not in manual) documents the latest features, plus an archive of earlier updates.

Newest Features describes the new features in the current version.

Tip of the Day
Power user tips. This feature can be set to run automatically when Band-in-a-Box opens. If you want to add your own tips, you can edit the BBW.TIP file. Just put a tip on a single line (no carriage return till the end of the tip). Tips are limited to 255 characters per tip. Band-in-a-Box automatically compiles the BBW.TIP file at startup of the program to a binary file called BBW.TPB.

What add-ons do I have?...
One of the greatest strengths of Band-in-a-Box is the ability to add-on and enhance the program through add-on Styles, Soloist, and Melodist disks. The “What Add-ons” feature in the Help menu scans your computer's Band-in-a-Box directory and displays what add-ons are and aren’t found. To see the latest add-ons click on the [www.pgmusic.com/addons.htm](http://www.pgmusic.com/addons.htm) button to go directly to the add-ons page on the PG Music Inc. web site.

Display Program Manual
This opens a .pdf file of the full Band-in-a-Box manual in Acrobat Reader. Follow the bookmarks to find specific topics.

Display Program UPGRADE Manual
This will open a .pdf of the upgrade manual for this particular version of Band-in-a-Box, which may include new documentation not yet added to the full manual. The upgrade manual is often a more convenient way to reference the new features in Band-in-a-Box without looking through the full manual.

Web [www.pgmusic.com](http://www.pgmusic.com)
Links to some important pages on the PG Music Inc. web site. Selecting one of these topics will automatically launch your Web Browser, and direct you to the PG Music web site.

Visit web-site ([www.pgmusic.com](http://www.pgmusic.com))
Register on-line ([www.pgmusic.com](http://www.pgmusic.com))
Submit suggestion for future versions ([www.pgmusic.com](http://www.pgmusic.com))

Forum discussion ([www.pgmusic.com](http://www.pgmusic.com))
Guestbook ([www.pgmusic.com](http://www.pgmusic.com))
Submit tech question ([www.pgmusic.com](http://www.pgmusic.com))
Frequently Asked Questions ([www.pgmusic.com](http://www.pgmusic.com))
Products available ([www.pgmusic.com](http://www.pgmusic.com))
Upgrades & news ([www.pgmusic.com](http://www.pgmusic.com))

About Band-in-a-Box launches a dialog with key information such as the version number you are running and computer system information.
Keystroke Commands - Hot Keys

It’s often faster to use keystrokes instead of using the mouse. For example, there are keystroke “hot keys” to mute instruments or to adjust volume, panning, reverb, chorus, or bank of instruments.

Muting Parts
Alt+3 Mutes the Bass
Alt+4 Mutes the Piano
Alt+5 Mutes the Drums
Alt+6 Mutes the Guitar
Alt+7 Mutes the Soloist
Alt+8 Mutes the Strings
Alt+9 Mutes the Melody

Selecting Parts
Ctrl+3 Selects the Bass
Ctrl+4 Selects the Piano
Ctrl+5 Selects the Drums
Ctrl+6 Selects the Guitar
Ctrl+7 Selects the Soloist
Ctrl+8 Selects the Strings
Ctrl+9 Selects the Melody

Instrument Part Settings
Hold down Ctrl+Shift and the letter to change these instrument settings.
Q,W Decrease/Increase Volume
E,R Decrease/Increase Panning
T,Y Decrease/Increase Reverb
U,I Decrease/Increase Chorus
O,P Decrease/Increase Bank

Use Ctrl+Shift together with the 1-9 and 0 keys on the keyboard to select Favorite Instruments. For example, let’s change the Piano part to Rhodes Piano.
1. Press Ctrl+4 to select the Piano part.
2. Press Ctrl+Shift+2 to select the Favorite #2. That is Rhodes Piano.

Use Ctrl+Shift and the [-] and [=] keys to decrease/increase the patch by 1.

Volume Settings
Ctrl+Alt+Shift+R Set current part’s volume.
Ctrl+Alt+A Decrease master volume by 5.
Ctrl+Alt+S Increase master volume by 5.
Ctrl+Alt+D Set master volume.
Ctrl+Alt+Shift Q Reduce all part volumes by 5.
Ctrl+Alt+Shift W Increase all part volumes by 5.
Ctrl+Alt+Shift E Set all part volumes.
Looping / Song Navigation Keystrokes

NUMPAD 1  
Toggle looping on/off.

NUMPAD 2  
Open Loop Section Settings dialog.

Ctrl+NUMPAD 1  
Play with last chorus looped.

Ctrl+NUMPAD 2  
Play with middle choruses looped.

Ctrl+NUMPAD 3  
Play with middle and last choruses looped.

Ctrl+NUMPAD 4  
Jump to last chorus.

Ctrl+NUMPAD 5  
Jump to ending.

Ctrl+NUMPAD 7  
Loop Notation screen.

NUMPAD [DEL]  
Advances the notation, lead sheet, and guitar window by one chord (group of notes).

NUMPAD [INS]  
Backs up the notation, lead sheet, and guitar window by one chord.

Transpose Settings

Ctrl+Alt+1  
Transpose Melody down one octave

Ctrl+Alt+2  
Transpose Melody up one octave

Ctrl+Alt+3  
Transpose Soloist down one octave

Ctrl+Alt+4  
Transpose Soloist up one octave

Ctrl+Alt+5  
Transpose down 1 semitone.

Ctrl+Alt+6  
Transpose up 1 semitone.

Ctrl+Alt+7  
Transpose setting dialog.

Custom File Open Dialog

Ctrl+Shift+F3  
Load song with custom file dialog.

Alt+F  
In custom file dialog - Favorite Folders.

Alt+N  
In custom file dialog - Font selection.

Alt+S  
In custom file dialog - Search dialog.

Windows

Ctrl+W  
Toggle Notation and Chordsheet windows.

Ctrl+O  
Movable Notation window.

Alt+W  
Lead Sheet window.

Ctrl+T  
Put Notation/Chords at top of screen.

Ctrl+Shift+A  
Audio Edit window.

Ctrl+Shift+D  
Drum Kit window.

Ctrl+Shift+G  
Guitar window.

Ctrl+Shift+J  
Ear training window.

Ctrl+Shift+L  
Big Lyrics window.

Ctrl+Shift+N  
Big Piano window.

StyleMaker Hot Keys

F1, Shift+F1, Ctrl+F1  
Help

F2  
Save style

Alt+F2  
Save style as ...

R or F3  
Record pattern

<Spacebar> or F4  
Play pattern

Chapter 14: Reference
F8  Play pattern on chord
F10  Edit pattern options
F6 or Shift+F6  Change instrument
Cursor Keys  Move around screen
Alt+F4  Quit the StyleMaker

StyleMaker Drum Screen Hot Keys
F5  Drum alternate notes
Bottom row (ZXCVBNM,. /)  Drum note entry
F6  Time base
F10 or Alt+F4  Exit

Additional Keystrokes
There are additional keystrokes available, listed on the pull down menus beside the function. Hot keys may access any function on the pull-down menu by pressing the Alt key and the first letter of the Menu followed by the underlined letter of the command. For example, Alt+F+O would access File | Open.

Note: It is necessary to tap the spacebar twice on the main screen to start playback because entering chords can include a single spacebar. In the StyleMaker, you start songs by hitting the spacebar once. In the Opt. | Preferences menus, there are other ways that the SPACEBAR can be set to work.

Playing songs.  
Stopping songs.  
Help.  
Record (melody or pattern).  
Record from any bar.  
Jukebox start/stop.  
Save song.  
Save song with patches.  
Load song.  
Load song using favorite song list.  
Load song using titles window.  
Load songs with melodies.  
Load song with standard long file dialog.  
Load next file (alphabetical by file name).  
Load previous (alphabetical by file name).  
Load next style. (in alphabetical order).  
Load previous style. (in alphabetical order).  
Enable/disable style.  
Launch MIDI File to Style Wizard.  
Load songs in current style.  
Choose a user style.  
Open StylePicker.  
Select favorite styles.  
Edit user style.  
Edit current style.  

Spacebar twice or F4  Spacebar or Esc  F1, Shift+F1, Ctrl+F1  R  R  F8  F2  Alt+F2  F3  Shift+F3  Ctrl+F3  Alt+F3  Alt+Shift+F3  Shift+F8  Ctrl+Shift+F8  Alt+Shift+F8  Ctrl+Alt+Shift+F8  Alt+S then E  Alt+S then W  F7  F9  Ctrl+F9  Shift+F9  Alt+F9  Ctrl+Shift+F9
Select Melody Harmony        Alt+F10
Favorite Melody Harmonies    Ctrl+F10
Allow Melody Harmony         Shift+F10
Select Thru Harmony          Alt+F11
Favorite Thru Harmonies      Ctrl+F11
Allow Thru Harmony           Shift+F11
Turn song Embellisher on/off. Ctrl+Alt+E
Import chords from MIDI file. Ctrl+Alt+I
Send GM mode on message.     Ctrl+Alt+Q
Set tempo.                   Ctrl+Alt+T
Open the Preferences dialog. Ctrl+E
Open the Song Settings dialog. Ctrl+N
Launch Chord Builder.        Ctrl+Shift+B
Edit current bar options.    F5
Save MIDI file.              F6
Quit the program.            Alt+F4

Chord List

Commonly used chords are displayed here in bold type.
These chords are displayed in a list in the Chord Builder Dialog, accessible from the User Menu or by right clicking on the chordsheet.

Major Chords
C, Cmaj, C6, Cmaj7, Cmaj9, Cmaj13, C69, Cmaj7#5, C5b, Caug, C+, Cmaj9#11, Cmaj13#11

Minor Chords
Cm, Cm6, Cm7, Cm9, Cm11, Cm13, Cmaug, Cm#5, CmMaj7
(half diminished)
Cm7b5,

Diminished
Cdim

Dominant 7th Chords
C7, 7+, C9+, C13+, C13, C7b13, C7#11, C13#11, C7#11b13, C9,
C9b13, C9#11, C13#11, C9#11b13, C7b9, C13b9, C7b9b13, C7b9#11,
C13b9#11, C7b9#11b13, C7#9, C13#9, C7#9b13, C9#11, C13#9#11, C7#9#11b13
C7b5, C13b5, C7b5b13, C9b5, C9b5b13, C7b5b9, C13b5b9, C7b5b9b13,
C7b5#9, C13b5#9, C7b5#9b13, C7#5, C13#5, C7#5#11, C13#5#11, C9#5,
C9#5#11, C7#5b9, C13#5b9, C7#5b9#11, C13#5b9#11, C7#5#9, C13#5#9#11,
C7#5#9#11, C13#5#9#11

Sustained 4 Chords
Csus, C7sus, C9sus,
C13sus, C7susb13, C7sus#11, C13sus#11, C7sus#11b13, C9susb13, C9sus#11, C13sus#11, C9sus#11b13, C7susb9,
C13susb9, C7susb9b13, C7susb9#11,
C13susb9#11, C7susb9#11b13, C7sus#9, C13sus#9, C7sus#9b13, C9sus#11, C13sus#9#11, C7sus#9#11b13,
C7sus5, C13sus5, C7sus5b13, C9sus5, C9sus5b13, C7sus5b9,
C13sus5b9, C7sus5b9b13, C7sus5#9, C13sus5#9, C7sus5#9b13,
C7sus5, C13sus5, C7sus#5b11, C13sus#5b11, C9sus#5, C9sus#5b11, C7sus#5b9, C13sus#5b9, C7sus#5b9#11, C13sus#5b9#11, C7sus#5#9, C13sus#5#9#11, C7sus#5#9#11, C13sus#5#9#11,

Notes:
- It is not necessary to type upper or lower case. The program will sort this out for you.
- Any chord may be entered with an alternate root ("Slash Chord") e.g.: C7/E = C7 with E bass.
- Separate chords with commas to enter 2 chords in a 2 beat cell, e.g., Dm,G7

Tricky Chords:
C5b This is “C flat 5.” It is spelled this way to avoid confusion.
C2, C5, C4, C69, C7alt, Cm7#5
You can type C-7 for Cm7 (i.e. use the minus sign) or C7-9 for C7b9.

Shortcut Chords:
If you enter a lot of songs, you'll appreciate these shortcut keys.
J = Maj7
H = m7b5 (H stands for Half diminished)
D = dim
S = Sus
Example: To type CMaj7, just type CJ (it will be entered as CMaj7)

Add your own chord shortcuts.
Have you found a chord that Band-in-a-Box doesn't recognize? If so, add it to your chord shortcuts file, and Band-in-a-Box will allow you to type in that chord in the future. This also lets you define chord “shortcuts,” one-letter abbreviations for longer chord names (“J” for “Maj7” etc.). If you find a chord that Band-in-a-Box won't accept like Csus2, when it expects C2 instead you can enter this on a single line (without the quotes) “Csus2@C2.” Then Band-in-a-Box will enter the chord C2 if you type in Csus 2.
The text file c:\bb\Shortcut.txt allows you to add new chord shortcuts. Note that this file doesn't ship with Band-in-a-Box (or it would overwrite your file!). The file \bb\pgshortc.txt for shortcuts supplied by PG Music. You can add your own shortcuts in a text file you make yourself and name \bb\shortcut.txt.

Band-in-a-Box files
Essential Program Files
Band-in-a-Box for Windows requires the following files to operate.
BBWDLL16.DLL DLL handling playback.
BBW.EXE Executable file.
BBW.LST This is the text file for the Style List information.
BBWRES.DLL DLL required for some graphics.
CPALETTE.DLL Required DLL.
DEFAULT.HAR These are the default Harmonies.
DEFAULT.GIT The default Guitarists.
DEFAULT.MEL The default Melodists.
DEFAULT.SOL The default Soloists.
GP5.DLL Required DLL.
PGCHORDS.TTF PG Music chord font.
PGJAZZ_.TTF    PG Music Jazz font.
PGMUS.TTF      PG Music notation font.
PGTEXT.TTF     PG Music text font.
ZZ*.STY        Band-in-a-Box needs Style Files for the built-in Styles.
A_PGMUSIC.DS   Lists the RealDrums styles to use.

**Transferring Files Among Computer Platforms (IBM to Mac)**

Many of the Band-in-a-Box song/style and patch map files are directly compatible. Any Macintosh file automatically gets a 128-byte header added on to it by the Macintosh system.

If transferring the files by modem, make sure the Macintosh modem software strips off the header off the files. Other than that, the files are identical.

**Note:** Atari files are the same format as IBM files; no conversion is needed.
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PG Music Registration Form

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How To Register

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Country _____________________________________________________________________________________
Telephone number ________________________________ Fax number ___________________________________
E-mail address _________________________________________________________________________________
Computer (check): IBM  MAC  Model _____________________________________________________________
Operating system: Windows 9x, XP; Macintosh OS X Panther) _________________________________________
What MIDI interface are you using? _______________________________________________________________
What primary synth/sound card do you use? __________________________________________________________
Favorite Styles: Jazz ____  Rock ____  Pop ____  Country ____  Latin ____ Other ___________________________
Purchased from _______________________________________________________________________________
Date of purchase _______________________________________________________________________________
Comments/Suggestions
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