



MIXCRAFT[®] 7
MULTI-TRACK RECORDING STUDIO

USER MANUAL


ACOUSTICA[®]

TABLE OF CONTENTS

Getting Started	4
Mixcraft Home Studio 7 Limitations	5
Important Sound Setup Information	6
Quick Start.	8
Registration.	17
Mixcraft Reference.	18
Sound Tab	67
Virtual Instrument (MIDI) Clips.	84
MIDI Basics	108
Project Tab.	110
Recording Audio	111
Loop And Sound Effects Library	117
Performance Panel	129
Audio Mixer	137
Video Editing.	140
Loading And Saving Projects	164
Exploring The Main Window.	169
Mixing Down To Audio And Video Files	179
Burning Audio CD's	182
Markers	184
Effects	191
Included Effects	198
Virtual Instruments	230

Included Virtual Instruments	240
Alpha Sampler	251
Omni Sampler	257
Plug-In Management.	264
Using Natively Supported Hardware Controllers	267
Using Generic MIDI Controllers and Control Surfaces.	274
Musical Typing Keyboard (MTK).	278
Preferences.	280
Main Window Menus	292
Keyboard Shortcuts.	303
Cursors.	309
Troubleshooting	312
Glossary.	325

GETTING STARTED

Welcome to Mixcraft 7, a powerful recording DAW software offering the tools and performance power to create professional music and video projects... easily!

ABOUT THE MANUAL

This manual was written to provide a basic walkthrough of some of the steps that an artist may encounter when using Mixcraft. This manual provides a range of step-by-step instructions and explanations of features in the software. We'll also throw in some helpful tips from time to time.

CHECKING FOR UPDATES

Acoustica periodically provides updates to software. You can easily obtain these updates through Acoustica's website, with an active Internet connection. To check for updates, go to the *Help* menu at the top of the screen and choose *Check For Update...*

ADDITIONAL HELP

We've made a heck of an effort to include as much Mixcraft 7 information as possible in this manual, but if you get stumped, contact Acoustica tech support online at www.acoustica.com and click the **Support** link.

Mixcraft also has a lively online forum with tons of useful archived information and support not only from the Acoustica tech support staff, but seasoned Mixcraft users as well. Find it at www.acoustica.com, click **Support**, then **Discussion Boards**.

Welcome to the Acoustica family... we hope you'll enjoy Mixcraft 7 and make some great music (and video) along the way!

MIXCRAFT HOME STUDIO 7 LIMITATIONS

Mixcraft is available in three different versions: Mixcraft Home Studio 7, Mixcraft 7, and Mixcraft Pro Studio 7. In order to bring Mixcraft Home Studio 7 to you at such an affordable price point, it sacrifices some features compared with its big brothers. Below is a summary of its reduced feature set:

Feature	Limits
Tracks	16 total Audio and Instrument tracks
Performance Panel	8 sets
Automation	Pan/Volume only
Loops	2000+ Loops, no Sound FX or Sample Libraries
Virtual Instruments	Acoustica Instruments, Impulse, Messiah, MiniMogueVA, VB3 Organ
Effect Plug-ins	Acoustica Chorus, Acoustica Compressor, Acoustica Delay, Acoustica Distortion, Acoustica EQ, Acoustica Flanger, Acoustica Reverb, Classic Auto-Filter, Classic Chorus, Classic Compressor, Classic Delay, Classic EQ, Classic Flanger, Classic Master Limiter, Classic Phaser, Classic Reverb, EZQ Equalizer, GTune Guitar Tuner, Voxengo Amp Simulator, Voxengo Spectrum Analyzer
Samplers	Alpha Sampler (does not include Omni Sampler)
Submix, Send, and Output Tracks	No
Mixdown Formats	WAV, WMA, OGG, WMV, AVI. Does not include MP3 mixdown.
CD Burning	No
MIDI/Audio FX Routing	No
ReWire Hosting	No
Import To Library	No

IMPORTANT SOUND SETUP INFORMATION

When Mixcraft is first launched, it's important to ensure that the audio latency is set optimally. Ideally, using a very low latency setting is best, as it results in little or no audible delay when playing virtual instruments or recording using software monitoring.

Your computer's processor speed and amount of RAM, as well as your audio system or sound card all affect audio playback and recording performance. Optimally adjusting your sound device will be a balancing act between latency versus gapping or breaks in continuous sound. If you are recording audio using Mixcraft's built-in monitoring or playing virtual instruments, you'll need to adjust your latency response properly.

CHOOSING AN AUDIO DRIVER TYPE



1. Click *File* > *Preferences...*
2. Click on the *Sound Device* tab.
3. Wave RT was introduced in Windows Vista and is part of every newer version of Windows; this the default audio driver. If you have a slower computer, you may need to increase the latency setting.
4. If you're using Windows 7 or 8, you may be able to click *WaveRT Exclusive Mode*. Depending on your computer's speed and power, this mode will allow down to three milliseconds of latency. In this mode, other programs will lose audio capability when Mixcraft is running. You may need to restart other programs to get their audio back. WaveRT exclusive mode is the best way to use every last ounce of computing power.
5. If you don't have WaveRT, the next best option is ASIO. If it's grayed out, go to your sound device or sound card manufacturer's website and install the latest drivers. Click on the ASIO Device flip menu and choose the sound device or sound card you wish to use. You can adjust the settings of the ASIO device by clicking "Open Mixer." Each ASIO driver is implemented differently; consult the manual or help for your sound device in order to optimize the latency setting. Ensure that *Default Output (Playback)* is set to the correct device so you'll hear audio properly.

6. If you don't have Vista or an ASIO option enabled, select *Wave*. To reduce latency, decrease the *Number Of Buffers* and reduce the *Buffer Size*. The *Latency* field will update – this will entail a bit of trial and error as adjustments are made. Click *OK*, then check the quality of audio playback. A setting of 100 milliseconds or less is tolerable; lower settings of 20 milliseconds or less are preferred.

Right On Track

You may notice that *Mixcraft* won't allow you to drop the loop on a track with a little keyboard icon; that's because these are MIDI tracks. Make sure to drag audio loops to audio tracks, i.e. tracks with a little speaker icon. *Mixcraft* actually has a number of different track types optimized for different purposes, but while we're in "quick startville," we'll just concern ourselves with Audio Tracks, that play digitized audio, and MIDI Tracks, that play note on/off messages.

QUICK GLANCE CHART

Type	Windows Version	Notes
WaveRT	Windows 7,8 and Vista	The default option. Latency down to 20 milliseconds.
WaveRT EXCLUSIVE	Windows 7,8	Takes over the computer's audio, but will work down to three milliseconds of latency. This option is available when WaveRT is selected. Audio from other programs and Windows will not work at the same time that you are in this mode.
ASIO	XP, Vista, Win 7, Win 8	Best for playback and recording synchronization. Must have a supported ASIO driver for your sound device.
Wave	XP, Vista, Win 7, Win 8	Only use if absolutely necessary.

COMPUTER SPEED CONSIDERATION

If you have a slower computer and experience audible breaks in audio recording or playback, you may need to increase the latency setting. Alternatively, you may need to purchase a higher performance sound card or audio system designed with music recording and playback in mind. Changing the latency will depend on what type of audio driver is being used. See the *Choosing An Audio Driver Type* section above for more information. Another effective speed enhancement is to defragment your hard drive, or purchase a new hard drive. (Old hard drives can get slow with age.)

Notice the CPU meter on the lower right corner of *Mixcraft*.



This indicates the amount of CPU resources used by *Mixcraft* compared to the entire computer's CPU usage.

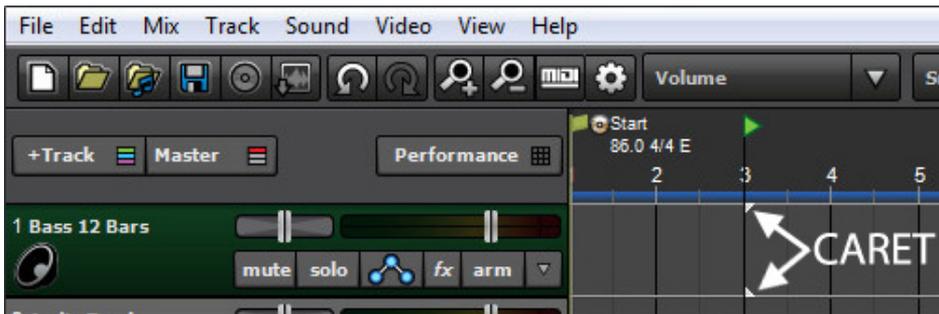
QUICK START

We know what you're thinking ... "I don't wanna read this big ol' manual now, I wanna rock!" (or thereabouts). Don't worry, we've got ya covered. In this section, we'll show how to play audio clips from Mixcraft's huge included library, record audio and MIDI tracks, and add effects.

LOAD AND PLAY AN AUDIO CLIP

To launch Mixcraft, double-click the Mixcraft 7 icon on the desktop. We'll begin by dragging an audio clip of a bass line into the Main Window – that's the big gray grid where clips of audio, MIDI, and video playback.

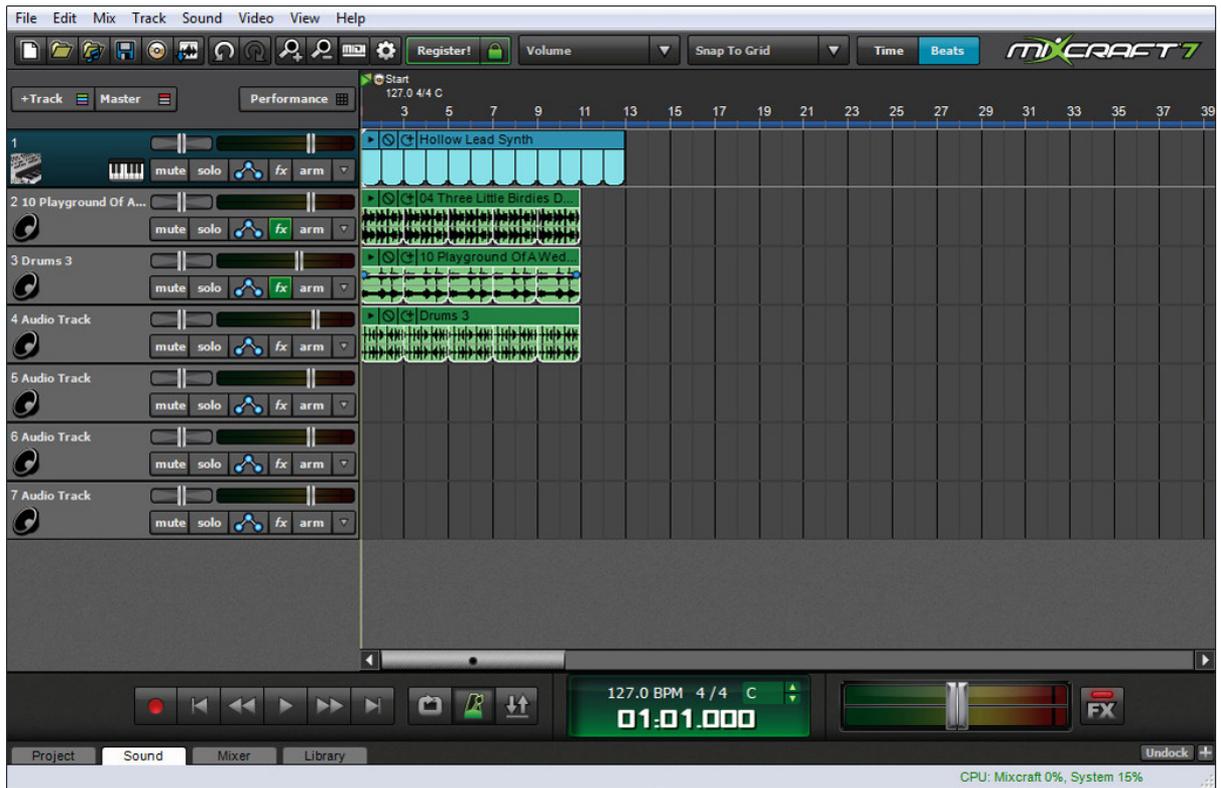
Click the *Library* tab at the bottom of the arrange window, then click the *Sort By* pop-up menu and select *Song Kit*. You'll see a list of song styles below; select *12-8 Blues*. In the list of loops on the right, you'll see *Bass 12 Bars*. Click and drag this to bar 1 of *Audio Track* in the empty gray grid beneath the word *Start*. While hovering a loop over the grid in the Track View window, you'll notice two tiny white triangles; this is called the *Caret*.



The *Caret* shows where clips will land when the mouse button is released. It also indicates where playback or recording will begin. Once you've dropped the audio into place, a dialog box will open and ask: "Use Best Sounding Project Tempo, Key & Time Signature?" We'll explain exactly what this means later on, but for now, click *Yes*.

Once you've dropped a loop into the main grid, it creates a "Clip." Clips are the rectangular audio, MIDI, or video "building blocks" in the main grid that make up a project.

The Main Grid window should look something like this:



Click the green play arrow button in the transport section to hear the bass clip play; click a second time to stop playback, or press the space bar to start or stop playback. If the clip begins playing somewhere in the middle, click the mouse near the number 1 in the timeline (the numbered line at the top of the Main Grid window). This will relocate the Caret, thereby changing the playback start.

Try dragging different types of loops into the Main Grid on separate audio tracks. Mixcraft will automatically match tempo and key signature, making it super easy to create music! If you run out of audio tracks, create more by clicking **+Track>Insert Audio track** at the top of the Track List.



If you'd like a section to loop during playback, drag the mouse in the timeline at the top to create a purple highlight area, then click the Loop button in the transport area. The button will turn green to show that loop mode is active. Click it again to turn off looping. (Pressing the L button will also toggle looping.)

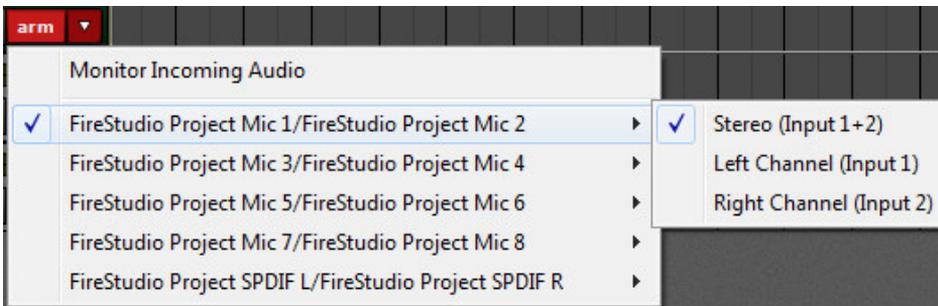
Jargon Alert: **The ">" Sign**

*Throughout this manual, when you see something like **+Track>Insert Audio**, the ">" sign usually refers to a sequence of actions. Think about it as a shorthand way of us saying, "click this>then this>then this."*

RECORDING AN AUDIO TRACK

Select a blank audio track in the Track List at the left side of the screen. Existing blank audio tracks will already be named *Audio Track* and have a little speaker icon beneath the name (we told you this would be easy!). If there aren't any blank audio tracks in the Track List, create new ones by clicking the **+Track** button at the top of the Track List and selecting *Insert Audio Track*.

Click on the audio track you'd like to record on; the track will highlight in green. Now choose the recording input source by clicking the down arrow to the right of the **Arm** button. Depending on your audio hardware, this list may appear differently, but the idea is to select the hardware input you'll be plugging a mic or instrument into. In the example below, we've chosen the left channel (i.e. input 1) of a two-channel audio device.



If you're recording a mono signal, click the sound device followed by *Left* or *Right* depending on where you've plugged into the audio device. If you're recording in stereo with simultaneous left and right inputs, select *Stereo*. Pay close attention to this setting, because it's easy to accidentally record mono input sources (e.g., lead vocals, bass guitar, etc.) as a stereo file if you've set this incorrectly. It won't hurt anything, but you'll unnecessarily waste hard drive space.

After selecting the input, click the track's **Arm** button. The **Arm** button will turn red, letting you know Mixcraft is ready to record. Now send some audio through the input to verify that the correct input was chosen. You should see the meters moving on-screen on the recording track.

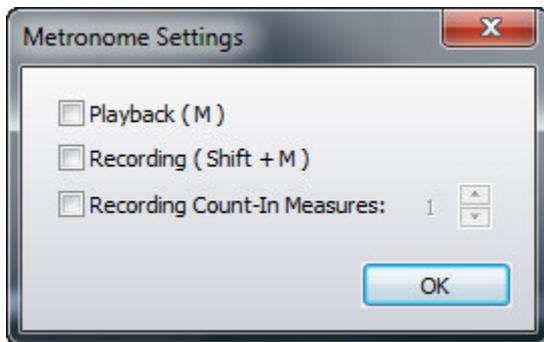


When a track is armed, the volume slider turns into a red recording input level adjuster. Move the slider to adjust the recording input level. If peaks send the meter into the red, back off the level. Ideally, the input signal should nominally sit in the green-to-yellow area.

Important Note: If you're using an audio device with an ASIO driver (you can check in *File>Preferences>Sound Device*), the volume slider will disappear when the track is armed for recording. This is because ASIO recording drivers do not support input level adjustment in software. To set the proper recording input level, you'll need to use either the input level on your audio hardware, or if it doesn't have one, you'll most likely want to set the recording level using the output level control on an external preamp or channel strip.



In order to record in time with a project's tempo, you'll most likely want to record with a metronome. To turn on the metronome, click the metronome button in the middle of the transport. It looks like, well, a metronome.



Check the Recording box. This means the metronome will click during recording. Checking the Playback box makes it click during playback, but we can leave this off for now. If it's not already checked, check the Recording Count-In Measures box. Upon pressing the Record button, this gives a "countdown" before recording begins. The number selector lets you choose the length of the countdown – 1 bar usually provides enough time. Hit OK when you're done. Once you've configured the metronome, you can quickly toggle it on and off by pressing the M key on the computer keyboard.

Almost there! Let Mixcraft know where to begin recording by positioning the Caret in the grid. This can be done by either clicking in the timeline at the top of the main window, or by clicking anywhere in the Main Grid. We recommend positioning the Caret on an exact number in the timeline (e.g., 1, 2, 3). Setting the Snap To setting at the top of the screen to Snap To Grid will simplify positioning the Caret.

Now it's time to grab that microphone or guitar, and let it rip. If you want to monitor the recording source during recording, click the little speaker icon (left of the Mute button).

Here we go. click the red Record button in the transport (the one with the red dot), wait four clicks for recording to begin and record something! When you're done, click the Record button again to stop (you'll notice the red circle turns into a square while recording), or just hit your computer's space bar. It should look something like this:

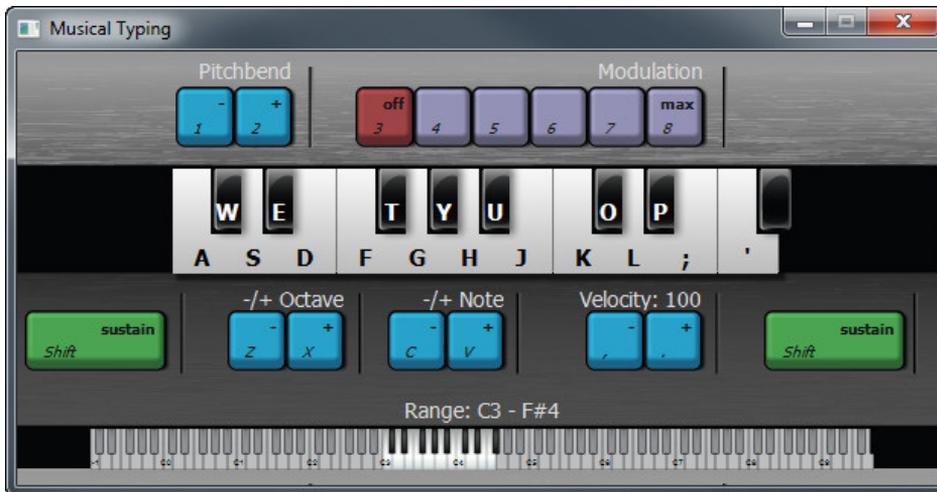


Congratulations, you've made your first Mixcraft audio recording!

RECORDING A MIDI TRACK

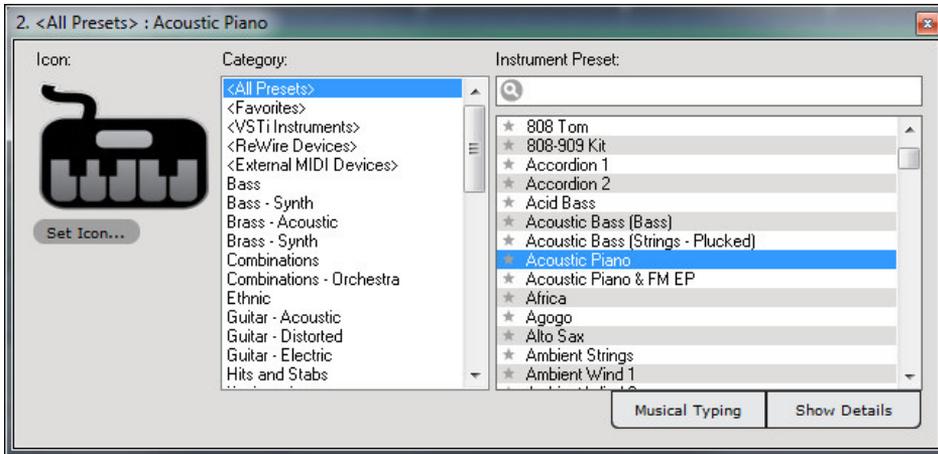
Unlike an Audio Clip, which contains digital sound data, a MIDI Clip contains MIDI notes. Think of a MIDI Clips as a sort of computerized player piano ... a MIDI Clip primarily contains digital on/off messages saying, "hey computer instrument, play these notes at this time, wouldja?"

There are a number of ways to create MIDI clips, but the most common way is to plug in a USB MIDI controller keyboard, press the Record button, and tickle the ivories (plastics?). If you have a USB MIDI controller, plug it into an available USB port on your computer. If you don't have a USB keyboard controller, you can input notes direct from the computer's keyboard using *Musical Typing*. This can be toggled on and off by going to the *View* menu at the top and selecting *Musical Typing*, or by using the key shortcut *CTRL+ALT+K*. Musical typing uses the computer's QWERTY keyboard to play musical notes. When activated, the layout shows the "mini music keyboard," octave, transpose, velocity, and other relevant parameters:



Now that we're playing some kind of keyboard, we'll select one of Mixcraft's built-in Virtual Instruments. A Virtual Instrument is like having keyboard instrument that lives inside the computer. Handy, right?

First, create a new virtual instrument track. Click the **+Track** button at the top left, and select *Insert Virtual Instrument Track*. Now click the track's piano keyboard icon. This opens a dialog box where instruments can be selected:



There's Already A Piano, Man

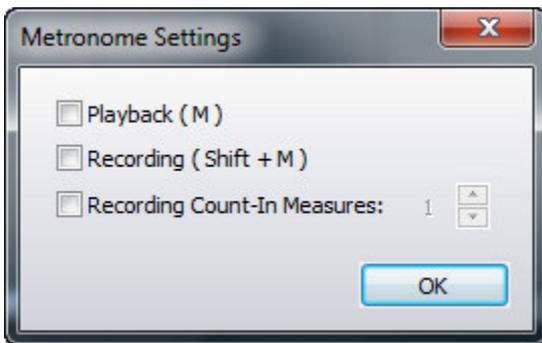
New MIDI Tracks default to an acoustic piano sound, so you really don't need to select an instrument to play MIDI notes, but we thought you might want to know so you wouldn't be stuck with all piano, all the time!

We'll go with our old friend "Acoustic Piano," but feel free to scroll through the list and choose something saucy such as "Space Walk." When you've made your selection, click on the red X in the upper right corner.



Before we record a MIDI performance, let's turn on Mixcraft's metronome. This lets you play in time with the project's tempo. To turn on the metronome, click the metronome button in the middle of the transport:

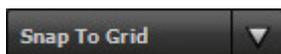
The dialog below opens:



Check the *Recording* box. This means the metronome will click during recording. Checking the *Playback* box makes it click during playback, but we can leave this off for now. If it's not already checked, check the *Recording Count-In Measures* box. Upon pressing the *Record* button, this gives a "countdown" before recording begins. The number selector lets you choose the length of the countdown. Unless your computer

and MIDI keyboard are really far away from each other, choosing 1 bar should give you plenty of time to get those fingers poised. Hit *OK* when you're done. Once you've configured when the metronome plays, you can quickly toggle it on and off by pressing the *M* key on the computer keyboard.

We're almost there! Let Mixcraft know where to begin recording by positioning the Caret in the grid. This can be done by either clicking in the timeline at the top of the main window, or by clicking anywhere in the Main Grid. We recommend positioning the Caret exactly on a number (e.g., 1, 2, 3). To simplify positioning the Caret, make sure *Snap To Grid* is selected in the *Snap To* menu at the top of the screen.



Make sure the track is armed for recording – if it's not red, click on it. Now click the red *Record* button in the transport (that's the one with the red dot), wait four clicks for recording to begin, and lay down the rock. When you're done, click the *Record* button again to stop (you'll notice the red circle turns into a square while recording), or just hit your computer's space bar. You should have something like this:



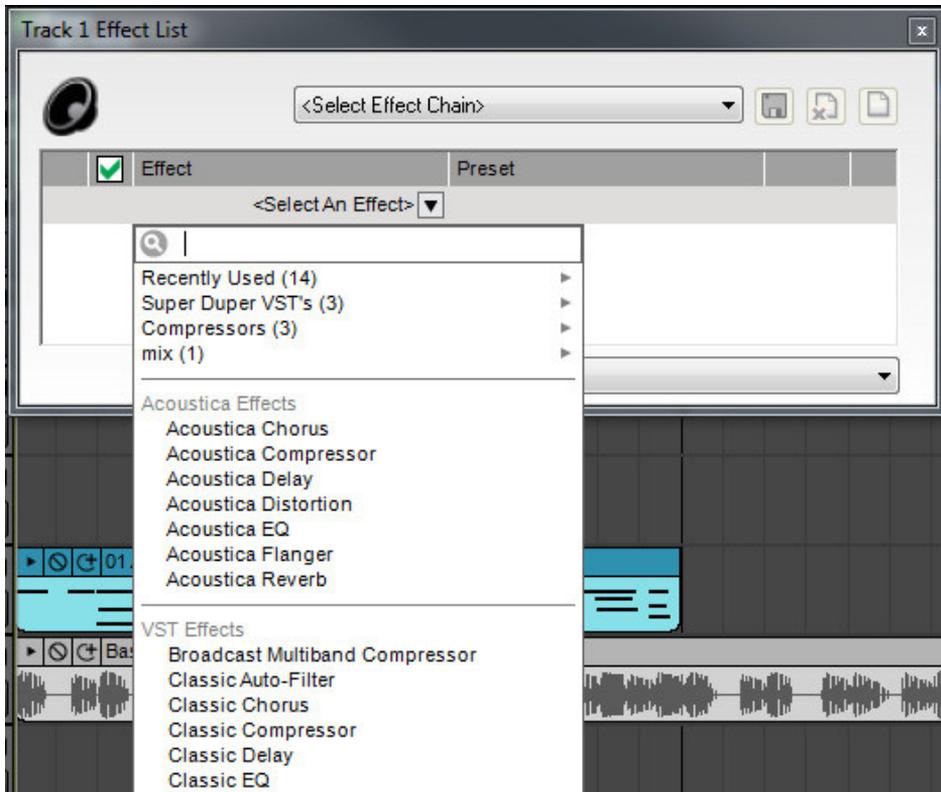
To create more MIDI tracks, select empty tracks in the Track List on the left of the screen and add more instruments as described above.

ADDING AN EFFECT TO AN AUDIO CLIP OR VIRTUAL INSTRUMENT TRACK

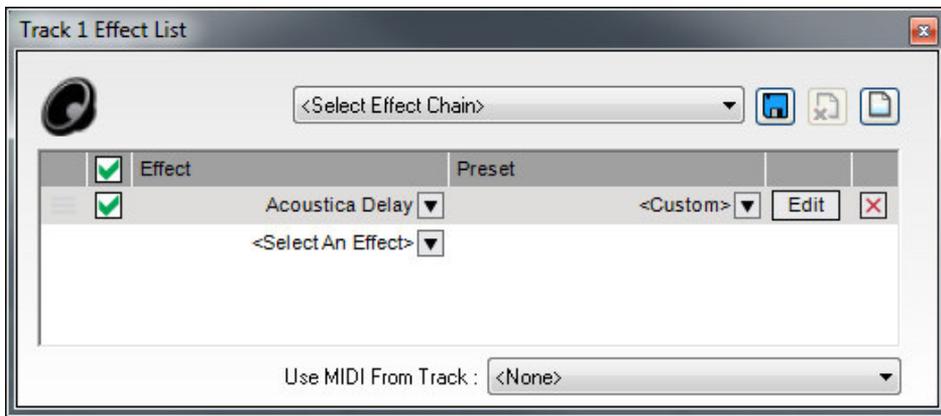
Mixcraft includes a large suite of real-time audio effects that can be applied to audio clips or virtual instruments. These are usually referred to as “plug-ins.”

To add a plug-in effect, click on an Audio Track or Virtual Instrument track (if it's an audio track, make sure it has associated audio clips in the grid). Now click the track's *fx* button.

The *fx* button will turn green and following dialog window opens. Click *<Select An Effect>*. A drop-down menu will display a whole gaggle of effects; choose one that sounds fun. For this example, we'll choose Acoustica Delay.



At this point, you could just click the X in the top-right corner and be off on your delayin' way, but most likely you'll want to change the default settings. Mixcraft plug-ins include factory preset settings – to try out the factory preset settings, click on *<Custom>* in the *Preset* list.



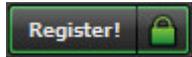
To create your own plug-in settings, click the *Edit* button to view a plug-in's user interface.

This opens up the Acoustica Delay interface and lets you set its parameters to your liking. You can press the play button in the transport and hear the settings change in real-time. (We recommend using Loop Mode for more convenient previewing.)



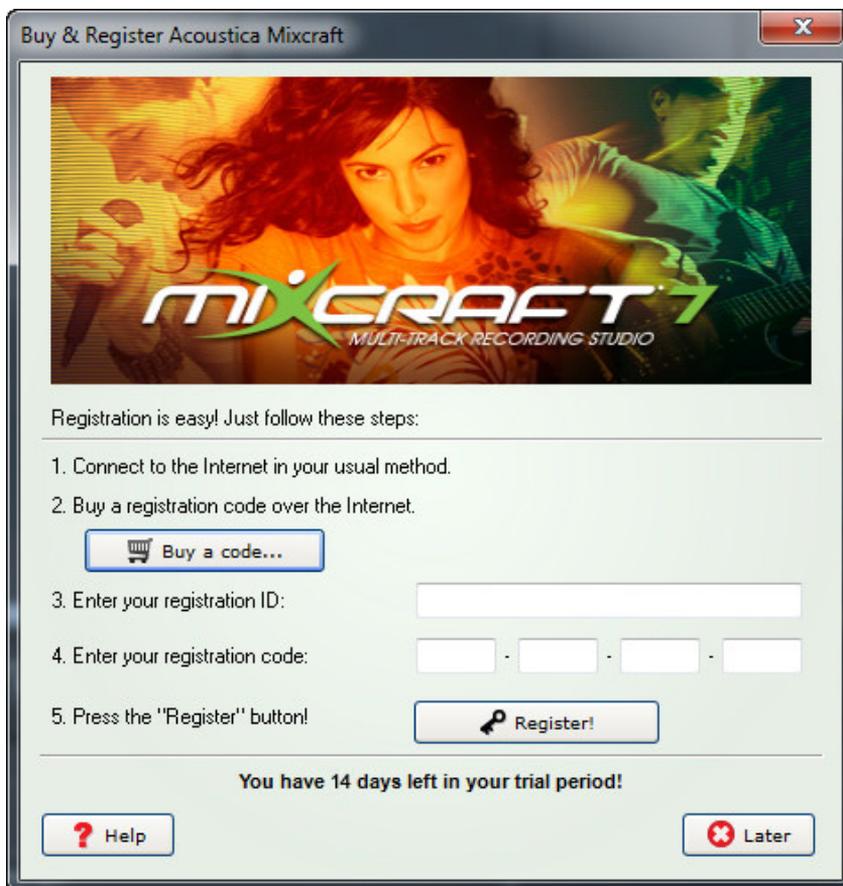
REGISTRATION

Following installation, Mixcraft runs in trial mode for 14 days, so you'll want to register as soon as possible for full functionality. To register your copy, click the *Register!*



button on the toolbar or select *Help> Enter Registration Code...* in the Main Window menus.

Type in or copy and paste the registration ID (usually your email address) in the Step 3 edit box and type or copy and paste the 20-character registration code (excluding dashes) into the Step 4 edit box. (Do not enter any extra spaces.) Click the *Register!* button and you're done!

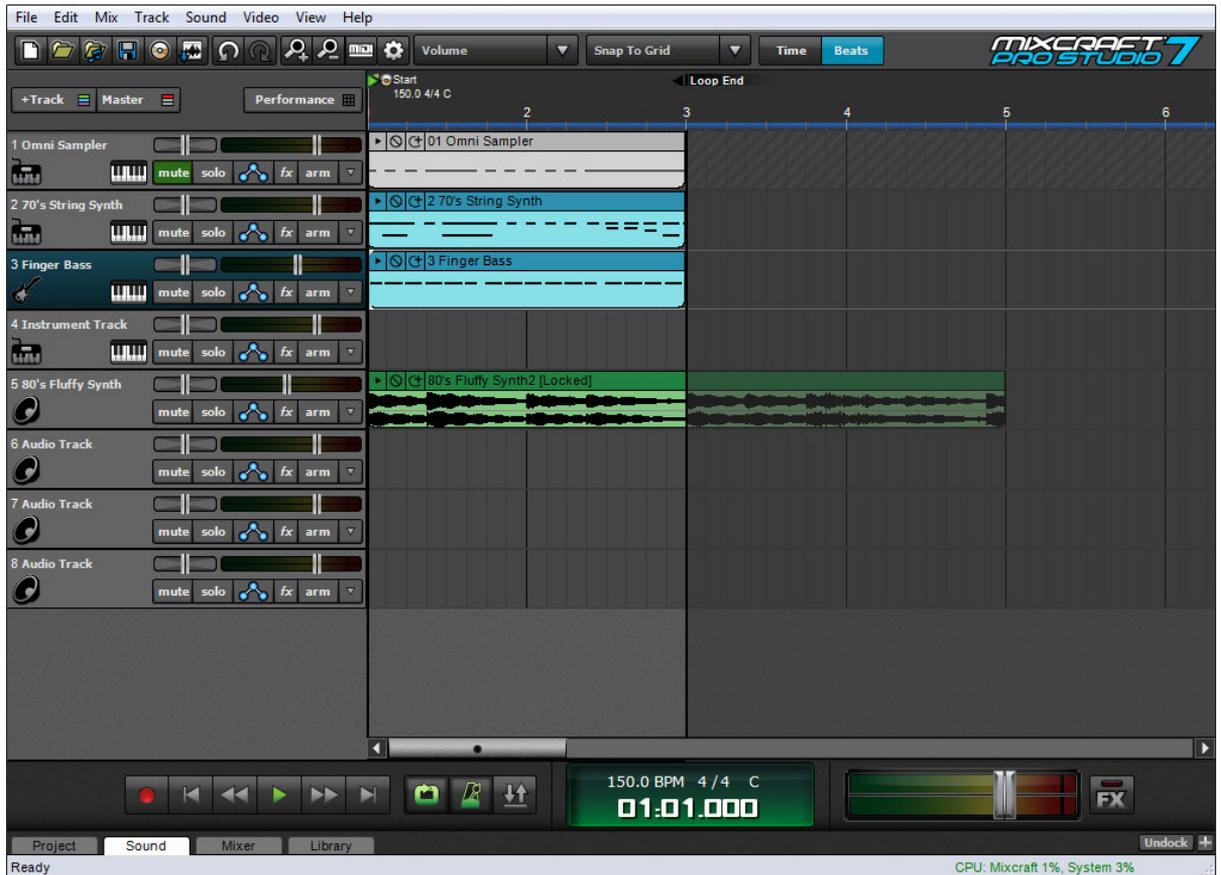


Thank you for choosing Mixcraft. Your support and patronage helps us to continually improve Mixcraft. Enjoy! – The Acoustica Team

MIXCRAFT REFERENCE

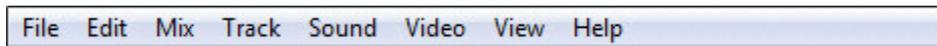
A visual guide to the individual sections of the Mixcraft 7 user interface.

MAIN WINDOW



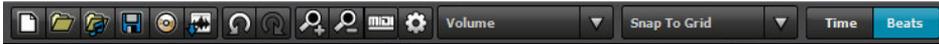
This is where you'll spend most of your time in Mixcraft. We'll explain each of its sections below.

MENUS



Basic menus for accessing many Mixcraft functions.

MAIN WINDOW TOOLBAR



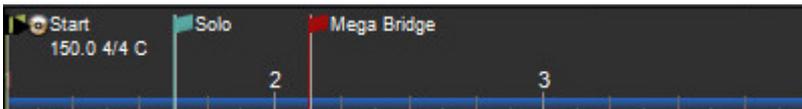
Contains button shortcuts for frequent Mixcraft functions and parameters.

TRACK HEADER



Button shortcuts atop the Track List allowing creation of new tracks, enabling the master track, and enabling the Performance Panel.

TIMELINE



The Timeline acts as a song roadmap. The “ruler” can be set to display bar numbers and divisions or elapsed time. The gray area above the ruler is where recording punch in/out points, tempo, time signature, key, and song markers are displayed.

TRACK



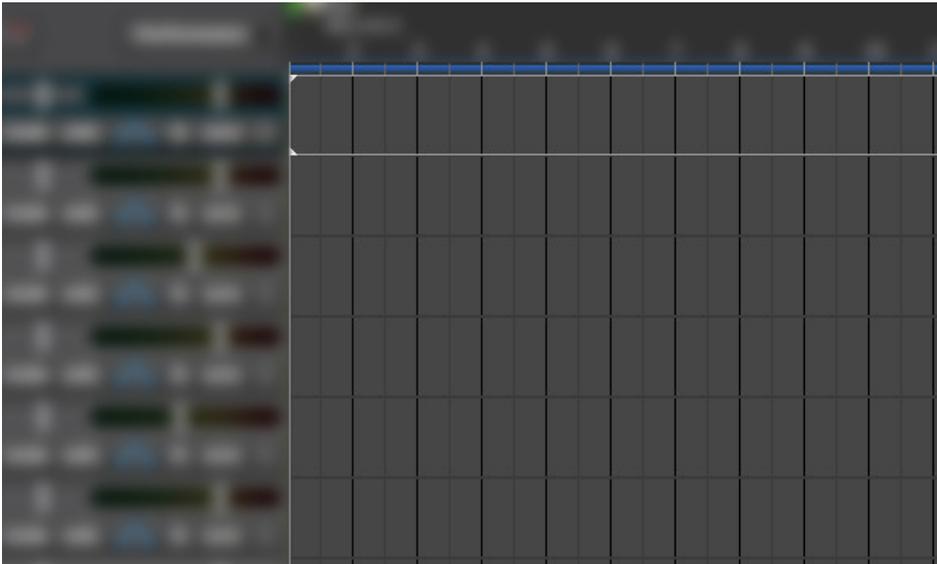
The Track displays important info and parameters for individual audio, MIDI, and video tracks.

TRACK LIST



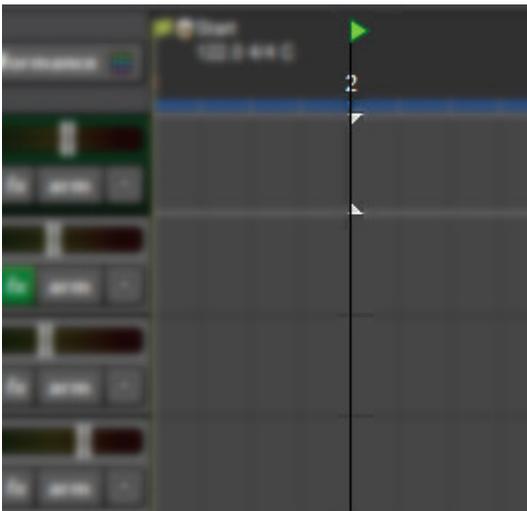
The entire list of all audio, MIDI, and video tracks.

MAIN CLIP GRID



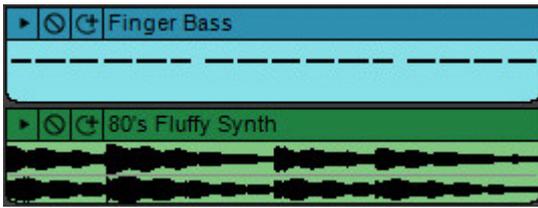
This is the playback and recording area where audio, MIDI, and video clips can be created and moved.

PLAYHEAD



When playback is stopped, this vertical line shows where exactly where playback will start. During playback or recording, the playhead moves across the screen showing the current playback position.

AUDIO AND MIDI CLIPS



Clips can contain either MIDI data or audio. Clip automation can be edited as well.

Tip: Zoom in and out by spinning your mouse wheel. (The mouse wheel's behavior can be changed in *File>Preferences>Mouse Wheel*.)

TRANSPORT BAR



Standard tape deck-style controls for playback, recording, loop mode, and punch in/out. The large middle display shows song tempo, time signature, song key, and the current position of the playhead. To the right are the master level meter, volume slider, and master effects bypass button.

TABS



These show additional project information and parameters. Tabs pop up and occupy the bottom half of the screen when clicked.

If the Sound Tab is selected, the following editors are available:

Audio Clips	Loop Editor
Virtual Instruments Clips (MIDI)	Piano Roll
	Step Edit
	Score Edit

STATUS BAR

This lonely area at the bottom of the window displays current CPU usage and whether



Mixcraft is saving, loading, or freezing something.

ADDING/MOVING/SIZING/DELETING



Drag, right-click, or use key shortcuts to add, delete, move, and duplicate tracks.

MOVING TRACKS

Tracks can be moved by clicking and dragging them vertically within the Track List.

RESIZING TRACKS

Tracks can be resized vertically. Track height can be increased for easier editing, or decreased to fit more tracks on the screen simultaneously. To resize a track vertically, move the mouse to the bottom of a track and drag up or down. When the mouse is in the correct location for resizing, the cursor will become an up/down cursor.



Alternatively, you can click *Track>Properties>Track Height* and choose a size of small, normal, or large.

RESIZING ALL TRACKS

You can resize all tracks at once by clicking on the *View>All Tracks Height* and choosing a new size.

To resize all tracks to a specific size, hold down the SHIFT key, click on the bottom of a track and drag up or down. All tracks will resize upon mouse release.

DELETING TRACKS

Click on a track to select it. Then click *Track>Delete Track*, or right-click on the track and choose *Delete Track*. All sounds on the track will also be deleted.

FREEZE TRACK

If your computer is slow or you're hearing gapping or stuttering as a result of many effects or time stretching, tracks can be frozen to reduce the necessary amount of processing. After freezing a track, a temporary WAV file, containing the track's effects and audio, is used for playback. Effects or sounds will not be editable until the track is "unfrozen." (Dragging a new sound onto a track will unfreeze it.)

To freeze, right-click on a track you'd like to freeze and choose *Freeze Track* (key shortcut *Ctrl+F*), or choose *Track>Freeze Track* in the top drop-down menu.

CUSTOMIZING TRACK APPEARANCE



Change the color, icon, name or size of tracks.

NAME



The default name for newly created tracks will be "Audio Track," for audio tracks, or "Instrument Track," for MIDI tracks. Tracks can be renamed by left-clicking the current name and typing. Hit the *Enter* key or click on another area of the window to finish.

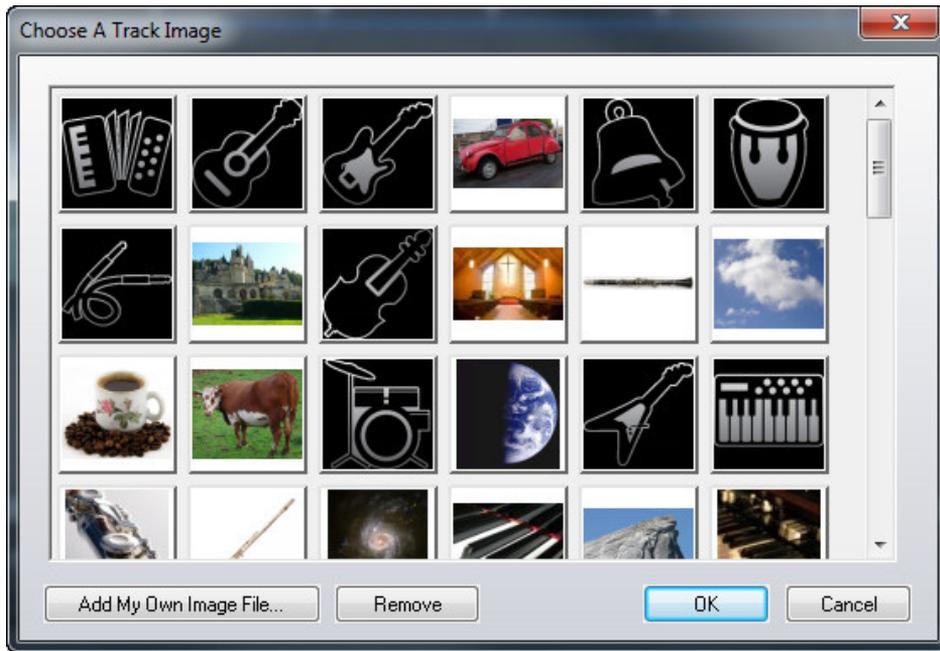
IMAGE



Each track can have its own image for distinction, personalization, and organization. Choose from twenty stock images or import your own!

To change the track image, double-click an existing track image or hover over the track image and click the pop-up button. You can also select *Track>Properties>Choose Image...* in the main window drop-down menus, or right-click on a track and select *Properties>Choose Image...*

The *Choose A Track Image* window will open:



1. Select a new image and click *OK*.
2. *Add Your Own Image Or Photo*
3. Custom images can be added as well. The following image formats are supported:

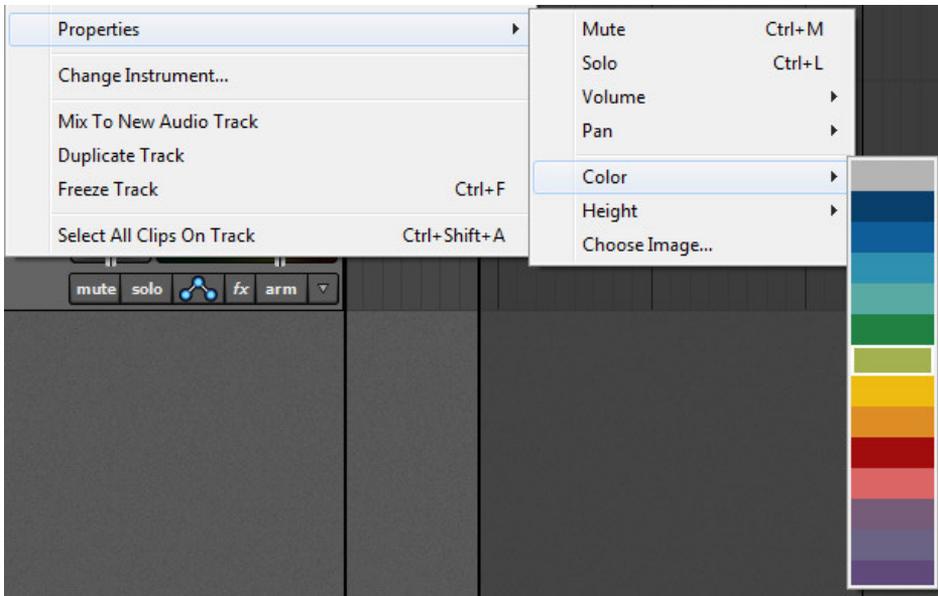
JPG, BMP, PNG, GIF

To add a custom image, click *Add My Own Image File...*, navigate to the image to be added, select the desired image, and click *Open*. The image will replace the existing track image and be added to the list of thumbnail images. Note that added images will be available for future Mixcraft projects, not just the current one.

COLOR



Track colors can be individually set by selecting *Track>Properties>Track Color* in the main window drop-down menus or by right-clicking a track and choosing *Properties>Color*. This affects a track's highlight color and all clips on the track.



TRACK CONTROLS



Adjusts a track's volume and pan levels.

VOLUME



Track volume is adjusted by the horizontal slider with built-in level meter. Click down on the slider and move it left or right to decrease or increase volume.

The volume can be set from 0% to 200% (-Inf dB to +6 dB).

To set an exact track volume, choose *Track>Properties>Set Volume>Set Exact Value...* from the main window drop-down menu and enter the desired volume. This can also be accessed by right-clicking on the track.

Tip: Hold down ALT, SHIFT, or CTRL and click-drag the slider for finer and more accurate adjustment.

NOTE ON ARMED TRACKS



When using Core Audio/Wave RT or Wave audio drivers, if an audio track is armed for recording (*Arm* button will be red), the volume slider turns into a red slider and allows you to adjust the recording input level. The volume slider will return to its original position and color when record arming is disabled.

When using the ASIO audio driver, if an audio track is armed for recording (*Arm* button will be red), the volume slider disappears. The volume slider becomes visible again when record arming is disabled.



Pan. The track's pan control is the small horizontal slider to the left of the track volume control. Adjust the pan control by clicking and dragging it to the left or right. Pan is adjustable from 100% left to 100% right. The pan controls default to center position – this means that the sound is equally balanced between the left and right channels. Track panning can also be set in the main window drop-down menu *Track>Properties>Set Pan>Set Exact Value ...* This menu is also accessible by right-clicking a track.

Tip: For finer and more accurate adjustment, hold down ALT, SHIFT, or CTRL while dragging the pan slider.



Mute. Tracks can be temporarily silenced by clicking the track *Mute* button. Once muted, the solo button will turn green.

The currently selected track can also be muted using the shortcut CTRL+M, or by right-clicking the track and selecting *Properties>Mute*.



Solo. To hear a single track's audio, click the *Solo* button. Multiple tracks may be soloed. For example, to hear how the bass and guitar sound together without drums, solo the bass and guitar tracks. Once soloed, the track's solo button turns green.

The currently selected track can also be soloed using the shortcut CTRL+L, or by right-clicking the track and selecting *Properties>Solo*.

CARET

The Caret is a line and two triangles indicating the precise point on the Main Clip Grid where edits happen, and where playback or recording begins. The tiny triangles indicate which track the Caret is on. The Caret location is set by clicking in the Main Clip Grid. The Caret will obey the current Snap Setting.

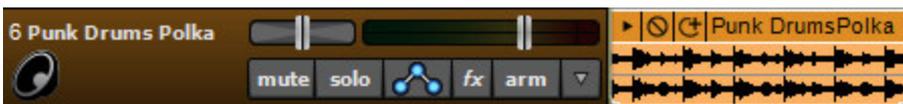
New sounds and recordings are added at the Caret position. After adding a new sound, the Caret will move to the end of the sound. The Caret is also the point at which selected sounds will be split. The Caret can be moved by clicking the mouse or by using the keyboard direction arrows. The Caret is not susceptible to being eaten by wacky wabbits.

TRACK TYPES

Mixcraft supports many different track types.

Track Type	Notes
Audio	Record audio or remix loops.
Virtual Instrument/MIDI	Edit or record MIDI data.
Video	Add and edit video files or still images
Master	Shape the master volume and effects - this is where effects are inserted into the main output bus.
Send	Share effects between multiple tracks
SubMix	Organize tracks in a submix so effects and volumes may be adjusted in all the tracks in the submix in one place
Output	Additional output busses besides the Master Track.
Rewire	Controls a third-party Rewire application.
Instrument Mix	Mix additional audio channels from virtual instruments with multiple output busses; this is automatically created when a virtual instrument with multiple output channel is added.

AUDIO TRACKS



Audio tracks contain audio clips. Audio clips can be recorded by the user or loaded from pre-existing libraries.

LOADING AUDIO FILES

To load an audio file, double-click in the Main Clip Grid. (Make sure the cursor is to the right of an audio track.) Then, navigate to the sound to be loaded and click the *Open* button at the bottom of the window. You can also click the *Add Sound* button on the toolbar, third from the right. The *Add Sound* icon looks like this:



The sound will appear at the current location of the Caret.

MONITORING/HEARING YOURSELF

“I need more me!” said some musician, to every sound engineer who ever lived.

Some sound devices let you listen to the input recording in real-time, or very close to it, during recording. This is known as “software monitoring.” To enable software monitoring for a track, click the arm button, then click the speaker icon. The speaker icon will turn green to indicate that software monitoring is enabled for the track.



We recommend using headphones in order to avoid feedback when recording with a microphone. (Closed-ear headphones also help to prevent the click from bleeding into mics during recording.)

One caveat when using software monitoring is that audio hardware must be set to a low latency, otherwise the monitored audio will have an audible delay. (For the lowest latency and best audio performance, use the ASIO audio driver if available. Check in *File>Preferences>Sound Device* to see if ASIO is available; it may be necessary to download and install drivers from the manufacturer of your audio hardware.) The downside to reducing buffer size is, depending on your sound card and computer speed, you may hear gaps or clicks in the audio. Learn more about setting up your sound device in "[Important Sound Setup Information](#)" (see pg. 6).

HEARING EFFECTS DURING RECORDING

If effects are added, they’ll be audible when software monitoring is on. This is often desirable, e.g., adding reverb when tracking a vocalist, or when tracking electric guitar with Mixcraft’s *Shred Amp Simulator*. Though you’ll hear the effects during recording, **effects are not recorded into the track**. In other words, Mixcraft always records dry. In this way, effect settings can be changed or removed later without altering the original recording.

GUITAR TUNER

Each audio track features a built-in tuner. Though we refer to it as a “guitar tuner,” it will work with any monophonic instrument signal (i.e. one-note-at-a-time). Those of you using drifty, old analog synthesizers should find it quite handy!



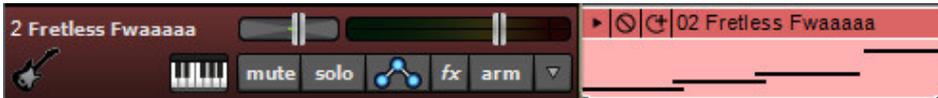
To toggle the tuner on or off, simply click the track’s *Arm* button, then click the tuning fork icon. The tuning fork icon will turn green, and the track’s volume slider/level meter turns into a display for the tuner. When the tuner detects an audio signal, it displays the closest note. When the signal is in tune the “tuning cursor” will appear in the middle and highlight in white.

The tuner can also be turned on or off by right-clicking on the track and selecting *Guitar Tuner* or clicking the main window menu *Track>Guitar Tuner*.

USING MIDI VIRTUAL INSTRUMENTS

Virtual instruments are like having a keyboard instrument within Mixcraft. They can be played and recorded using a USB or MIDI keyboard controller and edited with Mixcraft’s powerful editors. (You can even forgo the keyboard controller altogether and program notes using Mixcraft’s editors.) Mixcraft includes numerous virtual instruments.

A virtual instrument track contains MIDI clips. MIDI clips can be recorded or loaded. Below is a virtual instrument track with a MIDI clip.



Virtual instrument tracks have a small keyboard icon to the left of the mute button. Below is the instrument button; click it to add or edit virtual instruments.

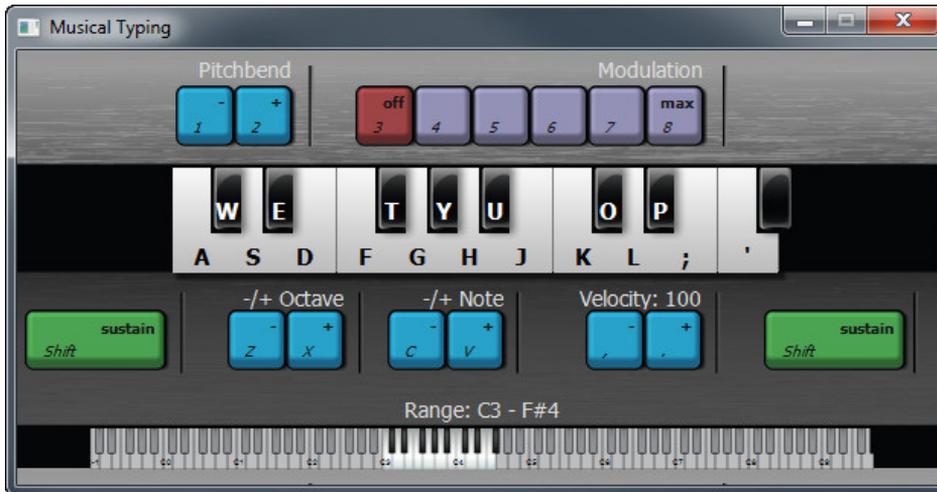


Virtual instruments can be played with an external USB or MIDI controller keyboard, or directly from the computer keyboard using the *Musical Typing Keyboard*.

MUSICAL TYPING KEYBOARD

The *Musical Typing Keyboard* can be enabled by clicking *View>Musical Typing* in the main screen drop-down menus, or with the keyboard shortcut CTRL+ALT+K. Musical typing uses the computer’s QWERTY keyboard to play musical notes.

When activated, the layout shows the “mini music keyboard,” octave, transpose, velocity, and other relevant parameters.



ARMING A MIDI TRACK FOR RECORDING

Arming a track prepares the software to record on that track. To arm a track, click the track's arm button. The arm button will turn red. You can also arm the current track with the key shortcut CTRL+B.

CHOOSING THE MIDI RECORD INPUT

By default, Mixcraft will listen to all MIDI channels (any channel) for each track, letting you record multiple tracks of virtual instruments at the same time.

Clicking the down arrow on the Arm button lets you select the MIDI input and MIDI channel the track listens to. For example, if you have two keyboards and want to record each keyboard on a different track:

1. Set keyboard one to send on MIDI channel 1 and set keyboard two to send on MIDI channel 2.
2. Click the *Arm* button on track 1 and select *All Input Devices to Receive From MIDI channel 1*.
3. Click the *Arm* button on track 2 and select *All Input Devices to Receive From MIDI channel 2*. You are ready for recording.

Alternatively, you could split one MIDI keyboard into two sections, sending the first section or range of notes to MIDI channel 1 and the second range of notes to MIDI channel 2. This would allow one keyboard to behave like two separate ones. (You may need to check the keyboard's owner's manual to see if it's capable of sending separately channelized MIDI zones.)

RECORDING MULTIPLE TRACKS SIMULTANEOUSLY

Multiple virtual instrument MIDI tracks can be recorded simultaneously. Simply click the arm button for each track to be recorded. To record from multiple sources or MIDI channels, click the down arrow on the *Arm* button, then choose the MIDI input device and/or the MIDI channel you'd like the track to record from.

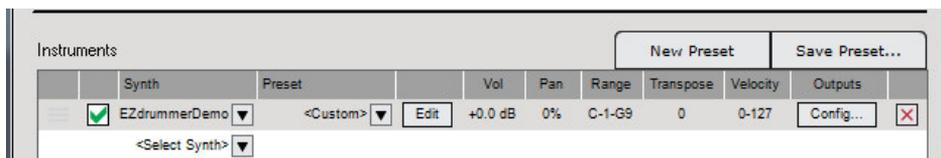
INSTRUMENT MIX OUTPUT CHANNELS

Some virtual instruments have multiple output channels (most commonly virtual "drum set" instruments), allowing separate routing and processing of individual sounds. When a multiple-output instrument is loaded, a + sign appears next to the small keyboard icon.



If a track has multiple outputs, Mixcraft creates a child track for each output. This enables independent control of volume, pan, and EQ settings, as well as using applying independent insert and send effects for each of the instrument's outputs. This is nice when you'd like a massive reverb on a snare drum, but want to keep the kick drum dry, for example.

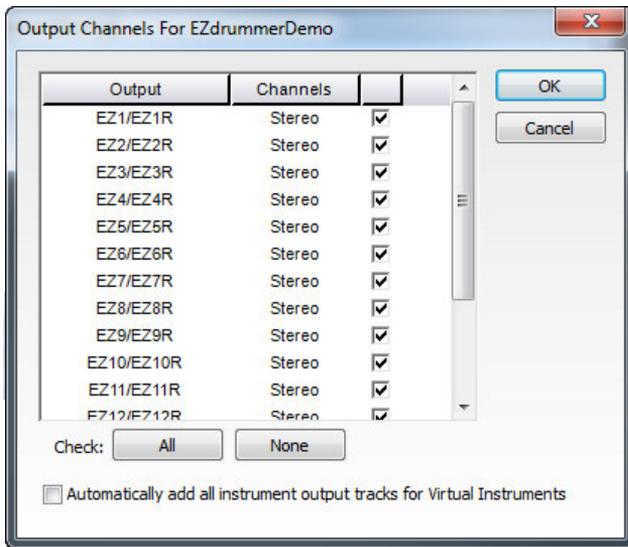
To set up multiple outputs, click the channel's keyboard instrument icon next to the *Mute* button, then click the instrument's *Outputs>Config...* button



Use the checkboxes to enable individual outputs, or click the *All* or *None* button to quickly enable or disable all outputs (or if you're an all-or-none kind of guy/gal).

More About Multiple-Out Virtual Instruments

In addition to configuring Mixcraft to recognize multiple-output virtual instruments, you'll likely need to set up the instrument itself. Drum-based multiple-output virtual instruments typically feature a built-in mixer page with output destination settings. This is where you'll instruct the instrument to send individual sounds to Mixcraft's separate outputs. Sampler-type virtual instruments may not have a page resembling a traditional audio mixer, but may feature keymaps or groups with output destination settings. If you're unable to figure it out, consult the virtual instrument's owner's manual. We're big fans of poking around 'til it works, but don't tell anyone, ok?



Checking the *Automatically add all instrument output tracks for Virtual Instruments* box at the bottom will always enable all available individual outs when new multiple-out instruments are opened (you can also enable the *Automatically add all instrument output tracks for Virtual Instruments* in the *File>Preferences>Plug-Ins* menu in the main window).

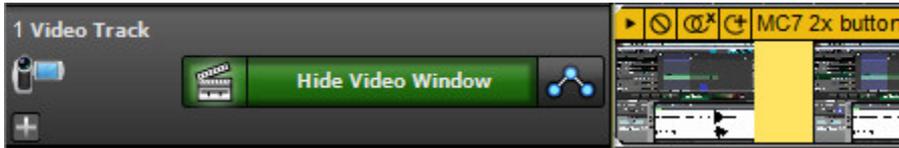
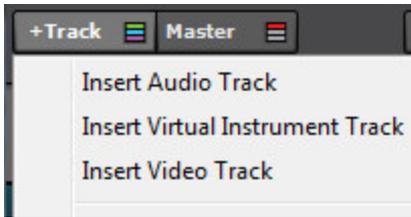
If you do not need all the mix output channels, unused outputs can be shut off by unchecking outputs. Click the *OK* button when the outputs are configured as desired.



The + sign in a Multiple-Out Virtual Instrument track will hide or display the view of child tracks. This won't affect the audio configuration in any way, but it's convenient if you don't want to fill the screen with tracks from one virtual instrument.

VIDEO

A video track holds video clips, images, and text. A project can only have one video track. To create a video track, click the *+Track* button and select *Insert Video Track*. You can also insert a video track by right-clicking and selecting *Insert Track*, or accessing *Insert Track* from the *Track* menu at the top of the main page.



To toggle viewing of the video playback window, click the *Show/Hide Video Window* button. A video preview window will open, and the *Show/Hide Video Window* button will turn green.

A video track has an automation lane, as well as an optional child text track for titles, lyrics, credits, etc. Learn more about video in "[Video Editing](#)" (see pg. 140).

VIDEO TEXT TRACK



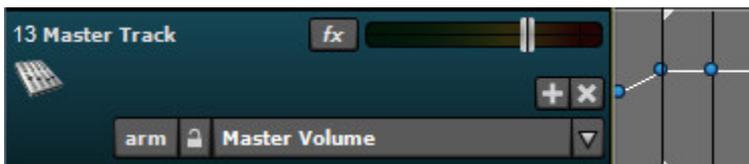
The text track contains text clips and is a child of the video track. It can be viewed by clicking the + sign at the bottom-left corner of the video track.

There are two types of text clips:

- ◆ Normal
- ◆ Scrolling Text

Text tracks can contain multiple lanes and can be used for titles, lyrics, credits, transitions, and more.

MASTER TRACK

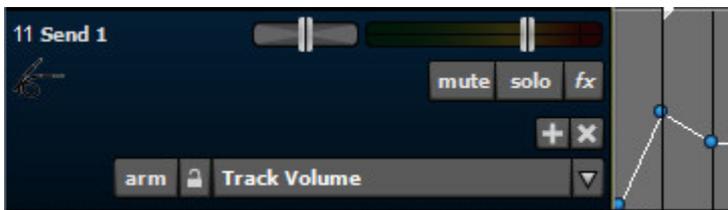


A project has one Master Track. Think of this as the stereo master output the entire mix gets routed through. Volume, panning, and effects can be added and automated for the entire project.



To toggle the Master Track view, click the *Master* button at the top of the Track List. The button will turn green and the Master Track will display at the very bottom of the Track List. (The idea is that the Master Track is the final processing stage.) You can also click *Track>Show Master Track* in the main page drop-down menus.

SEND TRACK



Send Tracks are tracks containing an effect, or a chain of effects, and track automation.

Unlike inserting an effect into a standard audio channel, multiple audio channels can be sent to a send track effect using the red channel send knobs in the *Mixer* tab.

WHEN TO USE SEND TRACKS



Audio tracks and Virtual Instrument tracks can send their audio output to a send track. A Send Track is also known as an Aux Bus.

Use a Send Track to:

- ◆ Use effects on a specific portion or section of a track.
- ◆ Share effects over multiple tracks.
- ◆ Have a great degree of control over dry vs. effect level.

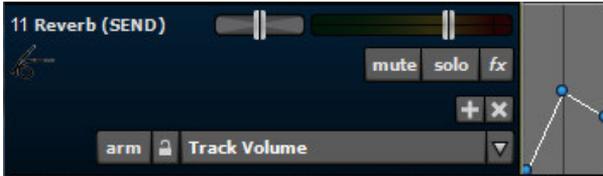
Fading Out Again

To end a project with an automated fadeout, display the Master Track and select Master Volume in the automation drop-down. Scroll to the end of the project and add volume automation points to lower the volume for the whole project. Learn more in the Automation section (see page 43).

ROUTING AUDIO TO A SEND TRACK

Add a Send Track to the project by clicking the +Track button and selecting Add Send Track. You can also click *Track>Add Track>Send Track* in the main window menus.

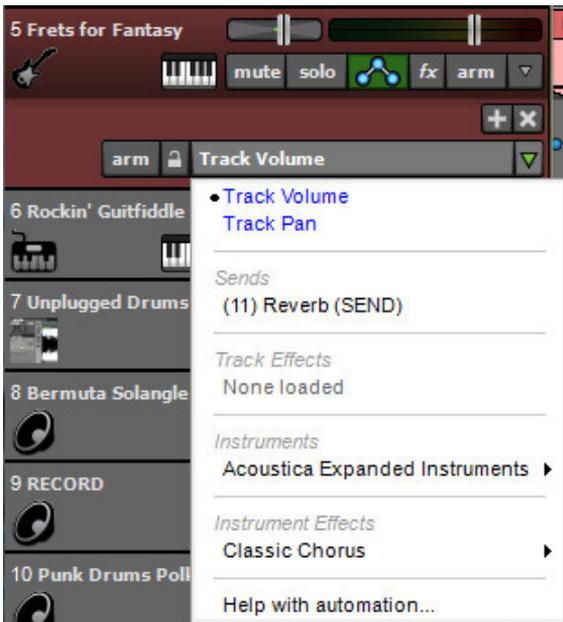
In this example, we've renamed the Send Track, "Reverb (SEND)."



Click on the track you'd like to add reverb to. Display its track automation by clicking the Automation button.



Click the *Automation Type* drop-down menu (by default it will say *Track Volume*), then click beneath *Sends* to select the Send Track effect. In this example, the number 11 is the track number of the Send Track, and *Reverb (SEND)* is the Send Track's name.



To Insert or To Send Effects, That Is The Question

There are two ways to use effects in a mix environment: insert effects, and send (or bus) effects. Both methods can be used somewhat interchangeably, but each has its own advantages largely dependent upon the type of effect, its intended use, and, in the virtual DAW environment, use of computer resources.

Insert Effects

When an effect is added to a track by clicking the fx button, you're using it as a channel insert. You can think of an insert effect as being a part of an individual channel strip. It also means that the dry-to-wet signal balance is adjusted using the controls in the effect itself. Although you can insert any type of effect, inserting is best suited to gain and dynamics effects such as compressors, limiters, EQs, distortion, etc., because their mix is typically set "fully wet." In other words, you don't usually use a partial amount of a compressed or distorted signal, although some crafty engineers have been known to break this rule. Conversely, time-domain effects such as chorus, delay, and reverb are almost always mixed with the dry signal.

Send Track Effects

One good way to think of a send effect is as one or more channels being mixed together and then being sent to a standalone effects unit. The dry mix remains unaffected, and the effect gets added to final mix. Because of this, the wet/dry mix control of a send effect should always be set to 100% wet. (Otherwise you'd end up with the dry signal from the main mix plus some dry signal from the effect itself, making it difficult to mix.) Perhaps the biggest benefit of send effects is conservation of computer processing resources; if you're using a reverb plug-in that demands a great deal of computer overhead, send tracks allow you to send many mix channels to just one instance. And if you're using an effect to process many channels of one "instrument" (e.g., a drum kit, several vocal tracks, etc.), a send effect lets you add different amounts of the effect for each channel by simply adjusting the amount of each track's send knob. Send tracks also offer tremendous flexibility with regard to stereoization; for example, a dry track could be panned to one side of the stereo image, with the effected side panned to the other.

Once the Send Track is selected, a knob appears. This sets the amount of signal sent to the Send Track.



The send level can be set by clicking and dragging the knob up and down. (The mouse cursor turns into up and down arrows.) You can also set a channel's Send Track level by clicking the *Mixer* tab at the bottom of the screen and rotating the channel's *Send* knob, but we'll tell you all about the mixer later on. Keep in mind that numerous tracks can be sent to the **same Send Track**. (Check out the *To Insert or To Send Effects, That Is The Question* sidebar for more information.)

The amount of the track's audio sent to the Send Track can also be adjusted via track automation. (For more information, see "[Automation](#)", pg. 42.)

SEND VOLUME TYPE

This determines if audio is sent to the Send Track before or after the track's volume fader.

- ◆ *Pre Volume Adjustment (PRE-Fader Send)*

The track's audio is sent to the Send Track before its own volume adjustments.

- ◆ *Post Volume Adjustment (POST-Fader Send)*

The track's audio is sent to the Send Track after applying its own volume adjustments.

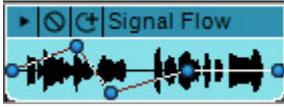
To change the Send Volume Type, right-click on the channel's Send knob in the Mixer or on the Send knob displayed when track automation is visible, and select *Send Volume Type>Pre Volume Adjustment* or *Send Volume Type>Post Volume Adjustment*.

Mixcraft Send Tracks default to *Post Volume Adjustment*. This is a sensible choice for most mix situations, because it means reducing the volume of a track fader proportionally reduces the volume of the Send Track. There are situations where this behavior **isn't** optimal. For example, if you'd like a dry instrument to be very quiet, but you'd like the reverbed signal very loud, *Pre Volume Adjustment* would be a better choice.

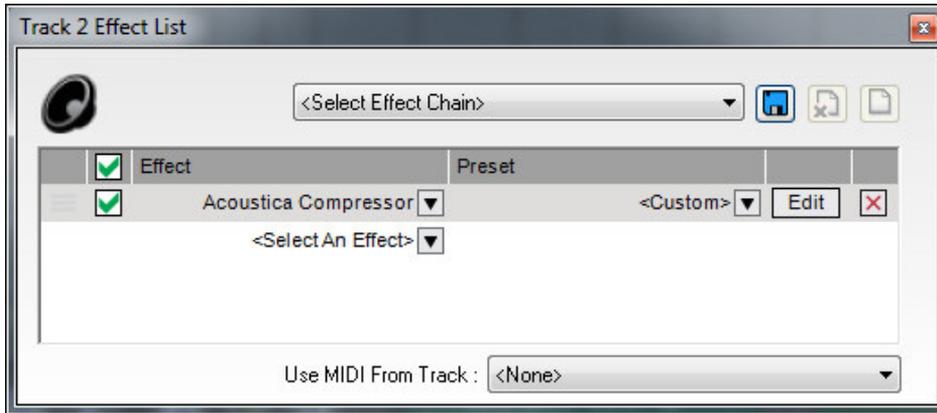
AUDIO SIGNAL FLOW

To reiterate, the send volume type determines whether audio from the track is routed to the Send Track before or after the track fader and volume automation. Here's a diagram of the audio signal flow in Mixcraft:

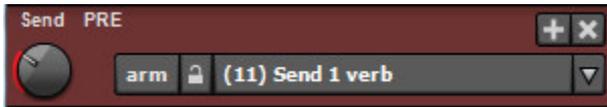
1. Clips (with clip-level automation)



2. Track Insert Effects



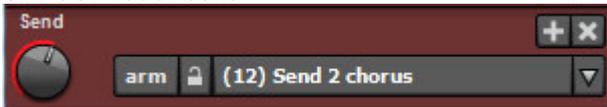
3. PRE-Fader Send*



4. Track volume and pan



5. POST-Fader Send*



Send Track Effects

When adding an effect to a Send Track, we recommend using a preset designed for a Send Track. (They'll have the word Send in the title.) These presets will already have the wet/dry mix set to 100% wet in order to avoid the problem of having the dry signal's volume controlled by the channel fader and the effect's dry signal balance. If the clean volume appears to behave strangely ("Why can't I turn this darn channel down!%^&?"), click fx in the Send Track, then the Edit button next to the effect. Now adjust the dry mix down to 0% and the wet mix up to 100%.

* Depending on the send volume type, the audio from a track will be sent at one of the starred * points in the audio signal flow.

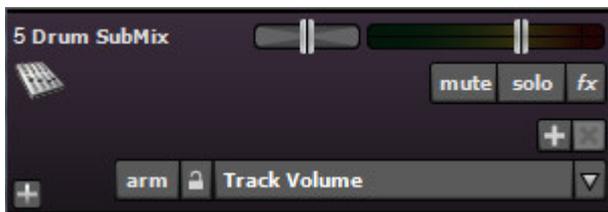
SUBMIX TRACK

A SubMix track routes audio to an intermediate track before the Main Mix master volume. This is very useful as a master volume control for a group of related tracks such as a drum kit, or multiple tracks of backing vocals. SubMix tracks are also useful if you'd like to send a group of tracks to one channel-insert-type effect. One common use would be to send multi-tracked layered backing vocals through a single compressor to “glue” them together.



To create a SubMix Track, *click the +Track button* and select *Add Submix Track*. You can also click *Track>Add Track>SubMix Track* in the main window menu or right-click in the Track List area and use the *Insert Track* menu.

To add tracks to a SubMix Track, drag and drop the tracks onto the SubMix track. (Make sure to grab tracks in the track list, not clips in the grid; when you move a track, its clips move with it.) Once tracks are the child of a SubMix track, they can be freely moved up and down in track list. Besides being directly beneath the SubMix track, child tracks will indent slightly with a small black region on the left side for easy visible identification. If the SubMix Track is moved in the the track list, all child tracks move with it. Child tracks may be shown or hidden by clicking the +/- sign at the far left side of the SubMix Track.



Volume, panning, solo, mute, insert effects, and automation remain independently adjustable for SubMix child tracks. Tracks may also be dragged and dropped out of the SubMix track – drag the track up or down to a location out of the SubMix track and the track becomes a standard track again.

OUTPUT BUS TRACK

An Output Bus Track allows routing to alternate devices and/or outputs. It allows routing to physical audio outputs when using audio hardware with multiple outputs.

To create an Output Bus Track, click the **+Track** button and select *Add Output Bus Track*. You can also click *Track>Add Track>Output Bus Track* in the main window menu or right-click in the Track List area and use the *Insert Track* menu.

If you're using an audio device with multiple outputs, click on the *Output* drop-down menu directly beneath the level meter. Here, you'll be able to select from your audio hardware's available physical outputs. The routing of tracks to physical outputs can also be configured in the *Mixer* tab; see the "[Audio Mixer](#)" section (pg. 137).

There are many ways to use Output Bus Tracks to enhance a mix, or to take advantage of multiple outputs on an audio device. Here are some examples:

CREATE OUTPUT BUS TRACKS FOR SIMPLIFIED MIXING

In the image below, there are five Output BusTracks created for combining all drums, bass, guitars, keyboards, and vocals. All of the drum tracks are routed to the *Drums* Output Bus Track, all vocal tracks are routed to the *Vocals* Output Bus Track and so on.



This example doesn't require audio hardware with multiple physical outs, as all of the audio outputs are set to the default stereo output pair, but submixing all tracks of a song across five faders makes mixing the song very easy. Remember that each Output Bus Track can have its own EQ, effects, and automation applied as well.



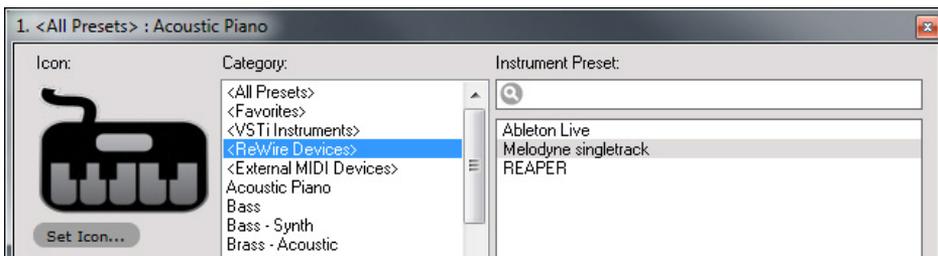
REWIRE

ReWire is an audio and MIDI protocol developed by Propellerhead Software allowing Mixcraft to access sounds, virtual instruments, and features of external music programs.

Mixcraft acts as a host, also known as a ReWire Mixer, with other applications working as “clients,” or ReWire Devices. External applications will synchronize their tempo, loop points, and start and stop times with Mixcraft. MIDI data from Mixcraft can also be routed to control virtual instruments inside other applications. Audio from these other applications is routed to Mixcraft, where it can be mixed and affected.

There are two ways to add a ReWire track with Mixcraft:

- ◆ Click the *Mix>Add ReWire Application* from the main screen menus and select the desired Rewire application. This adds a ReWire track in Mixcraft and displays the third-party program’s interface as a child window inside Mixcraft.
- ◆ Click the keyboard icon on an Instrument Track and select *<ReWire Devices>* in the category menu. Choose a ReWire application from the Instrument Preset menu. A new ReWire track will be created for the application, if one doesn’t currently exist.



Once a ReWire track has been created, all transport controls, including play, rewind, and stop, as well as tempo changes and loop points, will be sent to the Rewire application, letting you use the application in conjunction with Mixcraft. Instrument Tracks can also send live or recorded MIDI data to instrument tracks available in the ReWire application.

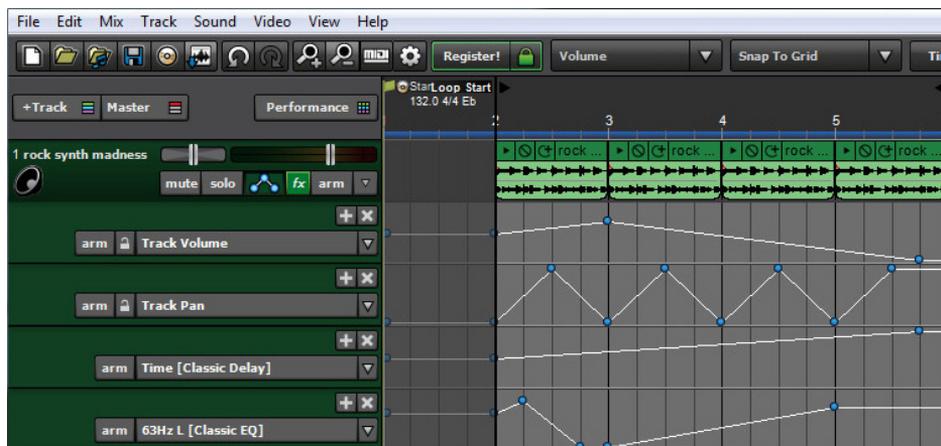
All audio generated by the ReWire application will play through to Mixcraft on the ReWire track. As with other Mixcraft tracks, volume, pan, solo, and mute parameters apply. Effects and automation can also be applied to ReWire tracks.

AUTOMATION

Mixcraft's lane-based track automation allows simple automation of volume, pan, and send tracks, as well as all parameters of a track's plug-ins and virtual instruments. You can view or hide as many parameters as you like simultaneously, with each parameter occupying its own "lane," until you run out of screen space. It's also compatible with the Mackie Control, TranzPort, and other hardware control surfaces.

Keep in mind that lane-based track automation is separate from the clip-based automation. To better understand each automation type, check out the sidebar *Understanding Lane- Vs. Clip-Based Automation*.

TRACK AUTOMATION



Understanding Clip VS. Lane Automation

Mixcraft contains two separate types of automation, clip- and lane-based automation. Clip automation is displayed by the horizontal line that appears when hovering over the bottom section of audio or MIDI clips. It allows automation of volume, pan, low pass filter cutoff frequency and resonance, or high pass filter cutoff frequency and resonance on a per clip basis. In other words, automation of these parameters is set independently for each clip. The parameter currently shown is selected with the drop-down menu at the top of the screen in the main menu tool bar. (Click the one that says Volume to view all the clip automation parameters.) The drop-down menu parameter selection is global – in other words, if you choose the Pan parameter, all clips in a project will now display the Pan parameter.

Lane-based automation differs in a number of ways. Most significantly, lane automation functions independently of clips – try to imagine it as "laid over" the clips making up a project. Because it functions independently of clips, for example, you could create a slow volume fade that spanned numerous clips. And instead of being superimposed on clips, lane-based automation is displayed on its own "lanes," separate from, but parallel to, the clips it affects.

The other important difference is that clip-based automation does not affect the control positions in the Mixer tab – it simply adds or subtracts parameters "on top" of the current control positions. Conversely, if an automation lane's Lock button is engaged, automation behaves like a "third hand," causing mixer

controls to move. This makes it more suitable for use with hardware control surfaces with moving faders, as the controls move together on a one-to-one basis.

TRACK LIST AUTOMATION CONTROLS



Toggle Automation

This displays and hides automation lanes for individual tracks. If a track has no prior automation, a single automation lane opens displaying volume automation. If a track has existing automation, you'll see all automation lanes with views currently enabled (using the + and x buttons described below). If the track contains lane automation the *Toggle Automation* button appears green; if it doesn't, the button will be gray regardless of whether the view is toggled on or off. This makes it easy to distinguish if a track contains automation or not.

Keep in mind that the *Toggle Automation* button only hides and displays the automation lanes, but has no effect on automation playback. In other words, lane automation still happens even if the lanes are hidden with *Toggle Automation* button.

You can view as many automation lanes for a single track, or tracks, as you like. This makes it easy to edit numerous parameter simultaneously. To open additional automation lanes for a track, click the + sign, then click the *Automation Parameter* drop-down menu to select the desired parameter for editing. To hide an automation lane, click the X sign. When an automation lane is hidden, the automation still remains active – it's simply hidden from view.

To simplify remembering which track parameters contain automation data, the text for parameters containing automation data is displayed in blue in the *Automation Parameter* drop-down submenu.

◆ [+] Button

Adds a new automation lane to the track.



◆ [X] Button

Hides the automation lane.

◆ Arm

This is the automation Arm button to the left of the lock icon in the automation track header, not the record Arm button above it. Clicking this allows recording of automation data for a lane either via the onscreen control associated with the lane's automation parameter, or by using a hardware controller assigned to a parameter. (See *Recording Automation Using Hardware Controllers*, pg 50.)

◆ **Lock Button**

This synchronizes the movements of lane automation with onscreen displays of channel volume and pan, as well as submix, send, output bus, and master track volumes. As these parameters are being controlled by lane automation in lock mode, the onscreen controls for these parameters will be disabled when in lock mode – you’ll see them shrink slightly and “go dark.” Automation parameter lock is especially useful when using hardware control surfaces with motorized faders, as it keeps onscreen and hardware controls locked together at all times.

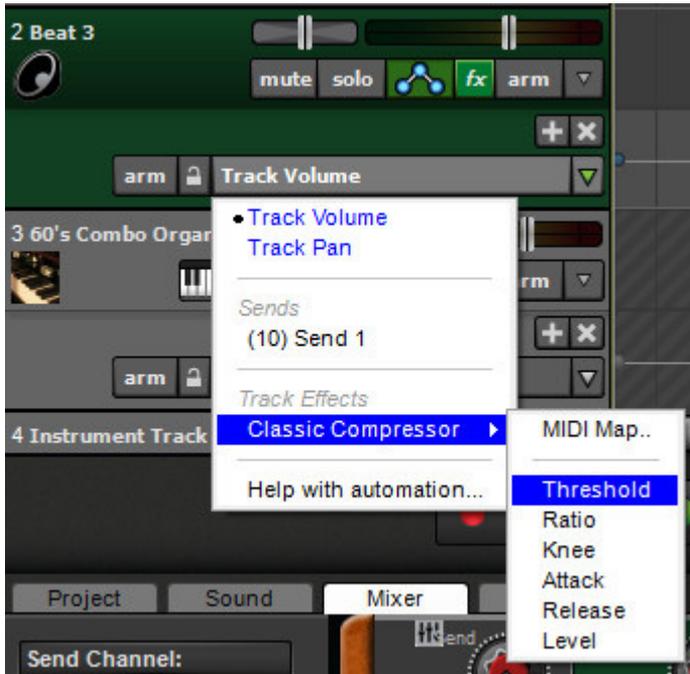
If an automation lane’s Lock button **is not** engaged, mixer controls will not move, and their control positions act as “master” controls **in addition** to automation data. In other words, if lane automation contains a volume curve, moving a channel fader will cause the entire volume curve to become louder or quieter, but the automated volume will still occur.

◆ **Automation Parameter**

This drop-down menu is where you’ll choose which parameter the automation lane will control. These can be Mixcraft mixer parameters such as channel’s volume, pan, or send levels, or they may be individual parameters of a plugin or virtual instrument; clicking the name of a plugin or virtual instrument will display a drop-down submenu with all automatable parameters.

SELECTING PARAMETERS FOR AUTOMATION

To select a parameter for automation, click a track's *Automation Parameter* drop-down lane in the track list – by default it will say *Track Volume*. You can click it or the downward facing arrow next to it.



A drop-down menu appears showing the track volume, pan, and send parameters, as well as a list of currently inserted virtual instruments and/or plug-in effects. Hovering the mouse over a virtual instrument or plug-in effect name will display all currently automatable parameters for that instrument or effect. Clicking a parameter name will display current automation for that parameter in the automation lane.

ADDING AND EDITING AUTOMATION

To add automation points, simply click on an automation lane's automation line and drag the point up and down. The position of newly created automation points will conform to the the current snap setting. The global snap value applies when adding and editing automation points. If you experience problems moving an envelope point to a specific location, change the Snap setting to *Snap Off*.



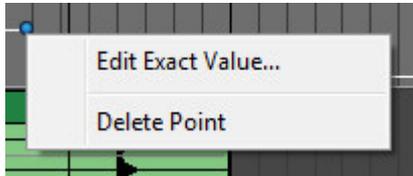
To move a horizontal section of the automation line, hold down the SHIFT key while dragging. The cursor will turn into an up/down arrow.

Dragging an automation point over other automation points will cause them to be “overrun” and deleted upon mouse release.

FINE TUNING AND DELETING AUTOMATION POINTS

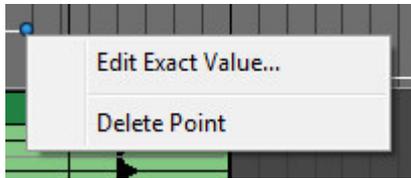
◆ Edit Exact Value

To precisely set automation point values, right-click it and choose *Edit Exact Value*. The dialog box below opens and allows exact settings for automation points.



◆ Delete Point

To delete an automation point, right-click on and choose *Delete Point*.



CUTTING, COPYING, AND PASTING AUTOMATION DATA

Automation data can easily be cut, copied, and pasted.

◆ Cut

To *Cut* a section of automation, highlight the section of automation to be cut by clicking and dragging over the area to be cut. Now select CTRL+X either in Mixcraft's file menu, or by right-clicking the mouse to copy. You can paste the cut automation data to a new location by positioning the Caret marker in the desired new location, then selecting CTRL+V either in Mixcraft's file menu, or by right-clicking.

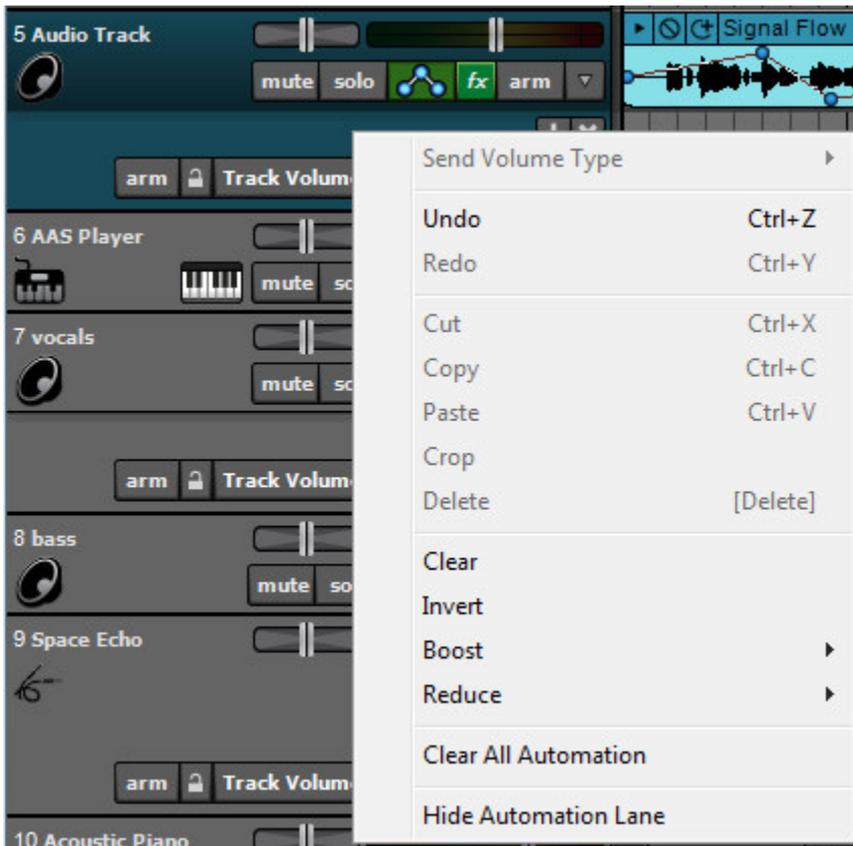
◆ Copy

To *Copy*, highlight the section of automation you'd like copied by clicking and dragging over the area to be copied. Now select CTRL+C either in Mixcraft's file menu, or by right-clicking the mouse to copy. Position the Caret marker in the desired copy location, and paste by selecting CTRL+V either in Mixcraft's file menu, or by right-clicking.

Automation data may be freely copied between tracks, and even to different parameter lanes. You can also copy multiple automation lanes or automation lanes and clips simultaneously. The only limitation is that Mixcraft will only copy automation data to visible lanes, e.g., if volume and pan lanes are copied to track with only a volume lane visible, **only the volume controller data will be copied**. This is done to prevent automation data from copying to an “invisible” location and potentially causing confusion.

ADDITIONAL AUTOMATION PARAMETERS

Right-click in the track automation header to display additional parameters.



- ◆ **Clear**
Deletes automation data in the currently selected lane.
- ◆ **Invert**
Reverses the positions of automation data in the currently selected lane.
- ◆ **Boost**
Raises automation data value in the selected lane by 5%, 10%, 25%, or 50%.

◆ **Reduce**

Lowers the value of automation data in the currently selected lane by 5%, 10%, 25%, or 50%.

◆ **Clear All Automation**

Deletes all automation in all lanes for the current track. Be careful with this one!

◆ **Hide Automation Lane**

Hides the current automation lane - the same as clicking the X in the lane's header.

RECORDING REAL-TIME AUTOMATION

“Real-time” automation is a fancy way of saying that Mixcraft will record parameter changes such as moving a knob or slider, or pressing a button. You can record parameter changes using onscreen controls or using knobs, sliders, and buttons on a hardware USB controller.

RECORDING AUTOMATION OF ONSCREEN CONTROLS

The easiest way to automate parameters is by recording the movements of onscreen controls. Here's how:

1. Click on the track you'd like to automate a parameter on in the track list.
2. Click the track's automation button. The automation button will turn green, and an automation lane will open beneath it. The default automation parameter will be *Track Volume*; to choose a different parameter for automation, click the down arrow next to the default automation parameter. (When virtual instruments and plug-ins in the list are clicked, you'll see submenus displaying its automatable parameters.)
3. Once the appropriate parameter has been chosen, click the *Arm* button beneath and to the left of the automation parameter display; this tells Mixcraft to record controller data for selected parameter. (The track's Record Arm button does not need to be armed; it **can** be, but keep in mind that you'll now be recording automation data as well as audio or MIDI note data depending on the track type.)
4. Position the playhead where you'd like automation recording to begin by clicking in the ruler at top of the project.
5. Press *Record*. If you're recording volume, pan, send level, or other parameters with a parameter control on the main screen or in the Mixer tab, you can simply move these onscreen controls, and Mixcraft records their movements. If you're recording automation for virtual instrument or plug-in parameters, make sure to open up their interface prior to recording (right-click on the keyboard icon or the *fx* icon) for access to controls. Either way, newly recorded automation will appear as it's recording. Remember that you can add as many automation lanes and parameters as you like.

Remember to hit the Stop button when you're done, and be careful not to enable Loop Mode, otherwise the movements you record may be instantly overwritten when Mixcraft "comes back 'round."

RECORDING AUTOMATION USING HARDWARE CONTROLLERS

This works almost exactly as described above, but instead of moving or clicking the mouse on virtual on-screen controllers, you'll be able to record the movements of the knobs, sliders, or buttons on a hardware controller. Before you can record automation data from a hardware controller, you'll need to assign controls to parameters using MIDI controller information in Mixcraft. Don't worry, Mixcraft makes it really easy!

AUTOMATING EFFECTS ON NON-CLIP TRACKS

A non-clip track is any track that doesn't have audio or MIDI clips associated with it. The primary track does not have an X, because these tracks only display automation in the main clip grip. However, if you choose to display additional parameters for a non-clip track (by clicking the + button), these will have an X allowing the extra parameters to be displayed or hidden. The following track types are non-clip tracks:

- ◆ SubMix
- ◆ Send
- ◆ Output
- ◆ Master
- ◆ Instrument Mix Output
- ◆ Rewire

AUTOMATING WITH A MIDI CONTROLLER

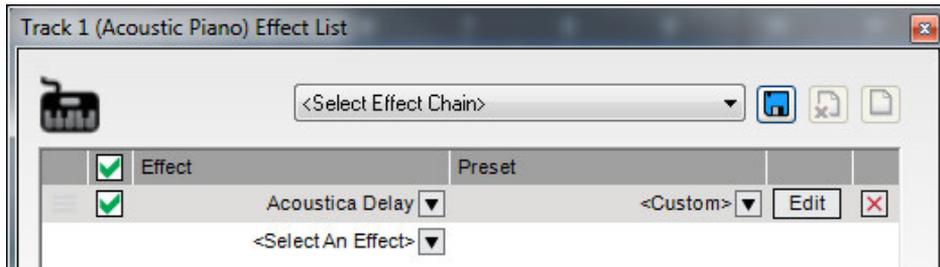


Any USB MIDI controller or keyboard can be set up to control any effect parameter or virtual instrument parameter. The basic idea is that you'll map buttons, knobs, or sliders to specific parameters. This allows a whole new level of expressiveness with virtual instruments, effects, and synthesizers.

MAPPING A HARDWARE CONTROL TO A PLUG-IN EFFECT PARAMETER

In this example we'll assume that an effect has already been inserted into the channel.

1. Click the *FX* button in the channel header, then click the Edit button to the right of the effect name.



2. Click the gear in the upper left corner of the plug-in interface window to open the *MIDI Mapping* window.

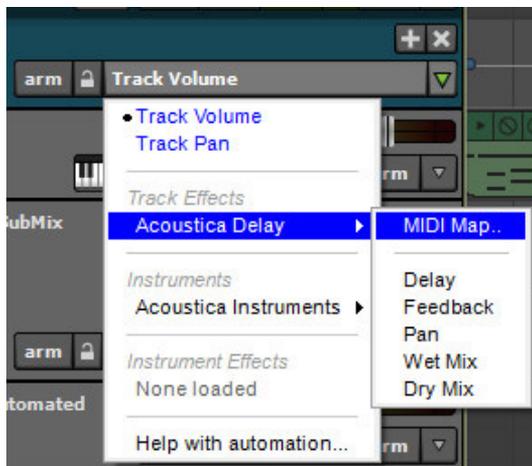


Alternatively, the *MIDI Mapping* window can be accessed by displaying a channel's lane automation (press the automation button).

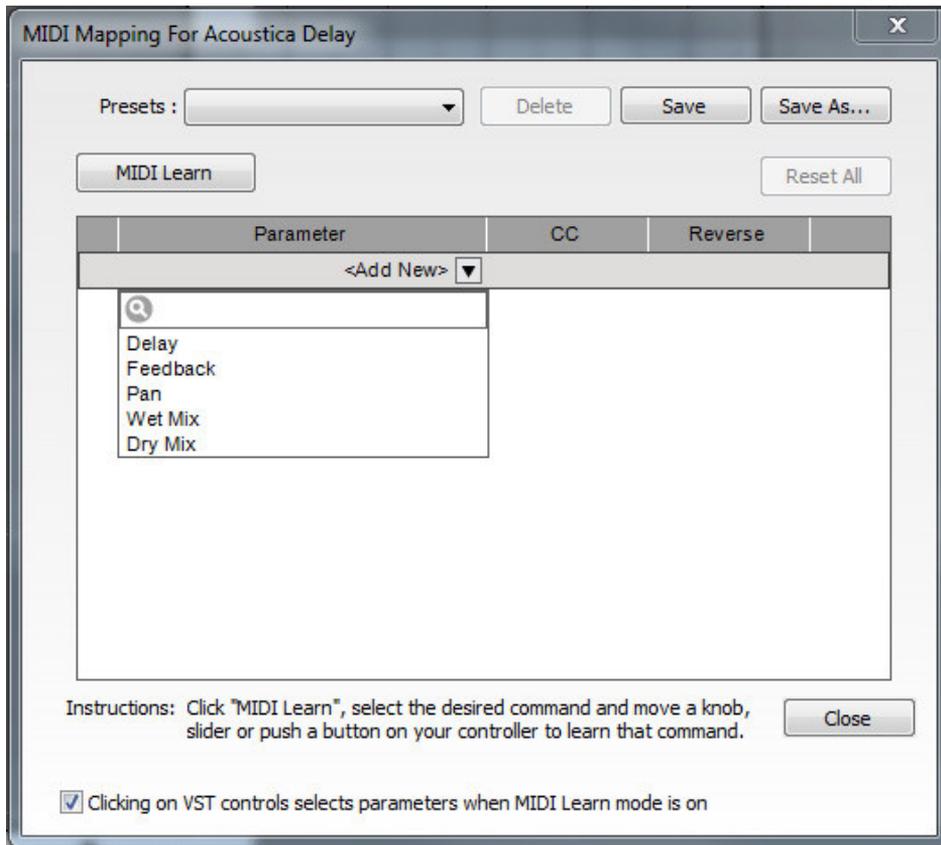
... then clicking the automation parameter (in this case, Track Volume).

When the drop-down menu opens, choose *MIDI Map*.

3. Under the *Parameter* heading, click *<Add New>* to view the automatable parameters for the current effect or Virtual Instrument. Choose a parameter and click to select it.



4. Click the *MIDI Learn* button. If a knob or fader is being assigned, move it back and forth. If a button is being assigned, press it. You'll be able to tell that the controller



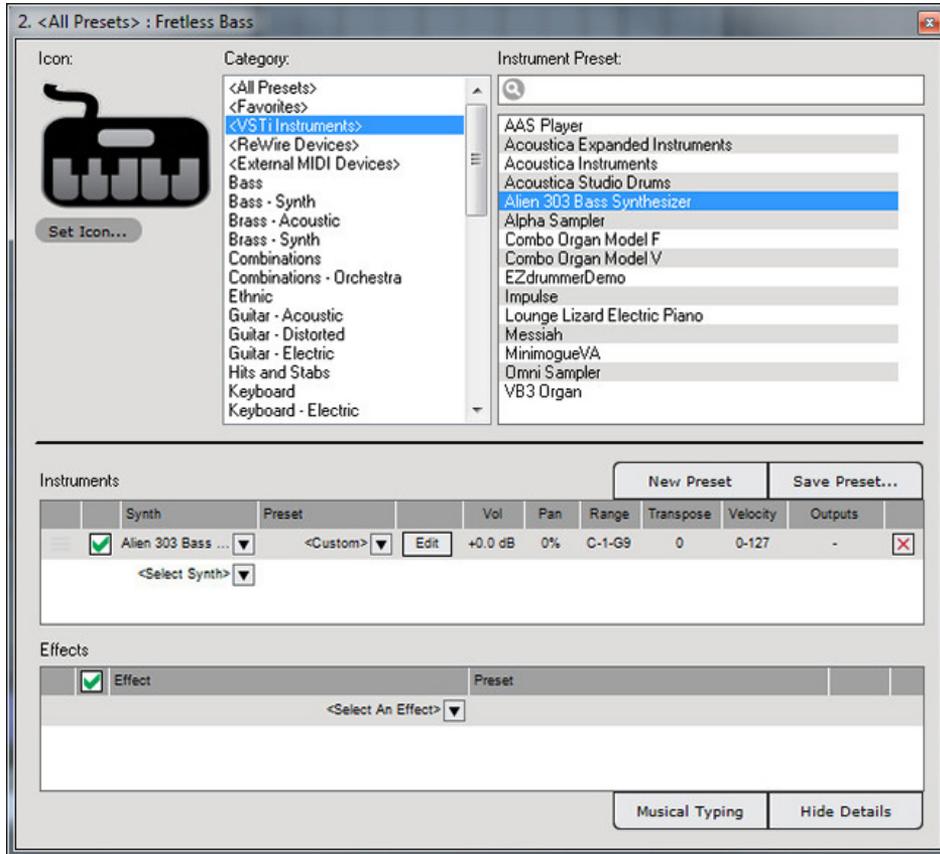
has successfully been assigned, because the MIDI controller number associated with it will display beneath the *CC* heading. Once the parameter has been assigned, click *Stop Learning*.

5. Click the *Close* button.

Assigning hardware controls to Virtual Instruments works exactly the same; the only difference will be the location of the instrument *Edit* button used to display the Virtual

Instrument user interface. You can see the *Edit* button in the screenshot below, to the right of the instrument name.

Super Helpful Tip: If a Virtual Instrument or plug-in effect is already loaded into a channel, its user interface can be accessed directly by right-clicking on the keyboard



instrument icon or FX button. This is a super-useful shortcut, and in this case, it will immediately get you to the “gear” icon for MIDI mapping.

ADDITIONAL MIDI MAPPING WINDOW PARAMETERS

◆ Reverse

This reverses the effect of continuous controllers and buttons.

◆ Reset All

This button clears the current mapping

◆ Delete Current Mapping

Clicking the red X will delete the currently selected controller mapping.

LOADING AND SAVING EFFECT MAPPINGS

To save current mapping assignments, click the *Save* or *Save As* buttons. (You may want to create a directory for these.) MIDI Mapping window assignments will automatically be saved with the current project, but the ability to save mappings lets you reuse settings in new projects.

◆ Effects

Effects can be added to any track type (excluding video and text tracks).

To add effects to a track, click the *FX* button in a track header.

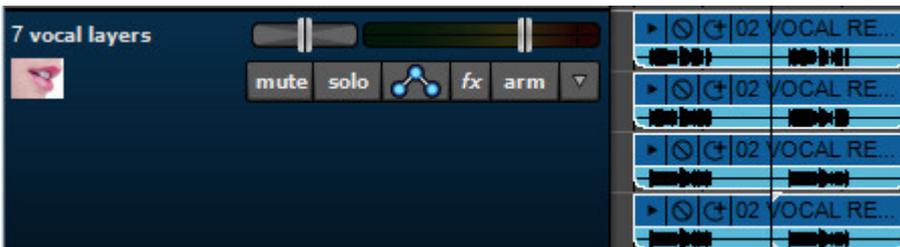


Mixcraft features a large array of effects including echo, delay, chorus, EQ, distortion, and more. (Plus our favorite feature: “And more!”)

Learn more in the ["Effects"](#) section (see pg. 191).

◆ Lanes

Lanes allow multiple tracks of audio or MIDI to exist in the same time location without piling on top of one another or playing simultaneously. This is useful when recording multiple takes (either for recording and editing takes together the best performance, or stacking takes together for a full sound).



ADDING AND DELETING LANES

Lanes are created automatically if a new audio or MIDI recording overlaps a previous one. Most often, this occurs when Mixcraft is set to Loop Mode. Lanes can be manually added by right-clicking in the Main Clip Grid and selecting *Lanes>Add* (or with the shortcut ALT+L). Conversely, a track's bottom-most lane can be deleted by right-clicking and selecting *Lanes>Delete*. To delete unused lanes, right-click and select *Lanes>Delete Empty Lanes* (or with the shortcut ALT+K).

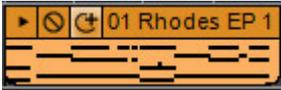
MUTING LANES

All clips on any lane can be muted or unmuted by right-clicking on an empty part of a lane and clicking *Lanes>Mute All* or *Lanes>Unmute All*.

LANE MIDI CHANNEL ASSIGNMENT

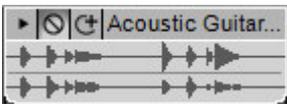
Separate MIDI channels can be assigned to individual lanes when using Virtual Instruments. This is particularly useful with multi-timbral instruments. To assign MIDI channels, right-click an empty part of a lane, select *Lanes>MIDI Channel*, then the desired MIDI channel for the lane.

AUDIO/MIDI/VIDEO CLIPS



Clips are the “building blocks” of projects. Depending on the clip type, they may contain audio, MIDI, video, or text. Following are operations that are common to all clip types.

MUTING CLIPS



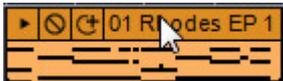
Clips can be muted. Most commonly, you might want to mute a clip in order to modify the arrangement of a song without permanently deleting a clip.

Muted clips appear gray. The easiest way to mute or unmute a clip is to click the small circle-with-a-cross-through-it button in the clip title bar. You can also mute clips by highlighting them and selecting *Sound>Properties>Mute* in the Main Screen Menu.

MOVING/DELETING/LINKING/LOCKING CLIPS

◆ Moving Clips

Clips can be freely moved in the Main Clip Grid. To move a clip, click its title bar and drag vertically or horizontally while holding down the mouse button. (The title bar is the top area of the clip where the name is displayed.)



You can also move a clip by using the keyboard. Highlight the clip or clips to be moved, and press the arrow keys. The clip(s) will move based on the current snap setting.

◆ Deleting Clips

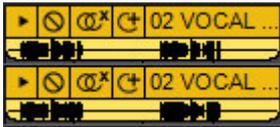
Select a clip or group of clips and then select *Edit>Delete* from the Main Window, or press your computer's DELETE key.

◆ Deleting Parts Of Clips

If only a part of a clip is selected, only the selected part gets deleted selected. For example, if you've recorded a singer and there is an extra audible breath, select the unwanted area and delete it.

LINKING CLIPS

Related clips can be linked together causing them to move as a single unit. This is useful when moving video clips with associated audio, multiple-mic drum recordings, or layered background vocals.



To link clips together, select the clips and click *Edit>Link Selected Clips* in the Main Window menus or by right-clicking one of the selected clips. To unlink clips, simply click the two rings/X button on the clip, or choose the *Edit>Unlink Selected Clips*. If there are multiple clips linked together, you can unlink just one by choosing *Edit>Unlink This Clip*.

LOCKING CLIPS

Clips can be locked to prevent them from being moved or resized. To lock a clip(s), select it then click *Sound>Properties>Lock* from the Main Window menus (or by right-clicking the clip). Clips can be unlocked the same way; simply click in the same menus to uncheck locking. Clips can also be locked and unlocked using the Sound tab.

◆ Looping/Cropping/Trimming Clips

Loops can be cropped and trimmed by resizing. Sounds can also be looped by resizing from the left or right.

◆ Cropping and Trimming Clips

You can trim the start and end of any clip. Moving the mouse to the right or left edge of a clip will change the cursor into a left/right resize arrow. Hold the mouse down



and drag to resize or trim. For more precise adjustment, zoom the view in closer.

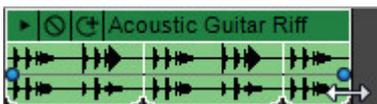
The left or right edge of will trim based on the current *Snap* setting. If a clip won't trim to a specific length, check the *Snap* setting; you may need to set the value to *Off*.

◆ Crop From A Selection

A specific region can be cropped by making a selection over a clip, or a group of clips, and selecting *Edit>Crop* from the Main Window menus or by right-clicking and selecting *Crop*.

◆ Looping Clips

To create additional loops of a clips, move the mouse onto the left or right edge of the clip. The cursor will turn into a left/right arrow. Click and drag the right edge of the clip; when the length of the clip exceeds the length of the *Loop Start* and *Loop End* points (defined in the *Sound* tab), a new loop begins.



The indentations in the bottom of a clip indicate the loop start and end points. You can also make additional loop copies by clicking the *+1 Loop* button next to the immediate left of the clip's name.



◆ Remove Space Between Clips

This eliminates silent gaps by moving clips together. It does not combine clips into one big sound – it just scoots clips closer together. Select *Edit>Remove Space Between Clips* from the Main Window *Edit* menu.

◆ Cutting/Copying/Pasting Clips

To cut and paste a clip, select a clip, or a portion of one, by dragging over it. Select *Cut* from the Main Window *Edit* menu, then click in the Main Clip Grid to position the Caret in the desired destination. Select *Paste* from the *Edit* menu to paste to the Caret location.

Copying clips work exactly as above, just select *Copy* instead of *Cut* and the original clip will remain. You can also *Cut*, *Copy*, or *Paste* by right-clicking the mouse.

◆ Alt-Drag Copying

To quickly copy selected clips, hold down the ALT key and click-drag a clip to quickly make a duplicate.

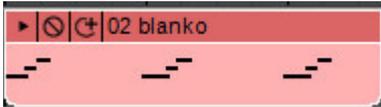
MERGE

To merge two or more audio or virtual instrument clips on the same track, select the clips and then click *Sound>Merge To New Clip* in the Main Window menus.

Before a merge:



After the merge:



Reasons To Merge Clips

Multiple virtual instrument clips are on one track and you'd like to print out sheet music for the entire track, but the notation view only displays one clip at a time. Merging the clips together allows the notes to appear correctly in the notation view.

You have multiple audio clips one track recorded with the same noisy air conditioner in the background and you want to remove the noise in one command. Merging the clips together allows you to remove the noise one time.

The current project has hundreds of clips and your workspace is getting confusing and slow. Merging the clips to one sound will cut down on resources, speed up your mix by cutting down on CPU, and unclutter the interface, as well.

SELECTING CLIPS

A selection is an area that you'd like to edit or work on.

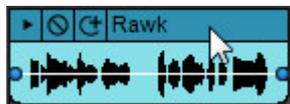


◆ Drawing A Selection

Click and drag the cursor over a region to create a selection. The selection is displayed as a transparent purple rectangle. Selections obey the snap setting. ("Transparent Purple Rectangle" would be a fabulous name for a psychedelic band.) The selection drag may be started on the timeline, a clip, or a track body.

◆ **Selecting An Individual Clip or Multiple Clips**

To select an individual clip, click on its title bar. The clip will have a white outline when selected.



To select multiple clips, hold down the CTRL key and click on the title bars of the clips to be selected.

◆ **Selecting A Region of a Clip**

To select part of a clip, click and drag in the bottom section of a clip (beneath the Title Bar). The cursor will change to an I-beam to simplify selection.

Selection Shortcuts

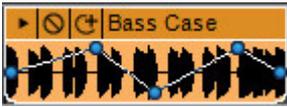
Action	Shortcut	Description
Selecting All Clips On A Lane	CTRL+SHIFT+ALT+A	Choose <i>Track> Lanes >Select All</i>
Selecting All Clips On A Track	CTRL+SHIFT+A	Choose <i>Track>Select All Clips On This Track</i> . Alternatively, double-click a track header.
Selecting All Clips In Project	CTRL+A	Choose <i>Edit>Select All</i>
Unselect Clips	Esc	Deselect any selected clips.
Select Next Clip	Tab	A quick way to select the next clip.
Select Previous Clip	SHIFT+Tab	A quick way to select the previous clip.

◆ **Other Things You Can Do With Selections**

Once regions are selected, they may be cut, copied, and pasted the current selection. Here are some less obvious operations that can be done with selected regions:

- ◆ Boosting or reducing audio levels
- ◆ Creating fades
- ◆ Cropping clips
- ◆ Linking clips
- ◆ Merging clips
- ◆ Normalizing clips
- ◆ Removing space between clips
- ◆ Setting Loop to Crop
- ◆ Trimming silence

CLIP-BASED AUTOMATION

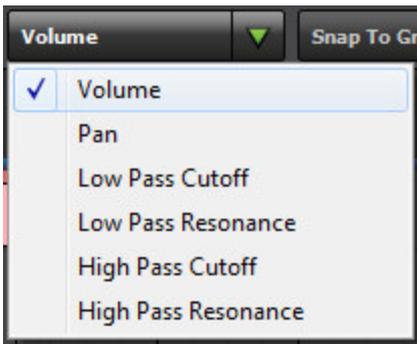


Each audio clip has its own independent automation line for the following parameters:

- ◆ Volume
- ◆ Pan
- ◆ Low Pass Cutoff
- ◆ Low Pass Resonance
- ◆ High Pass Cutoff
- ◆ High Pass Resonance

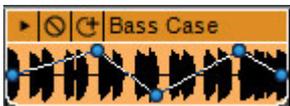
These are *all* simultaneously available for any clip. To select the currently displayed automation line, highlight a clip, or clips, and select the parameter in the Main Window Toolbar at the top of the screen.

Note: Clip Automation, where automation is applied to clips individually, is separate from Lane Automation, where automation affects an entire track in a continuous line. Both types of automation work simultaneously, so be aware of this if you're using both types on the same content.



Here we'll adjust clip volume. The clip automation display selector (that's a mouthful) switches the parameter displayed globally for all clips in a project.

◆ Adjusting Clip Automation



To create and adjust clip automation points, hover the mouse cursor over the lower section of a clip. The clip's automation line will appear, and the cursor will turn into crosshairs. Click to create new points, and drag to position them.

Keyboard Modifiers

- ◆ **Add Points:** Hold the CTRL key down and click to add points anywhere on the sound.
- ◆ **Move Line:** Hold the SHIFT key down and click down on an automation line to move the line up or down.
- ◆ **Delete Points:** Hold the ALT key down and click points to remove or delete them.

◆ Setting Exact Value

Precise values can be set by right-clicking on the point and choosing *Edit Exact Value...* This opens a dialog box where exact number values can be entered.

◆ Fades, Boosts, and Reductions

Though these sound like procedures rich ladies get done, these are actually shortcuts that add multiple envelope points at a time. Select an area of a sound and choose one of the following predefined options from the *Sound* menu in the Main Window:

- ◆ Sound>Envelopes>Fade Out
- ◆ Sound>Envelopes>Fade In
- ◆ Sound>Envelopes>Reduce
- ◆ Sound>Envelopes>Boost

◆ Clip Volume

Volume can be set to values from 0% to 200% (-Inf dB to +6 dB).

◆ Clip Pan

Pan is the volume balance between the left and right channel (i.e. left and right speaker). By automating pan settings, sounds can move from left to right or vice-versa. Pan can be set to values from 100% left to 100% right.

LOW AND HIGH PASS FILTERS

In addition to changing the volume and pan of a sound over time, Mixcraft's low pass and high pass filters allow filtering to change over time.

What Is A Low Pass Filter?

A low pass filter is an audio filter that literally allows low frequencies to “pass” while removing (or “filtering out”) high frequencies. A low pass filter has a cutoff value, such that every frequency below the cutoff can be heard, and every frequency above the cutoff is reduced or removed entirely from the audio. For example, if you use a low pass filter with a cutoff frequency of 2000 Hz, every frequency below 2000 Hz will be heard in full, but every frequency above 2000 Hz will be reduced or removed entirely.

The low pass filter in Mixcraft is a resonant filter. This means that in addition to the cutoff value, there is also a value for the amount of resonance. Simply put, resonance involves emphasizing frequencies at the filter's cutoff point. So, if we imagine a filter with a cutoff frequency of 2000 Hz and a high resonance value, what will be heard is a sound where frequencies above 2000 Hz have been removed, frequencies below 2000 Hz remain the same, and frequencies at and directly around 2000 Hz are louder. Resonance is a simple concept, but it can be a dramatic effect, especially if resonance is high and the filter's cutoff frequency is changing. This effect is what's known as a "filter sweep".

Every sound in Mixcraft has its own resonant low pass filter. These filters can be used in many ways. You can use them as an EQ effect, reducing certain high frequencies, such as acoustic guitar finger squeaks. You can also use them to create filter sweeps, by adding resonance while the cutoff frequency moves up or down. The cutoff frequency and resonance amount are each controlled via an envelope, and these values can change over time, in the same way a volume or pan envelope can be used to change to volume and pan amount over time.

Editing A Low Pass Filter

To edit a sound's low pass filter cutoff, go to the toolbar and make sure that "Low Pass Cutoff" is selected. By default, all points on this envelope are at 100%, meaning that all sounds below the cutoff (i.e. everything) can be heard. Adding points lower than 100% will cause high frequencies to be increasingly removed from the audio.

To edit a sound's low pass filter resonance, go to the toolbar and make sure that "Low Pass Resonance" is selected. By default, all points on this envelope are at 0%, meaning that there is no resonance/emphasis at the cutoff point. Adding points higher than 0% will cause emphasis at the cutoff frequency, if any frequencies exist at and around that frequency.

What Is A High Pass Filter?

A high pass filter is the exact opposite of a low pass filter, meaning that high frequencies above the cutoff point are allowed to pass, while frequencies below the cutoff point are reduced or removed. Mixcraft's high pass filter is also a resonant filter.

Editing A High Pass Filter

To edit a sound's high pass filter cutoff, go to the toolbar and make sure that "High Pass Cutoff" is selected. By default, all points on this envelope are at 0%, meaning that all sounds above the cutoff (i.e. everything) can be heard. Adding points above 0% will cause low frequencies to be increasingly removed from the audio.

To edit a sound's high pass filter resonance, go to the toolbar and make sure that "High Pass Resonance" is selected. By default, all points on this envelope are at 0%, meaning that there is no resonance/emphasis at the cutoff point. Adding points higher than 0% will cause emphasis at the cutoff frequency, if any frequencies exist at and around that frequency.

AUDIO CLIPS

An audio clip is a clip containing an audio recording. Audio clips always display a waveform in their lower section.



Existing audio can be added to Mixcraft, or new audio clips can be created by recording audio into Mixcraft.

MP3, OGG, WMA, WAV or AIF format audio files can be loaded into Mixcraft. New recordings will be saved as WAV or OGG files and stored in the current project folder.

ADDING AND LOADING AUDIO CLIPS

There are several ways to add audio clips to a project.

◆ Sound Menu

Click Sound>Add Sound File... from the Main Window menus. Navigate to a folder, select the sound and click Open. The sound will be placed at the current location of the Caret. Alternatively, use CTRL+H or click the Add Sound button on the Main Window Toolbar. The Add Sound button has musical notes on a folder.



◆ Double-Click a Track

Double-clicking an audio track body sets the Caret and simultaneously opens a window letting you choose a sound. The sound will be placed at the location of Caret.

◆ Add a Sound From the Mixcraft's Loop Library

Click the Library tab on the bottom of the Mixcraft window. Select a sound from the library, position the Caret where you'd like the sound to go, then click the + button next to the sound. Alternatively, you can drag the sound directly into the Main Clip Grid.

◆ Drag In a Sound From Windows File Explorer

Open a Window's File Explorer window and navigate to the sound or sounds to be added. Select the sound(s) in Windows File Explorer and drag them into the Main Clip Grid.

◆ Sound Analysis During Loading

As a sound loads, Mixcraft parses it for peaks in order to display the waveform. If Auto Beat Matching is on, the software also parses for tempo, beats, and key for sounds over 30 seconds. If the software detects a tempo or key, it may adjust the snap point to the first beat and alter the sound based on the project key and tempo.

These operations make it easier for Mixcraft to automatically match up timing and key signature in a project... in other words, they'll make making music easier!

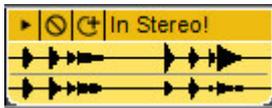
AUDIO CLIP PROPERTIES

These settings govern how Mixcraft displays and plays back individual audio clips.

◆ Channel



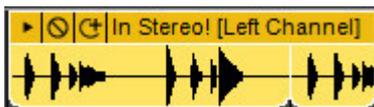
If a clip contains a mono audio file, the clip will display one waveform:



If a clip contains a stereo audio file, the clip displays two waveforms atop one another:

If the a track's height is reduced to a small size, stereo clips will display only one waveform. (Track height can be restored to normal size by selecting *Track>Properties>Track Height>Normal* in the Main Window menus.)

To play back only the left or right channel of a stereo sound, highlight the audio clip and select *Sound>Properties>Channels>Left Channel* or *Right Channel*. (Or Channel No5 if smelling nice is your thing.) To restore stereo playback, select *Sound>Properties>Channels>Stereo*.



If a stereo clip is set to play one channel only, Mixcraft adds *[Left Channel]* or *[Right Channel]* to the clip name as a reminder.

◆ Phase

The *Phase* setting allows inversion of either or both channels in a stereo file. This is useful if you're experiencing frequency cancellation as a result of poorly placed mics, and can also be used to eliminate monophonic audio content, such as drums, bass, and lead vocals, in complete mixes.

- ◆ Sound menu>Properties>Phase>Normal
- ◆ Sound menu>Properties>Phase>Invert Left Channel Only
- ◆ Sound menu>Properties>Phase>Invert Right Channel Only
- ◆ Sound menu>Properties>Phase>Invert Both Channels

◆ Normalize

Normalizing a sound locates its loudest peak, raises it up to “full scale” (i.e. loudest level before clipping), and proportionately raises the volume of the rest of the clip. To normalize a clip, highlight and select *Sound>Properties>Normalize*. Like all Mixcraft, normalization is not “destructive,” so it doesn’t permanently alter the sound stored on your hard drive. To disable normalization, simply go back to *Sound>Properties* and uncheck *Normalize*.

Note: Normalizing essentially makes clips as loud as possible without clipping, but does not alter dynamic balance like a compressor or limiter.

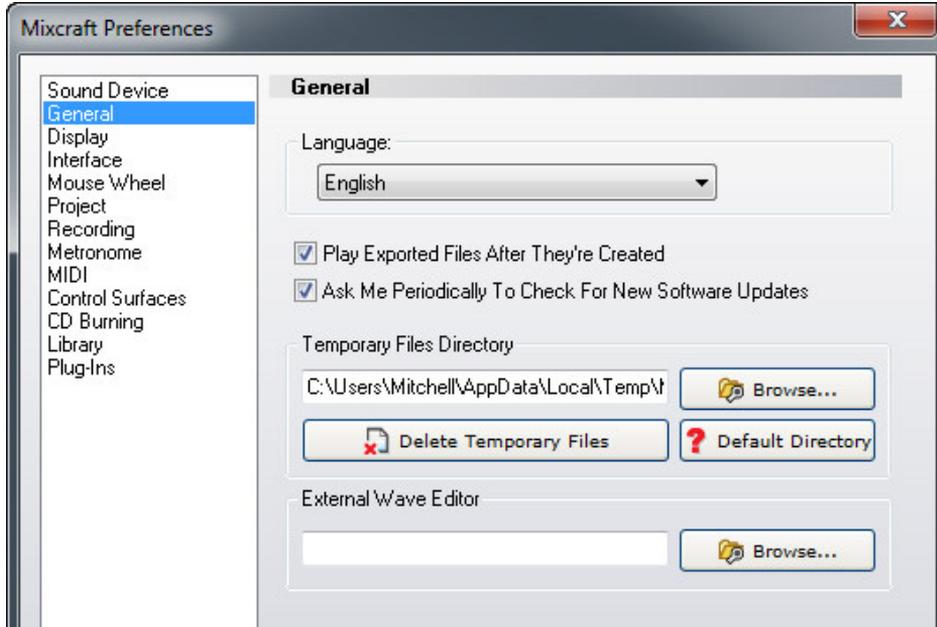
EXTERNAL WAVE EDITOR

Mixcraft will work in conjunction with external sound editing software to apply permanent changes or edits to the sound. For example, if you want to reverse a sound or edit out clicks and pop, you may want to use an external Wave editing software.

◆ Configuring an External Wave Editor

To configure an external Wave editor, select *File>Preferences>General*. Under External Wave Editor, click the *Browse...* button, navigate to the Wave editing software and click to select it.

◆ Editing a Sound in an External Wave Editor



Right-click on

a sound and choose *Edit In External Editor...* or choose

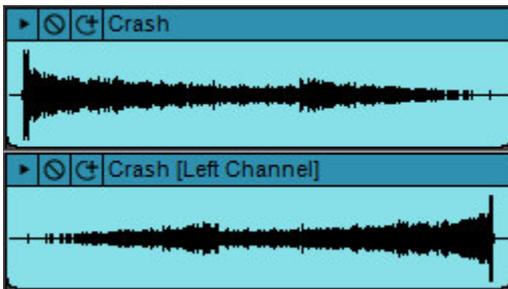
Sound>Edit In External Editor... from the menus in the Main Window.

You'll have the option of editing the original sound or a copy of it. If the original sound is edited, any changes made to it will be permanent. This is known as "destructive editing".

CROSSFADING BETWEEN CLIPS



Crossfading with Mixcraft is so easy that, for all intents and purposes, it's automatic. Simply drag one sound over another and a crossfade is instantly and visibly created. The length of the crossfade corresponds to the size of the overlap of neighboring clips.

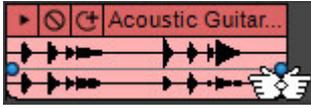


REVERSING CLIP PLAYBACK

Audio clip playback can be reversed by highlighting a clip and selecting *Sound>Reverse* in the Main Window menus. (Or "unreversed" by reselecting *Sound>Reverse*.) If clip automation has been applied, remember that envelope points won't move – they stay

in their original location. Reverse sound playback works especially well with long, decaying sounds such as cymbal crashes or long piano chords.

FLEXAUDIO™ TIME STRETCHING



FlexAudio™ allows easy time compression and expansion by visually dragging the left



or right edge of a clip. While holding the CTRL key down, click on the left or right edge and drag left or right.

The cursor turns into two hands when in **FlexAudio™** mode.

FlexAudio™ works on audio and MIDI clips. For finer control of clip lengths, set the *Snap* value to *Off*.

Fast Talkin' With FlexAudio™

Ever made a 30- or 60-second that ran a couple seconds long? Try time-stretching it with FlexAudio™. Ever heard a lightning-fast legal disclaimer at the end of a commercial? Create the by time-stretching by about 75%. Turn off snapping and FlexAudio™ it to the desired length.

SOUND TAB

Click the Sound tab at the bottom left of the screen to edit and set parameters for audio, MIDI, and video clips with greater precision. The sound tab will display different parameters and graphics depending on what type of clip is currently selected.

Sound Tab Navigation Bar

The Sound Tab Navigation Bar allows clip previewing, vertical and horizontal zoom in/out, and lets you hide or show the Sound Tab Parameter Editor. Its appearance and operation are the same whether editing audio or MIDI notes.



Preview
The preview play button at the top of the Sound Tab Navigation Bar plays back the currently selected clip.

Zoom Controls
The up/down magnifying glass and left/right arrow icons adjust the current vertical and horizontal zoom view of the current audio clip. The zoom controls have no effect on the sound.

Hide Sound Tab
The dual left arrows hide the sound tab parameters for increased viewing size.

SOUND TAB (WITH AUDIO CLIP SELECTED)

Pitch, key, loop points, and time stretching can be set and edited in the *Sound* tab.



◆ Name Field

The name of the currently selected clip appears here. (“Crash” is the name of the clip in the above screenshot.) To edit a clip name, click on the name text and type a new name. Changing the name of audio clips from the Mixcraft library will **not** affect the filename in Windows Explorer, only within the current project.

◆ **Lock/Unlock**

Clicking the Lock icon will prevent changes to the clip's *Loop Start*, *Loop End*, and *Snap Point*. *Lock* also prevent clips from being moved in the grid.

◆ **Mute /Unmute**

This is the circle-with-a-cross-through-it next to the Lock icon that mutes or unmutes the clip. When muted, all instances of the clip will turn gray. The *Mute Sound* button in the *Sound* tab is interchangeable with the *Mute Sound* button on clip itself – you can mute or unmute with either button.

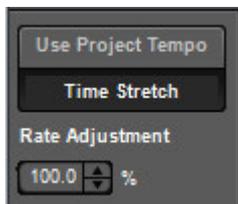
◆ **Time Signature**

This lets you set the time signature of an audio loop with individually settable numerator (beats per bar) and denominator (note value constituting a beat). Keep in mind that the time signature setting **has no effect on the sound**; it only changes the placement of beats on the ruler above the waveform to simplify setting in/out points and looping.

◆ **Use Project Tempo/Time Stretch**

Mixcraft plays audio clips in one of two time-domain modes:

- ◆ Use Project Tempo Time Stretch
- ◆ Use Project Tempo



◆ **Time Stretch**

In this mode, Mixcraft adjusts sounds based on the difference between the project's tempo and the sound's detected tempo. For example, if the project tempo was 120 BPM and the sound's detected tempo was 60 BPM, it would time-stretch the sound to be half as long, because it would be playing the sound back two times as fast.

However, a project's tempo many not remain constant throughout. For example, in a transition between two songs, you could slowly ramp the tempo up with multiple tempo changes. In *Use Project Tempo* mode, Mixcraft dynamically adjusts the playback rate of audio to maintain perfect synchronization based on the current tempo. This offers lots of latitude to mix and match loops of various tempos. (Yeah, we know, we're pretty cool.)

To set the loop speed by tempo, click *Use Project Tempo*. The numeric display will show the loop's original tempo. Enter a tempo by clicking in the number field to the right, or use the up/down arrows.

◆ Time Stretch

In this mode, the sound is simply time stretched by a fixed amount. The sound will not adjust to the project tempo. You'll most likely use *Use Project Tempo* mode most of the time, but there are situations when automatic tempo change isn't desirable. For example, if you had a long drone with no inherent tempo, and you didn't want its length affected. Fortunately, Mixcraft's audio playback mode is settable on a per-sound basis, so you can mix and match modes as you please.

To set the loop speed by percentage, click the *Time Stretch* and enter a percentage value by clicking in the field, or by using the up/down arrows.

◆ Double/Half-Speed

If the current clip is set to *Use Project Tempo* mode, clicking on the 2x button will play loops at double speed. Clicking once will play the loop at half-speed, a second click will play the loop at double-speed, and clicking a third time will return the loop to standard playback speed.

Note: Loops can be slowed down or sped up by up to four times their normal speed (i.e. 25% - 400% of normal playback speed). If values set are above or below this, Mixcraft "maxes out" at 25% - 400% normal playback speed.

◆ Key/Pitch Adjustments

Mixcraft plays audio clips in one of three key/pitch modes:



- ◆ Use Project Key
- ◆ Transpose
- ◆ No Pitch Adjustments

◆ Use Project Key

Mixcraft adjusts the pitch of the sound based on the difference between the project's key and the sound's key. (The project key can easily be seen and adjusted in the transport bar display.) For example, if the project key was F# and the sound's key was F, it would adjust the pitch of the sound up by one semitone so that it was in tune with F# instead of F.

However, you can have more than one key change in a project. A sound in *Use Project Key* mode will adjust in real-time to the correct number of half steps in order to play in the correct key based on the most recent key change. To continue the example, if the sound was in F and there were two key changes to A and then G, it would correspond to shifting the pitch of your sound by four semitones up to A and then by two semitones up to G.

Changing The Key Of A Sound, aka Songs In The Key of Right

Assuming that the key of the sound is correct, you can change the key of a sound by adding markers with key changes and/or by changing the project's key. You do not need to change the key of the sound on the Sound tab. It's recommended to change the project key or add key change markers. In short, if you want to change the key of a sound, change the project key. (Changing the key of a sound should only be done if the detected key is wrong!) If the sound's key is wrong, you can adjust it with the Original Clip Key control.

Mixcraft adjusts the pitch by the shortest distance between two keys. For example, if the project key was G and the sound's key was F, it will adjust it by +2 semitones, instead of -10 semitones.

◆ **Transpose**

This gives manual control over the playback key of audio. It's useful if you don't want audio to follow Mixcraft's project key setting or obey key changes on the timeline.

You can type in a partial amount such as 1.26 semitones or use the up/down to adjust pitch in semitones up to 24 semitones in either direction. You might use this option to fix a slightly off key vocal performance or transpose a sound into a key you are more familiar with.

◆ **No Pitch Adjustments**

If Use Project Key and Transpose are both deselected, *No Pitch Adjustments* appears beneath the buttons and audio will play "as is" with no pitch transposition.

SOUND TAB – TIME SUB TAB

These controls let you fine tune a clip's location in the Main Clip Grid as well its length and looping parameters. If the project is set to *Beats* mode in the top toolbar (next to the handsome Mixcraft 7 logo) the edit boxes display in measures, beats, and partial beats. If the project is set to *Time* mode, the edit boxes display positions in minutes, seconds, and milliseconds. Helpful hint: you can use the mouse scroll wheel to quickly set values by clicking in the number fields and spinning.



◆ **Offset**

The offset setting defines a clip's location in the Main Clip Grid.

◆ **Length**

The length setting defines the size of the clip. If the length value setting is *longer* than the entire audio clip, the clip will repeat until it reaches the set length value. The clip will show “indentations” in the bottom where it repeats.

◆ **Loop Start/End**

Defines a clip's playback start and end points. Example: say you like the second half of a four-bar loop, but don't like the first half. Changing the *Loop Start* setting from 1:1:0 to 3:1:0 will skip playback of the first half. Loop start and end points can be set either by clicking in the number fields in the *Sound>Time* tab, or by moving the *Loop Start* and *Loop End* markers in the audio waveform display. You can also set a clip's start and end points by grabbing and moving its start and end points in the Main Clip Grid. Regardless of how a clip's start and end points are set, all displays will update.

◆ **# Loops**

The number of times a loop will repeat. (This setting can potentially overlap with the *Length* setting – changing one automatically updates the other.)

SOUND TAB – AUDIO SUB TAB

Here you'll find some useful extra parameters.



◆ Channels

If the audio clip is stereo, the pop-up menu selects regular stereo playback or left or right channel only. If left or right channel is selected, playback becomes mono and the channel pan slider will control panning. (If a clip is playing in stereo, the pan slider acts as a balance control.)

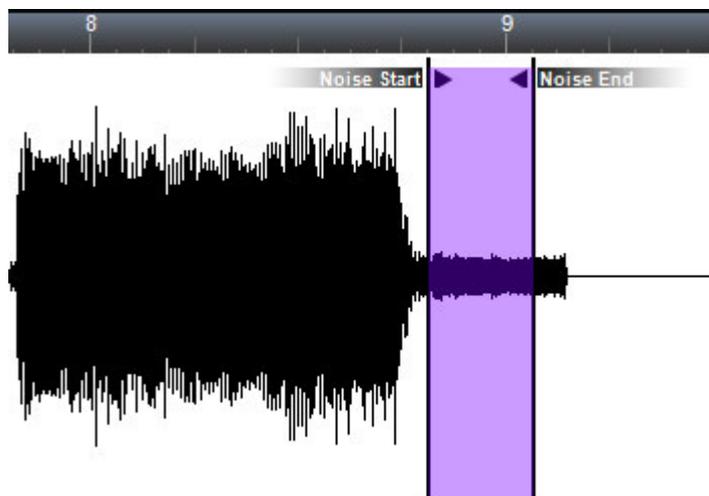
◆ Phase

Normal plays in standard stereo; *Invert Left*, *Invert Right*, and *Invert Both* flips the waveform phase 180 degrees of each respectively.

◆ Noise Reduction

Mixcraft features built-in noise reduction feature for audio clips. Noise may be background hum, clicks and pops, or any other unwanted sound (not including your band's drummer). However, Mixcraft's noise reduction works best on steady-state noise such as fans, air conditioners, or anything constant throughout the recording.

To use Mixcraft's noise reduction, highlight the audio clip you'd like to remove the noise from, then click the *Sound* tab on the bottom. Now click the *Noise Reduction* button next to the slider, and select a value up to 100%. Once an amount is selected, Mixcraft will attempt to locate good noise sample. Mixcraft shows the noise section by two controls called *Noise Start* and *Noise End*.



The above image shows an example of a good noise sample. The noise is determined by the audio section between the *Noise Start* and *Noise End* controls. You can edit the noise sample by clicking and dragging the *Noise Start* or *Noise End* controls. To automatically locate the next best noise print, click the *Find Next Noise Sample* button next to the Noise Reduction slider. (It's the button with the green downward arrow on a wee waveform.) This instructs Mixcraft to look for the next best noise sample based on what it thinks could be noise. Only you know what noise is, though, so you may need to adjust it manually.

◆ **Finding A Noise Sample**

The best candidate for noise reduction is a sound that has a snippet of the noise by itself. For example, if you had an air conditioner in the background and started recording, there would likely be one second of the air conditioner by itself – this would make an ideal noise sample. If you don't have a good sample of the noise, you could potentially record the noise by itself and then merge the clips together. If you find a section with a good sample of the noise you'd like to get rid of, highlight it in the audio tab, then right-click and select *Set Noise Reduction From Selection*.

◆ **Normalize**

Checking the *Normalize* check box automatically increases the peak level of an audio waveform to full 100% scale while proportionally increasing the level of the entire waveform. In this way, audio files will play back as loudly as possible before clipping. Unlike a compressor or limiter, the dynamic range of a sound is not altered; normalization simply makes the entire waveform proportionately louder. Like most Mixcraft audio processes, normalization is non-destructive, so unchecking the *Normalize* checkbox will return the waveform to its original gain state.

◆ Formant Preservation

The *Formant Preservation* checkbox allows Mixcraft to maintain the harmonic “imprint” of a sound when transposing pitch up or down. This is most useful for avoiding the so-called “chipmunk” effect when transposing vocals upward, and conversely, the “old-born-under-a-bad-sign blues singer” effect when transposing downward.

◆ File Path

Not really a parameter per se, but the actual file name as displayed in Windows Explorer is shown in yellow text for reference. Clicking the yellow folder icon to the left of the filename opens the enclosing Windows Explorer folder. This can be time saver if you’re trying to determine where the original file is located on your drive.

◆ Format

Again, not an adjustable parameter, this displays the current audio clip’s format (e.g., WAV, Ogg, etc.), as well its sample rate, bit depth, mono or stereo, etc.

SHOW/HIDE CONTROLS BUTTON

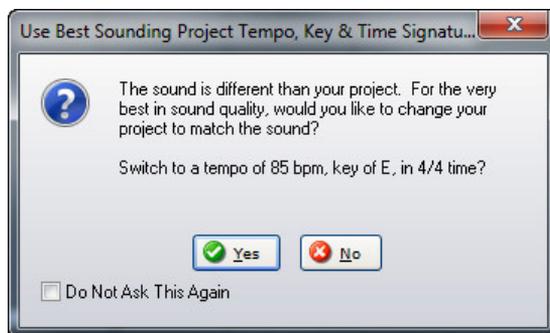
Click the [Show/Hide Controls button to see more sound data, instead of the controls. This toggles between showing and hiding the controls. To show the controls again, click the [gt;] button.

ADJUSTING THE SNAP POINT, AUDIBLE CLIP REGION, AND LOOPING

The looping and audible region of a sound has a white background. The unused parts of the sound are shown in green. If the clip is “closed down” smaller in the Main Clip Grid than the entire looped region, the unused section of the loop will have a gray background. The adjustable points in the waveform display are as follows:

Why Does Mixcraft Ask If I Want To Change My Project’s Tempo?

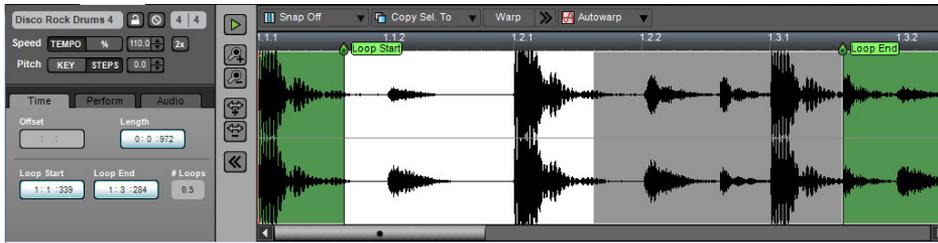
If you’ve tried dragging loops from the library onto the playback grid, you’ve probably seen this window. You may have clicked Yes, not knowing exactly what it meant. Understanding the relationship between project tempo and the timing of clips used in a project is important, so read on!



When a new, empty Mixcraft project is opened, the project tempo setting is displayed in the transport in beats per minute. (If you want to get a feel for the tempo, click the Metronome icon, then click the Play button.)

Most of Mixcraft’s included loops are beats or musical phrases, and are precisely edited to be an even length to ensure that they’ll loop smoothly. They contain embedded information that “tells” Mixcraft their original key and tempo. (You can see the original key and tempo when browsing clips in the Library tab.)

*For example, a new Mixcraft project and its tempo was set to 100 BPM. If a 90 BPM loop is placed at at bar one, it won’t play in time with the project tempo. It also won’t line up to bars and beats very well. If we drop in a second loop with a native tempo of 163 BPM at bar one and play back, it’ll be a timing train wreck. This is where the **Use Best Sounding Project Tempo** window comes in. Clicking Yes when this window pops up automatically changes the project’s tempo to match the first loop’s native tempo. Additional clips dragged into a project are automatically adjusted to match the project tempo. Now everything plays in sync. Mixcraft works a similar kind of magic with key signatures by transposing imported clips to match the project key signature (which is displayed and adjustable in the Transport Bar).*



◆ Snap Point Marker

A red vertical line defining the position a clip snaps to in the Main Clip Grid. Set the Snap Point Marker by clicking and sliding at the marker's top or bottom (the cursor will turn into left/right arrows), or by right-clicking and selecting *Set As Start Time*. Right-clicking and selecting *Reset Start Time* will return the Snap Point Marker to its original position.

◆ Loop Start

Defines the point where sound playback begins. To position *Loop Start*, click and drag at the top of the marker (the cursor will turn into left/right arrows). You can also set it by right-clicking in the waveform and selecting *Set Loop Start*.

◆ Loop End

Defines the point where sound playback ends, because all good loops must come to an end. To position *Loop End*, click and drag at the top of the marker (the cursor will turn into left/right arrows). You also set it by right-clicking in the waveform and selecting *Set Loop End*.

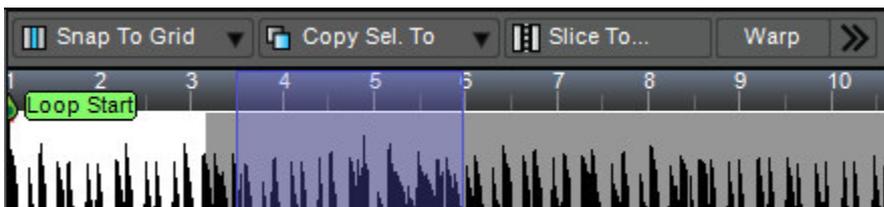
Loop points can be returned to their original positions by right-clicking and selecting *Reset Loop Points*.

SOUND TAB TOOLBAR (WITH AUDIO CLIP SELECTED)

◆ Snap To Grid

This determines the snap value when selecting a waveform region, as well as moving the play insert and loop start/end markers. When set to Grid, items will snap to the ruler markings in the timeline, directly above the waveform. The ruler markings vary in size depending upon horizontal zoom level. *Grid (Triplets)* is best suited for music with a three feel, i.e. 3/4 or 6/8 time signatures.

◆ Copy Selection To

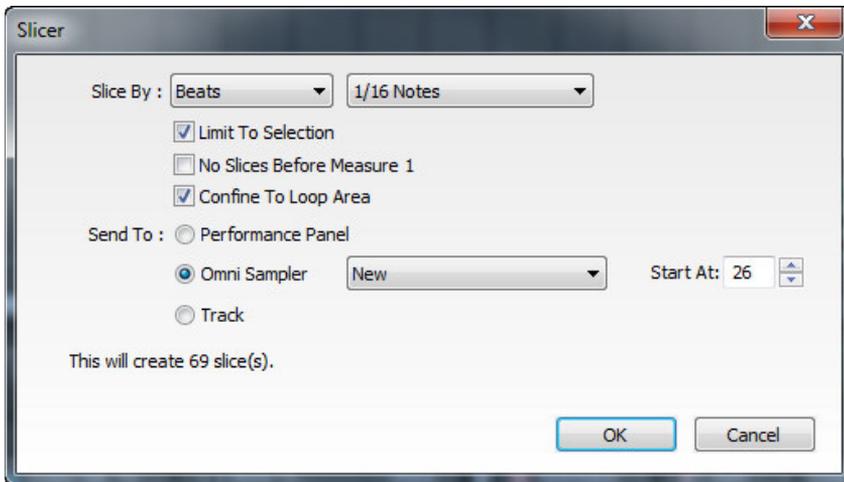


The *Copy Selection To* command exports the currently highlighted audio wave region to one of the following:

◆ **Copy Selection To> Performance Panel**

Places the selected region in the highlighted cell of the Performance Panel. If no cell is currently selected, the sample will be placed at the first open location.

◆ **Copy Selection To> Alpha Sampler**



A new instrument track with an Alpha Sampler is created, and the selected region will be loaded into Alpha Sampler.

◆ **Copy Selection To> Omni Sampler**

If there are no instances of Omni Sampler in the current project, selecting *Copy Selection To> Omni Sampler>New* opens a new instrument track with an Omni Sampler, and the sample is placed on the C4 sample pad. If Mixcraft detects an existing Omni Sampler, this is displayed when *Copy Selection To> Omni Sampler* is displayed. At this point you can export the audio region to an existing Omni Sampler, or select *New* to create a new Omni Sampler instance on a new track. Samples exported to an existing Omni Sampler instance will be loaded into the first open cell above C4.

◆ **Copy Selection To> Track**

The selected region is imported to a track in the Main Clip Grid. The region is placed at the current playhead location on the current audio track.

If the currently selected track isn't an audio track, the region is placed on the first audio track. (Be careful, the region can potentially land beneath existing audio - you won't see it unless you slide the existing audio up or down.)

◆ **Slice To...**

The *Slice To...* button cuts up audio regions and exports the “slices” to the Performance Panel, Omni Sampler, or directly to a Mixcraft audio track. Though the audio slices can be any length, you’d typically use this for cutting up a section of loop or a song into smaller chunks allowing you to create new beats or loops (using small slices), rearrange sections of a song (with larger slices), or anything in between. Clicking the *Slice To...* button opens this window:

Slice By defines how the audio will be sliced.

- ◆ *Beats* slices by the note value defined in the pop-up menu to the right. This works well for slicing beats and loops into small “chunks.”
- ◆ *Measures* works the same as Beats, but is defined in number of measures in the pop-up menu to the right, making it more appropriate for larger chunks of music.
- ◆ *Transients* slices according to audio transients detected by Mixcraft. The sensitivity level is defined by the slider to the right according to the amplitude level in percentage; the lower the slider setting, the more sensitive, thus creating more slices.
- ◆ *Warp Markers* slices according to the location of warp markers; you must have warp markers already created in the audio region (see "*Warp*", pg. 78)

◆ **Limit To Selection**

If a region of audio is currently selected, checking this box ensures that only audio within the selected region is exported as slices.

◆ **No Slices Before Measure 1**

This prevents the export of slices before the first measure of a loop. (Desirable if you’ve manually relocated a loop’s start point.)

◆ **Confine To Loop Area**

Checking this box ensures that slices are only exported from audio between the *Loop Start* and *Loop End* markers of the current clip.

◆ **Send To**

Selects the destination for exported slices.

- ◆ *Performance Panel* exports slices to the Performance Panel. The first slice appears in the currently highlighted grid location, and each additional slice lands in the next grid location to the right. If you’d like slices to land in on a particular track, it’s a good idea to highlight the desired grid location prior to exporting slices.

- ◆ *Omni Sampler* exports slices to individual Omni Sampler cells. If the pop-up menu to the right is set to New, Mixcraft creates a new track with a blank Omni Sampler loaded. If there are existing instances of Omni Sampler, these can be selected in the pop-up menu. To begin exporting, click *OK*. Exported slices begin loading at the cell number selected in the Start At selector. If a cells already contain samples, Mixcraft will skip them and continue loading at the next open cell location.
- ◆ *Track* exports slices to the currently selected audio track, beginning at the current playhead location in the Main Clip Grid.

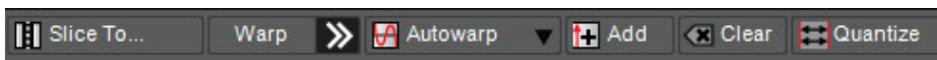
◆ Warp

Warping audio lets you adjust the timing of audio by detecting the locations of transients or “hits,” then effectively time-stretching and -expanding small regions between transients within an audio file. This offers powerful creative and corrective options. Used on a smaller piece of audio, such as a drum loop, warping lets you correct the timing of poor playing, or requantize audio for different rhythmic feels. When applied to an entire song, warping makes it easy to lock up the tempos and feels of songs, allowing easy mixing and creation of song “mash-ups.”

Mixcraft’s warping tools are easy to use; not only can Mixcraft interpret tempo, time signature, and beat locations to assist in the placement of warp markers, Mixcraft includes an Autowarp function that automatically locates warp information and places warp markers.

◆ How To Use Warp

1. When *Warp* is clicked in the Sound Tab Toolbar, Mixcraft scans the currently looped audio region and makes educated guesses as to tempo, time signature, and beat locations. The blue lines shown display the predicted beat locations, and black lines show transient hits. **The blue and black lines have no effect on sound, but the predicted beat locations are very helpful when placing warp markers described below.**
2. Once the predicted beat locations and transient hits are displayed, set the Audio Tab’s snap setting to *Snap To Grid*. (This makes the Caret snap to predicted beat and transient locations.) Now click on beats and transients to place the Caret, and add red Warp Markers by clicking the Add Warp Marker button in the toolbar (or right-click and select *Add Warp Marker*). If you don’t want neighboring hits or audio areas to be affected, place “safety” Warp Markers on hits before and after the hits or areas to be manipulated.



3. Once Warp Markers are in place, they can be freely moved left and right to squeeze and stretch audio in time. It's easiest to hear the effects of warping by pressing the green *Sound* tab play button and moving the Warp Markers in real-time during playback. Feel free to experiment - like all Mixcraft audio processes, warping is non-destructive, and its operation is easier to wrap your head around when you're actually using it!
4. To remove a Warp Marker, right-click it and select *Clear*. To remove all Warp Markers from a loop, click the Clear button in the Sound Tab Toolbar.

◆ **Autowarp**

Autowarp analyzes audio material and automatically places Warp Markers at relevant points. It's particularly useful for “mashup” mixes where two unrelated songs are to be mixed together. There are four strength settings ranging from sloppy to tight. Tighter settings add more Warp Markers and affect timing more strongly, whereas looser settings add fewer Warp Markers and have less effect on the timing of audio content. By all means, experiment, as different source material responds better to different settings.

◆ **Quantize**

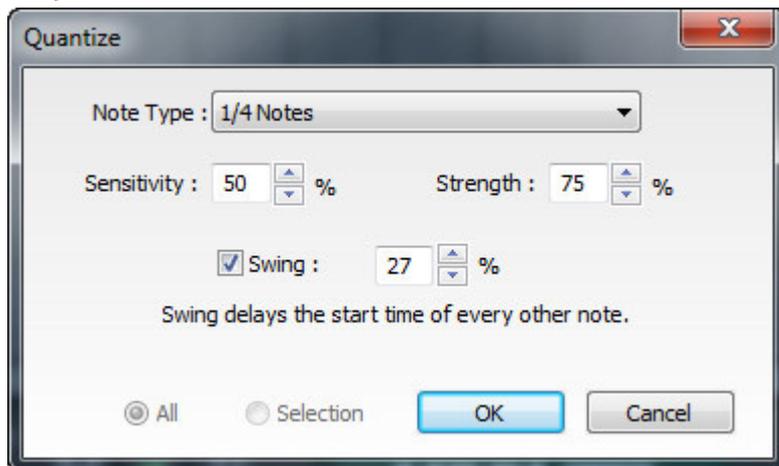
Warp Quantize allows audio material to be quantized much like MIDI notes by intelligently squashing and stretching rhythmic hits in source material.

◆ **Note Type**

This is the quantize value; transients will be moved to the closest note value.

◆ **Sensitivity**

The amplitude a transient must reach before Mixcraft considers it a “hit” to quantize to.



◆ **Strength**

Regulates how close hits will be moved in time toward the quantize values. 0% won't move transients at all, whereas 100% would move transients all the way to the quantize point.

◆ **Swing**

As stated on-screen, Swing value delays the start time of every other note. Your ears will recognize this as the sound as the rhythmic feel of old blues music, “Take The A Train,” or any Bobby Brown hit. The percentage sets how much every other note is delayed.

◆ **All/Selection**

A setting of *All* applies Warp Quantization to the entire audio clip. *Selection* quantizes only the highlighted region.

SOUND TAB WITH MIDI CLIP SELECTED

The Sound tab lets you edit a MIDI clip's speed, pitch, key, grid placement, and looping parameters.

◆ **Name Field**

The name of the currently selected clip appears here. To edit the name, click on the name text and type a new name. Click outside of the name field when done.

◆ **Lock/Unlock**

Clicking the *Lock* icon prevents a clip from being moved in the grid. It also disables cropping and resizing.



◆ **Mute /Unmute**

This silences the clip. All instances of the clip will turn gray. The *Mute Sound* button in the *Sound* tab is interchangeable with the *Mute Sound* button on clip itself – you can mute or unmute using either button.

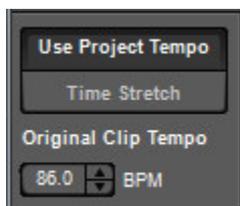
◆ **Time Signature**

This lets you set the time signature of a MIDI clip with individually settable numerator (beats per bar) and denominator (note value constituting a beat). Keep in mind that the time signature setting **has no effect on the sound**; it simply changes the placement of beats on the ruler in the selected MIDI editor to the right of the *Sound* tab.

◆ **Setting MIDI Clip Playback Rate**

Mixcraft plays MIDI clips in one of two time-domain modes:

- ◆ Use Project Tempo
- ◆ Time Stretch



◆ **Use Project Tempo**

MIDI clips will lock to the current project tempo. *Original Clip Tempo* is displayed and can be altered by clicking the number field and entering a new temp, or by using the up/down arrows.

◆ **Time Stretch**

To set the playback rate by percentage, select *Time Stretch* and enter a number value by clicking in the field, or by using the up/down arrows.

◆ **Key/Pitch Adjustments**

Mixcraft plays MIDI clips in one of two key/pitch modes:

- ◆ Use Project Key
- ◆ Transpose



◆ Use Project Key

Mixcraft adjusts the pitch of the sound based on the difference between the project's key and the sound's key. (The project key can easily be seen and adjusted in the transport bar display.) For example, if the project key was F# and the sound's key was F, it would adjust the pitch of the sound up by one semitone so that it was in tune with F# instead of F.

However, you can have more than one key change in a project. A sound in Use Project Key mode will adjust in real-time to the correct number of half steps in order to play in the correct key based on the most recent key change. To continue the example, if the sound was in F and there were two key changes to A and then G, it would correspond to shifting the pitch of your sound by four semitones up to A and then by two semitones up to G.

Mixcraft adjusts the pitch by the shortest distance between two keys. For example, if the project key was G and the sound's key was F, it will adjust it by +2 semitones, instead of -10 semitones.

The *MAJ/MIN* popup selector conforms notes to the correct major or minor scale notes for the selected key signature. (The major and minor popup is mainly to ensure that the correct key signature is displayed when using *Score* mode.)

SOUND TAB > TIME SUB TAB

These controls let you fine tune a clip's location in the Main Clip Grid as well its length and looping parameters. If the project is set to ``` mode in the top toolbar (next to the handsome Mixcraft 7 logo) the edit boxes display in measures, beats, and partial beats. If the project is set to Time mode in the top toolbar, the edit boxes display positions in minutes, seconds, and milliseconds. Helpful hint: you can use the mouse scroll wheel to quickly set values by clicking in the number fields and spinning.

◆ Offset

The offset setting defines a clip's location in the Main Clip Grid.

◆ **Length**

The length setting defines the size of the clip. If the length value setting is **longer** than the entire audio clip, the clip will repeat until it reaches the set length value. The clip will show “indentations” in the bottom where it repeats. If the sound is made long enough, this will also cause it to loop.

◆ **Loop Start/End**

Defines a clip’s playback start and end points. Loop start and end points can be set either by clicking in the number fields in the *Sound>Time* tab, or by moving the *Loop Start* and *Loop End* markers in the *Piano*, *Step*, or *Score* editors. You can also set a clip’s start and end points by grabbing and moving its start and end points in the Main Clip Grid. Regardless of how a clip’s start and end points are set, all displays will update.

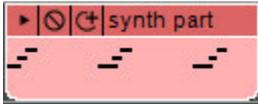
◆ **# Loops**

The number of times a loop will repeat. (This setting can potentially overlap with the *Length* setting – changing one automatically updates the other.)

VIRTUAL INSTRUMENT (MIDI) CLIPS

A Virtual Instrument Clip is made up of MIDI data and instructs a synthesizer to play notes (as well as how to play them).

The tiny horizontal lines inside a MIDI clip represent notes. These correspond roughly to the length and pitch of the clip's notes, offering some visual feedback as to its content.



ADDING/LOADING CLIPS

Virtual Instrument Clips can be added in several ways.

◆ Creating A Blank Virtual Instrument Clip

Blank Virtual Instrument tracks can be created by double-clicking a Virtual Instrument Track or right-clicking a Virtual Instrument Track and clicking *Add Instrument Clip*.

◆ Recording A Virtual Instrument Clip

Arm a Virtual Instrument Track and use a MIDI controller to record notes.

◆ Import a MIDI File

Right-click on a Virtual Instrument Track and select *Add Sound File...*
Select a MIDI file (.MID) and click *Open*.

Note: If the MIDI file contains more than one track, each track will be loaded to a separate track and new tracks may be created.

MIDI files may also be loaded by selecting *File>Open Project* from the Main Window menus and then selecting a MIDI file.

MIDI EDITING

There are many ways to edit MIDI data. Right-click on a Virtual Instrument clip and select *MIDI Editing*. Choose from the following options:

◆ Quantize

Moves notes closer to the beat.

◆ Humanize

Adjusts notes for a looser or tighter feel.

◆ Transpose

Moves notes up and down the scale.

◆ **Velocities**

Adjusts how hard notes are played (usually affecting volume or brightness).

◆ **Offsets**

Adjusts note start times.

◆ **Durations**

Adjusts note lengths.

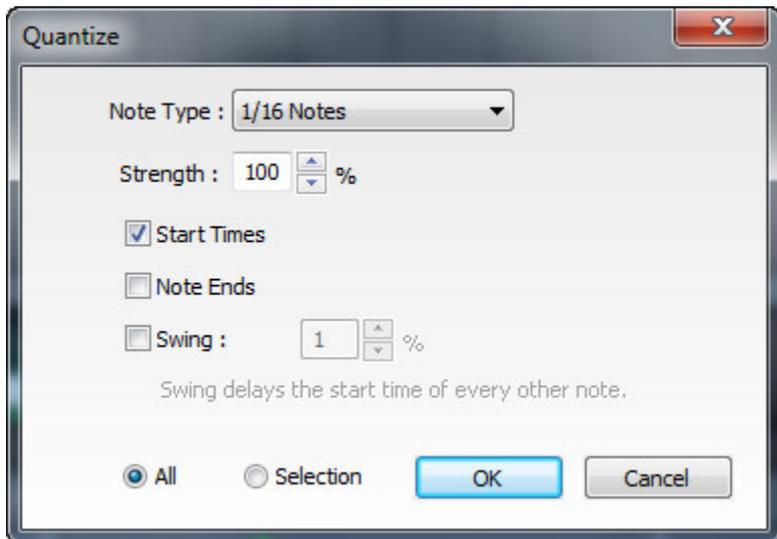
◆ **Soloize**

Deletes extraneous notes in a performance intended to be one-note-at-a-time.

Regrettably, *Soloize* will not turn you into Van Halen (but we're working on it).

QUANTIZE

Quantization is the process of moving notes closer to a set note value or “grid,” in order to tighten the timing of sloppy performances. To access the Quantize menu, right-click on a MIDI clip or MIDI data in the Piano Roll Editor and select MIDI Editing>Quantize...



◆ **Note Type**

Specifies the snap setting to quantize to.

◆ If this is set to eighth-note but you're actually quantizing a whole note, it will not adjust the length of the note to an eighth-note, but rather align it to the closest eighth-note.

◆ If the *Start Times* box is checked, then the start times of each note will be quantized to this note type.

◆ If the *Note Ends* box is checked, then the end times of each note will be quantized to this note type.

◆ **Start Time**

Click the checkbox next to *Start Time* and then choose a *Note Type* setting. Mixcraft adjusts all notes to the closest beat or partial beat, based on the *Note Type*.

◆ **Note Ends**

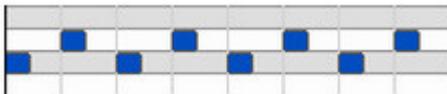
Mixcraft adjusts the note endings to the closest beat or partial beat, based on the *Note Type*.

◆ **Swing**

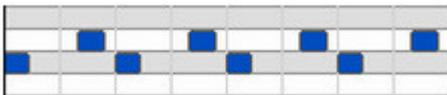
If you want to quantize with swing, click *Swing* and choose an intensity %. *Swing* will offset every note that is on an odd beat, depending on the quantize note start setting.

For example, if you had a recording of eighth notes, set the *Note Type* to eighth-notes and then set swing to 30%; every other eighth-note would be offset by 30%.

Before: “Unswung” eighth notes.



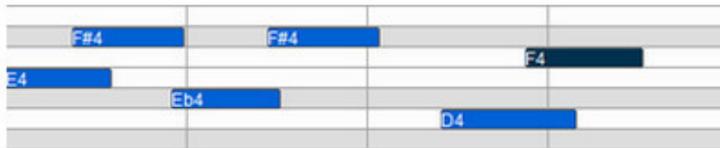
After: Quantized eighth notes with a 35% swing. Swingin'!



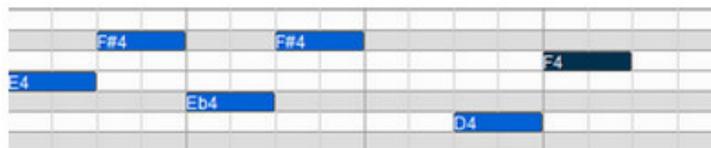
◆ **All or Selection**

Choose whether to quantize the selected notes or all the notes in the current virtual instrument clip. (Only applies if a region is highlighted within the Piano Roll Editor.)

Before quantizing.



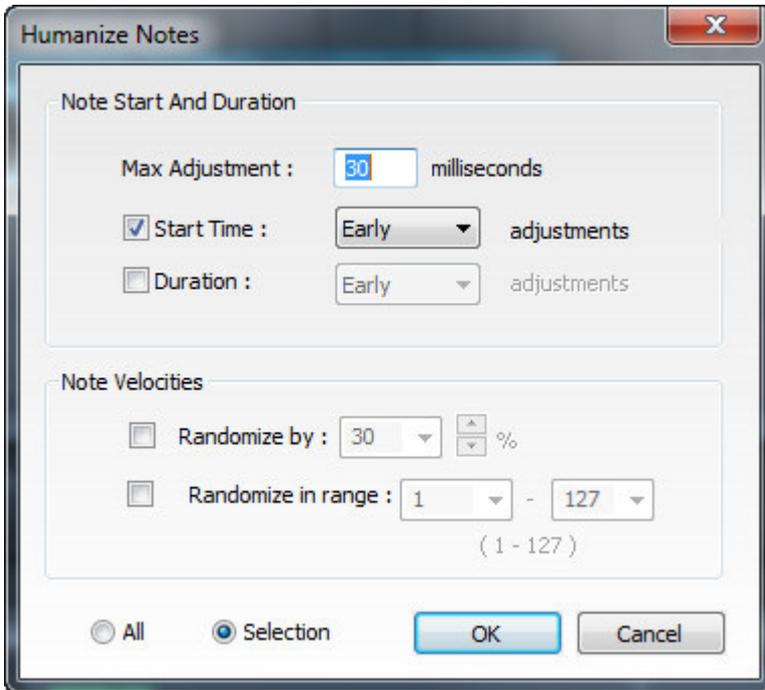
After quantizing *Start Times* and *Note Ends* to 1/8 Notes.



HUMANIZE

Humanizing is the process of adding a random and more “humanized” feel. When entering MIDI data via the mouse and using snap, music can sound stiff and artificial. Humanize can lend a more natural feel.

Right-click on a MIDI clip or MIDI data in the *Piano* editor and select *MIDI Editing>Humanize...*



◆ Max Adjustment

The maximum note duration to humanize towards.

◆ Start Time

Specifies if we are humanizing the start time with options for *Early*, *Late*, or *Random* timing.

◆ Duration

Specifies whether Humanize affects note durations with options for *Early*, *Late* or *Random* timing.

◆ **Note Velocities**

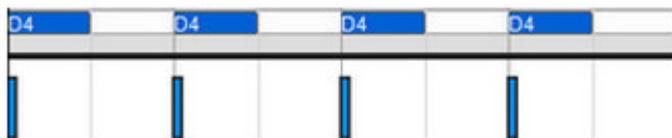
Allows randomization of note velocities with following options:

- ◆ **Randomize by** – A percentage of the original note value.
- ◆ **Randomize in range** – A new note velocity is randomly chosen in the range entered.

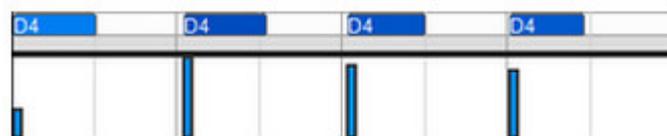
◆ **All or Selection**

Choose whether to edit the selected notes or all the notes in the current virtual instrument clip. (This applies only if a region of notes has been highlighted within the Piano Roll Editor.)

Before humanizing – notes exactly on beats:

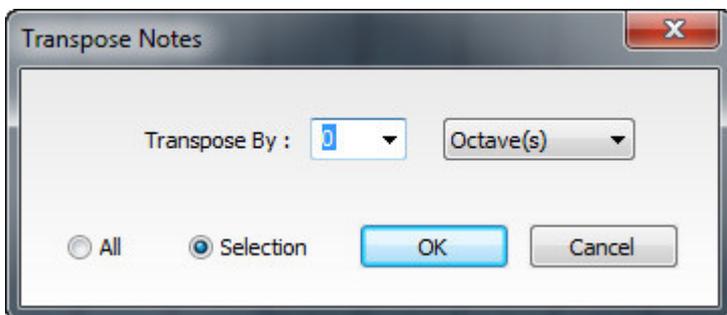


After humanizing:



TRANSCOPE

The *Transpose* dialog allows shifting of all notes or selected notes in a clip by octaves or semitones. Right-click a MIDI clip or MIDI data in the Piano Roll and select *MIDI Editing>Transpose...*



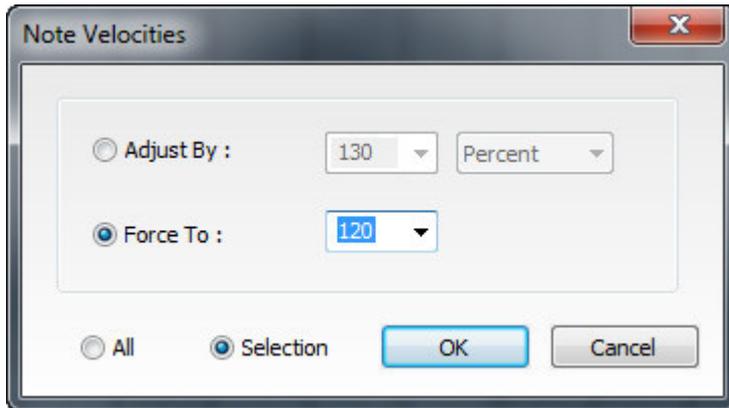
Choose *Octave(s)* or *Semitone(s)* from the *Transpose By* drop-down menu, then enter the amount and click *OK*.

To transpose selected notes only, click the *Selection* radio button.

VELOCITIES

The *Velocities* dialog allows adjustment of all or selected note velocities. A MIDI velocity indicates how hard the note has been struck. The range is from 1 to 127.

Right-click a MIDI clip or MIDI data in the *Piano* editor and select *MIDI Editing>Velocities...*



◆ Adjust By

Adjust velocities by a specific percentage.

◆ Force To

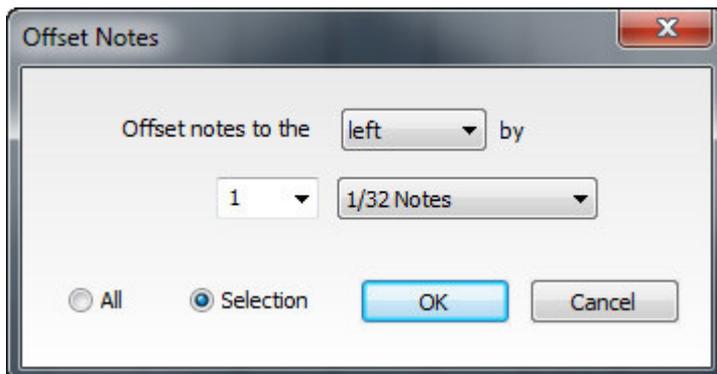
Specify a velocity to adjust all notes to. The valid range is from 1 to 127.

◆ All or Selection

Choose whether to edit the selected notes or all the notes in the current virtual instrument clip. (This applies only if a region of notes has been highlighted within the *Piano* Editor.)

OFFSETS

Offset Notes allows adjustment of all notes or the selected notes time offsets.



Right-click a MIDI clip or MIDI data in the *Piano* editor and select *MIDI Editing>Offsets...*

◆ **Offset Direction**

Choose left or right.

◆ **Offset Amount**

Note values are:

- ◆ Whole notes
- ◆ 1/2 notes
- ◆ 1/4 notes
- ◆ 1/8 notes
- ◆ 1/16 notes
- ◆ 1/32 notes
- ◆ 1/64 notes
- ◆ 1/4 triplet notes
- ◆ 1/8 triplet notes
- ◆ 1/16 triplet notes

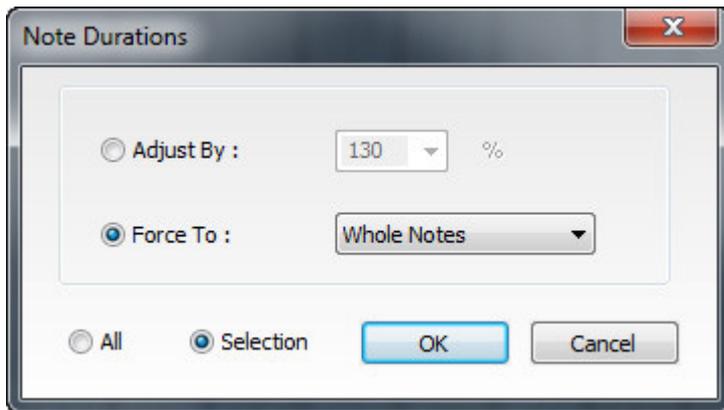
Choose the number of the note value chosen. For example, you could choose to offset by three 1/8 notes.

◆ **All or Selection**

Choose whether to edit the selected notes or all the notes in the current virtual instrument clip. (This applies only if a region of notes has been highlighted within the *Piano* editor.)

DURATIONS

Note Durations allows adjustment of all notes or selected note durations.



Right-click on a MIDI clip or MIDI data in the Piano Roll and select *MIDI Editing>Durations...*

◆ **Adjust By**

Adjusts notes durations by a percentage.

◆ **Force To**

Note values are:

- ◆ Whole notes
- ◆ 1/2 notes
- ◆ 1/4 notes
- ◆ 1/8 notes
- ◆ 1/16 notes
- ◆ 1/32 notes
- ◆ 1/64 notes
- ◆ 1/4 triplet notes
- ◆ 1/8 triplet notes
- ◆ 1/16 triplet notes

◆ **All or Selection**

Choose whether to edit the selected notes or all the notes in the current virtual instrument clip. (This applies only if a region of notes has been highlighted within the Piano Roll Editor.)

SOLOIZE

Soloize is a unique function that modifies the note data in a MIDI clip by forcing it to play one note at a time.

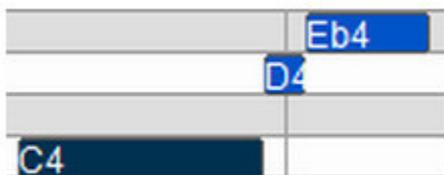
Right-click on a MIDI clip or MIDI data in the *Piano* editor and select *MIDI Editing>Soloize...*

For example, if you played a clarinet part and accidentally hit some overlapping notes, you could use the *Soloize* feature.

Before soloizing:



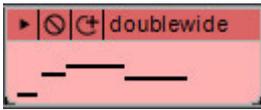
After soloizing:



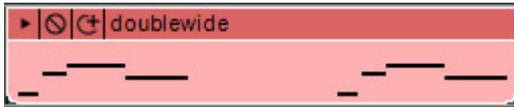
DOUBLE

Duplicates the current clip and merges them, creating one large double-length clip.

Before doubling:



After doubling:

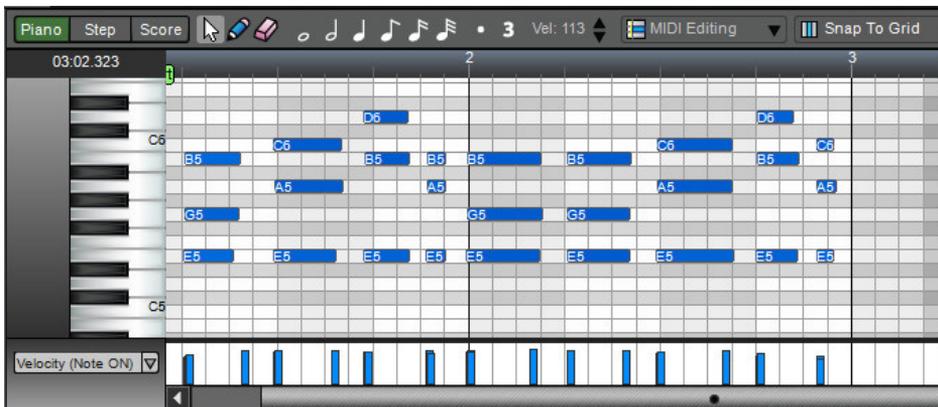


PIANO, STEP, AND SCORE MIDI EDITORS



These editors allow precise creation and manipulation of MIDI note and controller data. Depending on your particular needs, each is suited to different purposes. Since they simultaneously update, you may freely switch between them. Click the *Piano*, *Step*, and *Score* buttons in the *Sound* tab to select each mode.

PIANO ROLL EDITOR



The *Piano Roll* is named for its resemblance to the paper rolls used in old player pianos. The *Piano Roll* editor features a graphical interface with pitches indicated vertically with a piano keyboard reference. MIDI notes are displayed as blue rectangular boxes with width indicating duration. MIDI notes are freely movable and lengths can be edited by clicking and dragging the right side of a note. To open the Piano Roll Editor, double-click a virtual instrument MIDI clip or right-click a MIDI and select *Edit*. Clicking a key on the virtual “piano” will sound notes.

PIANO ROLL TOOL BAR

This how the Tool Bar appears when the Piano Roll Editor is selected:



There are three main editing tools on the Piano Roll Editor toolbar.

Arrow Note Selection Tool



Used for note selection, moving, and editing note durations. It can be selected with the keyboard shortcut Q.

Pencil Tool



Used for drawing new notes in the Piano Roll grid. It can be selected with the keyboard shortcut W.

Eraser Tool



Clicking notes with the eraser tool removes them from the grid. It can be selected with the keyboard shortcut E.

◆ Note Duration Buttons

These work in conjunction with the pencil tool when drawing in new notes in the grid. Choose whole-note, half-note, quarter-note, eighth-note, sixteenth-note, and thirty-second note values. You can also select the dotted and triplet note modifiers for converting standard note values to dotted and triplet values, respectively.

◆ Default Velocity

Specifies the velocity for new notes drawn in with the *Pencil* tool.

◆ Snap Value

Determines the minimum note value that notes will snap to when creating new notes, moving pre-existing notes, and moving loop markers. Dependent upon the current zoom view level, *Snap To Grid* setting automatically changes the snap value to the current grid size. This setting works well in most situations. If you're working on a track with a three-count based time signature, use the *Snap To Grid (Triplets)* settings.

◆ Selecting Notes

Click on a note to select it. Alternatively, select the *Arrow* tool and drag a selection. All notes that fall within the selection rectangle are selected. Hold down the SHIFT or CTRL key to select multiple notes. Double-clicking a note on the piano roll keyboard will select all notes of that value. Click anywhere beside a note (or pressing the ESC key) will deselect it.

Notes may also be selected by duration and velocity by clicking the *MIDI Editing* button on the *Piano Roll* editor toolbar and choosing *Select By Duration...* or *Select By Velocity...*

These functions are useful for edits such as weeding out unwanted short or very lightly played error notes.

TAB and SHIFT+TAB select the next note and the previous note, respectively.

Note: After selecting a note, if new notes are added, they will take on the length, duration, and velocity of the previously clicked on note.

◆ **Moving Notes**

In either arrow or pencil mode, select a note or notes and drag. Move the note or notes by dragging up, down, left, or right. The piano roll will auto scroll if notes are dragged beyond the current window view. Note destinations are based on the Piano Roll's current Snap setting. To maintain the note's time location, hold the shift key down while dragging up or down.

◆ **Resizing Notes**

Place the mouse on the left or right edge of a note. The cursor will become left/right arrow, and notes can be resized by dragging horizontally. Resizing will be aligned based on the Piano Roll's current Snap setting.

Before resizing:

After resizing:



◆ **Resizing Multiple Notes At A Time**



If more than one note is selected, they may be simultaneously resized. This could be convenient if you wanted all the notes to be staccato.

◆ **Editing Notes In Detail**

Notes or groups of notes can also be edited by right-clicking and selecting *Edit...*

The note edit dialog opens and allow you to edit specifics, including:

- ◆ Start time (Measure, beat and fractional beat)
- ◆ Duration (Measures, beats and fractional beats)
- ◆ Note value (A0-G10)
- ◆ Velocity ON (1-127)
- ◆ MIDI Channel (1-16)
- ◆ Velocity OFF (0-127)

ERASING/DELETING NOTES

Select the eraser tool and click unwanted notes. Notes can also be erased individually by selecting them and using the DELETE key.

SNAP

The Piano Roll has a dedicated *Snap* control, allowing editing and movement of notes to exact measure and beat positions. All piano roll note sizing and movement operations conform to the *Snap* value setting. If you're unable to move or resize a note, try turning off (or lowering the note value of) the Piano Roll *Snap*.

COPY, CUT, PASTE AND CLIPBOARD OPERATIONS

Notes or groups of notes may be cut, copied, or pasted as with any other data. You can use the keyboard shortcuts, or simply right-click on the Piano Roll editor and select the appropriate operation. Once you copy, cut, or paste notes, the notes reside in the clipboard. Notes may be pasted at the current Caret location.

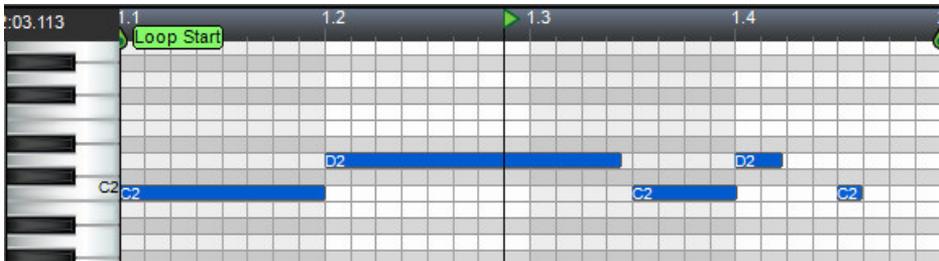
ALT+DRAG QUICK COPY

Holding down the ALT key and dragging selected sounds copies the selected sounds and moves them to the new position.

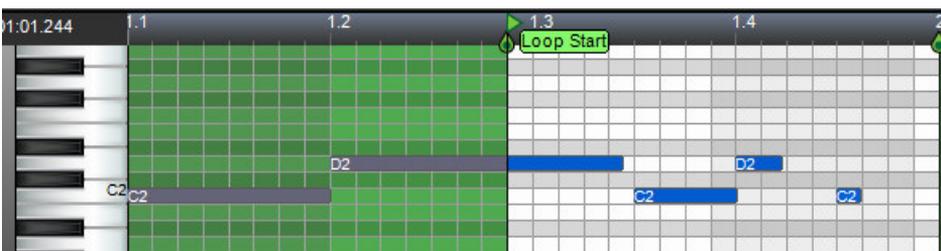
LOOPING CLIPS

As with Audio Clips, the *Loop Start* and *Loop End* points of MIDI Virtual Instrument Clips can be set to make clips loop. Specifically, this means the area of the clip that plays back can be smaller than the area containing MIDI notes. To move a loop point, click and drag the *Loop Start* or *Loop End* point and drag.

For example, if we'd like to make a loop from measure 1.3 to measure 2.1 Here's what we start with:



Drag the Loop Start point to measure 1.3:



Once you're satisfied with the loop, you can extend the clip in the Main Grid to loop it as many times as desired.

CONTROLLER INFORMATION

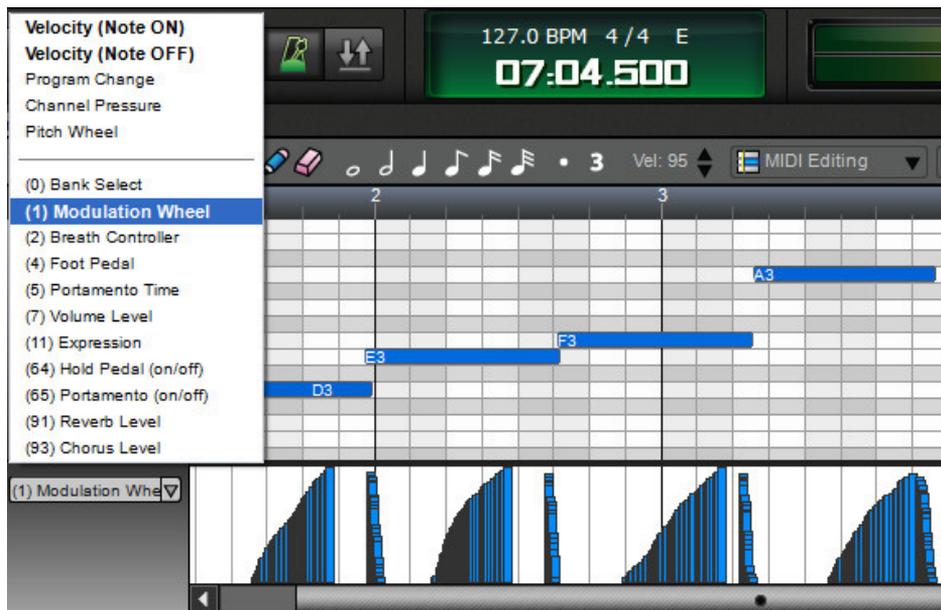
MIDI controller data can be edited at the bottom portion of the *Piano Roll* editor in the *Sound* tab. One type of controller data is displayed; the currently displayed controller data type can be selected by clicking the pop-up menu to the left. Controller numbers currently containing data are displayed in bold font in the pop-up menu.

CHOOSE THE CONTROLLER TYPE

Click the drop-down menu on the left hand side to pick a specific controller.

Choose from the following controller types:

- ◆ Note-On Velocity
- ◆ Note-Off Velocity
- ◆ Program Change
- ◆ Channel Pressure
- ◆ Pitch Wheel
- ◆ Modulation



You can click in the pop-up menu field and type in a controller number from 0 to 127. If the clip contains controller information for a specific controller, the controller number appears in bold in the pop-up list.

EDITING CONTROLLER DATA

There are two modes in the controller window:

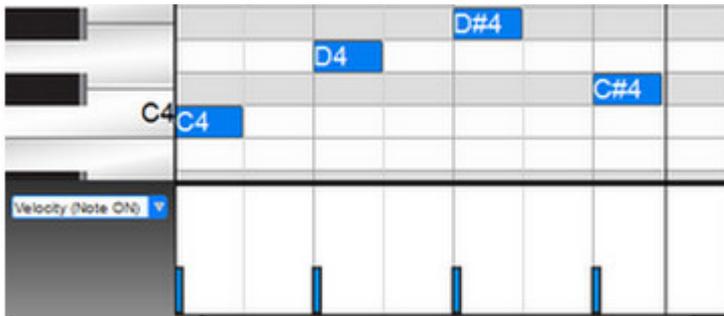
- ◆ Drawing
- ◆ Erasing

Select the eraser tool to erase controller data. Select either the arrow or pencil tool to draw controller data.

In this example, we'll modify the velocity of the notes so that it ramps up. Here's how it looks initially. Each line represents the velocity of a note in the Piano Roll above it:

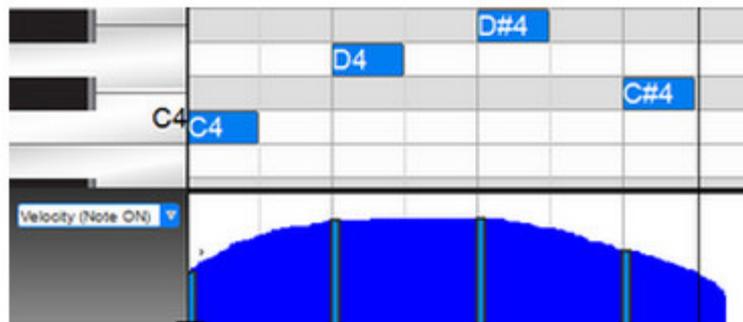
Now we'll click and drag the mouse to draw the following shape. The dark blue region under the Piano Roll represents the area we've drawn.

If more room is needed to edit the controller data, simply click on the bar at the top



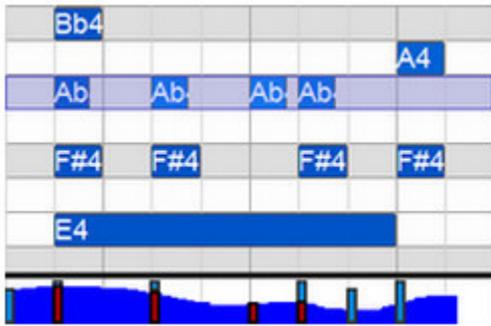
of the controller area and drag it vertically to resize the controller area.

EDITING VELOCITIES OF SELECTED NOTES



The velocity of selected notes can be edited by holding down the SHIFT key and drawing over the velocities. This can be extremely useful in situations where other notes start at the same time, or in other situations where it can be difficult to adjust the velocity of one note without affecting neighboring notes.

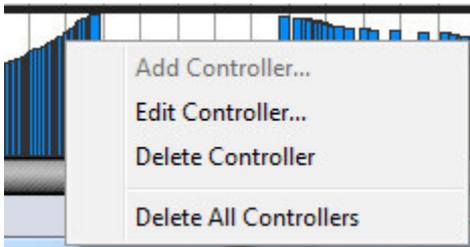
Note that only the velocities of the selected Ab notes are being edited.



PRECISE EDITING OF CONTROLLER INFORMATION

Right-clicking in the controller data field offers additional options.

Note: Right-clicking in the controller data field works does not work for note velocity.



◆ Add Controller

Right-click the mouse in an area with no controller data and select *Add Controller* to insert controller data at an exact value. A dialog box opens and specific values can be entered.

◆ Edit Controller

To edit existing controller data with increased precision, right-click it and select *Edit Controller...* A dialog box opens and specific values can be entered.

For all controllers, besides Velocity, you can right-click to add, edit, or delete controller information.

◆ Delete Controller

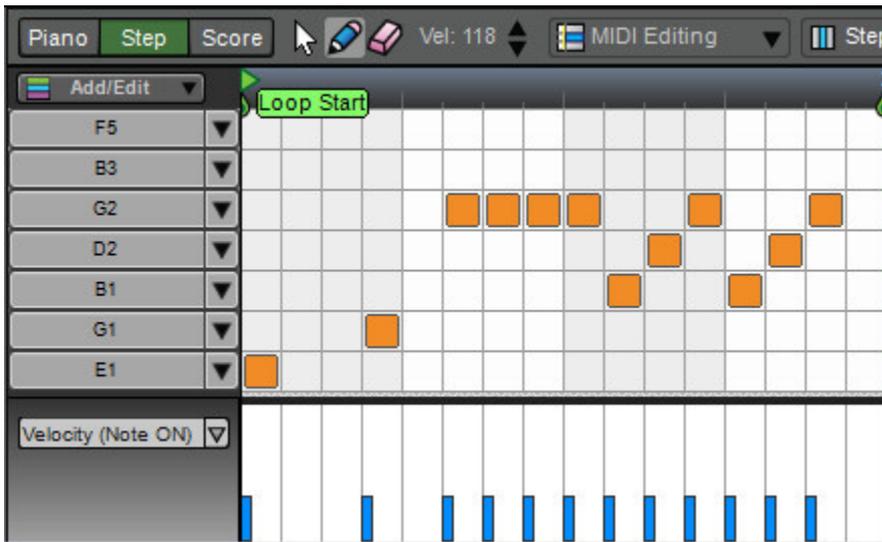
Removes all controller data of the current type for the current MIDI clip.

◆ Delete All Controllers

Removes controller data of all types for the current MIDI clip.

STEP EDITOR

Mixcraft's Step Editor is a grid-based editor that should be familiar to users of classic



Japanese “XOX” drum machines, but it's far more flexible with no limitations on the number of instruments or available steps. It excels at creating and editing drum patterns, but its built-in scale maps also allow fast creation of musical patterns. Once the *Step* editor is configured, notes are added and deleted by simply clicking in grid squares. This is fast, easy, and fun way to create drum parts or other pattern-based music.

STEP EDITOR TOOL BAR

Here's how the Tool Bar appears when the *Step Editor* is selected:

The tools and functionality are largely the same as the *Piano Roll* editor, with two



primary differences:

1. Because the *Step* editor grid inherently defines the note values, the toolbar musical note values seen in the *Piano* and *Score* editors are hidden. Set the grid resolution by clicking the *Steps* drop-down menu and choosing a note value (Sixteenth-note is a good starting point).
2. The piano keyboard on the left of the window is replaced by a list of specific notes called the *Voice List*.

Arrow Tool



Notes can be selected by choosing the Arrow tool in the toolbar and clicking on them. Use this to delete notes, drag to new locations, or to highlight them for velocity and other controller info adjustments (the vertical bar beneath the note turns red).

Pencil Tool



Notes can be added or removed by selecting the Pencil tool in the toolbar and clicking in grid locations.

Eraser Tool



Use the Eraser tool to delete grid notes. Though note grid locations can be “turned on and off” with the Pencil tool, the Eraser tool is handy for quickly erasing many grid notes by click-dragging it over multiple grid locations.

VELOCITY

Sets the MIDI velocity of notes added to the grid. These can be edited later using the *Velocity (Note ON)* vertical lines below.

MIDI EDITING

Provides the standard Mixcraft MIDI editing parameters for quantization, transposition, etc., but by and large, most of the *MIDI Editing* options defeat the purpose of using the *Step* editor. (You wouldn’t want to quantize to swung triplets if you had the Step Editor grid set to sixteenth-notes, for example.)

STEPS

Defines the size of each step in the grid. For traditional “XOX”-style drum machine programming, set this to sixteenth-notes.

SCALE/DRUM MAPS

Selects which voices (i.e. notes of the scale) are displayed in the Voice List in the column at left. If set to *Chromatic*, MIDI notes are shown in conventional format, e.g. A1, C3, etc. Selecting a custom Drum Map (aka “Voice List”) displays individual names for each note. This is particularly useful when programming drums, as notes can have descriptive names such as, “Bass Drum”, “Snare Drum”, or “Explosive Megametal Flame Encircled Gong.”

The *Scale* select field automatically changes and updates the voice list when new Acoustica Instrument drum kits are selected. For more information, see *Configuring The Voice List* below.

COPY TO

The Copy To menu allows you to export patterns created in the *Step* editor.

◆ **Copy To>Performance Panel**

Exports the current Step Editor pattern to the current track’s first available Performance Panel set location. The exported region will be between the *Loop*

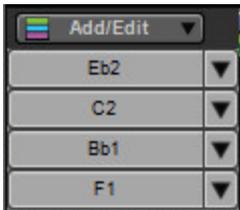
Start and *Loop End* markers, so make sure these are in the desired locations before exporting.

◆ **Copy To>Performance Panel**

Exports the current Step Editor pattern to a new MIDI clip on the currently selected track at the Caret location.

CONFIGURING THE VOICE LIST

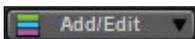
The most unique aspect of the Step Editor is that unlike most other MIDI editors, *Step Editor* does not display all MIDI notes. Not only can you choose which notes are displayed, you're free to rearrange their order in the list at the left of the editor. This is very handy when working with drum parts, as the list can be set to display just the notes you'll be using.



The list of notes is called the *Voice List* (to avoid confusion with the MIDI notes in the grid). Notes are always displayed top to bottom, i.e. highest notes at the top, lowest notes appear at the bottom.

There are a couple of ways to add notes to the note list.

- ◆ If you've already recorded a MIDI clip, double-click the MIDI clip, and click the Step button in the toolbar. Mixcraft will automatically create a Voice List with all notes used in the selected clip. These can be edited with the *Step Editor Notes Chooser* keyboard by clicking the *Add/Edit* button. (keep reading for how to use the *Step Editor Notes Chooser* keyboard)



- ◆ To create a custom Voice List from scratch, select an empty MIDI track in the Track List, right-click in the Main Clip next to it and select *Add Instrument Clip* to create an empty MIDI clip. Double-click the MIDI clip, and click the *Step* button in the toolbar. To add MIDI notes, click the *Add/Edit* button. This opens the handsomely rendered *Step Editor Notes Chooser* keyboard.

USING THE STEP EDITOR NOTES CHOSER

To add notes to the Voice List with *Step Editor Notes Chooser* keyboard, simply click keys on the keyboard. Notes can be removed by right-clicking. The keyboard keys will turn beige for newly selected notes; keyboard keys turn green if there are notes in the grid already using the "voice".



◆ Select Mode

This limits note selections to a specific key signature, scale, or mode. If notes outside of the chosen key or scale are clicked, they won't be added to the Voice List. Scale and mode choices include:

- ◆ Chromatic
- ◆ Major
- ◆ Minor
- ◆ Pentatonic Major
- ◆ Pentatonic Minor
- ◆ Dorian
- ◆ Mixolydian
- ◆ Harmonic Minor
- ◆ Blues

◆ Clear

This deletes all unused voices from the current Voice List. If there are notes “played” on the grid (i.e. MIDI events played or drawn in), the “used” voices cannot be deleted from the Voice List.

PREVIEWING NOTES IN THE VOICE LIST

Clicking the note name in the Voice List will sound the note.



CHANGING A NOTE IN THE VOICE LIST

To change an existing note in the Voice List, click the down arrow next to the note name. A MIDI keyboard will open on-screen; simply click a new note. All notes in this row of the grid now play the newly selected note.

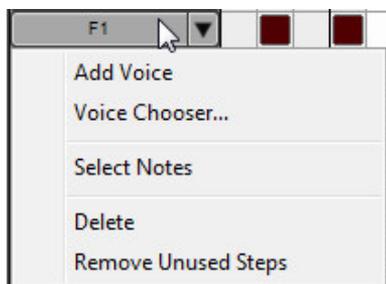


VOICE LIST RIGHT-CLICK MENU

Extra functions are available by right-clicking a note in the Voice List, or in the gray area beneath it.

Super Quick Music Creation with Step Edit

Here's one way to rapidly created semi-random musical phrases with the Step Editor: Click the Add/Edit button, choose a scale with the Select Mode controls, then click-drag the mouse across an octave or two of notes on the Step Editor Notes Chooser keyboard. Click OK in the Step Editor Notes Chooser keyboard window. Set the Steps drop-down to sixteenth-notes and select the Pencil tool from the toolbar. Now click random grid positions, making sure not to click two notes vertically. This creates semi-random melodies within the note limits of the selected scale.



- ◆ **Add Voice**
This opens a keyboard and lets you add new voice(s) by clicking a key (or multiple keys) on the displayed keyboard.
- ◆ **Voice Chooser**
This is the same as clicking the *Add/Edit* button. It opens the *Step Editor Notes Chooser* keyboard and allows voices to be added or deleted from the Voice List.
- ◆ **Select Notes**
Selects all notes played by the current voice in the grid. This is useful for moving a voice's notes to a different voice (by dragging), or for quickly deleting all of a voice's notes.
- ◆ **Delete**
Removes the voice from the Voice List and all notes for the voice on the grid. Careful with this one!
- ◆ **Remove Unused Steps**
Deletes all voices with no notes on the grid.

If you're using a drum virtual instrument, instead of notes, you can view the names of individual drums in the left column. In the *Sound* tab, select a drum map from the *Map* drop-down control. Mixcraft will choose the appropriate drum map if it is already mapped.

CREATING CUSTOM DRUM MAPS (ADVANCED)

To create drum maps with individual custom instrument names (per-note), go to the `%programdata%\Acoustica\Mixcraft\drum-maps7\` folder. (if you're using Mixcraft Home Studio, go to the `%programdata%\Acoustica\MixcraftHS\drum-maps7\`) Here you'll find text files representing Mixcraft's included Drum Maps. The text format is as follows:

[MIDI Note Number] [Drum Hit Name]

What's the difference between a Voice List and a Drum Map?

*Good question. A Voice List is the list of notes you see displayed in the Step Editor. Depending on how you've configured it, it will consist either of boring MIDI note names (i.e. C4, C#4, D5, etc.) or slightly-more-exciting text names, such as "kick drum", "snare", "tambourine", etc. The important thing to remember is that the Voice List only shows the voices you've selected to display (using the **Add/Edit** button).*

*A Drum Map is a small document stored on your hard drive containing a list of names for each instrument in (usually) a multi-sampled drum kit. The Voice List may or may not currently display all the instrument names in the Drum Map. When a Drum Map is loaded, you can add or hide specific sounds using the **Add/Edit** button. If you're computer-savvy, you can create your own custom drum map templates. (See **Creating Custom Drum Maps**).*

For example, if you had a virtual instrument called *Big And Dumb Drums* with a sound called *Mega Kick* on MIDI note 54, you would add the following line:

54 Mega Kick

The file would be saved as *Big And Dumb Drums.txt* in the `%programdata%\Acoustica\Mixcraft\drum-maps\` folder.

Once Mixcraft is restarted, the new Drum Map would appear in the **Scale/Drum Maps** list.

The final step is to add a default mapping in order to automatically select the correct Drum Map when the *Big And Dumb Drums* virtual instrument is selected.

Open the file called *Default-Drum-Mapping.csv* in either Excel, Open Office Calc, or Google docs. The file is comma delimited for columns and quote (") delimited for text. Fill in the following fields and save the document:

◆ **Map File**

The name of the file you just created, ie: "Big And Dumb Drums.txt".

◆ **VST GUID**

This is a special value uniquely identifying the VSTi. Open up your Log file after having used the plug-in to get its VST GUID. Your log file will be located at `%appdata%\Acoustica\Mixcraft`.

The following example shows how to find the GUID for the Bass Synthesizer VSTi.

```
15:39:16 [635 mils] : VST: C:\Program Files (x86)\Acoustica Mixcraft 7\
VST\3rdParty\Alien 303 Bass Synthesizer.dll"
```

```
15:39:16 [635 mils] : VST found in registry.
```

```
15:39:16 [635 mils] : {4A2F286F-0000-0000-0000-000000000000}
```

◆ **VST Name**

If there isn't a GUID, use the exact name from the log file.

◆ **Preset #**

This is the preset the drum patch resides on.

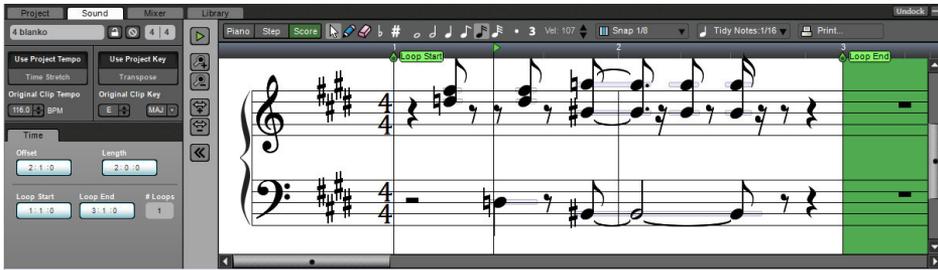
◆ **Comments**

No need to keep those comments to yourself; put them here.

Once you've defined the above parameters, save the file and load the virtual instrument.

SCORE EDITOR

Mixcraft allows editing, viewing, and printing in notation or sheet music form. Virtual Instrument Clips may also be viewed in the Score Editor.



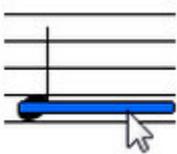
EDITING NOTES

Mixcraft allows note editing on the staff directly. By editing the size and position of the piano bar, you can change the way the notation is displayed.

Here's a typical quarter-note with its associated piano bar:



After clicking the piano bar, it turns blue.



To move a note, click and drag on the blue section. To resize a note, move the cursor onto the left or right edge of the blue section and drag horizontally.

To retain the note time offset and drag up or down, hold the SHIFT key down while dragging.

SCORE TOOLBAR

This is how the Toolbar appears when the Score Editor is selected:



There are three main editing tools on the Score Editor toolbar:



◆ **Arrow Tool**

Used for note selection, moving, and editing note durations. It can be selected with the keyboard shortcut Q.



◆ **Pencil Tool**

Used for drawing new notes on the staff. It can be selected with the keyboard shortcut W.



◆ **Eraser Tool**

Clicking notes with the eraser tool removes them from the staff. It can be selected with the keyboard shortcut E.

◆ **Note Duration Buttons**

These work in conjunction with the pencil tool when drawing in new notes in the grid. Choose whole-note, half-note, quarter-note, eighth-note, sixteenth-note, and thirty-second note values. You can also select the dotted and triplet note modifiers for converting standard note values to dotted and triplet values, respectively.

◆ **Default Velocity**

Specifies the velocity for new notes drawn in with the pencil tool.

◆ **Snap Value**

Determines the minimum note value that notes will snap to when creating new notes, moving pre-existing notes, and moving loop markers. Dependent upon the current zoom view level, *Snap To Grid* setting automatically changes the snap value to the current grid size. This setting works well in most situations. If you're working on a track with a three-count based time signature, use the *Snap To Grid (Triplets)* settings.

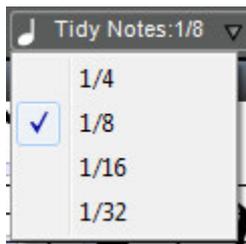
◆ **Tidy Notes**

Since a performance won't always present itself as nicely as printed sheet music, *Tidy Notes* attempts to clean up the display of recorded note data.

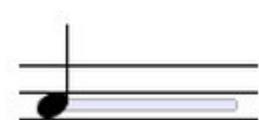
For example, if you played a quarter-note but shortened the note by a 32nd note duration, the software would show a dotted 8th-note tied to a 32nd-note with a 32nd-note rest. Yikes... this would look like the following:



To remedy the situation, set the *Tidy Note* level to an 8th note or less.



After changing the *Tidy Note* level, the note looks like a quarter-note.



The drawback is that 16th notes could potentially appear as 8th notes. Of course, you can always set the *Tidy Note* level to 16th notes and edit incorrect piano bars.

PRINTING

Once a clip is properly selected, click the *Print...* button on the Score toolbar or press CTRL+P to print. To include the author and title in the printed version, enter the appropriate text in the *Author Information* section of the *Project* tab.

CHANGING CLEFS

Right-click on a clef and choose from the following:

- ◆ Treble & Bass
- ◆ Treble
- ◆ Bass

This changes the clef for the entire track.

MIDI BASICS

MIDI is an acronym for Musical Instrument Digital Interface. It is a series of messages that keyboards and synthesizers use to play notes or change the sounds of instruments. A Virtual Instrument Track in Mixcraft contains Virtual Instrument Clips, which contain MIDI data.

MIDI NOTES

When middle C is played on a music keyboard, it sends a short message that translates to “play middle C.” When you let go of the key, a message is sent that translates to “stop playing middle c.” In addition, the message contains other information, such as the MIDI channel and key velocity. There are 16 MIDI channels which allow you to route MIDI messages. The key velocity is a number from 1 to 127 which describes how fast the key was depressed. A velocity of 1 would hardly be heard and a velocity of 127 would be full volume.

Each MIDI Note message contains the following information: note value (C0 – G10), key velocity (1-127), and MIDI channel (1-16)

NOTE VALUE

This is the value of the note. There are 128 possible MIDI notes, ranging from a low of C-1 to a high of G9.

KEY VELOCITY

This is how fast the key was pressed. Faster velocities usually correspond to louder sounds or may trigger extra sounds, depending on the synthesizer and sound programming.

MIDI CHANNEL

MIDI channels can be thought of like lanes on a freeway - each of its 16 channels contains an independent MIDI data stream. In reality, MIDI messages are sent down the cable one after the other (i.e. serially), but because the data is moving very quickly, it behaves as if multiple channels are sent simultaneously (i.e. in parallel). MIDI channels allow routing of specific channels to specific synthesizers, tracks, or both.

MIDI CONTROLLERS

A controller is another type of MIDI message that controls other parameters. The most commonly used controllers are Modulation and Pitch Wheel. A standard MIDI piano keyboard has two wheels that correspond to modulation and pitch wheel (pitch bend).

◆ **Modulation**

This is also known as vibrato and will usually cause the pitch to oscillate around the note. However, it depends on the synthesizer being used. Modulation has a value of 0 to 127. (127 is the most extreme modulation)

◆ **Pitch Wheel (Pitch Bend)**

This controller usually bends the pitch up or down a half step in pitch. However, it depends on the synthesizer being used. Pitch wheel or pitch bend has a value from -8191 to 8192.

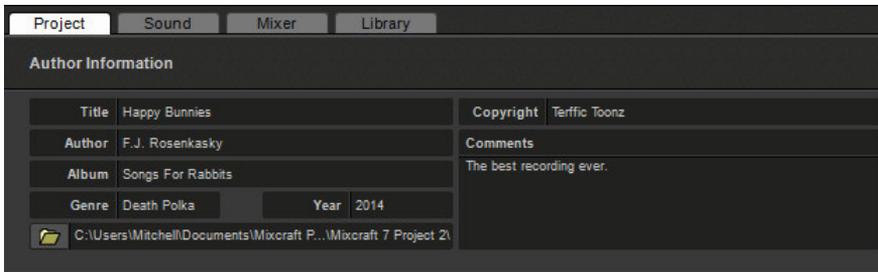
◆ **Other Controllers**

There are many other controllers allowing real-time variance of synth parameters. These are assigned a number value of 0 to 127 (corresponding to the controller); many are standardized. For example, MIDI controller #7 always controls volume.

PROJECT TAB

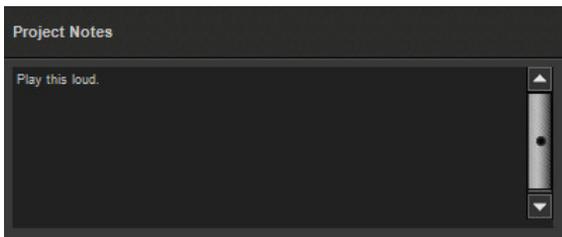
The *Project* tab is primarily used for information and notes about the project. All fields are clickable and filled in with any text.

The only non-text field is the folder icon. Clicking this lets you change the default project save location.



The screenshot shows the 'Project' tab in a software interface. At the top, there are four tabs: 'Project', 'Sound', 'Mixer', and 'Library'. Below the tabs is a section titled 'Author Information'. This section contains several fields:

Title	Happy Bunnies	Copyright	Terffic Toonz
Author	F.J. Rosenkasky	Comments	The best recording ever.
Album	Songs For Rabbits		
Genre	Death Polka	Year	
C:\Users\Mitchell\Documents\Mixcraft P...\Mixcraft 7 Project 2\			



The screenshot shows the 'Project Notes' field. It is a text area with a vertical scrollbar on the right side. The text 'Play this loud.' is visible at the top of the field.

RECORDING AUDIO

There are two main ways to hook up recording hardware to your computer.

◆ Analog Mixer With Sound Card

The outputs of an analog mixer can be routed to a sound card's stereo inputs. (This may require specific audio cables and/or adapters.) Once a mixer is plugged into the sound card, microphones and other audio inputs are plugged into the analog mixer.

◆ Audio Interface

Firewire or USB audio interfaces designed for music production are the best choice, as they are designed to handle high-quality recording and playback of multiple audio channels. Many audio interfaces include high-quality mic preamps and instrument inputs. Some also include MIDI input and output.

CHOOSING AN AUDIO DRIVER

The audio driver is the “go-between” software that allows audio hardware to communicate with Mixcraft. Mixcraft supports three types of audio drivers:

- ◆ ASIO
- ◆ WaveRT
- ◆ Wave

If you are playing virtual instruments or want to live monitor, you'll need to use a low latency setting along with audio hardware and a computer that are up to the task. ASIO drivers usually offer the best performance, followed by WaveRT. If no other drivers are supported, choose Wave.

Learn more about setting up audio drivers in "[Important Sound Setup Information](#)", pg. 6.

RECORD ARMING

Arming a track simply means you're preparing it for recording. At this time, you'll want to make sure the correct audio hardware input is selected and recording level is optimally set. Don't worry, it's easy!



To arm a track, click its *Arm* button; the button will turn red letting you know that the magic is about to happen. You can also arm the current track with the key shortcut CTRL+B.

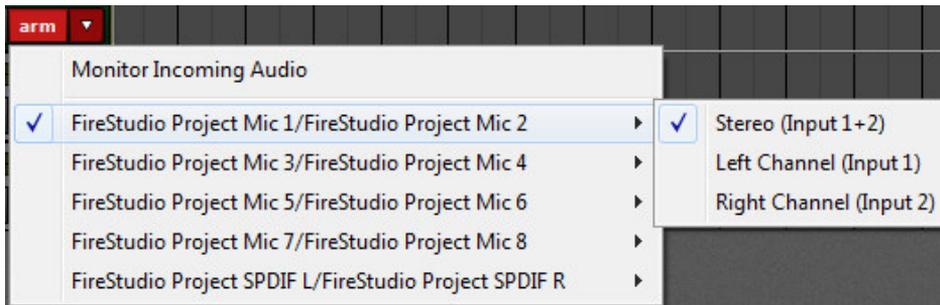
Note: If you're using Core Audio/Wave RT or Wave audio drivers, the track volume fader will turn red as shown in the picture above. If you're using the ASIO audio driver, the track volume fader will disappear. This is normal, and we'll explain why a little later.

CHOOSING RECORDING INPUT

Mixcraft allows recording from multiple sound cards and different inputs simultaneously. Many audio interfaces allow recording of multiple inputs simultaneously.

To select the hardware audio device input for recording, click the selector arrow on the right side of the Arm button. You'll see a list of all available inputs from your audio device(s).

Select the device, followed by the input that you'd like to arm for recording.



If you're recording a mono signal, click the sound device followed by *Left* or *Right* depending on where you've plugged into your device. If you're recording in stereo with left and right inputs, select *Stereo*. Pay close attention to this setting, because it's easy to unnecessarily record mono input sources (e.g., lead vocals, bass guitar, etc.) as a stereo file if you've set this incorrectly. It won't hurt anything, but you'll unnecessarily use twice as much hard drive space.

After selecting the input, send some audio through the input to verify that the correct input was chosen. You should see the meters moving on-screen in the recording track.

SETTING THE RECORD INPUT LEVEL

When a track is armed, the volume slider turns into a red recording level adjuster. Move the slider to adjust the recording input level. If peaks send the meter into the red, back off the level. Ideally, the input signal should nominally sit in the yellow area.

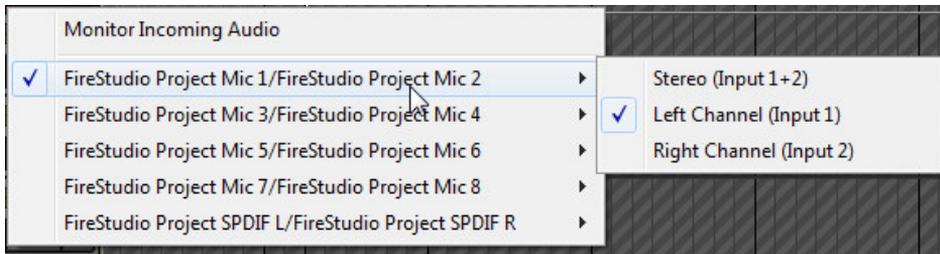


Important Note: If you're using an audio device with an ASIO driver (you can check in *File>Preferences>Sound Device*), the volume slider will disappear when the track is armed for recording. This is because ASIO recording drivers do not support input level adjustment in software. To set the proper recording input level, you'll need to use either the input level on your audio hardware, or, if it doesn't have one, the output level control on an external preamp or channel strip. If you don't have any of these, stand further away from the microphone. (Just kidding!)

RECORDING MULTIPLE TRACKS SIMULTANEOUSLY

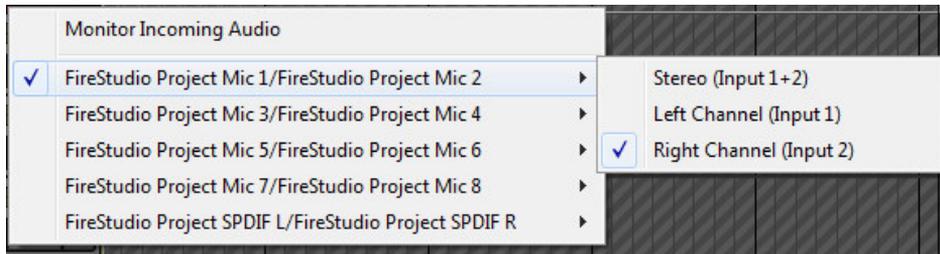
Multiple tracks can be armed simultaneously if your sound device supports it. In this way, you can record an entire band in real-time, with each input recording to a separate track, allowing far greater flexibility at mix time. Remember that you'll need to set the record input individually for each track.

In this example, we're using a FireStudio Project audio interface and would like to record one mono track through the left channel input. To choose an input, click the *Arm* arrow for track 1. Click on the name of the audio interface; in our case that will be *FireStudio Project*, and choose *Left Channel*.



On the second track, we'll record the right channel input. Click the *Arm* arrow on track 2, followed by the name of the audio interface, then choose *Right Channel*.

Both tracks are now armed for recording.



RECORD AN AUDIO CLIP



Once you have armed a track, you can record clips.

1. Position the Caret for recording by clicking on the track.
2. Click the Record button on the transport control to start recording.
3. To stop recording, click the Record button again, or press the spacebar.

MONITOR/HEAR YOURSELF

To hear yourself with the channel's inserted effects, turn monitoring on by clicking the speaker icon after arming the audio track

LOOP RECORDING AND PUNCH IN/OUT

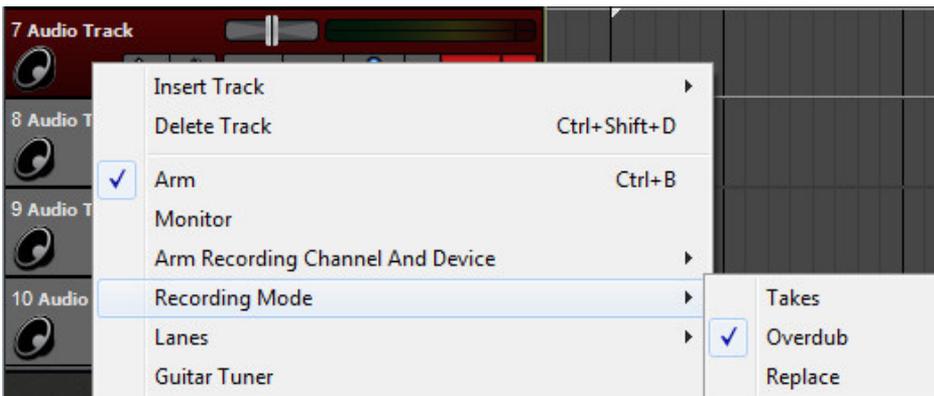
Record in loop mode or in a specific time section. To learn more about loop recording or punch in/out see "[Recording Audio](#)", pg. 111.

RECORDING MODE

There are three recording modes, selectable by right-clicking or by clicking *Track>Recording Mode* in the Main Window menus.

- ◆ Takes
- ◆ Overdub
- ◆ Replace

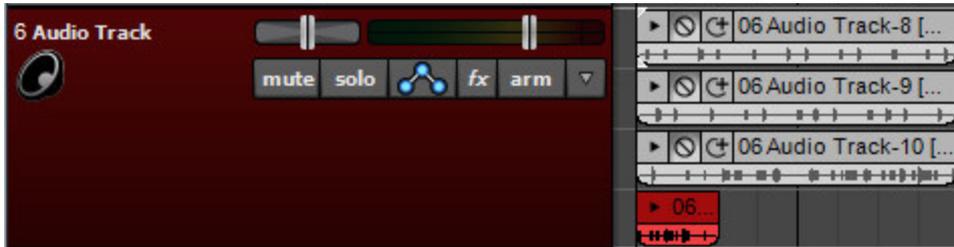
Default recording modes for audio and MIDI can be independently set in *Preferences>Recording* in the Main Window menus.



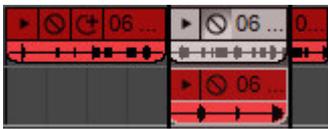
◆ Takes

Takes mode is very useful for laying down multiple performances without starting and stopping each time. It's generally used in conjunction with Loop Mode wherein a section is looped and each cycle records a new "take" (see *Loop Recording* below). Mixcraft automatically creates recording Lanes to accommodate each pass.

As new takes are recorded, the clips of previous recording passes are automatically muted. Audio tracks default to Takes mode. Take clips can freely be moved to their own audio tracks.



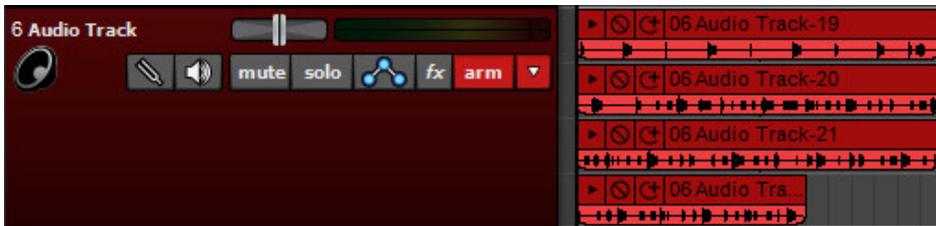
When Takes mode is used in conjunction with punch in/out, it creates a clip on a new lane in the punch area, but only mutes the portion of the audio clips in the punch area.



◆ Overdub

In this mode, all previous clips are heard during recording. Virtual Instrument (MIDI) tracks default to Overdub mode. This works well for quickly stacking parts.

Each new recording is placed on a new lane.



◆ Replace

In this mode, existing audio is replaced by new recordings. New lanes are not created.

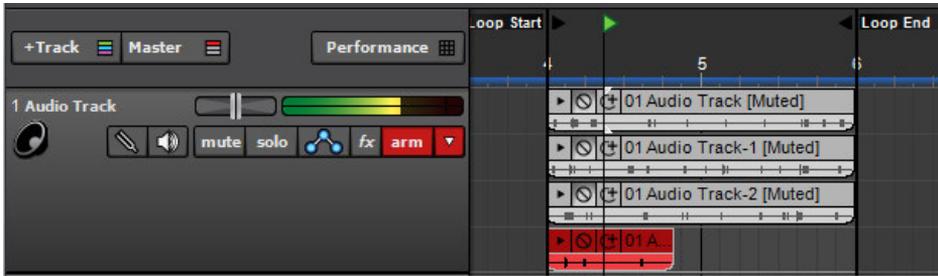
◆ Loop Recording

Loop recording allows recording of multiple takes or overdubs without stopping the transport.

Saving Time With a Multi-Input Recording Template

A project with the correct inputs and armed tracks for multiple-input recording can be set up and saved as a project template. This is handy if you're recording an entire band – the next time you record the band, simply load the template and all inputs will be ready to go!

(Provided all instruments and inputs are plugged into the same inputs... keep notes!)



Be a Loop Mode Ninja!

A faster way to set loop points is to drag a purple highlight area either in the Timeline or Main Clip Grid, then click the Loop button. This automatically sets the in and out points to the beginning and end of the highlight region. (You can also use the L key shortcut to toggle loop mode on and off.) Remember that the Snap setting affects where the loop region markers land; we recommend setting this to Snap To Grid or Bar for more congruent clips.

To create a loop, click the *Loops* mode button in the Transport, then drag the *Loop Start* and *Loop End* markers in the Timeline to set a loop area.



Punch In/Out

Punch In/Out recording lets place markers that define where to start and end recording.

To mark a region for punch in/out recording, click the *Punch In/Out* button. Set the *Punch In* and *Punch Out* handles in the Timeline.



After setting up a punch area, press record, and the new recordings will be created inside the punch start and end.



You can use the same technique described in the “Loop Mode Ninja” sidebar for setting Punch In/Out locations.



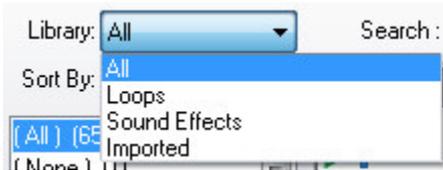
LOOP AND SOUND EFFECTS LIBRARY

The loop library contains a number of song kits and sound effects for royalty-free use within your own projects! Feel free to mix, loop, and edit them to your heart's content.

The Library Tab includes categories and an easy-to-use search function that filter which sounds are currently displayed. This makes light work of navigating Mixcraft's vast sound library.

LIBRARY

Library is the top layer of Mixcraft's sound hierarchy, with the following four choices:



- ◆ **All**
Mixcraft displays all included and user sounds.
- ◆ **Loops**
Only musical and rhythmic loops are displayed.
- ◆ **Sound Effects**
Only sound effects are shown. These are “non-music” sounds and usually don't loop in a rhythmic fashion. (Of course you **can** use them in your music!)
- ◆ **Imported**
Any user or third-party sounds added to Mixcraft's library.

SORT BY

The *Sort By* drop-down menus allows filtering of sounds by category.

Choose from the following:



- ◆ Tempo
- ◆ Key
- ◆ Style
- ◆ Instrument
- ◆ Name
- ◆ Song Kit
- ◆ Date
- ◆ Imported Date

The list beneath changes dependent upon the currently selected *Sort By* category. The large sound list to the right will display all sounds meeting the current *Library* and *Sort By* criteria. Remember that selecting *Library>All* will list everything, so we recommend setting filters to simplifying finding the right sound.

AUDITION SOUNDS

Click the small green triangular *Play* button next to a sound to audition it. If the project is currently playing, Mixcraft automatically beat matches the previewed library sound to the current tempo.

ADDING SOUNDS

Add the last selected sound by clicking the blue + *Add Sound* button or drag the sound onto an audio track.

- ◆ **CTRL key** – hold down the CTRL key to select specific sounds.
- ◆ **SHIFT key** – hold down the SHIFT key to select all sounds from the previous selection to the recently clicked sound.

SEARCHING

Searching lets you quickly locate specific sounds in the currently selected category and library. You can search using multiple terms and excluding certain words. Search terms display in yellow.



For example, if you searched “Drums” and there were too many results, you could change the search to “Drums Snare.”

If you didn’t want to see a specific type of drum, you can add the exclusion “-” sign. “Drums -Snare” would show all drum sounds without the word “Snare” in it.

To delete/erase the current search term, either remove it or click the X button next to the Search box.

After a search is performed, Mixcraft displays how many items matched the search query.

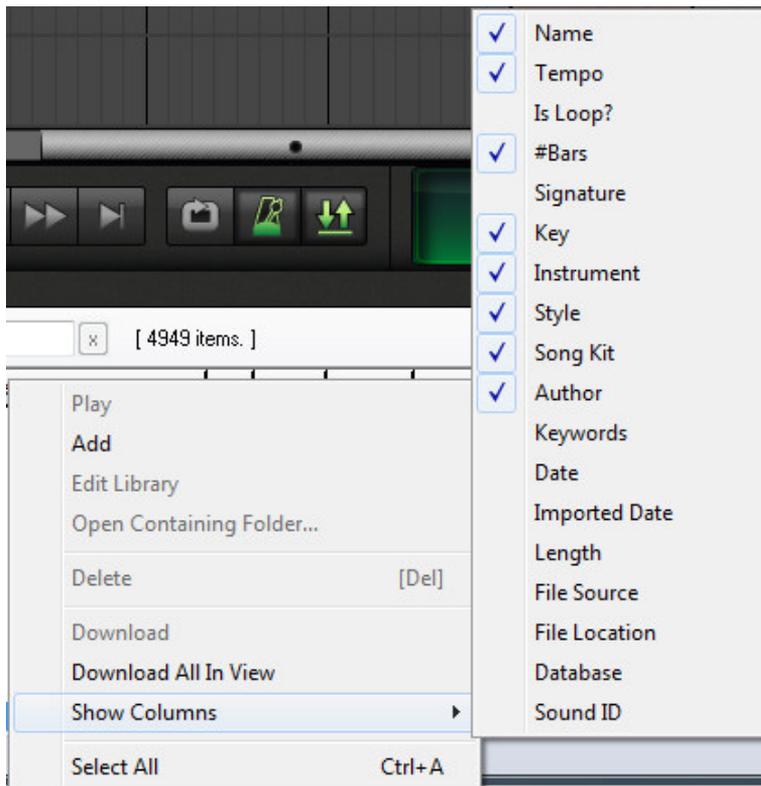
SORTING & COLUMNS

	Name	Tempo	#Bars	Key	Instrument	Style	Song Kit	Aut
▶+	70s Funk Drum Fill 1	90	2		Drums	Funk	Drum Loops	SFXsource.t
▶+	70s Funk Drum Fill 10	90	2		Drums	Funk	Drum Loops	SFXsource.t
▶+	70s Funk Drum Fill 11	90	1		Drums	Funk	Drum Loops	SFXsource.t

Sounds can be sorted by clicking on the column headers. To sort the column in descending order, click the column a second time. The following columns are available:

- ◆ Name
- ◆ Instrument
- ◆ Imported Date
- ◆ Tempo
- ◆ Style
- ◆ Length
- ◆ Is Loop?
- ◆ Song Kit
- ◆ File Source
- ◆ #Bars
- ◆ Author
- ◆ File Location
- ◆ Signature
- ◆ Keywords
- ◆ Database
- ◆ Key
- ◆ Date
- ◆ Sound ID

You'll notice that all of these columns aren't visible in the sound list by default. To customize which columns are visible, right-click on a column header or right-click on the sound view, choose *Show Columns*, and check or uncheck the desired columns.



To resize the width of columns, move the mouse over the black separator lines. The cursor will turn into a left/right arrow; click and drag to resize column width. Double-clicking the black separator bar automatically resizes the column to fit the largest text in the column.



DOWNLOADING SOUNDS

One great Mixcraft feature is that all the loop library sounds are downloaded on demand from our servers. If you click the play or add icon, and the sound does not yet exist on your computer, Mixcraft immediately downloads it from the Internet. (You'll, of course, need to be online to receive new sounds, so don't blame us if you didn't pay your pesky ISP!)

If you are having download problems, try switching your default download server with the drop-down menu in *Preferences>Library>Loop Library Download* in the Main Window menus.

To download more than one sound at a time, right-click on the library and choose *Download All In View*. This will download all sounds in the current view. To cancel all downloads, right-click and select *Cancel Downloads*.

OPEN CONTAINING FOLDER

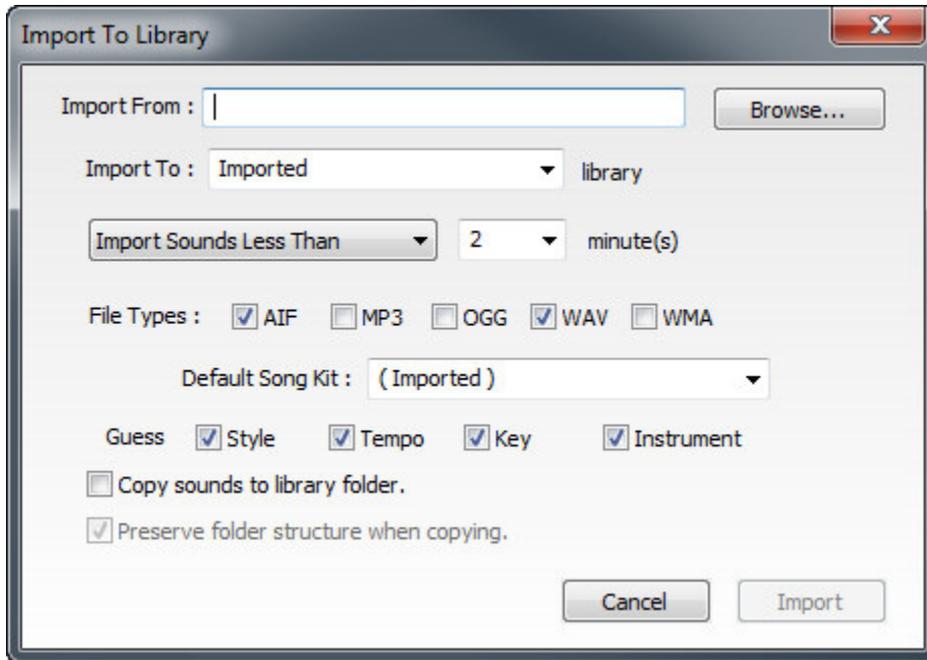
For access to the actual sound file on your hard drive, right-click the sound and choose *Open Containing Folder* to view it in its Windows Explorer directory.

ADDING SOUNDS TO THE MIXCRAFT LIBRARY

Sounds can be imported from your local hard drive, network locations, or loop CDs. You can also import sounds from the workspace. Supported file formats include AIF, MP3, OGG, WMA, and WAV.

IMPORTING FROM HARD DRIVE AND CDS

Sounds can be imported from a hard drive or loop CDs. To import sounds, click the **+Import...** button on the *Library* tab toolbar. This opens the *Import To Library* window.



◆ Import From

Specifies the directory to import from. Type its name or click the *Browse...* button to choose a folder.

◆ Import To

Choose or type in the library name to import to. To create a new library, type in a name.

◆ Import Length – Choose from criteria and a length in minutes. Choose a length in the drop-down menu to the right.

- ◆ Import All Sounds
- ◆ Import Sounds More Than (x minutes)
- ◆ Import Sounds Less Than (x minutes)

◆ File Types

This specifies which file types are to be imported.

- ◆ AIF ◆ MP3 ◆ OGG
- ◆ WAV ◆ WMA

◆ **Default Song Kit**

Select or type in a name for a song kit if the imported sounds are to be associated with a specific Song Kit. This can be easily edited later if need be.

◆ **Guess**

If Mixcraft sees certain keywords within the file name, checking *Guess* criteria checkboxes will help Mixcraft to automatically assign attributes. These are helpful when searching for sounds in the Library Tab.

◆ **Style** – If a keyword is found in the file called “lib-styles-for-import.txt” this will be considered its style. For example, if a file has the word “Rock” in it, Mixcraft will set the sound’s style to Rock.

◆ **Tempo** – If a number in the range of 40-240 is found, Mixcraft will assume that this is the tempo.

◆ **Key** – If a key is found by itself, such as “Rock-G,” Mixcraft will assume that “G” is the key of the sound.

◆ **Instrument** – If a keyword is found in the file called “lib-insts-for-import.txt”, Mixcraft will consider that word to be its instrument. For example, if a file has the word “piano” in it, Mixcraft will set the sound’s instrument to “Piano.”

◆ **Copy sounds to library folder**

This creates a copy of the sound on the local hard drive under the folder *%programdata%\Acoustica\Mixcraft\UserLibrarySounds*. If importing from a CD, this option is on by default and cannot be turned off.

◆ **Preserve folder structure when copying**

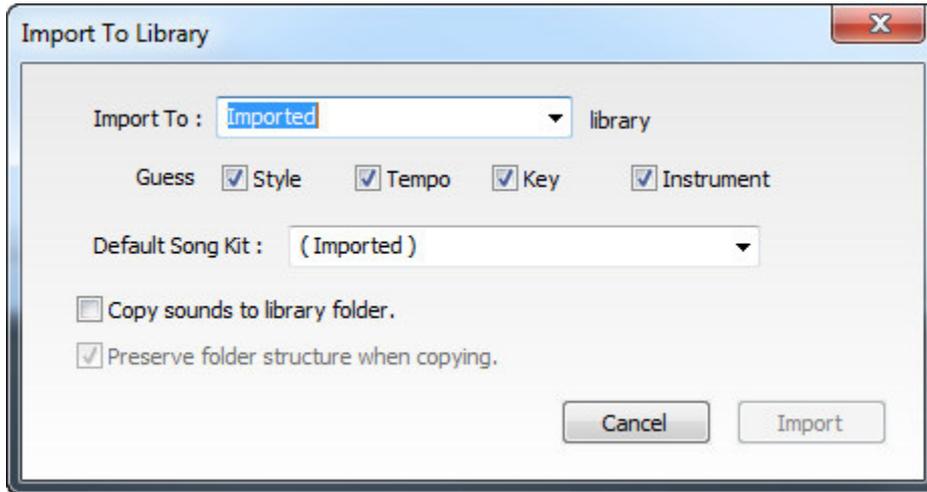
If this is checked, then the folders that contain the imported sounds will be mirrored in the *%programdata%\Acoustica\Mixcraft\UserLibrarySounds* folder if you are using the Copy sounds to library folder option. For example, if a sound is found at *C:\folder one\sub folder two*, then it will add the sound to *%programdata%\Acoustica\Mixcraft\UserLibrarySounds\LibName\folder one\sub folder two*. If this is off, it will place all the imported sounds at the base level in the user library directory.

◆ **Import**

This begins the import. While an import is happening, you are free to edit sounds or use Mixcraft without interruption.

IMPORTING VIA DRAG AND DROP

To add a single audio file or folder, drag the files and/or folders into the Library window from Windows Explorer. After dragging them in, the import window appears. Choose a library, select the import options, choose a default song kit, and click the *Import* button.



◆ Import To

Choose or type in the library name to import to. To create a new library, type in a name.

◆ Guess

If Mixcraft sees certain keywords within the file name, checking *Guess* criteria checkboxes will help Mixcraft to automatically assign attributes. These are helpful when searching for sounds in the *Library* tab.

- ◆ **Style** – If a keyword is found in the file called “lib-styles-for-import.txt” this will be considered its style. For example, if a file has the word “Rock” in it, Mixcraft will set the sound’s style to Rock.
- ◆ **Tempo** – If a number in the range of 40-240 is found, Mixcraft will assume that this is the tempo.
- ◆ **Key** – If a key is found by itself, such as “Rock-G”, Mixcraft will assume that “G” is the key of the sound.
- ◆ **Instrument** – If a keyword is found in the file called “lib-insts-for-import.txt”, Mixcraft will consider that word to be its instrument. For example, if a file has the word “piano” in it, Mixcraft will set the sound’s instrument to “Piano.”

◆ **Default Song Kit**

Select or type in a name for a song kit if the imported sounds are to be associated with a specific Song Kit. This can be easily edited later if need be.

◆ **Copy sounds to library folder**

This creates a copy of the sound on the local hard drive under the folder `%programdata%\Acoustica\Mixcraft\UserLibrarySounds\`. If importing from a CD, this option is on by default and cannot be turned off.

◆ **Preserve folder structure when copying**

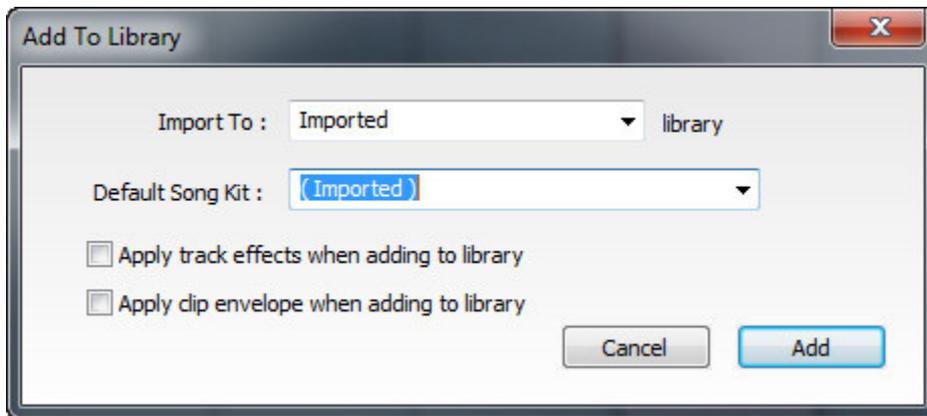
If this is checked, then the folders that contain the imported sounds will be mirrored in the `%programdata%\Acoustica\Mixcraft\UserLibrarySounds\` folder if you are using the Copy sounds to library folder option. For example, if a sound is found at `C:\folder one\sub folder two\`, then it will add the sound to `%programdata%\Acoustica\Mixcraft\UserLibrarySounds\LibName\folder one\sub folder two\`. If this is off, it will place all the imported sounds at the base level in the user library directory.

◆ **Import**

This starts the import. While an import is happening, you are free to edit sounds or use Mixcraft without interruption.

IMPORTING SOUNDS FROM THE CURRENT PROJECT

Any recording or sound in the current project can be added to the library. Right-click on an audio clip in the project and select *Add To Library*. This opens the following dialog:



This works much the same as the prior import options but allows saving of sounds with plug-in effects and clip envelope parameters.

◆ Import To

Choose or type in the library name to import to. To create a new library, type in a name.

◆ Default Song Kit

Select or type in a name for a song kit if the imported sounds are to be associated with a specific Song Kit. This can be easily edited later if need be.

◆ Apply track effects when adding to library

Track effects will be applied to the final library sound.

◆ Apply clip envelope when adding to library

Clip envelope adjustments will be applied to the final library sound.

◆ Add

This starts the import. While an import is happening, you are free to edit sounds or use Mixcraft without interruption.

DELETING SOUNDS

Simply select the sound or sounds. Right-click and select *Delete* or press the DELETE button on the keyboard. Mixcraft's built-in sound library sounds cannot be deleted.

EDIT SOUND DATA

The sound library features editable parameters to assist with organization. “Meta” info including keywords, tempos, keys, and time signatures can be attached to sound files.

To modify sound info, click *Edit Library* in the *Library* tab toolbar. Editable sounds and loops will have a pencil icon next to them. To edit a field, click it, and type in a new name or tempo. Mixcraft will auto-suggest based on previous entries and values.



	Name	Tempo	#Bars	Key	Instrument	Style	Song Kit	Author
▶ +	House Disco Brass Hits Phrase B	130	4	D# min	Brass	Dance	House Disco	Paul Wagorn
▶ +	Horn Ending	180	4	D# min	Brass	Jazz	Classic Jazz	SFXsource.com
▶ +	Horn Riff 1	180	4	D# min	Brass	Jazz	Classic Jazz	SFXsource.com
▶ +	Horn Riff 2	180	4	D# min	Brass	Jazz	Classic Jazz	SFXsource.com

To move the cursor, use the arrow keys. Press ENTER to start editing a field. Standard copy (CTRL+C) and paste (CTRL+V) commands can be used for text. Click *Stop Editing* when done.

LIBRARY FILE FORMAT (ADVANCED)

User library files are stored in `%programdata%\Acoustica\Mixcraft\UserLibrarySounds\` as .mldb files. Mixcraft reads all .mldb files stored in this folder upon launch.

These files may be edited. To edit a .mldb file, copy it, rename the copy, and make edits to the newly copied version. If you're not technically inclined, we recommend editing the library using Mixcraft as the "front end" as described in the preceding section.

LIBRARY MLDB FILE FORMAT

This file is a standard .CSV file, aka a *comma delimited spreadsheet*. Each text field is quote (") delimited. Each column is comma (,) delimited.

You can view the MLDB file in MS Excel, OpenOffice.org, or Google docs. Be sure to choose the Separated by Comma option with a text delimiter of a quote ("). You may need to change the file extension to .CSV prior to editing.

MLDB FIELDS

MLDB files contain a number of columns:

Field Name	Description	Valid Values
Genre	This is the genre	"Rock", "Jazz", etc.
Style	This is equivalent to the Song Kit	"Blues Shuffle", "Death Metal Polka", etc.
Final Loop File Name	The displayed loop name	"My Loop"
Instrument	Type of musical instrument	"Vocal", "Bass", "Guitar", etc.
Keywords	This helps it pop up in the search results	Anything
IsLoop	A field to let the software know if it is a loop	"Y" or null
Number of Bars	The length of the sound in bars	null, 1 or greater
Has Key (Y/N)	Denotes if the sound has a key. For example, drum sounds do not normally have a key	"Y" or "N"
Key (# for sharp)	The key, if applicable. The key should only be a A-G with an optional # for a sharp	"A-G" with an optional "#"
IsMajor (Y/N)	Is the loop a major key?	"Y" or null for no.
Time Signature Numerator	If the sound has a time signature, this is the numerator or top portion.	null, 2 or greater
Time Signature Denominator	If the sound has a time signature, this is the denominator or bottom portion.	null, or a power of 2 \geq 2, ie: 2, 4, 8, 16, etc...
Comments	Field for making notes.	text of your choice
Artist	The name of the musician, creator, composer, etc.	John John Smallberries the great, or whatever you want.
URL	This is the URL of the artist's web page.	A valid web page/address

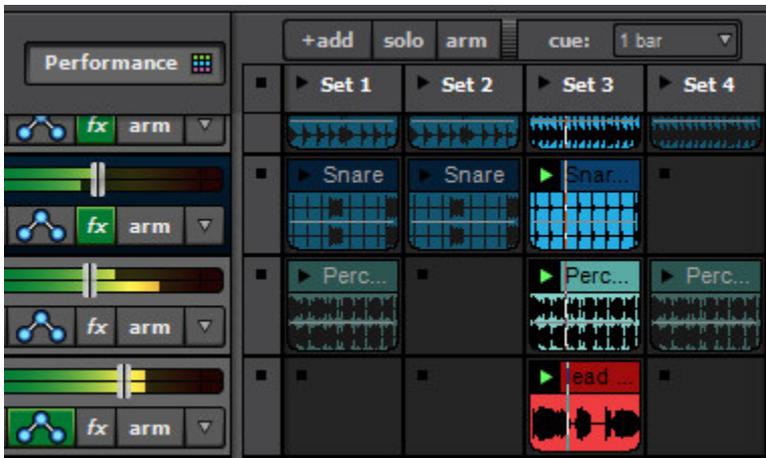
Acoustica Sound ID	This is a special sound ID used internally for Mixcraft projects. It is a way of allowing projects saved on any computer to be loaded up without any problems.	
Tempo	The tempo of the loop if applicable.	null or valid tempo such as 120 or 141.23
Date	The date that the loop/sound was created/added.	A valid date such as 01/03/12 or mm/dd/yy format, where dd=the day, mm=month and yy=year
FilePath	The path to the file. If the path is relative to the library folder, you can use the variable %LIBRARY% before any filepath. The %LIBRARY% variable maps to %programdata%\Acoustica\Mixcraft\	
Costs Money	Not Used	Not Used
Imported Date	The day and time when the sound was imported.	A valid date time such as mm/dd/yyyy hh:mm:ss where mm=month, dd=day, yyyy=4 digit year, hh=hour in 24 format, mm=minute and ss=second.
Length	The length of the sound in milliseconds.	null or the number of milliseconds. For example, 2 seconds = 2000 milliseconds.
Source	The place that the file was imported from. If it was a CD, a unique identifier will be at the start. In this way, it does not copy the same sounds from the CD more than once.	

PERFORMANCE PANEL

Mixcraft's Performance Panel allows fast and fun creation of entire tracks using MIDI and audio clips. Though it can be “played” with a standard MIDI keyboard controller (or no MIDI controller at all), it's best suited to a grid-style MIDI controller such as the Novation Launchpad. Don't mistake it as a simple grid loop player; the Performance Panel has some nifty tricks up its sleeve!

The Performance Panel can be thought of as a grid for simultaneous playback of multiple MIDI or audio clips (*since both behave mostly the same in the Performance Panel, we'll refer to both as “clips”*). A project can have only one Performance Panel. Clips in the grid work similarly to standard clip playback in the main clip grid in that only one per audio track can play at any given time (i.e. horizontally). The track list to the left of the Performance Panel functions exactly the same as for “normal” clips in the Main Clip Grid: volume, pan, solo, mute, etc. all operate as usual. MIDI and audio tracks work the same as well, so be aware of whether a track is a MIDI or audio track when placing clips in the Performance Panel grid. It's usually sensible to keep audio and MIDI tracks grouped together to avoid confusion.

PERFORMANCE PANEL CONTROLS



- ◆ **Performance Button** – Click the Performance button above the Track List to hide or view the Performance Panel grid (or press the P key).
- ◆ **Sets** – A Set refers to a group of clips that play concurrently. Sets are arranged horizontally across the grid with each set consisting of one or more loops arranged vertically “on top of each other”. You can create as many sets as you like – to add more empty sets, simply click the *+add* button above the Performance Panel. To rename a set, double-click on the text, type a new name, and press return (or click outside of the text box area).

- ◆ **Performance Panel Grid** – The grid where clips are dragged and dropped for playback.
- ◆ **Play and Stop** – There are numerous play (right-facing black arrow) and stop (small black square) buttons in the Performance Panel. Dependent upon their location, these toggle start and stop of playback of individual clips, entire sets, or tracks.
- ◆ **+ Add** – Don't worry, this button won't increase Attention Deficit Disorder, it simply adds more blank set locations to the right of the last set. Keep in mind that **all set locations may not be currently visible depending on the Performance Panel view width**. To view all current sets, scroll sideways (see *Performance Panel Horizontal Scroll Bar* below), or widen the Performance Panel view width. To widen the current view, position the cursor on the leftmost area of the main clip grid (the grid on the right side of the screen where you usually play and record clips, **not** the Performance Panel Grid); you'll know you're in the right place when the cursor turns into left/right arrows. Hold the mouse button and drag left or right to change the Performance Panel width.
- ◆ **Solo** – The Performance Panel *Solo* button mutes all clips in the main grid during playback. This allows you to use the *only* the Performance Panel for audio and MIDI clip playback. This is very useful in live performance applications.

When the *Solo* button is clicked, all clips in the main clip grid will turn gray. To unmute them, simply click the *Solo* button again.

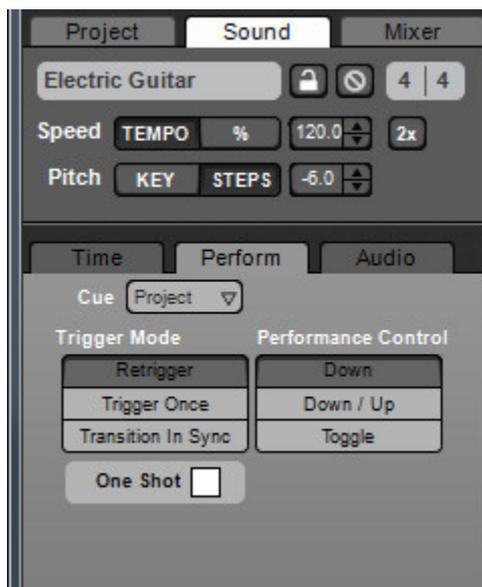
- ◆ **Arm** – Clicking the Arm button causes any playback of sets to record in the main clip grid. This is a powerful tool for song creation, enabling continuous recording of set group performances, including changing sets, muting and soloing of clips and more. It's especially fun and creative when using a hardware USB grid controller. Keep in mind that Performance Panel "recordings" don't actually create new audio files on your hard drive, they only create new clips in the main clip grid that refer to existing audio files. This means you can go nuts creating songs without filling your hard drive!
- ◆ **Cue** – The *Cue* button defines how long Mixcraft will wait to switch playback from one clip or set when play buttons are clicked during playback. At any setting other than *Instant*, Mixcraft always switches exactly on the beat, which is tremendously helpful for keeping playback on the beat and in sync. When *Cue* is set to any value other than none, the clip's *Play* arrow will flash indicating it will begin playing following the length of time specified by the *Cue* setting. We recommend beginning with *1 Bar* or *2 Bar*.

If *Cue* is set to *Instant*, clips and sets will switch immediately upon pressing the play button. This isn't usually desirable when switching loops, because loops can easily get off time from the project metronome. There are times when you'll want to set *Cue* to trigger individual sounds in the grid immediately when clicked

(for one-shot drums or sound effects with an external pad controller, for example), but since the *Cue* button affects all clips in the Performance Panel, it's a better idea to set the *Cue* parameter individually for specific grid locations; this overrides the global setting. (See *Performance Panel Sound Tab Parameters* in the next section.)

- ◆ **Performance Panel Horizontal Scroll Bar** – This is the the scroll bar at the bottom of the Performance Panel Grid. Slide this left of right to view all sets as described above.

PERFORMANCE PANEL SOUND TAB PARAMETERS



In addition to the Performance Panel controls described above, most of which affect **all** clips simultaneously, Mixcraft includes a number of parameters that allow you customize the behavior of individual clips. To access parameters for individual clips in the Performance Panel grid, select a clip (or clips) by double-clicking it, then click the *Perform* tab, toward the bottom left of the screen.

- ◆ **Cue** – This works just like the *Cue* pop-up menu described above in the *Performance Panel Controls* section - it defines how long Mixcraft will wait to switch playback from one clip to another when a play button is clicked for a new clip in the same column, but it applies **only to individual clips**. If the *Sound* tab Cue pop-up menu is set to *Project*, then the clip will behave as selected in the pop-up menu at the top of the Performance Panel controls (i.e. the clip won't behave any different than normal).

If the *Sound* tab *Cue* setting is set to any value other than *Project*, its setting will override the global cue setting for individual clips. This is pretty important, so let that sink in. In practical application, this offers a lot of flexibility for customizing the behavior of individual clips. Note that clips in the Performance Panel default to *Project* setting unless the setting is individually “customized” in the Performance Panel Sound Tab.

- ◆ **Trigger Mode** – This lets you customize how loops trigger when their play button is pressed.
 - ◆ **Retrigger** – Clip will repeat from its start each time the play button is clicked. If global or *Sound Tab>Perform Tab>Cue* is set to any value other than *Instant*, Mixcraft waits until the set note value has elapsed, then retrigger in time with the project metronome.
 - ◆ **Trigger Once** – Once play has been initiated for a clip either with its own play button or with the Set play button above, the clip continues to play until it is stopped with one of the stop buttons in the same row, the master stop button in the upper left corner, or Mixcraft's transport stop button (or space bar). Firmly whacking your computer with a sledgehammer should also halt clip playback, but it's not recommended and may violate your warranty. Kidding aside, *Trigger Once* is a good option for “foundation” beats that you want to remain solid during performances.
 - ◆ **Transition In Sync** – Similar to *Retrigger* mode, but instead of starting at the beginning of the clip when the play button is clicked (after the *Cue* value elapses), the newly selected clip continues playing **at the same position as the currently playing clip**. In other words, if the currently playing loop is at beat three at the transition point, the new clip will play from beat three. *Transition In Sync* works well in live performance, because it allows seamless transitions between clips and prevents multiple clips from becoming “turned around” in time from one another (i.e. the downbeat plays on the wrong count).
 - ◆ **One Shot** – With the the *One Shot* box checked, clips will play one time only. This is best suited for single-hit drum and percussion sounds and effects. You'll probably want to set the *Cue* value to *Instant* to make sure that the sound triggers immediately.

- ◆ **Performance Control** – Specifies how clips behave when clicked on with a mouse or hardware USB controller.
 - ◆ **Down** – Clicking a clip play button will start playback. Dependent upon *Trigger Mode* setting, the clip will continuously loop or play through one time. You can think of *Down* mode as similar to striking a note on a piano while holding down the sustain pedal.
 - ◆ **Down/Up** – Clips only play when the play button is held down – pressing down initiates playback, letting up stops it. This works best with the *Cue* time set to *Instant*, for example, for temporarily dropping a fragment of a loop or musical passage into a mix. If *Cue* is set to any value other than *Instant*, you’ll need to hold the play button until after the *Cue* note value time elapses, then clip playback begins.
 - ◆ **Toggle** – This works like an on/off switch: press play to start a clip, and press again to stop it. Note that the *Cue* setting affects the clip’s start **and** end points - Mixcraft waits for the *Cue* value to elapse before starting to play, and if the play button is pressed again before the *Cue* value has elapsed, playback continues to play for the duration of the *Cue* value.

MOVING, DUPLICATING, DELETING AND MORE IN THE PERFORMANCE PANEL

- ◆ **Move clips** – To move a clip or clips, simply click and drag to another grid location. To select multiple clips, click and drag a box around the clips by starting in a blank area of the grid (i.e. no clips in the grid).
- ◆ **Duplicate clips** – To duplicate a clip or clips, simply click and drag to another grid location while holding the CTRL modifier key. To duplicate select multiple clips, click and drag a box around the clips by starting in a blank area of the grid and drag to empty grid locations while holding the CTRL modifier key.

Dragging clips to an occupied grid location will overwrite the existing clip, so careful there, loopmaster!

- ◆ **Selecting Sets** – To select an entire set for editing, right-click in the set name area at the top of the Performance Panel grid and click *Select* in the pop-up menu.
- ◆ **Duplicating Sets** – To duplicate a set, right-click in the set name area at the top of the Performance Panel grid and click *Duplicate*. The entire set (i.e. all clips in the vertical column) will be copied to the next column over to the set’s right. *Duplicate* behaves as an “insert” function, so if there is a set (or sets) to the right of the one being duplicated, existing sets will be shifted over one column, and Mixcraft will automatically create new sets if necessary to accommodate the move.

- ◆ **Delete Set** – Sets can be deleted by right-clicking in the set name area and selecting *Delete* in the pop-up menu. Existing sets to the right of the deleted set will shift over. Just like a spreadsheet, but more fun!
- ◆ **Resizing the Performance Panel Grid** – Column widths can be adjusted by hovering the cursor between the set names at the top of the Performance Panel – when the cursor becomes left/right arrows, simply hold down the mouse button and slide horizontally to resize.

Vertical grid size follows a track's vertical sizing. You can resize tracks vertically by hovering between track names in the track list; click and drag vertically when the mouse becomes up/down arrows. To reset to default height, right-click a track and select *Properties>Height>Small/Normal/Large* in the pop-up menu.

USING THE PERFORMANCE PANEL

To use to the Performance Panel, simply drag clips into individual grid locations. You can drag in loops from the Mixcraft loop library (click the *Library* tab at the bottom of the screen to view and audition loops), the main playback grid, or even directly from the Windows File Explorer. Loops from the Mixcraft loop library contain information about the tempo and key of the sound embedded into the file – this means clips will play back in perfect time with project tempo. (see sidebar: *Embedded Tempo and Key Information*)

Once you've dragged loops into the Performance Panel set, initiate playback by clicking the playback arrow to the immediate left of the set number (i.e. *Set 1*, *Set 2*, etc.). You'll notice small playback heads – these move at different speeds dependent upon the length of the loops. Though loops in a set do not need to be the same length, we strongly recommend using even loops lengths in units of two or four. Mixcraft will play back loops of any length in time, but repeat and cycles may become difficult to keep track of.

(Actually, If a clip is a really odd size, Mixcraft rounds its length to the nearest quarter-note and tacks a little silence on the end before looping back around. This happens transparently, but trust us, unless you want your music to sound like a bag of rocks poured down a steel slide, this “rounding off” helps to keep things sounding musical.)

You can switch which set of loops is playing by simply clicking another set or loop's play button while the current set or loops is playing. Dependent upon the *Cue* setting, the Performance Panel will transition to the next set or loop either immediately, or wait until the *Cue* setting note value elapses. Clips can be stopped by pressing a row's dedicated stop button located at the far left of the Performance Panel, or by pressing the stop button in an empty cell in the same row. You can stop all clip playback either by pressing the master stop button in the Performance Panel's upper-left corner, or by pressing the stop button in Mixcraft's transport controls (or by pressing the space bar).

Embedded Tempo and Key Information

Most of the clips in Mixcraft's included library contain “built-in” tempo and key information (the exceptions would be things like one-shot sound effects that don't have discernible rhythmic timing or a musical key signature). This is gives Mixcraft a timing and key “roadmap”, allowing multiple clips to automatically lock in time and play in musically relevant keys without user intervention – in other words, they just work. Yay for technology!

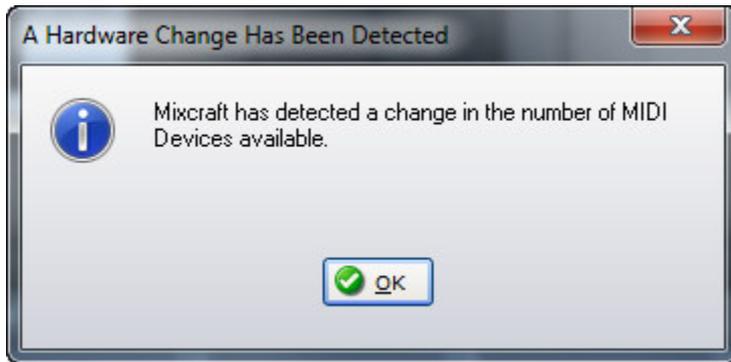
USING THE PERFORMANCE PANEL WITH A NOVATION LAUNCHPAD USB HARDWARE CONTROLLER

The Performance Panel can be used with a standard USB keyboard controller (see "[Using Generic MIDI Controllers and Control Surfaces](#)", pg. 309) or even just your computer's mouse or trackpad, but it really shines when paired with a Novation Launchpad USB grid controller. Instead of controlling set and cell playback with individual mouse clicks, the Launchpad features a multicolor 64-button grid for rapid control of cell playback, as well 16 additional buttons for controlling set playback and navigation. Mixcraft includes some special features designed to specifically take advantage of the Launchpad controller.

CONFIGURING THE LAUNCHPAD CONTROLLER

The Novation Launchpad doesn't need any special drivers. Here's how to get it up and running in a jiffy:

1. Plug the small end of the included USB cable into the the Launchpad, and the big end into an open USB port on your PC.
2. Upon plugging in the Launchpad, Mixcraft will display the following window. This simply acknowledges that you've plugged in a new piece of hardware. Click *OK*.



3. In the upper-left corner, click *File>Preferences*, then select *Control Surfaces*. In the left column, choose *Launchpad*. In the *Input* and *Output* columns to the right, select *Launchpad* in each of these. Click *OK* at the bottom of the *Preferences* window and you're ready for Launchpad rock!

LAUNCHPAD BUTTONS

- ◆ **Main 8x8 Grid** – The main 8x8 button grid functions just as the corresponding onscreen set, clip, and grid play and stop buttons.
 - ◆ Unoccupied grid locations do not illuminate.
 - ◆ Occupied grid locations not currently playing a clip display amber illumination.

Currently playing grid locations light up green. If a new set or clip is selected with *Cue* value set to any value other than *Instant*, the location will blink green until cell playback begins; the cell will then turn solid green. (Not to be confused with awesome disco dance TV show “Solid Gold.”)

Pressing an unoccupied grid button during playback will stop playback for clips in the same row, following the duration of the *Cue* setting (if any). The button will flash red during this time, indicating that clips playing in this row are about to stop.

- ◆ **1 – 8 Buttons** – These start and stop sets just like the play/stop buttons along the top of the Performance Panel
- ◆ **A – D Buttons** – Though there are Launchpad’s main grid buttons “only” comprise an 8x8 grid, Mixcraft’s onscreen grid has no size/cell number limit. When Mixcraft detects a Launchpad controller, a 8x8 cell blue box appears in the Performance Panel; this surrounds the current corresponding cells represented on the Launchpad controller.

(Keep in mind this only becomes relevant if the Performance Panel grid is larger than 8x8 cells).

The 8x8 cell grid represented on the Launchpad can be shifted up and down with the A and B buttons, and left and right with the C and D buttons. The blue box surrounding the 8x8 grid will move accordingly.

AUDIO MIXER

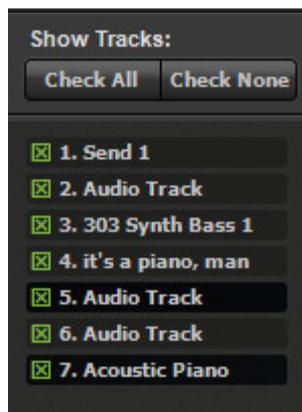
By now you've probably used the channel volume and pan controls in the track list. Basic mixes can be created this way, but the Mixer window offers far more creative options. All audio signals including audio, Virtual Instruments, and effects can be controlled with great precision using the Mixer window.



Each track is represented by a vertical channel strip containing a volume slider, pan control, EQ (low, mid, high), insert FX, record arm, solo, and mute buttons, plus an optional Send knob and Instrument button (some controls vary depending upon the track type). Keep in mind that tracks in the track list have a one-to-one correlation with mixer channels; in other words, each newly created track adds a new track in the mixer.

SHOW/HIDE TRACKS

You can check or uncheck tracks beneath the Show Tracks section to the left of the Mixer. This lets you view only the tracks that are currently being worked with. Hiding or showing tracks has no effect on audio.



You Send Me... Send Knob Display In The Mixer

You might notice the red send knob at the top of channel strips isn't always there. The send knob is only present if the current project contains at least one Send Track. There's no limit to how many Send Tracks a project can have, but the Mixer only displays one send knob. (We didn't want to potentially fill your screen with a never-ending vertical column of Send knobs!)

If a project contains more than one Send Channel, the Send Channel selector drop-down menu at the left of the Mixer window selects which one the red Send knob currently represents. This setting is global for the entire mixer; in other words, the Send knobs in the mixer always ALL display the same Send Track.

CHECK ALL/CHECK NONE

Check All/Check None lets you rapidly show or hide all mixer channels. Chekov, on the other hand, is that guy on Star Trek.

SEND CHANNEL SELECTOR

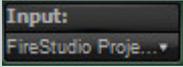
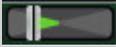
The Send Channel selector chooses the active send channel knob displayed in the Mixer channels. See the sidebar *You Send Me... Send Knob Display In The Mixer*.



MIXER CHANNEL STRIP CONTROLS

Below is a summary of all Mixer channel strip functions. Depending on the type of track, the channel strip may not contain all controls shown below.

Notes	Button
Selects the destination routing if the project contains SubMix or Output Bus tracks. If no SubMix or Output Bus tracks are present in the current project, track output defaults to Main Mix and the <i>Output</i> flip menu is not displayed.	
This tiny fader icon indicates the channel is active for the current fader bank. This display is relevant only when using a hardware fader controller.	
Adjusts the amount of signal routed to the selected Send Channel/Track. Only displayed if project has one or more <i>Send Tracks</i> .	
Opens the effect dialog for each track. If the track currently has effects, the <i>FX</i> button turns green. Hovering over the <i>FX</i> button displays the currently loaded effects.	
Click to select and change Virtual Instruments. (<i>Virtual Instrument tracks only</i>)	
Arms the track for recording.	
Solos the audio on the track and mutes other non-soloed tracks.	
Mutes the track's audio.	

Notes	Button
<p>Selects the channel input source for Audio tracks and Virtual Instrument tracks. On an audio track, this lets you select the audio source device (e.g., USB microphone, Line Input, etc.), as well as the audio interface physical input channel.</p> <p>On a Virtual Instrument track, this lets you select between all MIDI devices and a specific MIDI device. Can also limit the input to a specific MIDI channel.</p>	
<p>Each track has built-in <i>Hi</i>, <i>Mid</i>, and <i>Lo</i> equalization (EQ) knobs.</p>	
<p>Panning control. For mono tracks, this shifts the sound left or right in the stereo field. For stereo tracks, this affects the balance between the left and right channel.</p>	
<p>Track volume fader. A setting of 0 equals unity gain.</p>	

Tip: Double-clicking on any Mixer control will revert it back to its default. This is particularly handy for returning pan controls to center position.

VIDEO EDITING

Mixcraft includes powerful video editing features that let you:

- ◆ Add a musical soundtrack to a video.
- ◆ Add sound effects to a video.
- ◆ Create slideshows of still images.
- ◆ Add titles, lyrics, or credits to your videos.
- ◆ Sync video to sound with millisecond accuracy.
- ◆ Export a project to video for burning DVDs or Internet upload.

LOADING VIDEOS

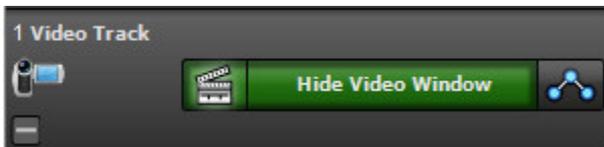
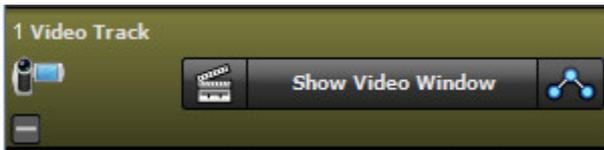
Mixcraft supports AVI and WMV video formats. To load any other format, it will need to be converted using a third-party video conversion app.

To add a video, click *Video>Add a Video File...* in the Main Window menus and navigate to the video to be loaded. The video will be placed at the current Caret location. Videos can also be dragged and dropped into the Main Clip Grid from a Windows directory. You don't even need to create a Video Track; if the project doesn't have one, Mixcraft will create it.

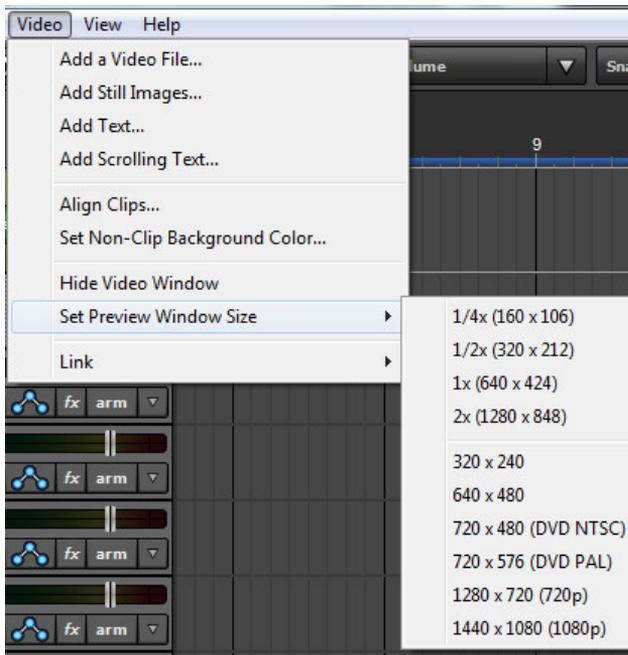
VIDEO PREVIEW WINDOW



This Video Preview window displays the video at the current playback position, including text and any currently active effects. It can be toggled on and off by clicking *Show Video Window* or *Hide Video Window* in the *Video Track*. The Video Preview can be moved at will by grabbing and dragging its title bar. This is especially handy if your computer setup uses two displays.



The Video Preview window can be resized by selecting *Video>Set Preview Window Size* in the Main Window menus.

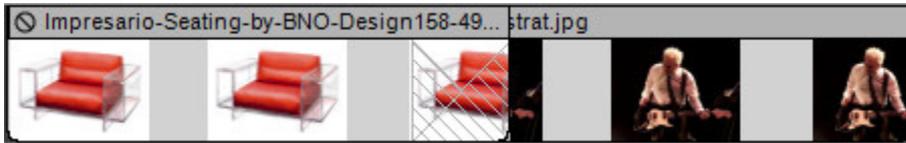


ADDING PHOTOS/IMAGES

Photos or images can be added by clicking Video>Add a Video File... in the Main Window menus. This opens a file dialog which allows loading of an image or multiple images. The images will be placed at the Caret location. Images can also be dragged and dropped into the Main Clip Grid from a Windows directory. The following image types are supported:

- ◆ .JPG
- ◆ .BMP
- ◆ .PNG
- ◆ .GIF

To add more than one image at a time, select multiple photos or images when adding. The images will be added to the video track; each one will last five seconds and overlap the next by one second.



EDITING

The amount of time a photo is displayed can be altered by moving the mouse to the left or right edge of the clip and dragging horizontally to change the duration.



Entire clips can be moved by dragging the title bar. All standard edit commands apply to images, such as copy, paste, linking, splitting, etc.

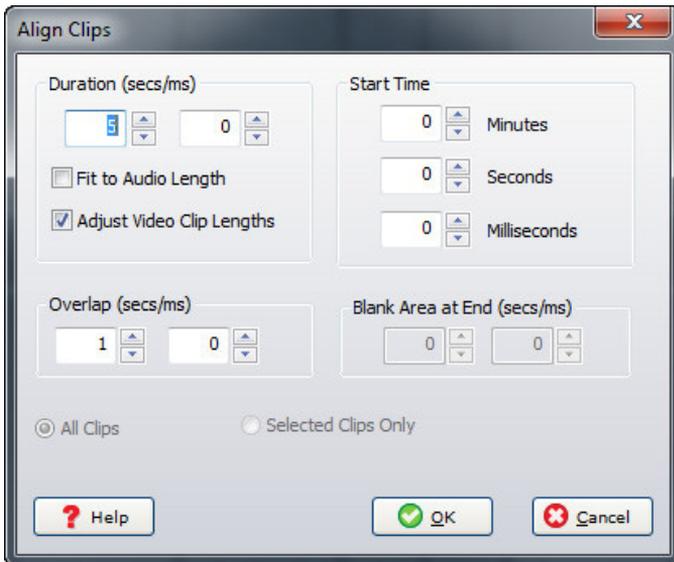
As with audio clips, overlapping a video or image clip automatically creates a crossfade.

ALIGN VIDEO CLIPS

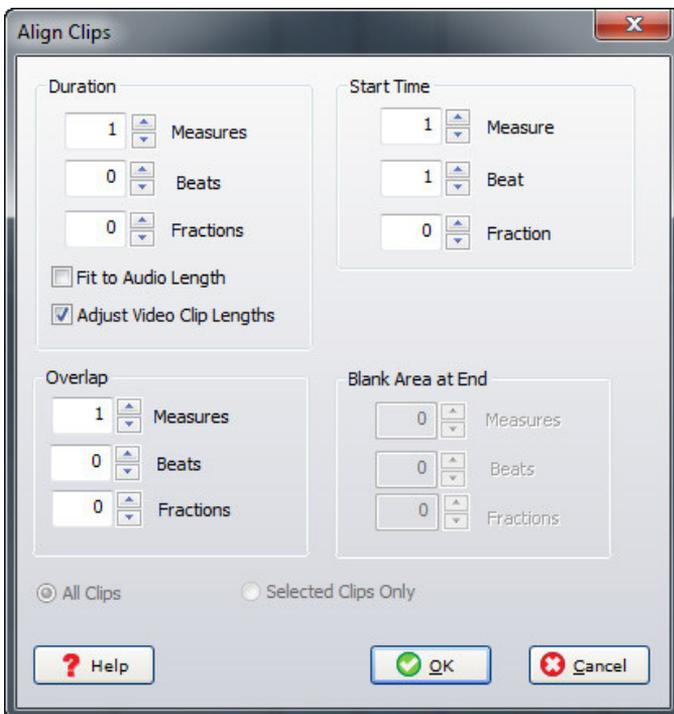
This allows easy tempo syncing of images or videos as well as precisely timed slide shows.

Click the *Video>Align Clips...* in the Main Window menus. This opens one of the following dialogs depending on whether Mixcraft is currently set to *Time* or *Beats* mode on the Timeline.

In *Time* mode:



In *Beats* mode:



DURATION

Sets the length of clips.

◆ Fitting To Audio Length

If you have a lot of audio, such as a song or several songs, and you'd like the images to span the length of the audio, click the *Fit to Audio Length*. This disables the duration field, resizes, and aligns clips to create a slide show of all the images spaced over the duration of the audio.

◆ Adjust Video Clip Lengths

If there are video clips in the project, their length will not be changed by default. In order to crop the right hand side of video clips, make sure to check the *Adjust Video Clip Lengths* checkbox.

START TIME

Sets the start location of clip.

OVERLAP

Causes clips to overlap and fade crossfade.

ALL CLIPS/SELECTED CLIPS ONLY

Use these to select which clips are affected. All Clips applies alignment to all clips in a project whereas Selected Clips Only affects only currently highlighted clips.

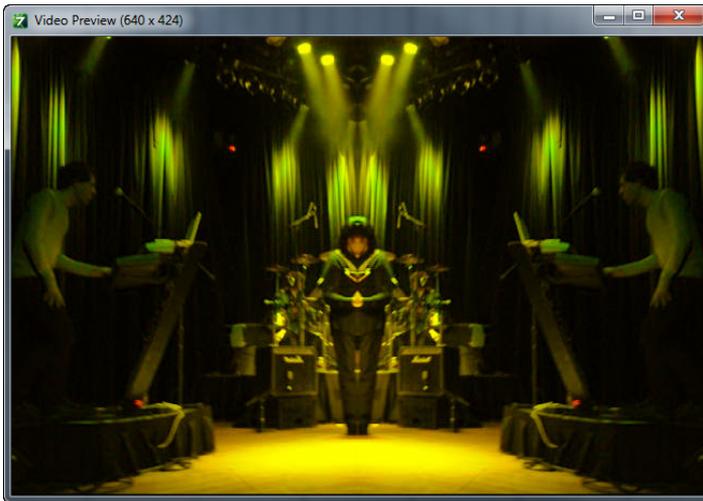
VIDEO EFFECTS

Video effects can be added to alter a video's appearance over time. You can fade in and out, add blur, transition to gray scale and much more. On the Video track, click the automation button.

Before effects are applied:



After effects are applied:



VIDEO EFFECTS AUTOMATION DISPLAY

Adding Mixcraft's video effects is very similar to automating audio parameters. Multiple video effects lanes can be displayed simultaneously. To view or hide video effects, click the Video Track's *Toggle Automation* button.



If a Video Track has no video effects, a single automation lane opens displaying the Lightness effect. If a track has existing video effects, you'll see all automation lanes with views currently enabled (using the + and X buttons described below).

The *Toggle Automation* button only hides and displays the video effects automation lanes, but has no effect on automation playback. In other words, video effects are active even if the lanes are hidden with *Toggle Automation* button.

+ BUTTON

Adds a new video effects automation lane to the track.

- BUTTON

Hides a video effects automation lane.

SELECTING A VIDEO EFFECT

To choose an effect, click on the drop-down menu in the tracklist.



VIDEO EFFECTS LIST

Lightness
Lightness (High CPU)
Grayscale
Blur
Posterize (High Pass)
Low Pass
Emboss
XOR (Invert/Negative)

Sepia
Antique (Light)
Antique (Heavy)
Red Channel Strength
Green Channel Strength
Blue Channel Strength
Red Filter
Green Filter
Blue Filter
Invert Red Channel
Invert Green Channel
Invert Blue Channel
XOR High Pass
XOR Low Pass
Flip Horizontal
Kaleidoscope Right
Kaleidoscope Left

Once you've chosen an effect, click to add points to the automation line to increase or decrease the intensity of effects over time.

ADDING AND EDITING VIDEO EFFECTS AUTOMATION

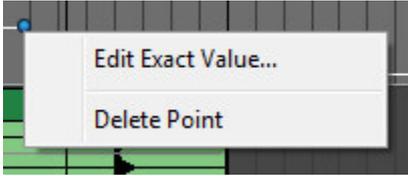
To add automation points, click on the automation line and drag the point up and down. The position of newly created automation points will conform to the the current snap setting. The global snap value applies when adding and editing automation points. If you experience problems moving an envelope point to a specific location, remember to change the Snap setting to *Snap Off*.



To move a horizontal section of the automation line, hold down the SHIFT key while dragging. The cursor will turn into an up/down arrow.

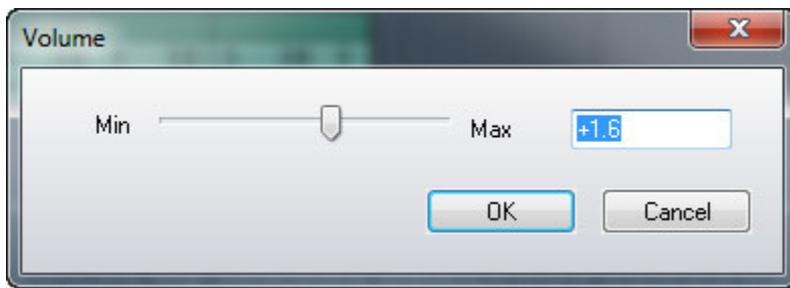
Dragging an automation point over other automation points will cause them to be “overrun” and deleted upon mouse release.

FINE TUNING AND DELETING AUTOMATION POINTS



EDIT EXACT VALUE

To precisely set automation point values, right-click it and choose *Edit Exact Value*. The dialog box below opens and allows exact settings for automation points.



DELETE POINT

To delete an automation point, right-click on and choose *Delete Point*.

CUTTING, COPYING, AND PASTING AUTOMATION DATA

As with audio automation, video effect automation data can be cut, copied, and pasted.

CUT

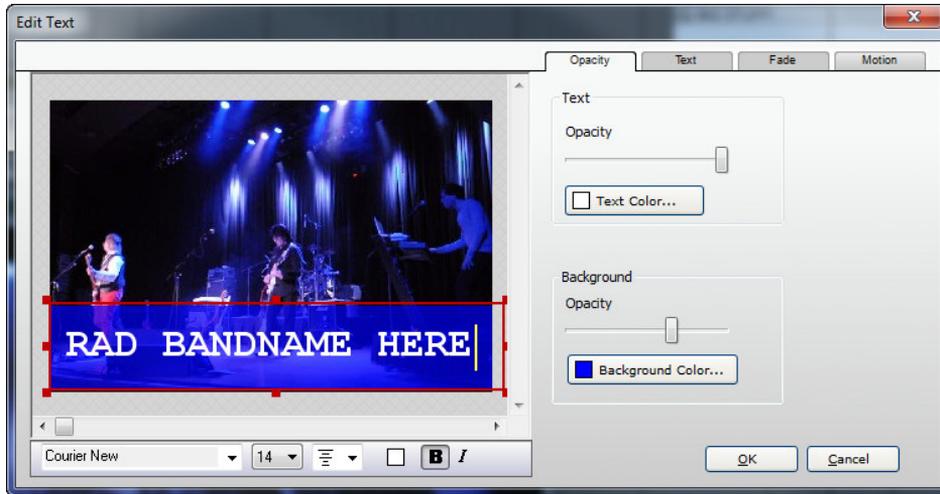
To cut a section of Video Effect automation, highlight the section to be cut by clicking and dragging over it. Now select CTRL+X either in Mixcraft's file menu, or by right-clicking the mouse. Paste the cut automation data to a new location by positioning the Caret marker in the desired new location, then selecting CTRL+V either in Mixcraft's file menu, or by right-clicking.

COPY

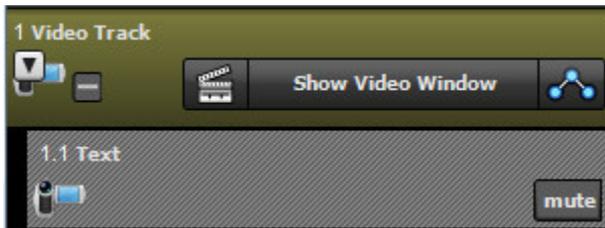
To copy, highlight the section of Video Effect automation you'd like copied by clicking and dragging over the area to be copied. Now select CTRL+C either in Mixcraft's file menu, or by right-clicking. Position the Caret marker in the desired copy location, and paste by selecting CTRL+V either in Mixcraft's file menu, or by right-clicking.

ADDING AND EDITING TEXT

Use the Text feature to add titles, lyrics, captions, and more.



To open the *Edit Text* window, click *Video>Add Text...* in the Main Window menus. Opening the *Edit Text* window automatically creates a Text Clip and places it in the grid at the current Caret location. Text Clips are placed on the Text Track. This is a child track of the Video Track. To view or hide the Text Track, click the + or - sign on the left side of the Video Track.



The Text Track also has a *Mute* button. This won't make on-screen words any quieter, but it disables the display of text in the project.

To edit a Text Clip, double-click it, or right-click and choose *Edit Text...*

THE TEXT OBJECT

The Text Object is the field within the red rectangle where text is contained. To resize the Text Object, click and drag on the small red squares; the cursor turns into arrows.



To move the entire Text Object, grab one of the red lines (away from the red squares), click and drag. The cursor will turn into a hand when in position.

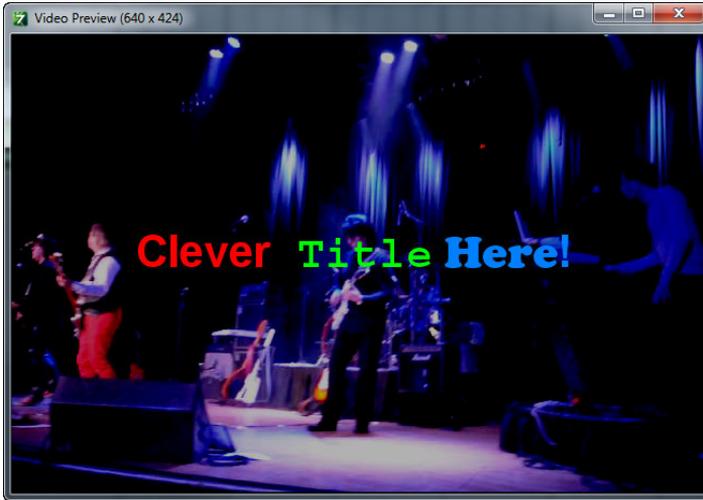


SETTING TEXT FONT, SIZE, AND COLOR

The font, size, and color settings can be set using the toolbar at the bottom of the *Edit Text* window.



The font, size, and color settings can be specified per character. In other words, every letter or number in a title can have its own individual settings. Simply highlight the characters you'd like to modify and make changes. (Go easy on this one - you can make a real mess!)



OPACITY TAB

The Opacity Tab changes the text, colors, background colors, and transparency level.

◆ Text/Background Opacity Sliders

Moving the Opacity sliders adjusts the text and background from transparent to a solid color.

◆ Selecting a Text Color

To select text color, click the *Text Color* button and click a color square. You can also click the mouse anywhere in the color spectrum display, or if you're familiar with RGB color numbering, numbers may be entered in the RGB fields, then click OK. Custom colors can be saved for future use by clicking *Add To Custom Colors*.

◆ Selecting a Background Color

To select a color for the text background, click the *Background Color* button and choose a color as specified above.

Note: The text color setting at the bottom of the toolbar and the Text Color... button both perform the same function.

TEXT TAB

These parameters specify text placement within the Text Object as well as masking and drop shadow options

◆ Orientation

Choose whether the text justifies left, center, or right, and top, center, or bottom.

Background Check



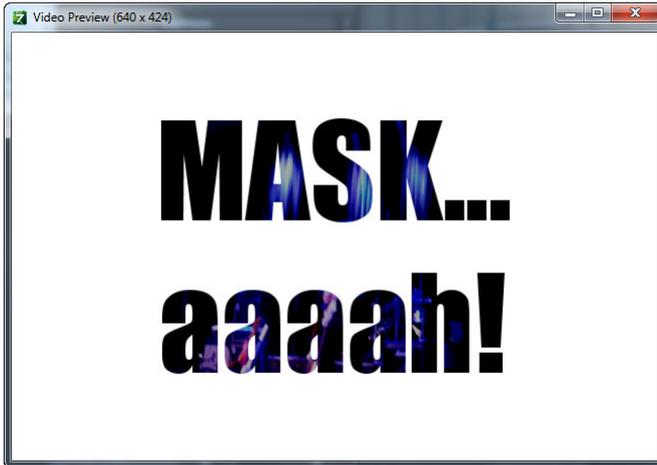
A text background color can be very helpful for making the text easy to read on an overly bright or dark video images.

◆ **Margins**

Percentage setting for vertical and horizontal margins.

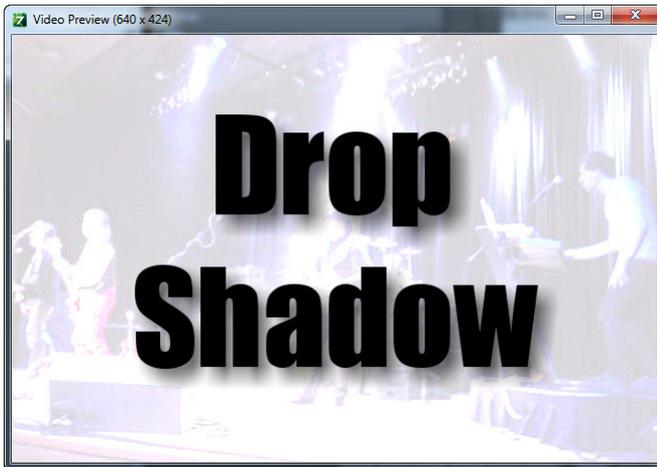
◆ **Treat Text As Mask**

Creates a solid color screen fill with the underlying video bleeding through the text characters.



◆ **Drop Shadow**

Adds a black drop shadow to text characters with choices of small, medium, and large.



FADE TAB

Text can be faded in and out over time using the *Fade* tab. Check the *Fade In* or *Fade Out* checkboxes, then set the desired fade duration. As a reference, one second = 1000 milliseconds.

MOTION TAB

The *Motion* tab provides intro and outro text animation.

TYPES OF ANIMATION

Adds movement to text. *Start Animation* and *End Animation* lets you specify separate animation behavior for the start and end of Text Clips.

◆ **None**

Text does not animate. Not very exciting.

◆ **Move**

Choose whether text enters from left, right, top, or bottom of the frame as specified by the Direction drop-down menu. Enter the animation length using the *Duration* field.

◆ **Reveal**

Text characters reveal themselves in the specified according to the Direction drop-down choice. Enter the animation length using the *Duration* field.

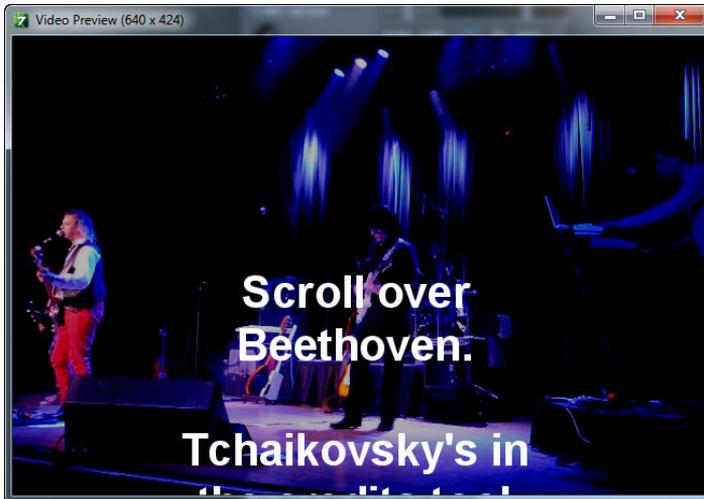
EDITING TEXT CLIP SIZE

Resizing a Text Clip alters how long the text is displayed. To change the the size a text clip, click on the clip's left or right edge and drag horizontally. The cursor turns into left/right arrows when hovering on the clip's edge.



ADDING AND EDITING SCROLLING TEXT

Scrolling Text functions much the same as regular text, but scrolling text automatically moves from the bottom to the top of the screen (hence the clever name). Scrolling text is ideal for creating credits.



To add Scrolling Text, click *Video>Add Scrolling Text...* in the Main Window menus. Opening the *Edit Text* window automatically creates a Scrolling Text Clip and places it in the grid at the current Caret location on the Video Track's *Text* child track.

To edit a Scrolling Text Clip, double-click it, or right-click and choose *Edit Text...*



All editing functionality and tabs work the same as when editing static text, but because Scrolling Text inherently moves from the bottom to the top of the screen, the Motion tab is removed from the Edit Text window.

ALTERING SCROLL SPEED (AKA, “SLOW YOUR SCROLL”)

The scroll rate of Scrolling Text clips is automatically adjusted dependent on the clip size. To slow down or speed up the rate of scrolling, move the mouse over the left or right edge of the clip and resize it horizontally. The cursor will turn into left/right arrows when hovering on the clip’s edge.



USING LANES WITH VIDEO AND TEXT TRACKS

As with Audio Tracks and Virtual Instrument Tracks, multiple lanes can be created for Video and Text tracks. To create or delete lanes, highlight a Video Track or Text Track and right-click and select *Lanes>Add* or *Lanes>Delete*. Lanes can also be added with the key shortcut ALT+L.



multiple video
priority.

ations. Text and

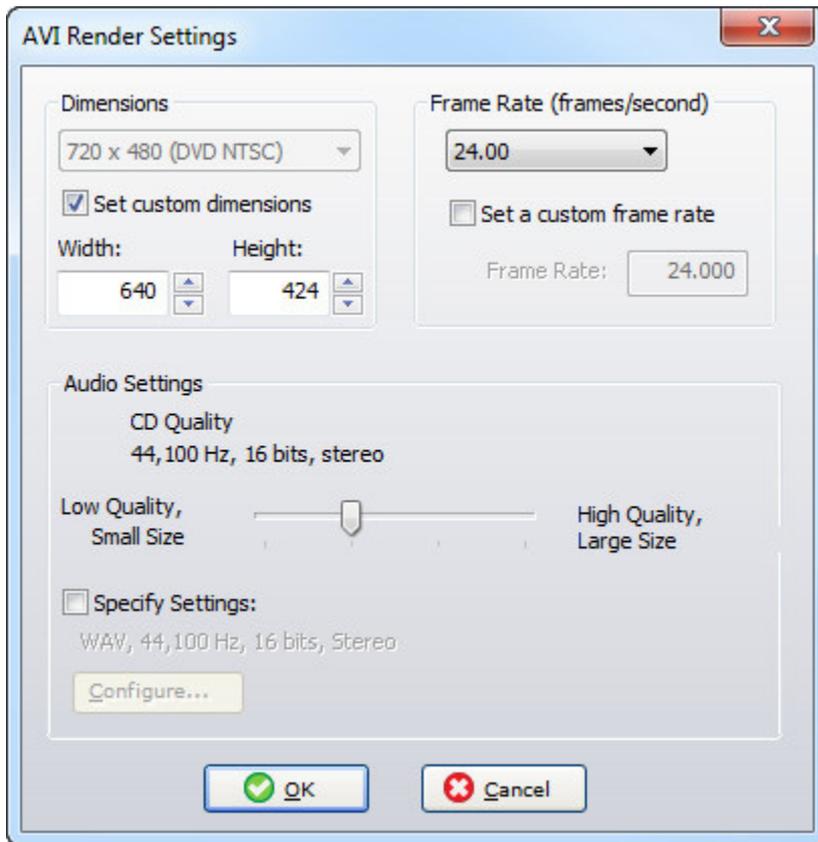
RENDERING EDITED VIDEOS

Once the editing of a video is completed, it needs to be output to a single file for playback. Because videos typically contain a large amount of data representing moving picture and audio, video is usually “compressed” as it renders for output using special algorithms designed to reduce file size and required processor power for playback. This compression process can take a while, dependent on your computer’s processor speed.

Mixcraft supports saving video in AVI or WMV formats. AVI is an uncompressed format, so the files it creates will be larger than files created using the WMV format. If you’re uploading video to YouTube, you should choose WMV format (to avoid potentially excessive upload times, dependent upon the speed of your internet connection).

To save the current project as a video, click the *File>Mix Down To* followed by *AVI* or *WMV*.

AVI RENDER SETTINGS

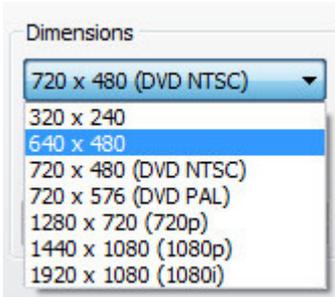


To render a movie using the AVI format, click File>Mix Down To>AVI in the Main Window menus. To customize AVI render settings, click the Edit Details button in the file save window.

When creating a movie file, you'll generally need to choose between quality and final file size (i.e., a larger file size will be better quality). Following are the settings in the AVI Render Settings window:

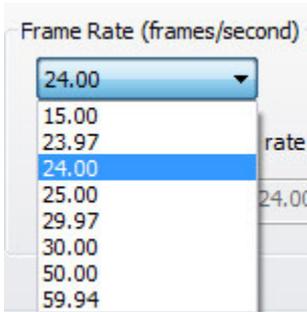
Dimensions

The Dimensions drop-down menu allows selection of the most common standard definition and high-def (HD) sizes. The Set Custom Dimensions checkbox allows a custom video size to be specified.



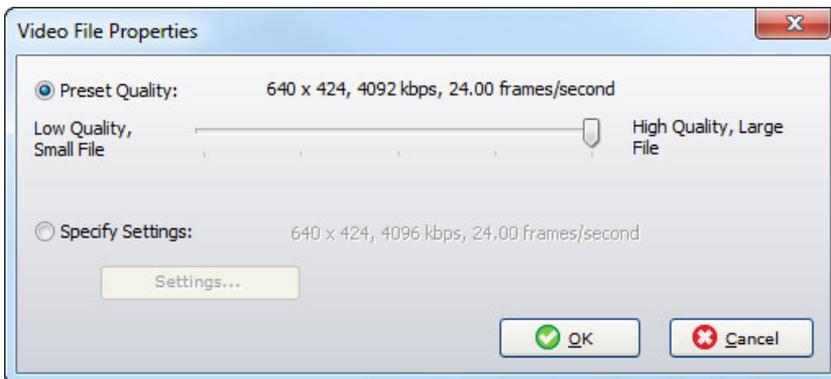
FRAME RATE

The *Frame Rate* drop-down menu allows selection of the most common frame rates used in video, film, and TV. The *Set Custom Frame Rate* checkbox allows a custom frame rate to be used (careful, funky frame rates sometimes don't play nice with some playback platforms, usually showing up as oddball sync issues).



WMV RENDER SETTINGS

To render a movie using the WMV format, click *File>Mix Down To>WMV*.

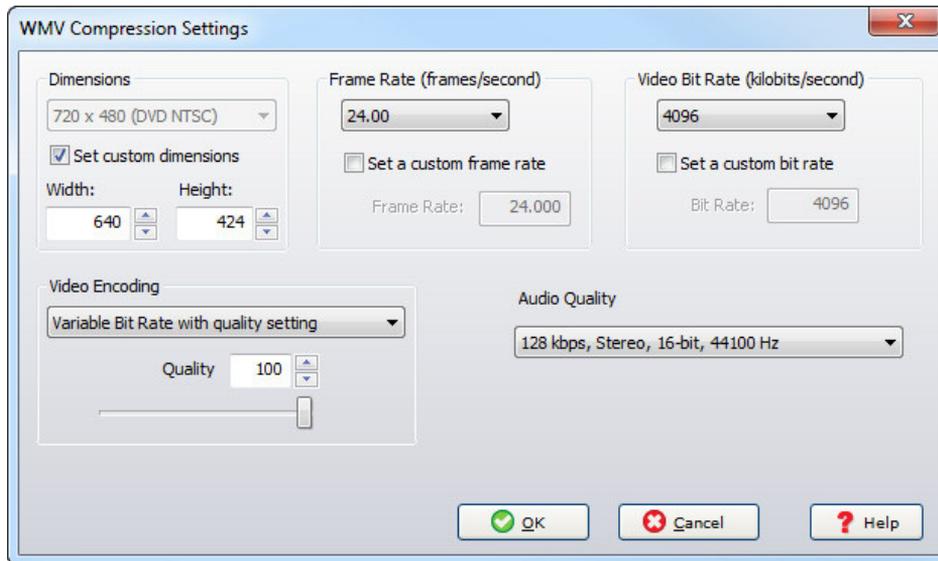


To customize WMV render settings, click the *Edit Details* button in the file save window. This dialog lets you choose specific compression settings when you're rendering a video project to a WMV video.

If you're not a video compression guru, select *Preset Quality* and adjust the slider for the best compromise of file size vs. playback quality. Move it all the way to the left for the smallest possible file size, or all the way to the right for highest quality video.

WMV ADVANCED SETTINGS DIALOG

For more detailed control over WMV compression characteristics, select *Specify Settings* and click *Settings...* Now would be a good time to put on your propeller cap!



DIMENSIONS

Specifies the height and width of the video. It defaults to the same resolution as the smallest video in the current project. The dimensions combo box holds a variety of standard settings, or the *Set Custom Dimensions* box can be set to any desired size.

A few things to remember when setting custom dimensions: height and width must both be even multiples of four, or DirectShow will refuse to render. If the dimensions you choose are too large, DirectShow may not have enough memory to render the video. If the chosen dimensions are a different aspect ratio than the original videos, the resulting video may look stretched or squashed.

FRAME RATE

Specifies how many frames per second the video contains. The frame rate defaults to the highest frame rate found in the project's video clips. (To find a video's native frame rate, right-click on the video clip and select *Properties*.) The *Frame Rate* combo box contains a variety of standard frame rates, but if you don't see the frame rate needed, check the *Set a custom frame rate* box and type in a specific frame rate.

Should I change the default frame rate?

Probably not. Increasing the frame rate to one higher than any of the project's video clips won't improve final video quality, while decreasing the frame rate will usually lower the quality. Even if the primary concern is video size, changing the frame rate is not necessarily useful; depending on the chosen encoding method, lowering the frame rate can potentially increase the file size. If you're trying to alter the frame rate to produce smaller file sizes, you'll need to experiment to find the best setting.

VIDEO ENCODING

This setting specifies approximately how much bandwidth video playback will require, in kilobits per second. It's one of the primary factors affecting compression. A higher bit rates mean larger files and higher quality, while lower bit rates result in smaller, lower quality video files. The right bit rate to use will depend on the dimensions and frame rate. A bit rate that produces a high quality 720 x 480 video may result in a grainy, pixelated video at 1440 x 1080. Again, you'll likely need to experiment for best results.

Microsoft provides a handful of encoding methods for WMV creation. Which one to use depends on your priorities (quality vs. file size) as well as the video content. In practice, an encoding method that produces the best results for one video may not produce the best results for another.

◆ **Constant Bit Rate (One Pass)**

This method was designed to handle live streaming video and will usually produce the lowest quality results when rendering to a file. Because it's a one-pass method, though, it takes half as long to render to file as the two-pass methods, so it might be the choice for you if the world's ending in a few minutes and you really want to be able to watch the video before it's all over.

◆ **Constant Bit Rate (Two Pass)**

This method will usually produce good quality video if you've set a sufficiently high bit rate. Because it's a two-pass method, it'll take twice as long to create the video as one-pass methods will. Since the bit rate will be consistent for the entire video, it should work well for videos intended to stream over a network or the internet.

◆ **Variable Bit Rate with Quality Setting**

Using this encoding method with the quality slider at its highest setting usually results in higher quality videos than the aforementioned encoding methods. However, the resulting video files tend to be about three times larger. Use this method if quality is the highest priority. This is a one-pass encoding method, which means it will take roughly half as long to create the video as with two-pass methods. (The number of passes refers only to the creation of the video, and doesn't affect the speed of video playback.)

◆ **Variable Bit Rate with Bit Rate Ceiling**

This two-pass method uses a variable bit rate, which means that it's likely (but not guaranteed) to produce smaller file sizes than the constant bit-rate methods. With variable bit rate encoding, the bit rate you choose will be the average bit rate, but actual bit rate during playback may vary depending on how complex the video is. (Sections of video with lots of motion will probably have a higher bit rate, and sections with little motion will have lower rates.) This method has a max rate ceiling, which means that it'll keep the highest bit rates from exceeding the average bit rate. Consequently, this method is better suited to streaming than the Unconstrained Variable Bit Rate method, but may not produce video of quite as high a quality.

◆ **VARIABLE BIT RATE (UNCONSTRAINED)**

This method is similar to the VBR with Bit Rate Ceiling method but lacks the bit rate ceiling. This means that, while your specified bit rate will be the average bit rate for the video, the bit rate could reach infinitely high (or at least really, really high) levels during short sections of the video. This could cause choppy playback during these sections during streaming, but can also result in higher quality for these sections, making it a better choice for video to be played back from a hard drive.

AUDIO QUALITY

This section lets you choose the quality sound. It will list all WMV-compatible audio quality options installed on the computer. Audio almost always uses far less disk space than video, so choosing a high audio quality setting will rarely have much relative effect on overall video size. A setting of 128 kbps usually produces acceptable audio quality.

DIMENSION DEMENTIA...

You think audio has lots of format options? We music people have it easy. Video can have a myriad of options with regard to size, frame rate, compression, and more. Just to simplify things a bit, "dimensions" refers strictly to a movie's size, vertically and horizontally on the screen, expressed in pixels. Here's a quick primer on sizes and their typical application:

320x240 - Really small, from back when computers and internet connections had a tough time handling video content. Rarely used these days.

640x480 - This was the standard for full-screen video on computers for many years, but has fallen by the wayside with faster processors and online connections.

720x480 NTSC - Remember that big heavy thing with a glass screen that used to reside in your living room? Me neither. Before high-def, 720x480 was the standard for televisions in the US. NTSC is an acronym for, “bunch of guys who used to argue about US analog TV standards and are probably now unemployed.” Actually, it stood for “National Television System Committee.”

720x576 PAL - The European equivalent of the NTSC, with slightly different dimensions and a different number of resolution lines so you couldn't play your Fellini and Truffaut VHS tapes in the US.

1280x720 - Referred to as 720p, this is the smaller of high definition formats, generally seen in the “first wave” of flat-panel LCD TV's and digital cameras with video capabilities.

1440x1080 - Referred to as 1080p, this is super high-def, butterfly-wings-in-your-face-at-the-store resolution. The difference between 1080p and 1080i gets a little confusing, but the basic idea is that the “p” stands for “progressive scan,” meaning that displays are drawn one after the other for more realistic motion. Progressive scan presents the most realistic motion.

1920x1080 - Referred to as 1080i, the difference between this and 1080p is that display line drawing is “interlaced.” Content is broadcast at 30 frames per second, but it's displayed at 60 frames per second by drawing lines in two passes; one for even lines and one for odd lines. This is done to reduce perceived flicker.

OPTIMIZING VIDEO OUTPUT

If you're using the *WMV Compression Settings* dialog, you'll probably want to dig in and read all the details, but here are a few quick answers to help assist with some common goals:

How do I achieve the highest quality video?

Using the *Variable Bit Rate* with quality setting encoding option and then setting its quality slider to the highest setting (by sliding it all the way to the right) will almost always produce the highest quality results, but it will also produce files that are about three times larger than other methods. If that's too big, try reducing the quality slider a bit or choosing a different encoding method. (That said, we don't recommend the *Constant Bit Rate (1 pass)* method, as it usually produces low-quality results.) Which encoding method works best generally differs depending on the video content; you might have to experiment with multiple methods.

Bit rate also has a large impact on video quality. Higher bit rates will result in higher video quality, albeit with larger file sizes. There will usually be a point at which a higher bit rate won't have any noticeable effect, but raising the rate won't hurt video quality.

How can I create the smallest video files?

Video dimensions and bit rate will usually impact file size the most, with smaller dimensions and lower bit rates producing the smallest files. Encoding method can also be important - don't choose the *Variable Bit Rate* (unconstrained) method, and if you choose the *Variable Bit Rate* with quality setting method, don't set the quality slider to its highest setting.

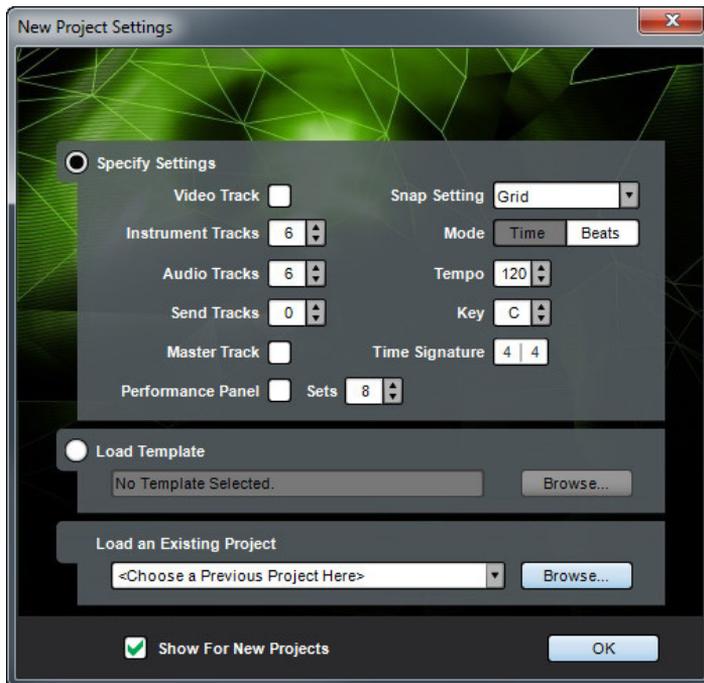
What video settings should I use for YouTube uploads?

YouTube recommends using the same resolution and frame rate as the original video. Unless the file size exceeds YouTube's limits, it's best to use bit rates that err on the side of quality rather than file size (in other words, higher bit rates), since YouTube can compress video to produce smaller file sizes but can't "re-add" quality removed by low bit rates. To view the video clip's original resolution and frame rate, right-click on the clip and then select *Properties*.

LOADING AND SAVING PROJECTS

The *New Project Settings* window is displayed when the Mixcraft program icon (or a shortcut) is double-clicked. It lets you specify preset settings for new projects, or open a default project file. You may also choose not to display the *New Project Settings* window at startup, but we think you'll leave it on, because the *New Project Settings* window is pretty nifty!

All parameters in the *New Project Settings* window remember their current setting, even when new projects are initiated. If you make a change to one of the settings, Mixcraft remembers it the next time the *New Project Settings* window is opened.



SPECIFY SETTINGS

When the *Specify Settings* radio button is selected, you're able to quickly and easily set the most significant parameters when beginning a new project.

VIDEO TRACK

With this box checked, the first track in a project will be a video track (a project can only have one video track).

INSTRUMENT TRACKS

Defines the number of virtual instrument tracks automatically created by Mixcraft. Either click the number and enter a number on the keyboard, or use the up/down arrows to specify a number.

AUDIO TRACKS

Defines the number of audio tracks automatically created. Either click the number and enter a number on the keyboard, or use the up/down arrows to specify a number.

SEND TRACKS

Defines the number of send tracks automatically created. Either click the number and enter a number on the keyboard, or use the up/down arrows to specify a number.

MASTER TRACK

Checking this box will create a master track at the bottom of the track list.

PERFORMANCE PANEL

Checking this box opens the Performance Panel in the new project. Use the Sets box to define the number of empty Performance Panel sets.

SNAP SETTING

This sets the snap setting in the new project.

MODE

Selects between *Time* and *Beats* mode in the timeline ruler and position displays.

TEMPO

Sets the tempo of the new project. Either click the tempo number and enter a number on the keyboard, or use the up/down arrows to specify the tempo.

KEY

Click the letter *C* and enter the desired key signature or use the up/down arrows to specify the project key.

TIME SIGNATURE

Click on the numerator or denominator and enter the desired numbers to specify the time signature.

LOAD TEMPLATE

To load existing Mixcraft template files, click the *Browse...* button, navigate Windows Explorer to the location of a Mixcraft template file, then double-click the template file to open it.

LOAD AN EXISTING PROJECT

Mixcraft can load Mixcraft project files (mx7, mx6, mx5, mx4, or mx3) by clicking the *File* menu and choosing *Open Project...* (CTRL+O). Navigate to your project file, select it and click *Open*. Alternatively, you can click the *Load Project* button on the toolbar or click *Browse...* in the *New Project Settings* window.

You can also load Mixcraft 2 project files (MXC) and Mixcraft templates (mx7, mx6, mx5, or mx4 Template files).

LOADING A STANDARD MIDI FILE

Mixcraft can also open Standard MIDI files. When Mixcraft creates a new track, it uses the default General MIDI synthesizer as set in the MIDI preferences.

SHOW FOR NEW PROJECTS

The *New Project Settings* window display can be disabled by unchecking the *Show For New Projects* box. If the box is unchecked, Mixcraft still defaults to the most recent *New Project Settings* configuration, but skips displaying the *New Project Settings* window. To re-enable display of the *New Project Settings* window, select *File>Set New Project Defaults* to view the *New Project Settings* window, and check the *Show For New Projects* checkbox.

SAVING A PROJECT

Select *Save or Save As...* from the *File* menu, navigate to the folder where you'd like the current project's folder to reside, type in a name and click the *Save* button. Mixcraft automatically creates a folder with the name you typed. The Mixcraft project file and all associated audio files will save to the project folder.

If the project has already been saved in an earlier version, the *Save* command will simply overwrite the existing project file with the same file name. If you'd like to save different iterations of a project, we recommend adding numbers or dates at the end of the project file name.

Projects can also be saved by clicking the *Save* button on the toolbar - it's the icon that looks like a blue floppy disk. (Remember those? If you still have a box of them in the closet, stop what you're doing and go throw 'em away. You're never going to use them again, really.)

Save your work often. You never know when the power might shut off!

MIXING DOWN A PROJECT TO AN AUDIO FILE

To save the project as an MP3, WAV, OGG or WMA file, use the *File>Mix Down To Audio File* command in the Main Window menus. For more information, see pg. 167, "*Mixing Down To Audio And Video Files*".

SAVING AS A MIDI FILE

If you want to export a project's MIDI content to a Standard MIDI file, select *File> Save As MIDI File...* from the Main Window menus. Alternatively, you can choose *File>Save As....*, click the *Type* field and select *MIDI File Type 1*.

Audio tracks will be skipped, as they do not contain MIDI data.

BACKING UP PROJECTS

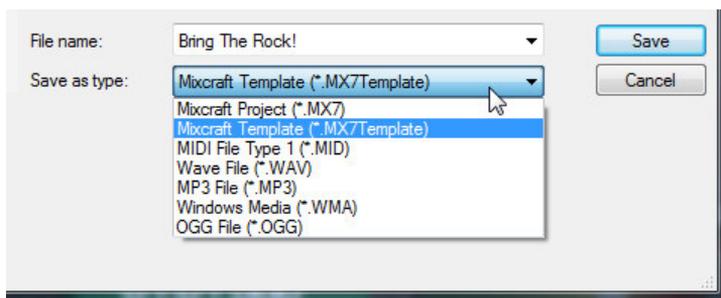
A backup of the project is made each time it is saved. Backup files are automatically saved in the backup sub-folder located in the project folder.

PROJECT TEMPLATES

A template is a special project that stores track names, track images, volume settings, armed states, and other track settings. Project templates can be a big time saver because they let you set initial project parameters to your liking.

Mixcraft project templates are stored as *.mx7template* files.

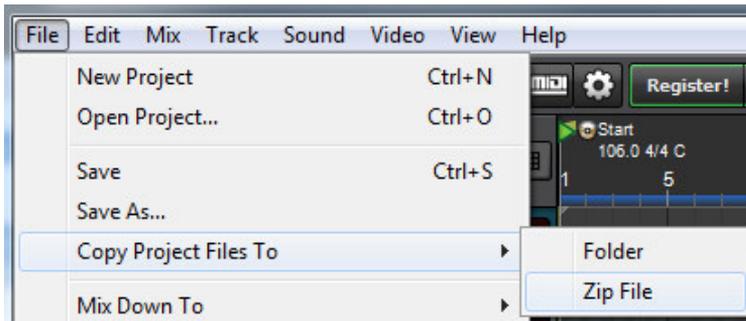
To save a project template, select *File>Save As...* in the Main Window menus, then select *Mixcraft Template* from the *Save as type:* drop-down menu. Type in a file name, select a destination folder and click *Save*.



Saving Projects With Templates

If a new project is started by loading a template and you hit the Save button (or the File menu equivalent), Mixcraft will save the file as a new project - it won't overwrite your template file.

COPY PROJECT FILES TO...



A project and all sounds, videos and/or recordings used within it can be easily saved to a single folder or zip file. This is handy for organizing projects and backup as well as sharing with other Mixcraft users.

To copy the project and its sounds, save the project, then click *File>Copy Project Files To...* in the Main Window menus, followed by clicking *Folder* or *Zip File*.

COPY TO A FOLDER

Pick a folder to copy the project and files to and click *OK*. You can optionally create a new folder by clicking the (you guessed it) *New Folder* button.

COPY TO A ZIP FILE

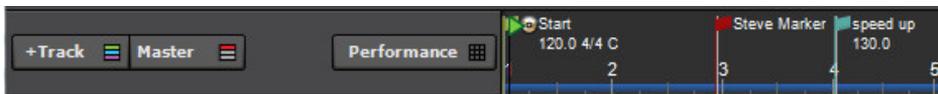
Enter a name for the zip file and click *Save*. All project files will be automatically added to the compressed zip file. Audio and video files do not necessarily compress well (i.e. they won't be corrupted, but their file size won't shrink much), but this is still a great way to quickly create a single file for emailing or uploading.

EXPLORING THE MAIN WINDOW

Though much of this is covered in the "*Mixcraft Reference*" (pg. 19) section at the beginning of the manual, here we'll go into a little more depth.

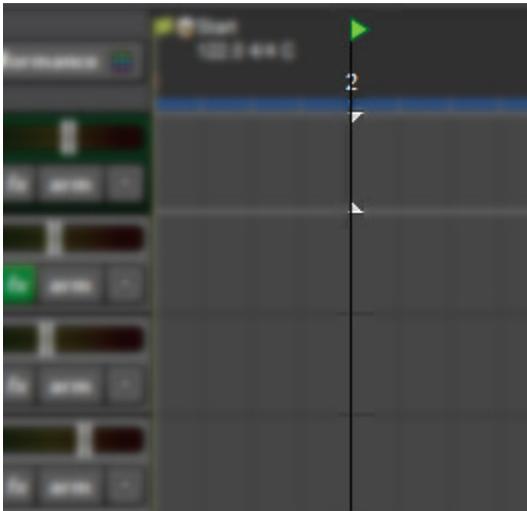
TIMELINE

The Timeline indicates song position, represented either in minutes and seconds (*Time* mode), or in bars numbers and divisions (*Beats* mode). The gray area above the ruler is where in/out points, tempo, time signature, key, and song markers are displayed.



PLAYHEAD

The playhead is a vertical line with a green triangle at the top that shows the current playback time, or where playback will occur when play or record is initiated.



Clicking anywhere in the Timeline sets the playhead's position and causes playback or recording to restart from that position.

MAIN WINDOW TOOLBAR

The Main Window Toolbar contains button shortcuts for many frequently used functions and parameters. Here, we'll go over its functions, buttons, and tools.



OPEN NEW PROJECT



Opens a new project.

LOAD PROJECT



Loads an existing project.

ADD FILE



Adds audio or MIDI files to a project on the currently selected track at the current Caret position.

SAVE



Saves the current project.

BURN CD



Burns the current project to a CD. (Your computer must have an internal or external CD burner.)

MIXDOWN TO AUDIO FILE



Mixes the current project to a WAV or MP3 file.

UNDO



Cancels the last operation. The same as pressing CTRL+Z.

REDO



Restores the last operation. The same as pressing CTRL+Y.

ZOOM IN



Widens the horizontal view of the Main Clip Grid (i.e. clips become larger).

ZOOM OUT



Shrinks the horizontal view of the Main Clip Grid (i.e. clips become smaller).

MIDI LEARN



Toggles MIDI Learn mode for hardware controller assignment.
(See pg. 274, "[MIDI Learn](#)")

PREFERENCES



Opens Mixcraft's *Preferences* window

REGISTER



Use this to register your copy of Mixcraft.

Note: The Register button disappears once Mixcraft has been properly registered.
(See pg. 17, "[Registration](#)")

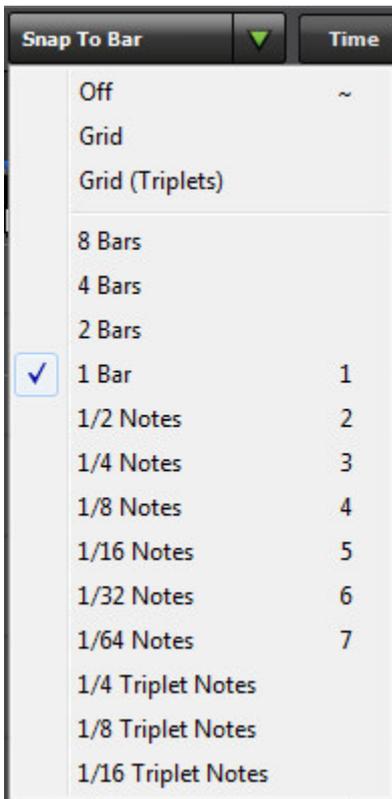
CLIP AUTOMATION DROP-DOWN MENU



Selects the currently displayed Clip Automation parameter. (See pg. 42, "[Automation](#)")

SNAP SETTING

The *Snap* setting acts as a quantize control for placement of all elements in the Main Clip Grid including the playhead, markers, and clips, as well as moving, cutting, pasting, etc. *Snap* simplifies the process of keeping clips and markers exactly on bar and beat lines.



To set the *Snap* level, click on the *Snap Setting* drop-down menu and a click a time division setting.

- ◆ Snap Settings
 - Off
 - Grid
 - Grid (Triplets)
 - 1/2 Notes
 - 1/4 Notes
 - 1/8 Notes
 - 1/16 Notes
 - 1/32 Notes
 - 1/64 Notes
 - 1/4 Triplet Notes
 - 1/8 Triplet Notes
 - 1/16 Triplet Notes

SNAP TO GRID SETTING

You may have noticed that as Mixcraft's horizontal view size is zoomed, the Main Clip Grid increment lines become finer (closer zoom) or coarser (farther zoom). The *Snap To Grid* setting conforms *Snap* to the light gray "sub" grid lines in the Main Clip Grid. You may find *Snap To Grid* works best in most situations. Use the *Snap To Grid (Triplets)* option if you're working on music with a "three" feel.

SNAP MENU KEY SHORTCUTS

These really speed up setting the Snap resolution!

Shortcut Key	Value
~	Off
1	Bar
2	Half-notes
3	Quarter-notes
4	Eighth-notes
5	Sixteenth-notes
6	32nd-notes
7	64th-notes

TIME MODE/BEATS MODE

In *Time* mode, all controls and the timeline display time in minutes:seconds:milliseconds format.

In *Beats* mode, all controls and the timeline display time as measures:beats:fractional-beats.

TRANSPORT

This is where you'll find playback, recording, loop mode, and master volume.

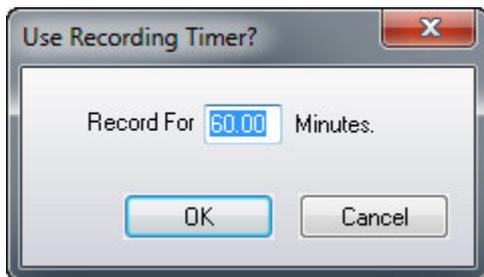


Shortcut Key	Function	Control
R	Record Click the recording button to start recording.	
HOME key	Rewind To Start Resets the playback indicator to the start of the project.	
CTRL + , (comma)	Rewind Rewinds the playback indicator by a measure or so.	
SPACE BAR	Play/Stop Starts and stops playback at the current playback indicator position.	
CTRL + . (period)	Fast Forward Fast forwards the playback indicator by a measure or so.	
END key	Fast Forward To End Resets the playback indicator to the end of the project.	

Shortcut Key	Function	Control
L	Loop Mode Toggles loop mode for recording or playback.	
M	Metronome Toggle the playback, recording, or count-in metronomes. Press ALT+P to toggle the playback metronome or ALT+O to toggle the recording metronome	
(No key shortcut)	Punch In/Out Toggles punch in/out recording.	

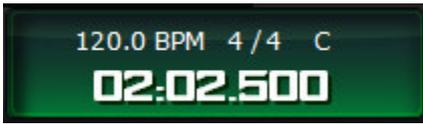
RECORDING TIMER

Mixcraft includes a Recording Timer. This allows recording for a specified duration. To use the Recording Timer, select *Mix>Use Recording Timer* from the Main Window menus. Enter a number of minutes to record. (If you only want to record 30 seconds, enter 0.5)



To turn off the recording timer, reselect *Mix>Use Recording Timer* to uncheck its selection.

PLAYBACK TIME READOUT/DISPLAY



This is the green readout that shows the current playback indicator time or measure and beat position. It also shows the current tempo, time signature, and key.

PROJECT TEMPO, KEY AND TIME SIGNATURE

PROJECT TEMPO

All sounds that have a tempo and are set to *Adjust To Project Tempo* mode will conform to the project tempo. For example, if a sound has a tempo of 200 bpm and the project has a tempo of 100 bpm, the sound will playback two times as fast and be 1/2 the normal duration. In addition to affecting any tempo-adjusted sounds, the project tempo also determines the metronome rate.

PROJECT KEY

All sounds that have a key and are set to *Adjust To Project Key* mode will conform to the set project key. For example, if a sound has a key of A and the project's key is B, the sound will playback two semitones or half steps higher than normal in order to be in tune with the key of B.

PROJECT TIME SIGNATURE

The time signature affects snap behavior if Snap is set to Snap To Measure or Snap To Bar. For example, if the time signature is 3/4 and the software is snapping to the measure, it would mean that the software is snapping every three beats, instead of four beats for 4/4 time. The metronome will play based on the current time signature.

The numerator of the time signature indicates the number of beats per measure and the denominator indicates what type of note receives a beat.

MASTER VOLUME



The master volume adjusts the level of the entire mix. Move the slider left or right to set the desired volume. Master Volume also has an integrated master level VU meter.

Alternatively, you can right-click on the Transport and select *Master Volume>Set Master Volume* followed by choosing a level % or specifying an exact value. This menu can also be accessed by selecting *Mix>Set Master Volume* in the Main Windows menus.

LOOP MODE & PUNCH IN/OUT

Mixcraft can be set to play or record in loop mode. Punch In/Out lets you record at a specific time section. These modes can work together or separately.

To loop a region, click the *Loop* mode button in the Transport, then drag the *Loop Start* and *Loop End* markers in the Timeline to set a loop area.

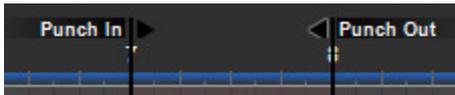


PUNCH IN/OUT

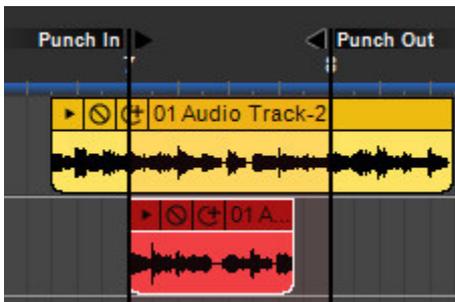
Punch In/Out recording lets you place markers that define where to start and end recording. To mark a region for punch in/out recording, click the *Punch In/Out* button.



Set the *Punch In* and *Punch Out* handles in the Timeline.



After setting up a punch area, press record, and the new recordings will be created inside the punch start and end.

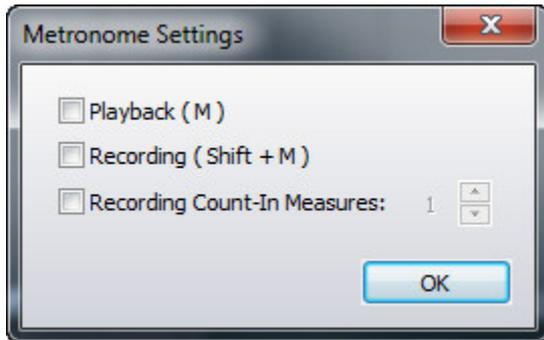


METRONOME

Mixcraft's metronome clicks at the project tempo. It can be set to click during playback, recording, or both. To configure the metronome, click the metronome button.



The dialog below opens:



PLAYBACK

Checking this box makes the metronome click during playback. Pressing the M key will toggle it on and off.

RECORDING

Checking this box makes the metronome click during recording. Pressing SHIFT+M key will toggle it on and off.

RECORDING COUNT-IN MEASURES

Upon pressing the Record button, this gives a “countdown” before recording begins. The number selector lets you choose the length of the countdown length in measures.

METRONOME PREFERENCES

Metronome sounds and volume can be customized by selecting *Preference>Metronome* in the Main Window menus.

PLAY EVERY X BEATS

The metronome can be configured to play on specific beats by creating a Marker and specifying this in the *Edit Marker* window. (See pg. 184, "[Markers](#)")

MIXING DOWN TO AUDIO AND VIDEO FILES

Projects can be mixed down to any of the following audio file types:

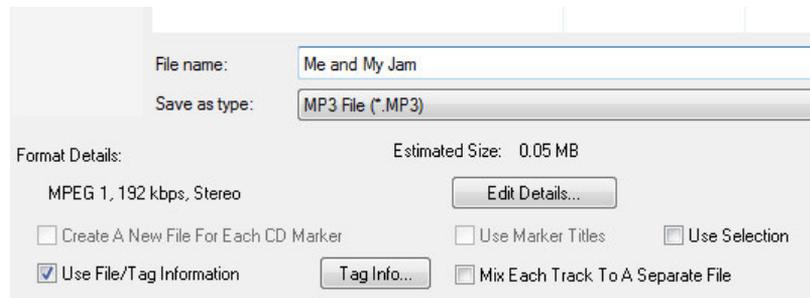
- ◆ MP3
- ◆ WAV
- ◆ WMA
- ◆ OGG

Click the Mix Down button on the toolbar...



...or select *File>Mix Down To* from the Main Screen menus, followed by selecting the format you'd like to mix down to. Alternatively, you can choose *File>Save As...* from the Main Screen menus and then click the *Save as* type drop-down menu to select the desired format.

Once you're viewing the *Mix Down Project* window with the correct format, you'll see the following extra options:

A screenshot of the 'Mix Down Project' dialog box. It features a 'File name' field containing 'Me and My Jam' and a 'Save as type' dropdown menu set to 'MP3 File (*.MP3)'. Below these fields, the 'Format Details' section shows 'MPEG 1, 192 kbps, Stereo' and an 'Estimated Size' of '0.05 MB'. There are several checkboxes: 'Create A New File For Each CD Marker' (unchecked), 'Use File/Tag Information' (checked), 'Use Marker Titles' (unchecked), 'Use Selection' (checked), and 'Mix Each Track To A Separate File' (unchecked). Buttons for 'Edit Details...', 'Tag Info...', and 'Use Selection' are also visible.

FORMAT DETAILS

Displays current format details such as bit rate and number of audio channels (i.e. mono or stereo).

◆ Edit Details...

This opens a window where you can set the audio quality for MP3, WAV, and OGG format files. Higher quality settings will create larger file sizes. Selecting the Preset Quality radio button simplifies audio quality settings with a single slider. If you're knowledgeable about audio compression, the Specify Settings radio button lets you set individual digital compression parameters for the selected file type.



You Down With OGG?

OGG is a lossy audio compression format that delivers better sound quality than MP3 (we think, but this can be debated on your favorite audio forum) and potentially saves a lot of disk space. Its full name is actually "Ogg Vorbis". We're not sure what that means, but we're pretty sure its creators watched a lot of Star Trek.

◆ Estimated Size

This shows the approximate size of the resulting mix down file in megabytes.

◆ Create A New File For Each CD Marker

If you've added CD markers to the project, this causes the mix down to create multiple files, one for each CD marker encountered.

◆ Use Marker Titles

If you've chosen Create A New File For Each CD Marker, this option uses the titles in the marker for the name of the file and tag.

◆ Use File/Tag Information

Choose this option if you want the audio file(s) to be tagged with the project's author information and CD track names (if set). Click Tag Info... to edit the project's author information.

◆ Use Selection

This lets you create a file from a selected region in a project.

◆ **Mix Each Track To A Separate File**

Use this to mix down each track separately. File names will be appended with the track number and name. This is convenient if a project needs to be loaded into another DAW. (We have no idea why anyone would want to do such a thing, but suit yourself.)

◆ **Mix Down To Video**

Projects containing video can be mixed down to a new video file. Mixcraft supports mixing down to AVI and WMV formats.

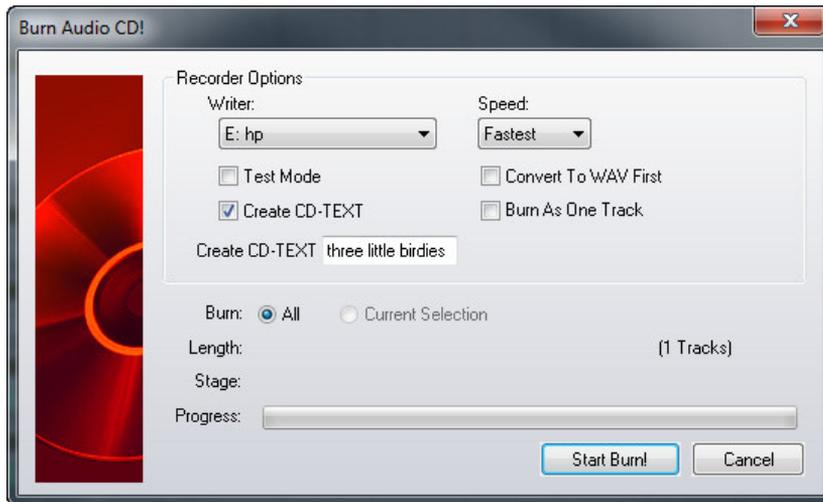
(For tons of information on how to render and mix down with video please refer to pg. 156, "[Rendering Edited Videos](#)")

BURNING AUDIO CD's

To burn an audio CD, click the *Burn CD* icon on the toolbar, or select *File>Burn CD...* (CTRL+B) from the Main Window menus.



Insert a blank CD and click the *Start Burn* button.



◆ **Writer**

Selects a CD burner if more than one is available.

◆ **Speed**

Choose a CD writing speed. In some cases, burning at a slower speed may improve the success rate of burning and may be more compatible with older CD players. If the CD writer features Burn Proof-type protection, you can burn at maximum speed without worrying about a burn failure.

◆ **Test Mode**

In this mode, the CD writer will go through the process of transferring the data to the CD without turning its laser on for writing. This lets check if your computer can send data to the CD writer at the desired speed. If you're having problems burning a CD, see pg. 357, "[Troubleshooting](#)".

◆ **Convert To WAV First**

This converts the mix to one or more WAV files on your hard drive. CD-quality WAV files require around 8 MB for every minute of audio burned. Therefore, a 74 minute mix will require about 650 MB of hard drive space. The advantage to converting to WAV first is that it may help the success rate of burns for some older CD recorders, especially if the CD writer does not have Burn Proof.

◆ **Create CD-TEXT**

If the CD writer supports CD-TEXT, you should be able to check the CD-TEXT box. When the CD is played on a player that supports CD-TEXT, titles and names of each track are visible. Sony CD players often support CD-TEXT.

You can enter a CD-TEXT title for the CD's title. Track names will be derived from CD track markers.

◆ **Burn As One Track**

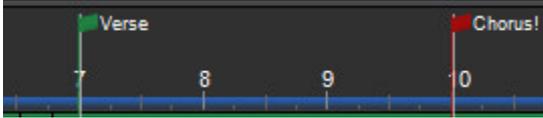
This option essentially skips CD track markers created in the project and burns the whole project as one track. If your burner is only supported in IMAPI mode this is a good option for a seamless mix, because IMAPI mode places a two-second gap between tracks. (The main drawback is that you can't skip to specific tracks when playing the CD.)

◆ **Burn All Or Selection**

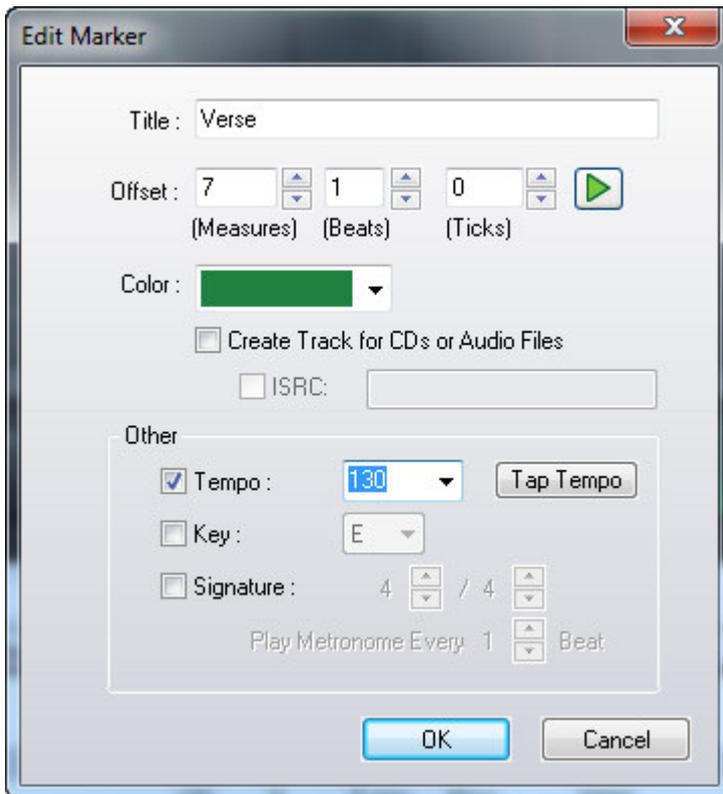
Choose Burn All to burn up to 80 minutes of audio, depending on the blank CD capacity. Choose Burn Selection to burn the current selection of audio. This can be useful if the mix goes beyond 74 or 80 minutes and you want to burn extended sections. (Note that it simply uses the selected area to define a time range to burn.)

MARKERS

Markers serve a variety of purposes. They can be used simply for adding notes such as “Chorus Here!” or “fix the guitar effects at mix time,” or they can perform functions such as changing the project tempo, key, or time signature. Markers are really easy to use, so we encourage you to use them!



ADDING MARKERS



To insert a Marker into the Timeline at the current Caret position, double-click in the Timeline or right-click and select *Add Marker*. Markers can also be added by selecting *Mix>Markers>Add Marker* or *Mix>Markers>Add Tempo/Key Change* from the Main Screen menus.

Markers' Effect On Tempo, Key, and Time Signature!

Keep in mind that using Markers to set tempo, key, and time signature always overrides any settings made by clicking these controls in the transport display window. If the tempo, key, or time signature remains constant for the entire project, this won't matter, but if you're using markers to change the project tempo, key, or time signature, setting them in the transport display window effectively only functions from the first (permanent) Marker at the beginning of the project until the location of the second "user-added" Marker.

If Snap is on, Marker placement will conform to the current Snap setting. (Remember this if the Marker doesn't seem to be landing where you want it.) Markers that are set to alter the current time signature always snap to a measure, otherwise adding a time signature change in the middle of a measure would wreak havoc with the project's timing!

◆ **Title**

The Marker name. Use this for notes in the Timeline.

◆ **Offset**

Defines the exact position of the Marker in the Timeline. Markers can be repositioned by altering these numbers, either by clicking in the fields and entering a number or by using the up/down arrows to change the numbers.

◆ **Marker Play Arrow**

Clicking the *Marker Play Arrow* begins playback of the project from the location of the Marker. Clicking again stops playback and returns the playhead to the Marker location.

◆ **Color**

This drop-down menu can be used to select a color for the Marker "flag." One useful application would be to use different colors to indicate song sections, such as green for verse, red for choruses, etc.

◆ **Tempo**

Check this box to change tempos in a project. Tempo changes will affect the metronome and cause any sounds set to *Adjust To Project Tempo* mode to follow the new tempo.

The *Tap Tempo* button lets you set a new tempo by clicking quarter-notes with the mouse.

◆ **Key**

Check this box to change to change the project key signature. Any sounds set to *Adjust To Project Key* mode will switch to the new key.

◆ **Signature**

Check this box to change the project time signature. The numerator and denominator can be set using the up/down arrows.

Time signature changes will affect the metronome. This will also force the time signature to have a tempo change, even if it's the same tempo as the previous tempo change.

◆ **Create Track For CDs or Audio Files**

Creates track numbers if the project is to be burned to an audio CD using Mixcraft's *Burn Audio CD* function. A CD icon will appear on the timeline.

◆ **ISRC**

The International Standard Recording Code (ISRC) is an international standard code for uniquely identifying sound recordings and music video recordings. If you have an ISRC number for a CD track, check the box and add it here. (This is only important if you intend to mass-produce a CD.)

◆ **Play Metronome Every X Beat**

This lets you alter which beats sound the metronome click. When using common time signatures such as 3/4 or 4/4, it's usually desirable to hear a click for every beat, but for time signatures with a large numerator (like 12/8, for example), the incessant clicking might drive you mad (or sound like one of those silly "Exotica Percussion" lounge records from the 60's). *Play Metronome Every X Beat* instructs Mixcraft to click on fewer beats. Set this using the up/down arrows.

MOVING MARKERS

To move a marker, position the mouse over the Marker's flag and click and drag horizontally. You'll see the cursor turn into a left/right arrow when the mouse is in position. Markers can also be moved by double-clicking the flag and entering a position with the number dialog in the *Edit Marker* window.



DELETING A MARKER

To delete a Marker, right-click a Marker flag and select *Delete*.

Note: You cannot delete the first marker and may only edit it.

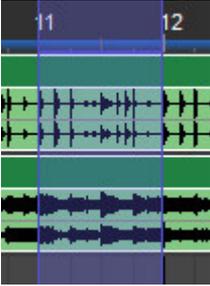
DELETE ALL MARKERS

Select *Mix>Markers>Delete All Markers* in the Main Window menus. This deletes all Markers except the first one.

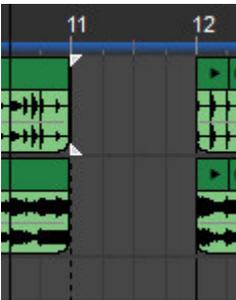
INSERTING TIME

Regions of time may be inserted into the project. This automatically repositions all markers, automation, and clips. This is useful, for example, if you're far into a project and decide to add another chorus in the middle of the song.

To insert a region of time, create a selection in the Timeline:



Select *Edit>Insert Selected Time* in the Main Window menus, or by right-clicking in the Timeline. Here's the project after time insertion:

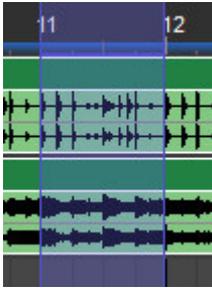


All other clips, markers, and automation are advanced in the project.

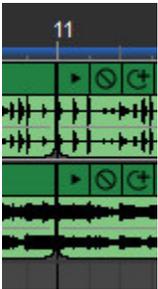
REMOVING TIME

Removing works just like inserting time, only in reverse. It deletes markers, automation, and clips in the removed section and repositions existing markers, automation, and clips.

To remove a region of time, create a selection in the Timeline:



Select *Edit>Delete Selected Time* in the Main Window menus, or by right-clicking in the Timeline. Here's the project after time deletion:

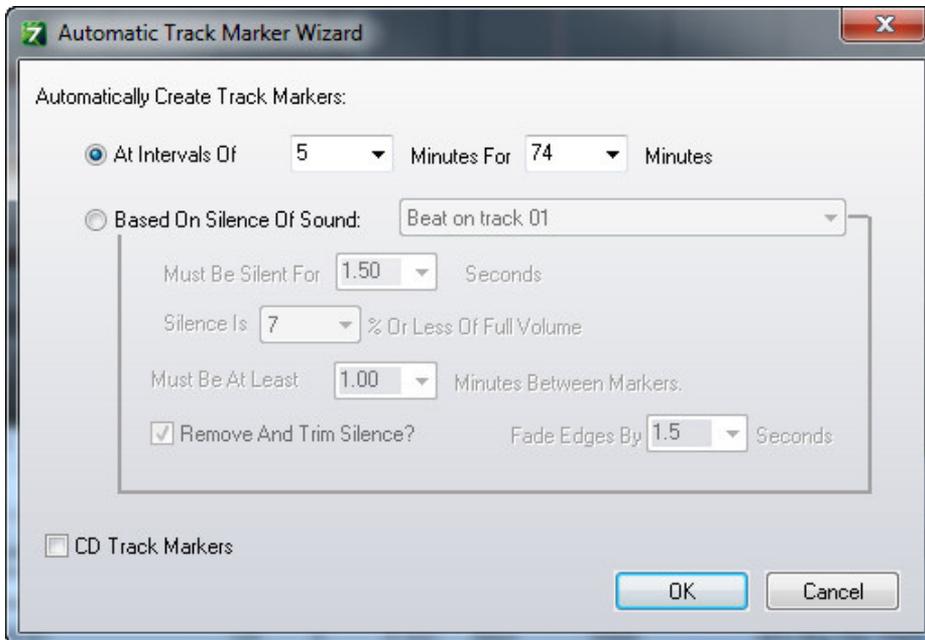


All clips, markers, and automation in the deleted region are removed, and remaining clips, markers, and automation slide to the left to compensate.

AUTOMATIC MARKER WIZARD

The track marker wizard is a handy way to quickly add multiple track markers. Markers may be added at specific time intervals, or in areas of silence - you can even remove silence! This can be handy for breaking up the tracks of entire albums recorded as a continuous audio file.

To use the *Automatic Marker Wizard*, select *Mix>Markers>Automatic Marker Wizard* in the Main Window Menus.



◆ **Automatically Create Track Markers: At Intervals Of**

This creates Markers at the specified intervals. Select the number of minutes between intervals with the At Intervals Of drop-down menu, and the total duration over which Markers will be added with the For box drop-down menu.

◆ **Automatically Create Track Markers: Based On Silence Of Sound**

Choose Based On Silence Of Sound to create markers based on silent gaps in a recording.

◆ **Based On Silence Of Sound**

This drop-down menu lets you choose from all audio clips in a Project.

◆ **Must Be Silent For**

Specifies the length of silence for a new Marker to be created.

◆ **Silence is X% Or Less Of Full Volume**

This lets you choose how low the volume of audio content must fall to be considered “silence,” expressed in percentage (0% is full silence, 100% would be full-scale volume). The default “silence” setting is 7% of full volume.

◆ **Must Be At Least X Minutes Between Markers**

Set the minimum time between markers using the Must Be At Least X Minutes Between Markers drop-down menu. This parameter helps prevent ending up with an excessive number of markers.

◆ **Remove and Trim Silence**

This automatically cuts out silences between audio content. It's good for getting rid of long pauses in continuous recordings.

◆ **Fade Edges By X Seconds**

This adds a gentle fade-in and fade-out at the beginning and end of audio sections when using the Remove and Trim Silence features.

◆ **CD Track Markers**

Adds CD Track Markers at each Marker. This is useful when converting existing audio content to be burned to a CD with individual tracks. (In case you want to be like Prince's "Black Album", notoriously mastered as one giant song.)

EFFECTS

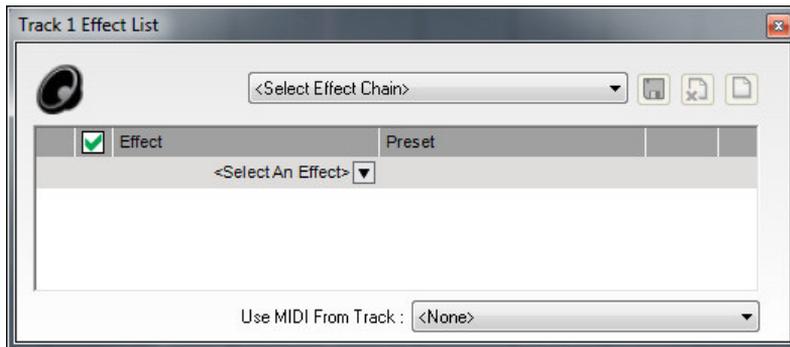
Mixcraft includes a large suite of real-time audio effects that can be applied to audio clips or virtual instruments. These are usually referred to as “plug-ins.”

Adding Effects

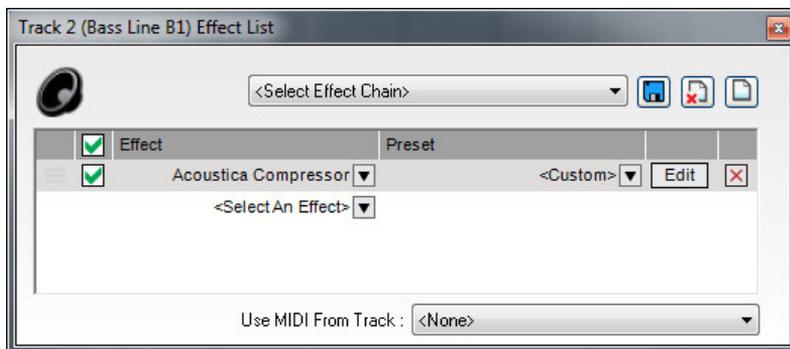
To add effects to any Audio Track or Virtual Instrument Track, click the *FX* button to open the *Effect List* window.



Now click the *<Select An Effect>* drop-down menu and choose an effect.



Once you've selected an effect, the Effect List should look something like this:



◆ Active/Inactive Checkbox

Effects can be toggled on or off by clicking the green check mark to the left of the effect name. The check mark next to *Effect* toggles all effects on and off. (See *Effects Chains* below.) This allows auditioning of effects without losing settings.

◆ Effect Name

Click <Select An Effect> to add new effects, or click an existing effects name to replace an effect with a different one.

◆ Preset

The *Preset* drop-down menu lets you select from included presets. These are very handy for speedy mix setups (or if you're not sure how to operate a particular effect).

◆ Edit

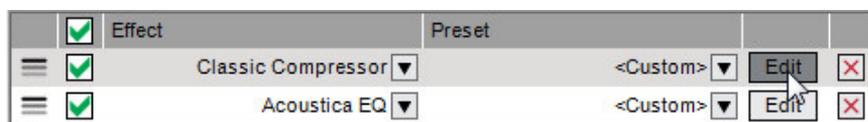
The *Edit* button opens the effect's user interface for individual parameter tweaking.

◆ X

This removes an effect and returns its slot to the <Select An Effect> dialog.

EDITING EFFECTS

To edit an effect's individual parameters, click the Edit button to the right of the effect name.



Below we've opened the Kjaerhus Audio Classic Compressor plug-in



Every effect will have a unique user interface and controls, but the top section will be the same for all effects in Mixcraft. Let's go over these:

◆ **Active Checkbox**

Exactly the same as the Active/Inactive checkbox in the Effect List window, just replicated in the effect interface for convenience.



◆ **MIDI Map Parameters Gear**

This opens the MIDI Mapping for an effect. This is used to assign hardware controllers to plug-in parameters.

(See pg. 51. "[Mapping A Hardware Control To a Plug-In Effect Parameter](#)".)

◆ **Select Preset**

Allows selection of Mixcraft and user presets. This is the same as the preset selection menu in the Effect List window.



◆ **Load VST Preset File (VSTi Plug-Ins only)**

Some VST effect and instrument manufacturers will distribute additional banks of sounds in the form of .fxb files. These files replace current presets with a new presets.

◆ **Save A New Preset**



Saves the current plug-in settings to a new preset. You'll be prompted to enter a preset name. The preset will then appear in the preset list.

◆ **Remove A Selected Preset**



Permanently removes the currently selected preset. Factory presets cannot be deleted.

Note: If a track is frozen, its effects will not be editable until the track is unfrozen.

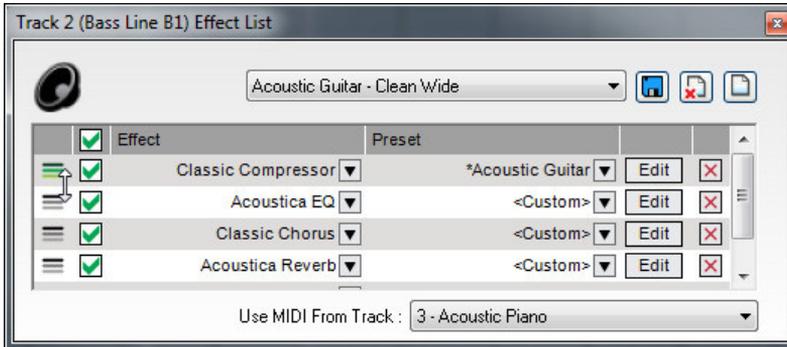
Display Virtual Instruments and Effects, Right Now!

Right-clicking a channel's FX button instantly displays the user interface for all effects on a channel, skipping the Effects List Window. This is really handy if you've already decided on which effects are to be used and just want to tweak their parameters. This works exactly the same for Virtual Instruments by right-clicking a track's Virtual Instrument button. To hide all effects or Virtual Instruments for a channel, press CTRL + right-click on the "fx" button.

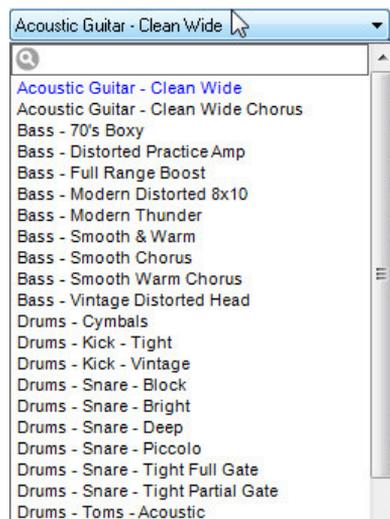
EFFECTS CHAINS

A series of effects can be configured in the *Effect List* window by adding effects using the <Select An Effect> dialog.

To rearrange the order of effects in a chain, simply click on an effect anywhere in the list and drag it to the desired location in the chain. It's easiest to do on the left side as the cursor will turn into up/down arrows, and you won't risk accidentally clicking something else.



Mixcraft includes many useful effects chains that are optimized for common applications. To load an effects chain, click on the Effects Chain drop-down menu at the top of the *Effect List* window. To search for effects chains with a particular term (“drums” for example), simply type in a keyword next to the magnifying glass icon. You can add as many effects as desired to an Effects Chain.



The icons to the right of the Effects Chain drop-down menu perform the following operations:

◆ **Save A New Preset**



Saves the current Effects Chain setup to a new preset. You'll be prompted to enter a preset name. The presets will then appear in the Effects Chain presets.

◆ **Remove A Selected Preset**



Permanently removes the currently selected preset. Careful with this guy! (You'll get an, "Are you sure?" prompt.)

◆ **New Preset**



This clears all current effects if you'd like to start with a clean slate.

MASTER EFFECTS

This is the effect insert on the Main Mix bus. Use this for adding master effects to be applied to the entire mix such as bus compression, EQ, volume maximizers, etc.

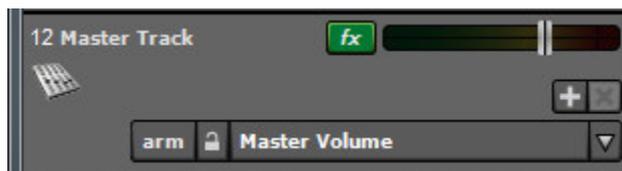


Master Effects can be edited either by clicking the *FX* button in the transport area.

Master FX can also be edited by clicking the Main Mix FX button in the Mixer tab:



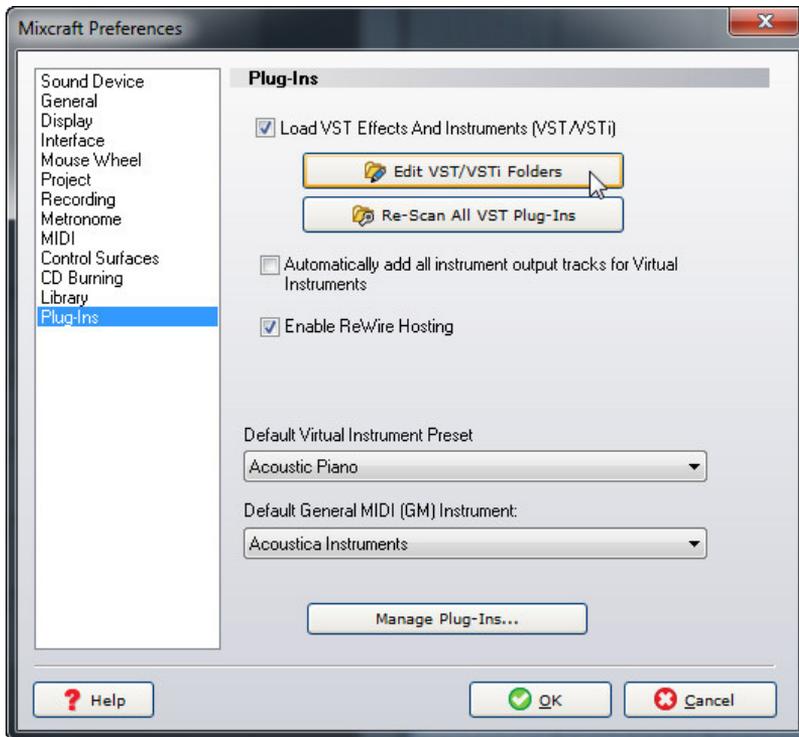
... or by clicking the FX button in the Master Track in the track list (if currently displayed):



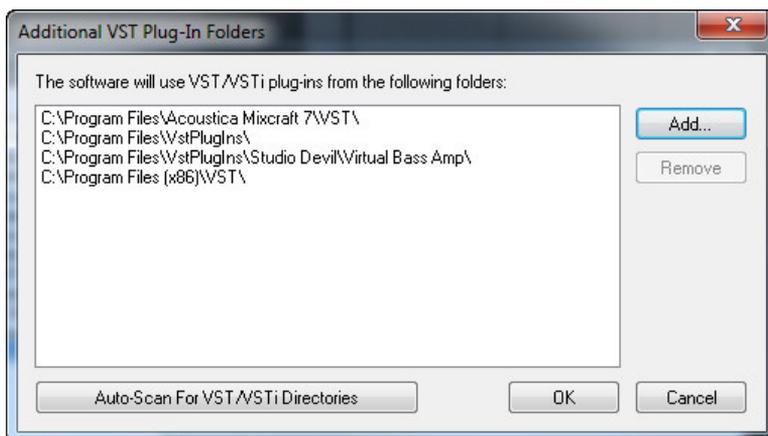
ADDING THIRD-PARTY VST EFFECTS

If you've installed a third-party VST effect and you're not seeing it Mixcraft's effects menu, you'll need to add the VST effect folder.

Select *Preferences>Plug-Ins* and click the *Edit VST/VSTi Folders* button.



Click the *Add...* button, navigate to the VST effect in Windows Explorer, and click *OK*. If you're not sure where the new VST plug-in is, click the *Auto-Scan For VST/VSTi Directories* button for assistance finding VST plug-ins.



INCLUDED EFFECTS

All Mixcraft editions include the following effects:

ACOUSTICA CHORUS



Chorus is used to thicken up a sound, by adding tiny variations in pitch as well as small amount of delay. It's often used to give the impression of more than one instrument or vocalist performing the same part.

ACOUSTICA COMPRESSOR



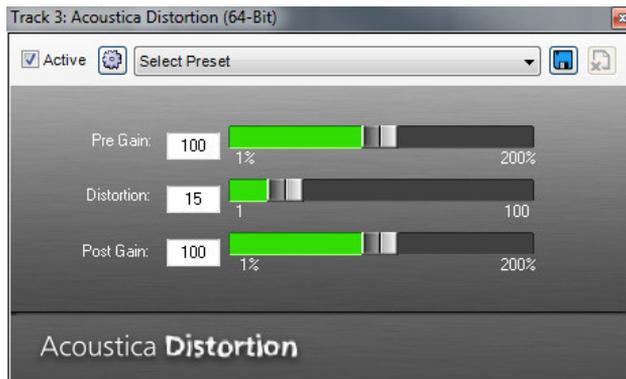
Compressors reduce the differences in volume between quiet sounds and loud sounds in a recording. This effect is often used on vocals and drums, where some portions of the sound are very quiet, and other portions are very loud. Reducing a recording's dynamic range makes mixing far easier and, dependent upon settings, can impart "punch" and impact.

ACOUSTICA DELAY



Also known as "echo," delay is one of the oldest and simplest effects. Delay takes incoming audio, waits a specified amount of time, and replays the audio, creating an echo effect. The Feedback parameter allows a portion of the signal to be sent back into the delay effect, creating additional repeats of the echo.

ACOUSTICA DISTORTION



Acoustica Distortion adds audio distortion similar to that used on electric guitars. This effect can range from subtle grit to extreme destruction of the original audio. Note that adding distortion can severely affect the volume of the recording. A little distortion goes a long way, so experiment with very low settings to see how the audio is affected and increase the amount gradually.

ACOUSTICA EQ



Acoustica EQ is a ten-band graphic equalizer that allows boosting or cutting of audio frequency regions. If a recording sounds thin, bass frequencies may be boosted. If a recording sounds too bright, high frequencies can be reduced. The Output Gain control is used to raise or lower overall volume after EQ processing.

ACOUSTICA FLANGER



Flangers delay the signal by a small amount while slowly varying the delay time, producing a swept comb-filter effect, commonly referred to as a “jet swooshing” sound (because of its similarity to the sound of a jet plane flyby).

ACOUSTICA REVERB



Used to recreate the subtle echoes and reverberation of a natural room, reverb effects are some of the most useful in music. A single violin or piano playing in a large church or auditorium takes on new life when the last note bounces around the room and fades away.

Acoustica Reverb effect can be used to recreate the ambience of many different environments, ranging from small spaces to exceptionally large chambers. The decay of high frequencies can be set High Frequency Damping control; carpeted rooms, for example, absorb most high frequencies, but large empty houses with marble floors sound extremely bright and echoey because high frequencies are not damped.

CLASSIC AUTO-FILTER



This produces filtering effects that change over time, most commonly used for automated “wah-wah” effects. However, Auto-Filter’s extensive parameters allow many more musical variations including triggered effects (where the filter follows the dynamics of a sound) or synced LFO effects (where the filter opens and closes at note values locked to the project tempo).

CLASSIC CHORUS



Similar to the Acoustica Chorus effect, but with some additional features and a unique sound.

CLASSIC COMPRESSOR



Similar to the Acoustica Compressor effect, but with additional parameters and a different tonality. (There are many different compressor types in the software and hardware world; pro audio engineers prefer different compressors for different source material.)

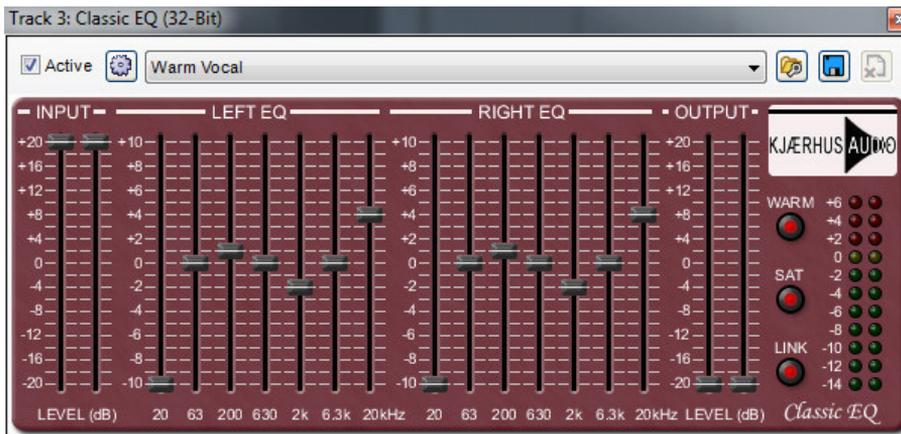
CLASSIC DELAY



Like the Acoustica Delay effect, this offers echo and delay effects, but goes much further with several outstanding features. Most exciting is Sync, which automatically synchronizes delay times to note-values derived from the project tempo.

Synced delay effects are a fun and musically useful way to spice up parts. Classic Delay's *Sound* and *Type* parameters make it a great choice for replicating the sound of vintage analog and tape delay effects.

CLASSIC EQ



Similar to the Acoustica EQ effect, Classic EQ offers individual control of the left and right channels. This can be used to create unique stereo effects or to correct audio anomalies in one side of the stereo image.

CLASSIC FLANGER



Similar to Acoustica Flanger but with added controls and a unique tonality. The modulation of the sweep can also be synced to the project tempo.

CLASSIC MASTER LIMITER



Similar to the Acoustica Compressor in function, the Classic Master Limiter is intended to be used in the Master Effects bus to smooth out and increase overall project level for a professional “sheen.”

CLASSIC PHASER



Similar to a Flanger with a less metallic and more “swooshing” tonality, phasing is often added to guitar and synth pad sounds, adding animation, depth, and character.

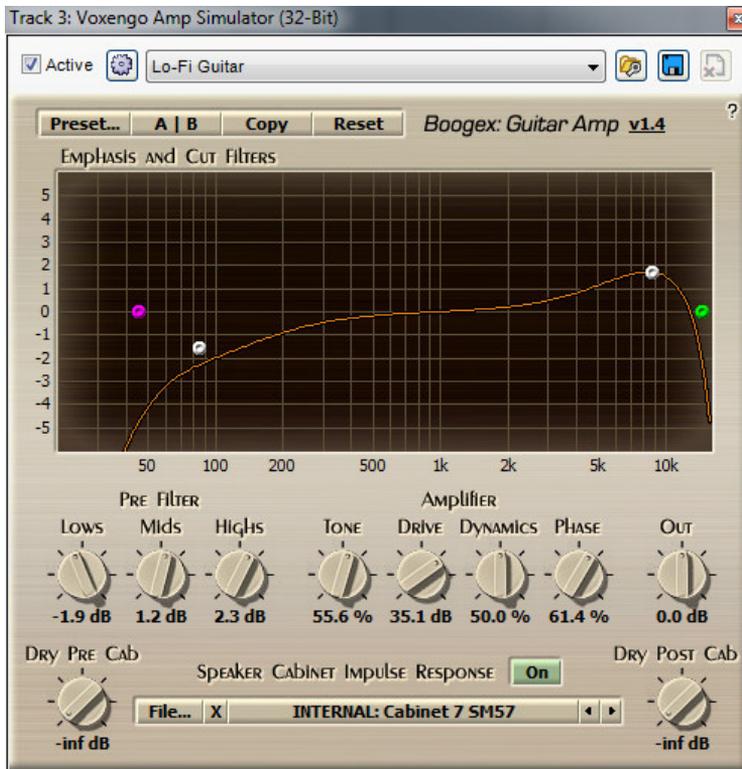
CLASSIC REVERB



Similar to the Acoustica Reverb effect, with some additional features and a unique sound. Reverbs are another example of an effect where each brand and type has its own

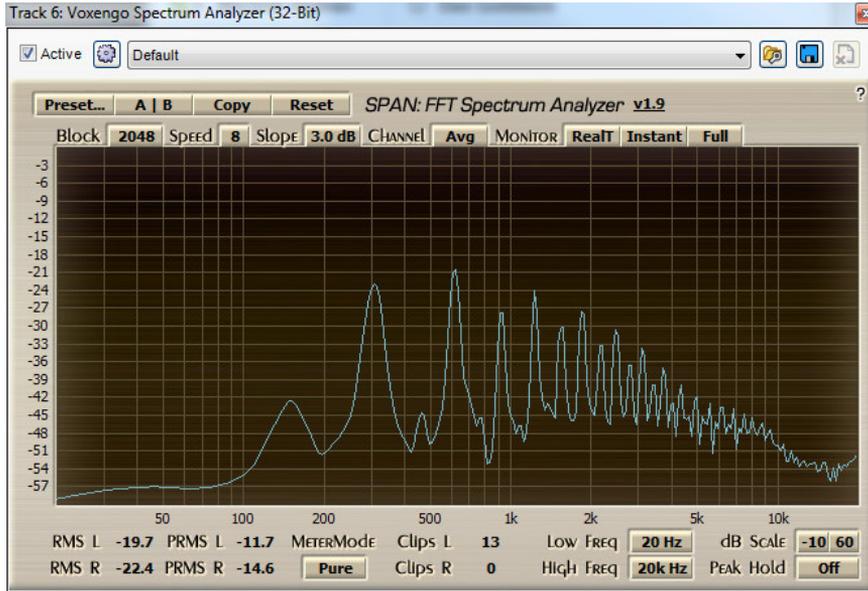
unique audio “fingerprint,” so it’s often good to have a few different types for different characters.

VOXENGO AMP SIMULATOR



Voxengo Amp Simulator is a carefully modeled guitar amp simulator with extensive boost and cut filtering, and numerous guitar cab and mic emulations.

VOXENGO SPECTRUM ANALYZER



Voxengo Spectrum Analyzer is a supremely powerful tool for viewing the frequency spectrum of audio content. This is great for learning about audio frequencies and refining mixes. (Voxengo Spectrum Analyzer needs to be currently viewed to use it, so remember to click the Edit button in the Effects List or double-click the channel's FX button.)

EZQ EQUALIZER



There's no easier way to EQ tracks! Instead of adjusting numeric parameters or spinning virtual knobs, EZQ lets you move a dot within a 2D plane to quickly impart brighter, darker, warmer, or tinnier sound characteristics.

GTUNE GUITAR TUNER



GTune guitar tuner can be used for guitar and bass tuning or for tuning other monophonic instruments such as flutes, violins, and synthesizers. This effect does not alter audio in any way.

MIXCRAFT 7 ADDITIONAL PLUG-INS

Mixcraft 7 (Standard Edition) adds the following plug-ins:

VOCALZAP



VocalZap removes vocals and other center-panned content from stereo recordings. It's ideal for creating karaoke tracks.

PULTRONIC TUBE EQ



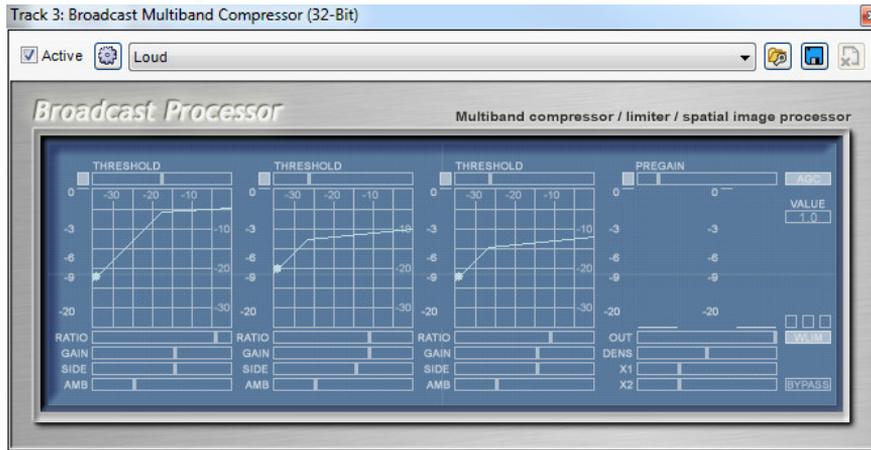
G-Sonique's Pultronic Tube EQ is a detailed recreation of a classic vintage vacuum-tube based equalizer found in top studios throughout the world. Warm up tracks or add a completely new character with the Pultronic Tube EQ's array of tube models and presets.

SHRED AMP SIMULATOR



Shred Amp Simulator by AcmeBarGig is a complete guitar amp and cabinet suite including five classic amp heads, 17 cabinet models, and six powerful effects. Shred faithfully models classic British and American tube heads, and includes powerful room modeling technology.

BROADCAST MULTIBAND COMPRESSOR



Broadcast Processor is a multiband compressor/limiter designed to impart maximum overall volume to a mix by breaking up audio into separate frequency bands, and then compressing these bands individually to make them louder or quieter. It can also lower louder audio parts with downward compression for a more dynamically balanced mix. This tool is essential for creating loud, dynamically balanced, professional mixes for dance, electronica, pop, and other genres where “loud” mixes are needed.

GSNAP PITCH CORRECTION

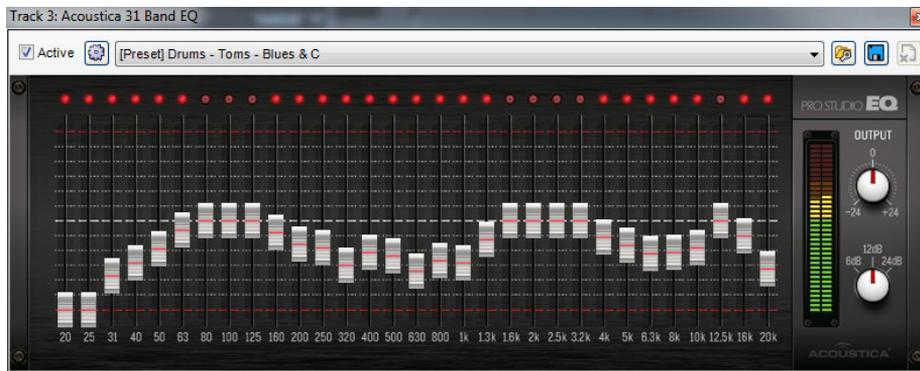


GSnap is a state-of-the-art pitch correction plug-in that's ideal for subtly (or not-so-subtly) tuning vocal performances in real-time (i.e. as they play back in a project). Note choices may be limited to preset or user-specified scales, and the speed and amount of pitch correction can be adjusted.

MIXCRAFT PRO STUDIO 7 ADDITIONAL PLUG-INS

Mixcraft Pro Studio 7 adds the following plug-ins:

ACOUSTICA 31 BAND EQ



Acoustica 31 Band EQ is a 1/3-octave graphic equalizer offering precise control over frequency content. Slider range is adjustable from 6dB to 24dB of boost and cut, and many presets are included to get you started.

ACOUSTICA PRO STUDIO REVERB



Acoustica Pro Studio Reverb takes the lush, crystal-clear reverb used in our award-winning Pianissimo grand piano and expands it into a flexible, great-sounding reverb effect.

DUBMASTER LIQUID DELAY



Dubmaster Liquid Delay combines tempo-synced rhythmic liquid delay with powerful LFO-driven filtering and phase effects to add atmosphere and a unique sound to tracks

FAT+



FAT+ mixes all of the essential ingredients for truly huge sounds into one powerful plug-in, combining analog warmth, vacuum-tube distortion, and tape saturation into a single effect that'll make your tracks sound enormous!

FEROX TAPE EMULATOR



There's something about the sound of tape, and Ferox captures that intangible "something." The unique combination of authentic tape hiss, saturation, and compression brings personality and classic feel to tracks.

FSQ1964 TRANSIENT VITALISER



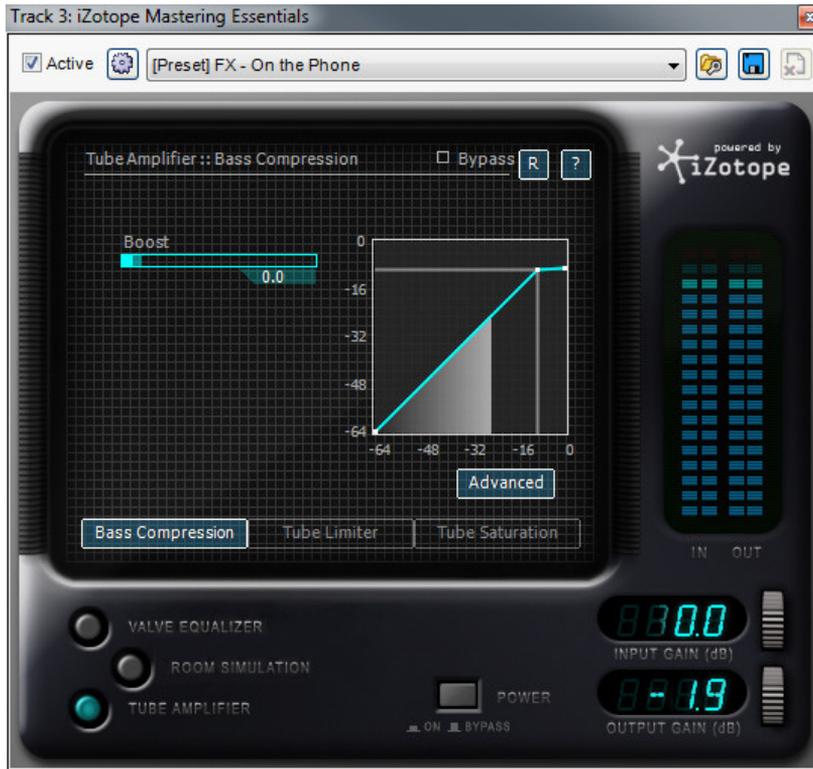
This powerful mastering tool adds sweet high frequencies, analog colors, crystal and transparent transients, and boldness to any mix.

GSXL4070 VINTAGE PARAMETRIC EQ



Four bands of parametric equalization plus a high pass filter emphasize the sizzle and bass in tracks, cut out noise and mud from the mix, and dial in the perfect tone. Inspired by the EQ section of one the world's most coveted studio mixing consoles.

IZOTOPE MASTERING ESSENTIALS



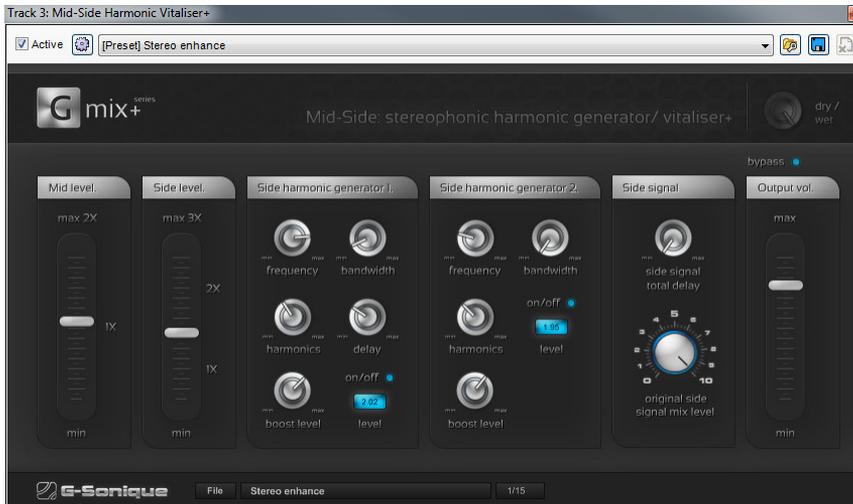
Mastering Essentials delivers Izotope's world-class mastering tools to Mixcraft with a gorgeous-sounding parametric EQ, spectrum analyzer, a phenomenal room simulation, vacuum-tube compression, limiting, and saturation.

MID-SIDE ENVELOPE FOLLOWER+



An envelope follower using the dynamics and amplitude of the incoming audio to modulate the cutoff frequency of a filter... the result is a funky, liquid filtering effect that dynamically responds to music content. The signal is split into mono (*Mid*) and stereo (*Side*) signals. Each part can be boosted or attenuated to create panoramic 3D effects.

MID-SIDE HARMONIC VITALISER



Mid-Side Harmonic Vitaliser+ is a stereo enhancer featuring a new technology for vitalizing, coloring, controlling, adjusting, and widening stereo audio content (the *Side* part of a signal), as well as adding space, width, and depth to mixes.

MID-SIDE STEREO PHASE FILTER+



Offers new, creative methods of modulating stereophonic sound by creating special 3D modulation effects with phasing and filtering, and creates the illusion of effected sound that appears to fly around your head while the center audio content (Mid) remains untouched.

TB GATE



A good gate effect is critical for removing noise and mud from a mix. Gates remove hiss and noise from areas of a track containing no desirable sound, such as the hiss between vocals or guitar passages.

TB PARAMETRIC EQUALIZER



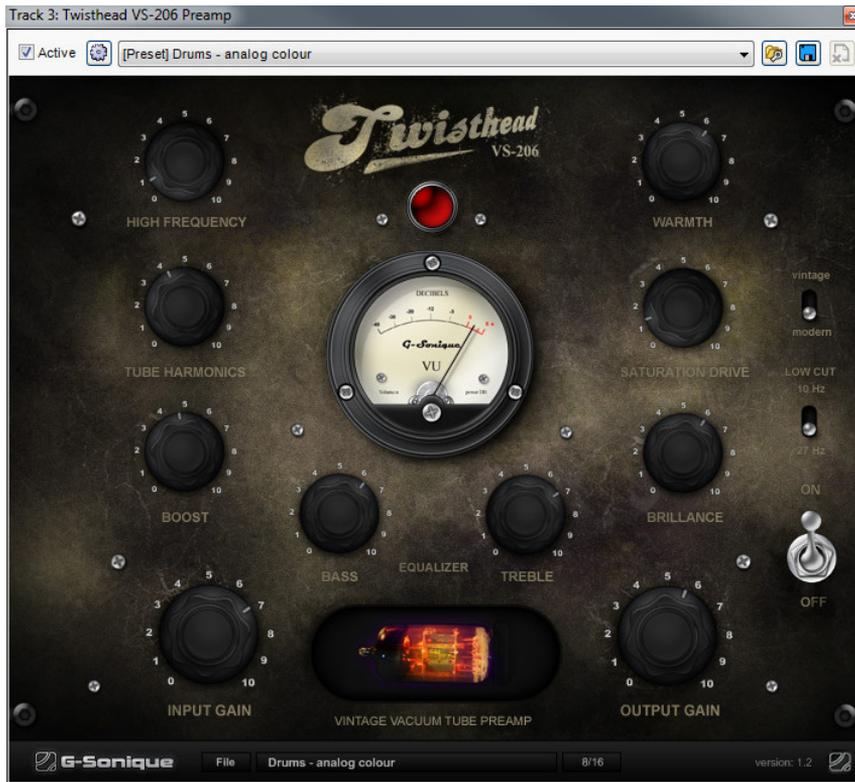
The key to a good mix is proper EQ'ing, and this graphic parametric equalizer has a gorgeous interface, six color-coded bands, six filter types, spectrum analysis, and the ability to independently EQ the mono (Mid) and stereo (Side) portions of stereo material.

TIMEMACHINE BIT CRUSHER



Recreate the sound of 8-bit video games, 12-bit samplers, or trash audio by turning it into 2-bit noise! TimeMachine simulates the effect of A/D and D/A aliasing, re-sampling, and bit reduction (both linear and mu-Law quantization).

TWISTHEAD VS-206 PREAMP



Adds subtle analog warmth or fierce overdriven tube grit to tracks. This vintage tube preamp adds 1960's charm and character to vocals, guitar, drums, and more.

XBASS 4000L BASS ENHANCER



X-Bass 4000L adds the warm, fat bass tone found in vintage tube circuits to your projects. X-Bass 4000L combines two unique algorithms to enhance the bass spectrum of tracks, adding emphasis to the audible bass content, enriching the bass and sub-bass spectrum, and boosting higher harmonic frequencies.

NEW MIXCRAFT PRO STUDIO 7 PLUG-INS

The following plug-ins are new additions to Mixcraft Pro Studio 7:

DUBSHOX MULTI-BAND DISTORTION



DUBSHOX Multi-Band Distortion is a multi-band distortion and waveshaping unit with over 40 types of distortion and shapers, from analog, transistor/diode and tube distortions, to crazy digital waveshapers. Every band has a knob for drive and output level for adding heavy distortion without excessive volume boost. DUBSHOX Multi-Band Distortion is ideally suited to aggressive modern dance styles including Dubstep, Drum and Bass, and EDM.

POD4500 PARTICLE DELAY



The POD4500 Particle Delay expands upon standard beat-synced delays with wildly unique “particles” that can be delayed, tuned up and down by octaves, filtered, and modulated. A fantastic addition to any type of music, POD4500 Particle Delay especially shines in experimental and dance music styles.

PSEQ-1 VACUUM TUBE PASSIVE EQ



The PSEQ-1 Vacuum Tube Passive EQ faithfully replicates the sweet and warm “undoctored” tonality of passive EQ circuits. Even with large boosts at narrow-Q settings, the PSEQ-1 Vacuum Tube Passive EQ avoids the harshness that often plagues conventional active EQ topologies. The perfect EQ for individual channels or two-channel final mix busses.

TREBLECREAM



TrebleCream is a unique new master bus plug-in intended to minimize the effect of screaming or distorted mid-treble frequencies and transients resulting in more pleasing final mixes.

TRW-1 VACUUM TUBE TRIODE WARMER



The TRW-1 Vacuum Tube Triode Warmer is a plug-in with an inner structure similar to real blocks of vacuum tube studio devices, including emulation of physical phenomena like small positive inner feedback, tube softening of transients, compression, and generation of both odd and even harmonics.

VBE-1 VACUUM TUBE BASS ENHANCER



VBE-1 Vacuum Tube Bass Enhancer is vacuum tube analog bass enhancer. When standard equalization does not bring the massive fatness and warmth you're seeking, VBE-1 Vacuum Tube Bass Enhancer delivers real vacuum tube warmth, saturation, and drive to bass lines and kick drums.

VTC-1 VACUUM TUBE COMPRESSOR



Pentode Audio VTC-1 Vacuum Tube Compressor is an analog-modeled virtual VST compressor with a warm analog and transparent sound. Compared to modern compressors, Pentode Audio VTC-1 operates differently: VTC-1 doesn't have a threshold knob; the amount of compression is set by increasing or decreasing input level as with old analog tube compressors. The Compression amount knob is similar to the ratio knob on modern compressors.

ZENER LIMITER LM-2Z



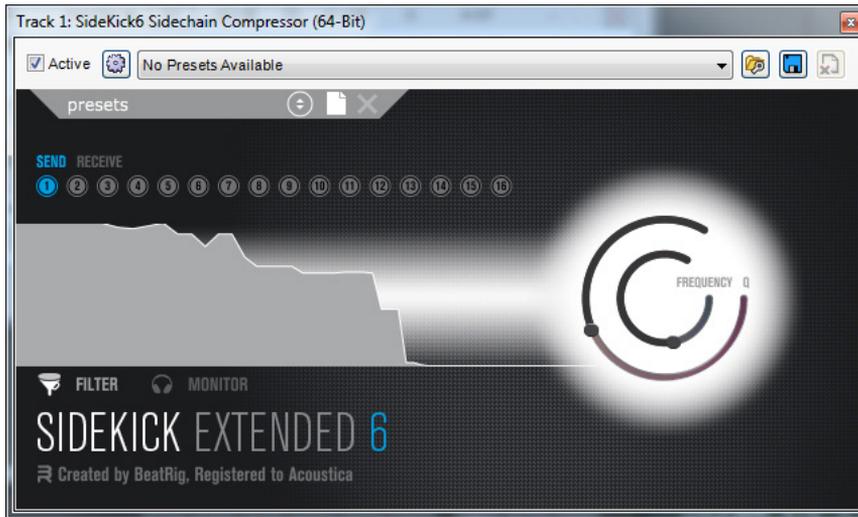
The Zener Limiter LM-2Z models rare and unique compressors utilizing a zener-diode as a gain-reduction element. Compared to classic digital brickwall limiters, the Zener Limiter LM-2z offers a more transparent, liquid, and airy sound with significantly less distortion and unwanted artifacts.

FUSION FIELD



Fusion Field is a smooth diffusion reverb that sits beautifully in a mix. Designed to imitate complex, natural spaces, it's also very easy to use. Using an innovative “cloud” display to represent reverb spaces, Fusion Field offers powerful control with few controls to hamper your creativity.

SIDEKICK6



SideKick 6 Extended is the easiest, yet most comprehensive sidechain compressor available. Sidechaining lets you compress one sound with another, most commonly used to duck other sounds in the mix on each kick drum hit for maximum impact when creating dance music.

STUDIO DEVIL VIRTUAL BASS AMP



Studio Devil Virtual Bass Amp is loaded with fantastic features for strikingly realistic emulations of legendary bass amps including a vacuum-tube preamp, power amp drive control, variable-knee limiter, seven-band EQ, two speaker cabinet emulations (plus D.I.), and numerous presets.

VIRTUAL INSTRUMENTS



Virtual instruments are like having a keyboard instrument within Mixcraft. They can be played and recorded using a USB or MIDI keyboard controller. Mixcraft's Instrument Preset Window offers powerful layering, splitting, and more.

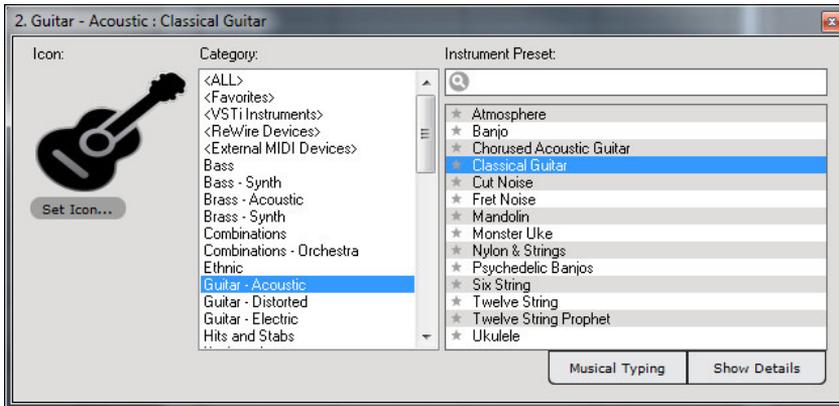
VIRTUAL INSTRUMENT PRESETS



Click the instrument piano keyboard icon to open the Instrument Preset window.



This opens the Instrument Preset window. On the left side you'll see numerous preset categories. There are four special preset categories: <Favorites>, <VSTi Instruments>, <ReWire Devices>, and <External Devices>.



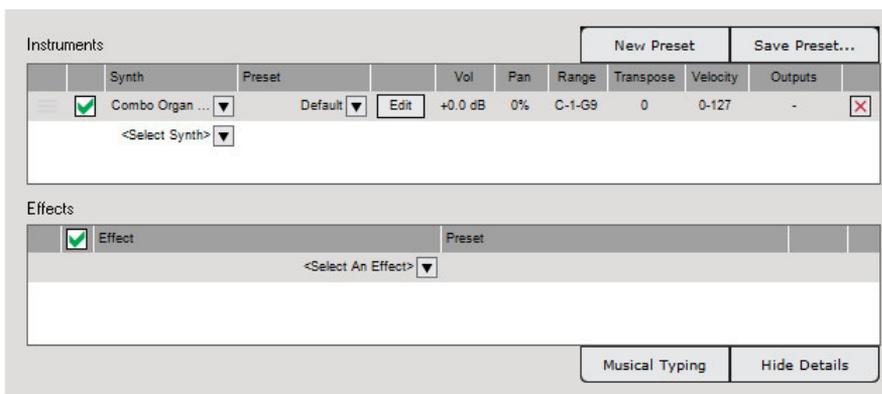
FAVORITES

Frequently used and favorite *Instrument Presets* can be tagged by simply clicking on the star to the left of *Instrument Preset*. Once you've clicked the star icon, all *Favorites* are easily displayed and chosen by selecting the *Favorites* category.

VSTI INSTRUMENTS

This shows all available virtual instruments including any external ones. VSTi is the only supported third-party plug-in type. If you have a virtual synthesizer that is not showing up, you may have to edit your Plug-in folders in *Preferences>Plug-Ins>Edit VST/VSTi Folders*.

Clicking on a virtual instrument the window expands downward (you can also expand the view by clicking the *Show Details* button).



Click in the preset column to browse presets for the selected instrument.

REWIRE DEVICES

This section displays available ReWire applications. Selecting a ReWire application automatically creates a ReWire track for that application. In the *Show Details* view, available ReWire instrument sources can be selected (under *Presets*). Played or recorded MIDI data from the Virtual Instrument track, will be routed to the ReWire application. Audio generated by the application will appear in Mixcraft on the ReWire track.

EXTERNAL DEVICES

This category displays all external MIDI outputs and sound card MIDI synthesizers. If an external synthesizer is connected via a MIDI interface, select the appropriate MIDI output interface. Please note that you will not be able to render or burn the audio made by external synthesizers unless they are first recorded to an audio track.

PRESETS

Click on a category on the left and then click on a preset.

Main default categories include:

- ◆ Bass
- ◆ Brass
- ◆ Combinations
- ◆ Ethnic
- ◆ Guitar
- ◆ Hits & Stabs
- ◆ Keyboard
- ◆ Percussion
- ◆ Reed
- ◆ Sound Effects
- ◆ Strings
- ◆ Synth
- ◆ Voice
- ◆ Wind

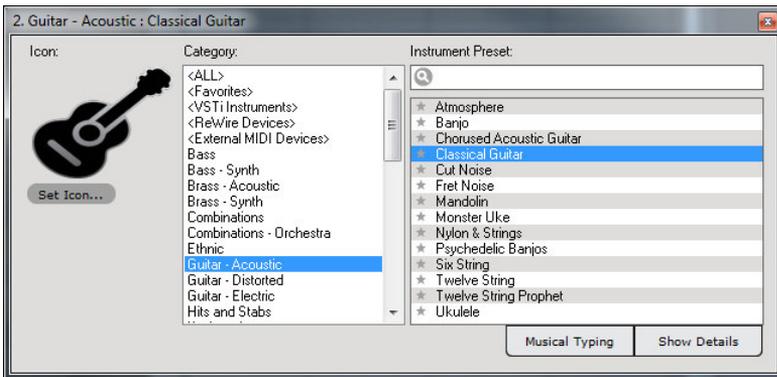
Click the X button at the top right of the window to hide the instrument dialog. Alternatively, click the instrument button on the track header to toggle viewing the instrument preset window.

EDITING VIRTUAL INSTRUMENT PRESETS

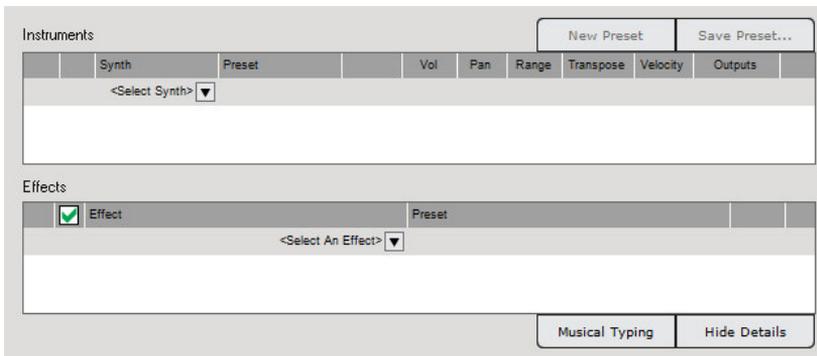
Custom Virtual Instrument presets featuring multiple layered synthesizers, edited presets, custom key ranges and more can be created. Begin by clicking a Virtual Instrument track's Instrument icon.



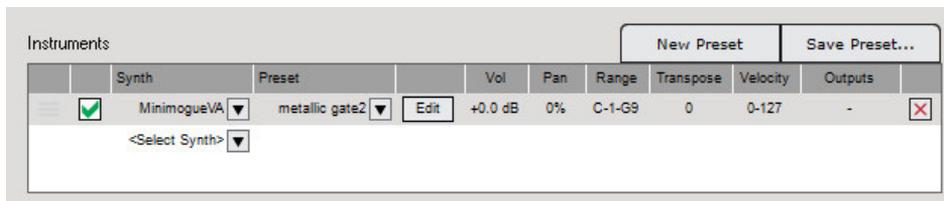
This opens the Instrument Preset window:



Now click the *Show Details* button to extend the instrument window and display more details about the preset. You can either modify the current preset, or begin with a “blank slate” by clicking the *New Preset* button:



To add a virtual instrument, click *<Select Synth>* and choose a synthesizer from the drop-down list.



After selecting an instrument, the following parameters can be set:

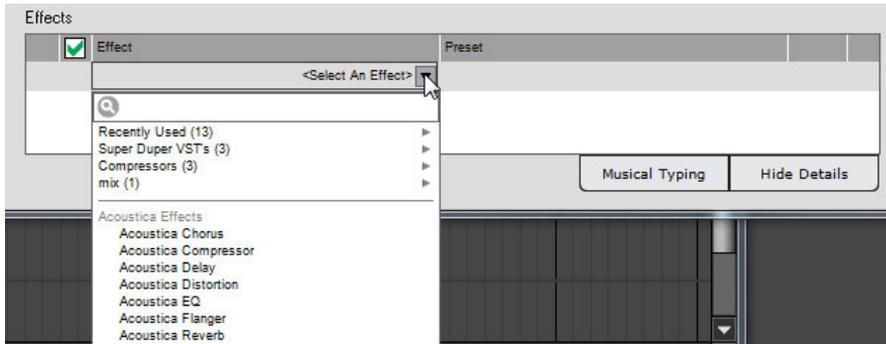
Parameter	Description
Preset	Selects a preset or patch from individual instruments.
Edit	If the synthesizer has an editable user interface, click the Edit button to view and adjust its parameters.
Volume	Click on the Vol column and type in a value.
Pan	Click on the Pan column and type in a value from -100% to 100%.
Range	The range of MIDI notes the synthesizer responds to. Click and select a range of notes from the pop-up keyboard. The synthesizer will respond only to notes in the specified range.
Transpose	Type in a transposition value for this synthesizer. For example, if transpose is set to 12, playing C4 will actually sound C5.
Velocity	Type in a velocity range the synthesizer will respond to including a low and high note limit, e.g. 1-127). Make sure to include a dash so the software understands the range. For example, if you wanted it to respond to velocities from 120 to 127, you would type in 120-127.
Config	If the virtual instrument supports multiple output channels, click the Config... button to configure which output channels to use.

ADDING EFFECTS TO INSTRUMENT PRESETS

To add effects to Instrument Presets, click *<Select An Effect>*.

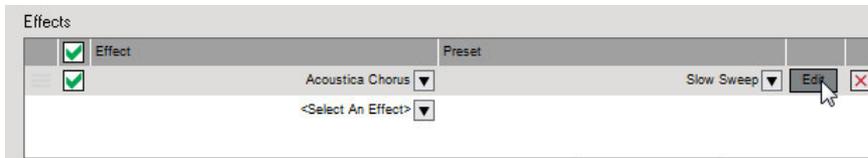
Once an effect is chosen, an effects preset can be selected from the from the *Preset* column. To customize effects settings, click the effects *Edit* button.

Effects chain can be created with as many effects as desired.



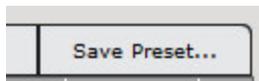
SETTING AN INSTRUMENT PRESET ICON

To add a custom icon to an Instrument Preset, click the *Set Icon* button and select an icon (or add a custom icon using the *Add My Own Image File...* button).



SAVING CUSTOM PRESET INSTRUMENT PRESETS

Custom Instrument Preset can easily be saved and recalled. This saves all parameters of the Instrument Preset including effects. To save a custom Instrument Preset, click the *New Preset* button.



Type a preset name and select a category from the *Category* drop-down menu. To save the currently selected instrument icon, check the *Embed Icon* checkbox.

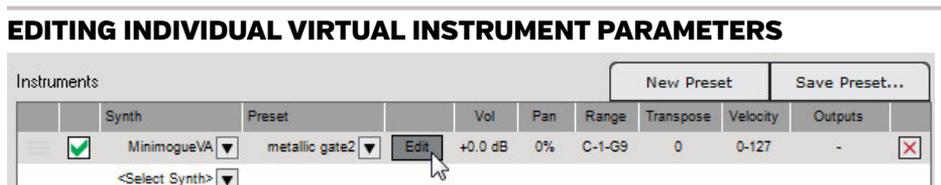
INSTRUMENT PRESET FILE LOCATION

Instrument Preset files are located in the Mixcraft folder in a directory called "InstPresets".

Preset files have a *.instrument* extension and may be traded and sent between computers and users. Please note that you'll need the same VSTi's and virtual synths installed.



Custom presets will be saved under `%appdata%\Acoustica\Mixcraft\InstPresets\`
(`%appdata%` is a Window's shell variable that is expanded to something like `C:\Users\UserName\AppData\Roaming\`)



On the following is the Minimogue VA virtual instrument. Use the mouse to create custom sounds by turning virtual knobs, switches, etc.

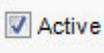
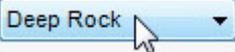


VIRTUAL INSTRUMENT PRESET MANAGEMENT

Though each Virtual Instrument will have a unique user interface, they share the same controls on the top of the instrument window. These controls let you choose a new preset, save a preset, or delete a preset.



Here's what all the Preset Management controls do:

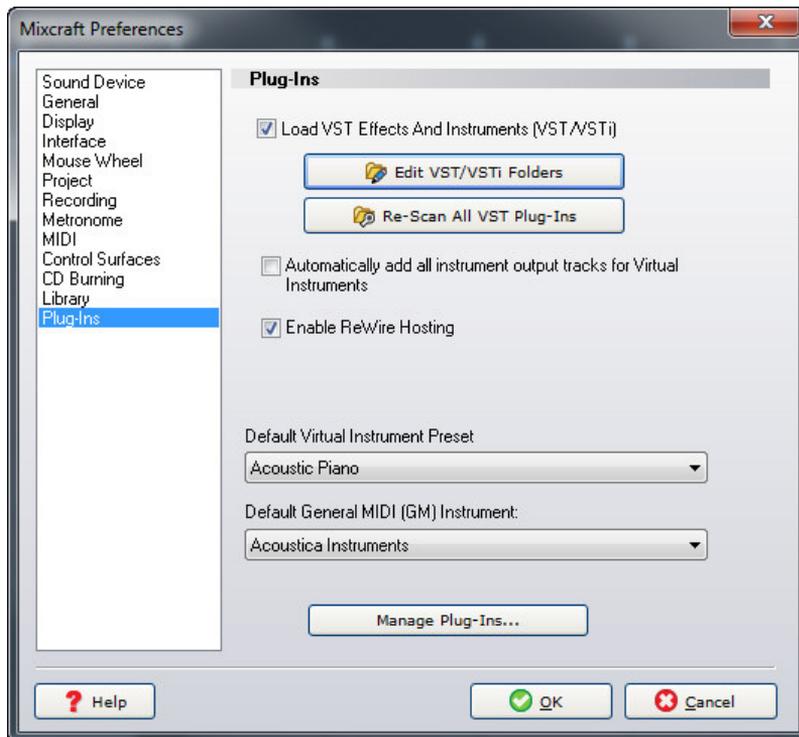
Button	Description
	Makes the current Virtual Instrument active or inactive.
	Opens the current Virtual Instrument's automation mapping window.
	Selects a Virtual Instrument instrument preset. If the preset is factory default, it may say [Sys] at the beginning of the preset name.

Button	Description
	Load VST Preset File. Some VST effect and instrument manufacturers will distribute additional banks of sounds, in the form of .fxb files. These files replace the current Virtual Instrument's presets with a new set of presets.
	Saves a preset for the current Virtual Instrument.
	Deletes the selected Virtual Instrument preset.

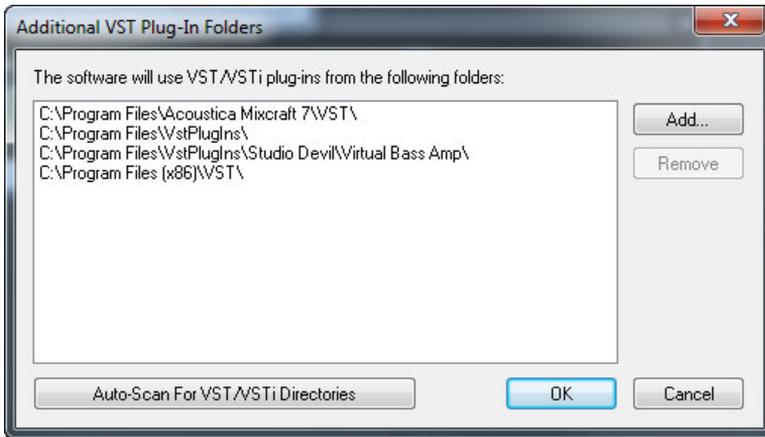
ADDING THIRD PARTY VIRTUAL INSTRUMENTS

If a VSTi instrument has been installed and it's not visible in the Instrument List, you'll need to add the folder that stores the VST instrument.

Select *File>Preferences>Plug-Ins>Edit VST/VSTi Folders* from the Main Window menus.



Click the *Edit VST/VSTi Folders* button and navigate to the folder containing the Virtual Instrument, and add the folder by clicking the *Add...* button.

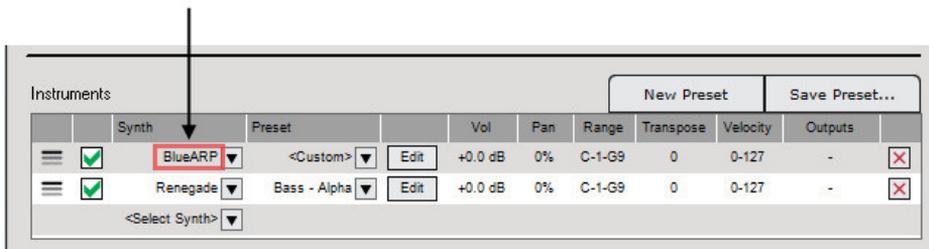


If you're having trouble locating installed Virtual Instruments, click *Auto-Scan For VST/VSTi Directories*. Mixcraft will attempt to locate folders containing VSTi instruments.

USING A THIRD-PARTY ARPEGGIATOR PLUG-IN

A number of third-party software companies offer arpeggiator plug-ins that can be used to "play" VST either Mixcraft's included instruments or installed third-party VST instruments.

Arpeggiator placed first in instrument list



To use an arpeggiator plug-in, open the Instrument Preset window and select the arpeggiator as an instrument in a location *above* the instrument you'd like it to control. No other fancy setup necessary!

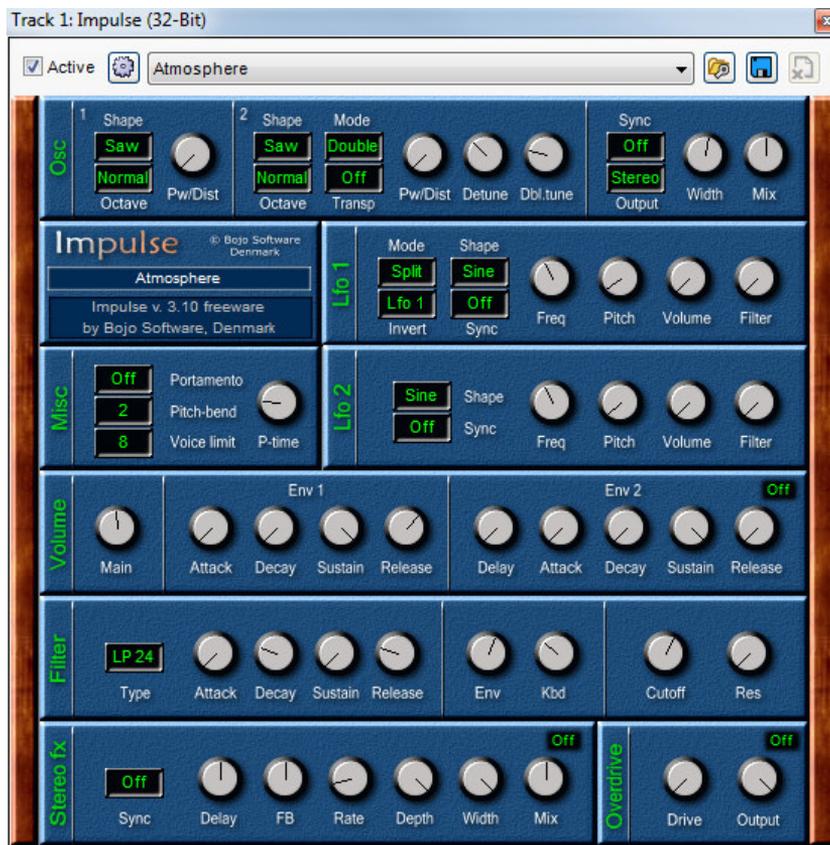
INCLUDED VIRTUAL INSTRUMENTS

The following virtual instruments are included with all versions of Mixcraft.

ACOUSTICA INSTRUMENTS

A huge library of carefully sampled orchestral instruments, drums, synthesizers, pianos, organs, guitars, basses, and more, all mapped to the General MIDI specification.

IMPULSE



This polyphonic synthesizer is modeled after synthesizers of the early 80's, and is loaded with classic analog synthesizer tones.

MESSIAH



This incredibly accurate recreation of the famous Sequential Circuits Prophet-5™ synthesizer takes the concept even further, with increased polyphony, added effects, and more. This classic analog synthesizer dominated the music of the late 70s and early 80s. These amazing instruments are difficult to find, highly collectible, and are worth thousands of dollars, but Messiah nails the tone and experience of using a real Prophet-5™.

MINIMOQUEVA



The Moog Minimoog™ is the most famous analog monophonic synthesizer in history. Invented by the late Dr. Robert Moog, this instrument took the intense sonic power of a Moog™ modular synthesizer and put it in a portable instrument that revolutionized music. The MinimoogVA is a detailed recreation of the Minimoog™ sound, complete with huge bass sounds, powerful lead sounds, and a whole lot more.

VB3 ORGAN



The Hammond Organ™, invented by Laurens Hammond in the 1930s, has had a major impact on nearly every popular music genre, from gospel and blues to rock and pop. Paired with a Leslie™ speaker, there may be no more expressive and powerful musical instrument in the world. The VB3 Organ recreates the sound and controls of the famous Hammond B3™ organ, paired with a Leslie™ speaker.

MIXCRAFT 7 ADDITIONAL INSTRUMENTS

Mixcraft 7 (Standard Edition) adds the following instruments:

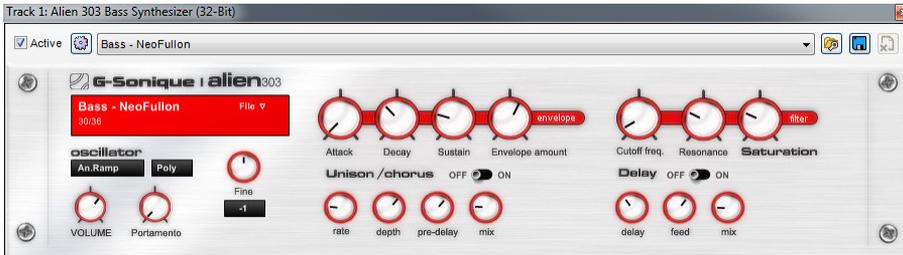
ACOUSTICA EXPANDED INSTRUMENTS

A rich addition to the Acoustic of deep synth pads, ethereal voices, haunting strings, and more.

ACOUSTICA STUDIO DRUMS

A large collection of acoustic and electronic drum sounds, recorded professionally in a world-class studio.

ALIEN 303 BASS SYNTHESIZER



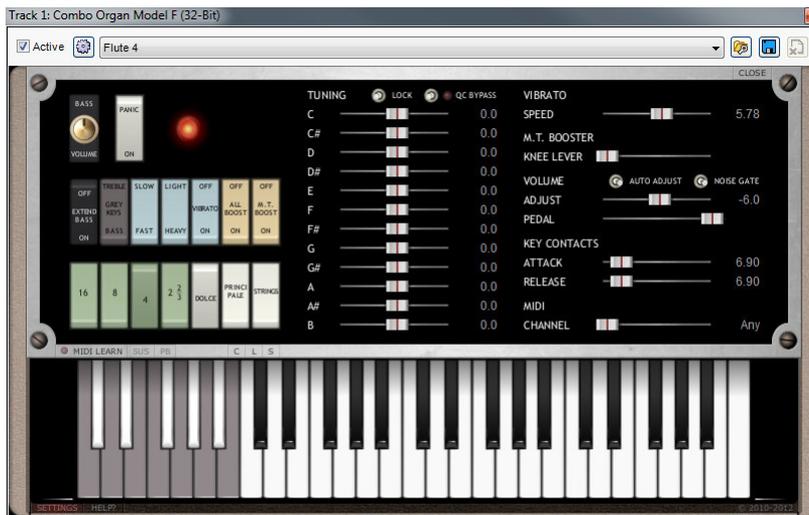
A deep, biting bass synthesizer inspired by the famous Roland TB-303™ bass synthesizer. Ideal for authentic acid bass tones and other forms of electronic dance music

LOUNGE LIZARD ELECTRIC PIANO



The Rhodes™ and Wurlitzer™ electric pianos defined much of the sound of the 1970s. Featured in songs like Billy Joel's “Just The Way You Are”, and Supertramp's “The Logical Song”, these electric pianos had a warm, unique sound that works as well in jazz as it does in rock ‘n’ roll. These sounds are as popular today as evern, and Lounge Lizard perfectly recreates the sound and nuance of these classic instruments, as well as the effects they often were often paired with.

COMBO ORGAN MODEL F



A spot-on recreation of the classic Farfisa™ transistor combo organ. Great for 60s rock, surf rock, and more!

COMBO ORGAN MODEL V



A recreation of the classic Vox Continental™ transistor combo organ. Great for 60s rock, surf rock, and more! (Especially the famous organ part from The Doors' Light My Fire.)

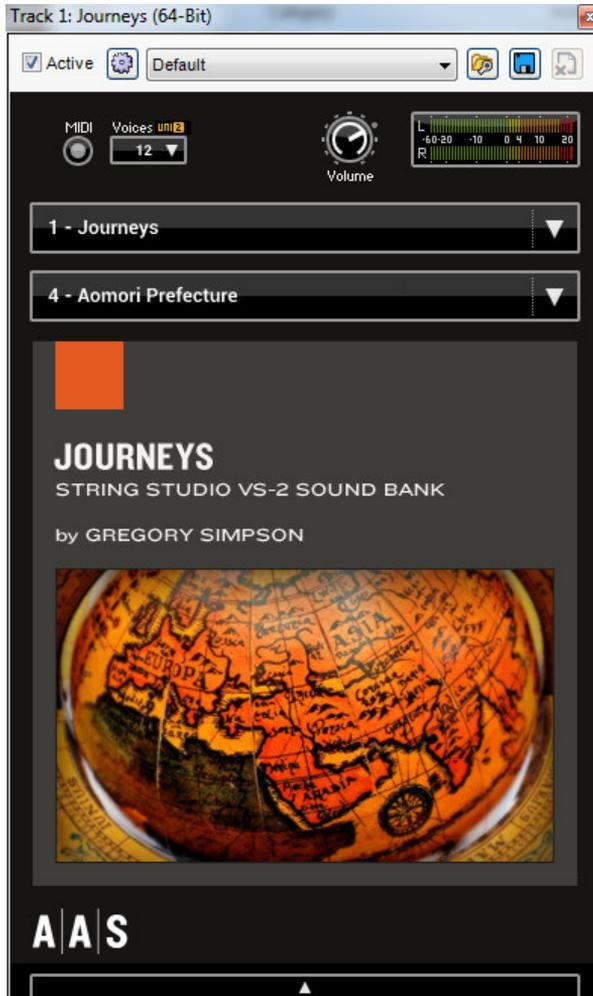
NEW MIXCRAFT 7 VIRTUAL INSTRUMENTS

RENEGADE



Renegade combines the warm and organic sound of vintage analog synths with the sharpness, toughness, and precision of modern digital synths. With a Supersaw oscillator, vintage analog filters, and robust digital filters, Renegade provides tough, well defined lead sounds, fat basses, and juicy organic analog sounds. The perfect synth for aggressive Trance, Dance, Drum and Bass, Breakbeat, Electro, and more.

JOURNEYS



With A|A|S String Studio VS-2's sound engine running "under the hood", Journeys is master sound designer Gregory Simpson's endeavor on sounds that evoke the essence of other times, places, or cultures. Indeed, this collection will get you travelling from

the ancient centuries to modern times, from Asia to Africa, and everything in between. Truly inspiring and totally unique!

MIXCRAFT PRO STUDIO 7 ADDITIONAL INSTRUMENTS

Mixcraft Pro Studio 7 adds the following instruments.

ME80 VINTAGE ANALOG SYNTHESIZER



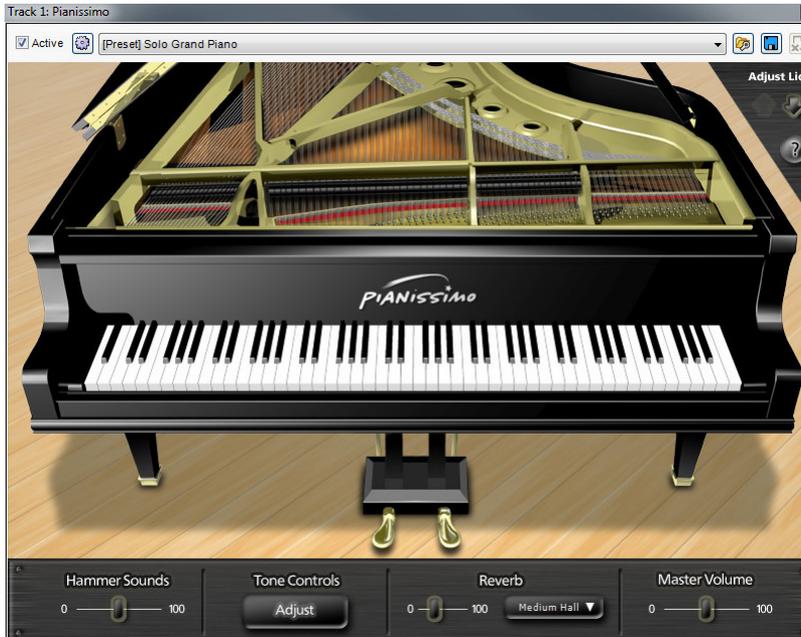
An incredibly realistic recreation of the Yamaha CS80 analog synthesizer, among the most powerful and coveted analog synthesizers ever made. This amazing recreation supports polyphonic aftertouch (just like the original) and has the same rich creamy tone as the original.

MEMORYMOON ANALOG SYNTHESIZER



No synthesizer in history has ever sounded more massive than the legendary Moog Memorymoog, and Memorymoon perfectly captures the enormous analog sound of the classic original. Loaded with presets and knobs, this three-oscillator polyphonic powerhouse will blow you away.

ACOUSTICA PIANISSIMO VIRTUAL GRAND PIANO



High quality, award-winning grand piano featuring 250MB of Steinway Model D piano samples combined with powerful piano modeling technology.

GLASS VIPER



Expanding on classic 80s and 90s digital synths such as the Yamaha DX7 and Roland D-50, Glass Viper features unique waveform shaping, offering a deep and natural sense of movement. Going beyond analog simulation into a truly organic sound, Glass Viper's tones span simple old synths, grungy filthy basses, delicate pianos, strange unnatural film effects, and much more. Glass Viper is a new addition to Mixcraft Pro Studio 7.

ME80 VERSION 2



Also new in Mixcraft Pro Studio 7 is ME80 Version 2, a fantastic update of the ME80 virtual analog polysynth. Now with 64- and 32-bit modes, a gorgeous new updated user interface, and a whole new sound engine, ME80 Version 2 is simply the most lush and realistic CS80 emulator available anywhere!

(Because ME-80 Version 1 user patches are not compatible, both versions are included with Mixcraft Pro Studio 7 to maintain compatibility.)

ALPHA SAMPLER

New for Mixcraft 7 is Alpha Sampler, an easy-to-use basic sampler that's fast and fun. It's so easy, it almost doesn't need any instructions; simply drag an audio clip into the sample display window and play! Alpha Sampler lets you load one sound that can be played up and down the keyboard, but it's polyphonic, so you can play as many notes as you like. Alpha Sampler is included with all versions of Mixcraft.



There are several ways to load a sound into Alpha Sampler:

- ◆ Press the *Load Sound* button in the Sample Display window. This opens a standard dialog box which can be navigated to any sound. Select the sound, then press the Open button to load in the sound. Mixcraft 7 automatically saves sounds loaded into Alpha Sampler into the current song project folder.
- ◆ Drag and drop any audio clip from Mixcraft's clip Library (click the *Library* tab at the bottom of the Track View Window to select and preview clips) or directly from the Track View window. Audio clips dragged in from the Track View window retain their start and end points as set in the Track View window, allowing easy editing of the sample's start and end points.
- ◆ Export a selected audio waveform region from the Sound Tab by selecting a region, clicking the *Copy Selection To* button in the Sound Tab toolbar and choosing Alpha Sampler. (see pg. 76, "[Copy Selection To> Alpha Sampler](#)")

- ◆ Add an entire clip to Alpha Sampler by right-clicking and selecting *Copy To Alpha Sampler*.



SAMPLE DISPLAY WINDOW

Load Sound. Opens the dialog box letting you select a sample to load into Alpha Sampler. Since Alpha Sampler can only have one sound loaded at a time, newly loaded sounds will erase previously loaded sounds. The display directly beneath the *Load Sound* displays the file name of the currently loaded sound.

VOLUME ENVELOPE



This is a simple attack/release envelope generator affecting the sample's volume.

Attack. Regulates the onset of a sound; at zero, the sound begins immediately, as the attack setting is increased, the sound takes longer to reach maximum volume.

Release. Affects the volume of the sample after the key is released. Set at zero, the sample will stop as soon as the key is released. As the release setting is increased, the sample fades away gradually. Higher settings increase the length of time.

While we're talking about volume, we should mention that samples loaded into Alpha Sampler are velocity-sensitive. In other words, play the keyboard softly and samples will play quietly. Conversely, playing hard will cause samples to play loudly.

PITCH



Fine Tune. Allows adjustment of the sample's pitch + or - 100 cents. You can quickly restore the *Fine Tune* control to zero by double-clicking the knob.

Rubber. A fun and unique feature especially suited to drum loops or snippets of entire mixes. When set to the middle position, the *Rubber* effect is off. Turning the knob to the left of center will make the sample begin at a high speed and pitch, then slow down as it plays. Turning the *Rubber* knob to the right of center position has the opposite effect: samples will start at a low pitch and get faster (and higher) as they play.

FILTER



If you've ever played with filter controls on an analog synthesizer, this should be familiar; Alpha Sampler's filter is a modeled classic lowpass filter.

Cutoff. Sets the lowpass frequency of the filter. In other words, all frequencies beneath the cutoff knob setting are allowed to pass through, but frequencies above it are blocked. (Hence the name: low pass... get it?)

Resonance. Emphasizes frequencies close to the cutoff frequency. The higher the setting of the *Resonance* knob, the greater the emphasis, resulting in the familiar "ringing" and (when the cutoff is modulated as described below), "wah-wah" sounds.

MOD WHEEL



Mod Wheel. Consists of a low-frequency oscillator (LFO) capable of controlling Alpha Sampler's pitch or filter cutoff frequency, resulting in vibrato, wah wah effects, and more. One good way to think of a modulation LFO is as a “third hand” to automatically turn controls up and down.

The amount of modulation can be altered by using your keyboard controller's mod wheel (or any other physical controller set to transmit MIDI controller #1).

Speed. Adjusts the rate of the LFO.

Filter and Pitch Buttons. Selects the modulation destinations. Pressing *Filter* causes the LFO to modulate the cutoff frequency of the filter. Pressing *Pitch* causes the LFO to modulate the pitch. Both can be selected simultaneously if you really want to get crazy!

Triangle/Square Slide Switch. Selects between triangle and square LFO waves. The triangle waveform cycles up and down in a smooth and uniform fashion, making it good for subtle vibrato or, at extreme settings, swooping sirens or extreme wah effects (when modulating the filter). The square waveform jumps back and forth abruptly, making it good for sirens with alternating pitch, or when used with the *Tempo Sync* switch, “synchro-sonic” type rhythmic effects.

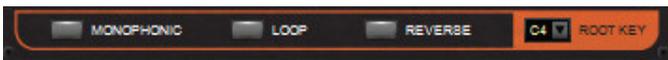
Tempo Sync. Syncs the LFO rate to the tempo of the current project and causes the speed knob to switch between musically relevant values, making the LFO modulate in “lock-step” with the beat. The synced note values range from a whole-note to sixteenth-notes.

OUTPUT

The Output section contains a big stereo level meter. Like any meter, you'll want to make sure this isn't slamming into the red, otherwise you'll get nasty digital clipping.



Volume. Adjusts the master volume level of Alpha Sampler. Its middle setting represents unity, i.e. Alpha Sampler isn't adding or subtracting gain, but turning the master volume up can add some juice to very quiet samples, and dialing back will prevent super loud samples from distorting - this can be especially helpful when the filter's resonance control is cranked up.



Lo-Fi. Processes Alpha Sampler's output down to an 8 kHz sample rate and eight-bit word depth for a crunchy, aggressive sound similar to classic vintage 8-bit hardware samplers and drum machines.

Though it's not exactly in the Output section, Alpha Sampler also includes MIDI indicator light that illuminates to indicate that Alpha Sampler is receiving MIDI data.

ADDITIONAL FUNCTIONS

Monophonic. Limits Alpha Sampler to playing one note at a time. Mono mode is "last-note priority", i.e., If a new note is played while another is held, the most recently struck note will sound and cut off the last one. New notes will always retrigger the sample from its beginning.

Loop. Causes the sample to repeatedly loop back to its beginning if a key is held longer than the entire duration of the sample.

Reverse. Plays the sample backward, but be careful as you might invoke the spirits of sneaky classic rock bands.

Root Key. Adjusts the base note of the sample – think of this as the “home base” key where the sample plays at standard pitch (i.e. not transposed). Adjusting the root key is useful for transposing the range of samples.

OMNI SAMPLER



Omni Sampler expands Alpha Sampler simple drag-and-drop concept to a familiar 16-pad drum machine grid sampler with easily switchable “grids,” allowing up to 128 simultaneously loaded samples. Better still, Omni Sampler features independent pitch, filter, and envelope settings for each pad location.

Omni Sampler is included with Mixcraft 7 (Standard Edition) and Mixcraft Pro Studio. It’s not included with Mixcraft Home Studio, but it’s a good reason to upgrade!

SAMPLE PAD GRID

Omni Sampler can have up to 128 simultaneously loaded samples, with 16 sample pads viewable at any time. The matrix grid on the left allows quick selection of which 16 sample pads are currently viewable in the 4x4 pad grid. The currently selected 4x4 pad grid is represented in the pad bank selector either by yellow squares indicating pads with samples currently loaded, or gray pads indicating visible pads with no sample currently loaded. To change which pads are currently visible in the 4x4 pad grid, click within the pad bank selector. Keep in mind that sample pads always have a one-to-one relationship with MIDI notes, and the MIDI note number of each pad is fixed, starting at C-1 for the top left pad, going up to G9 for the bottom right pad.

If you'd like to play the same sample on separate pads, simply re-load the sample at a different pad location. Be aware that Mixcraft 7 automatically saves sounds loaded into Omni Sampler into the current song project folder, so you don't need to worry about sounds getting "lost" if you move or archive the project folder.

PAD SELECTION

Pad locations can be selected for loading or deleting samples, or sound editing by clicking on them. Empty or occupied pad locations will highlight in light gray when selected. Multiple pads may be selected by clicking on them while holding the CTRL key, or by clicking and dragging a rectangle over the desired pads. (Be sure to initially click either outside the grid area or on one of the lines dividing the grid, not an actual pad.) You can even select pads by dragging a rectangle over sections of the pad bank selector on the left.

LOADING SOUNDS INTO OMNI SAMPLER

There are a couple of ways to load sounds in Omni Sampler:

- ◆ **Method 1:** Select the destination pad in the 4x4 sample grid by clicking on it. The pad will turn gray. Press the "Load Sound" button in the Sample Display window. This opens a standard dialog box which can be navigated to any sound. Select the sound, then press the Open button to load.
- ◆ **Method 2:** Drag and drop any audio clip from Mixcraft's clip Library (click the Library tab at the bottom of the Track View Window to select and preview clips) or from the Track View window directly to a pad in the 4x4 grid.
- ◆ **Method 3:** Drag and drop any audio clip from Windows File Explorer to a pad in the 4x4 grid.

Audio clips dragged in from the Track View window will retain their start and end points as set in the Track View window, allowing easy editing of the sample's start and end points. This is handy if you'd like to use just a portion of one of Mixcraft's included loops or sound effects - first, drag the clip to an open audio track in the Track View window, adjust the start and end points, *then* drag the clip into Omni Sampler.

Samples loaded into Omni Sampler are velocity-sensitive. In other words, play the keyboard softly and samples will play quietly. Conversely, playing hard will cause samples to play loudly.

PERFORMANCE CONTROLS

Omni Sampler's performance controls include Pitch, Filter, Envelope, and Output settings and are set separately for *each pad individually* (it's easy to remember because "pad specific" controls have a gray background).



PITCH

Fine Tune. Allows adjustment of the sample's pitch + or - 100 cents. You can quickly restore the *Fine Tune* control to zero by double-clicking the knob.

Rubber. This is a fun and unique feature especially suited to drum loops or snippets of entire mixes. When set to the middle position, the *Rubber* effect is off. Turning the knob to the left of center will make the sample begin at a high speed and pitch then slow down as it plays. Turning the *Rubber* knob to the right of center position has the opposite effect: samples will start at a low pitch and get faster (and higher) as they play.

Transpose. Changes the pitch of samples in half-step increments with a maximum range of two octaves, up or down. Click the up/down arrows to move pitch in half-step increments, or click on the number to directly type a number value (add a "-" before the number for downward transposition). After entering a number value, click again.

FILTER

Omni Sampler's filter is a modeled classic low pass filter.

Cutoff. Sets the lowpass frequency of the filter. In other words, all frequencies beneath the cutoff knob setting are allowed to pass through, but frequencies above it are blocked.

Resonance. Emphasizes frequencies close to the cutoff frequency. The higher the setting of the Resonance knob, the greater the emphasis, resulting in the familiar “ringing” and (when the cutoff is modulated as described below), “wah-wah” sounds.

VOLUME ENVELOPE

This is a simple attack/release envelope generator affecting the sample’s volume.

Attack. Regulates the onset of a sound; at zero, the sound begins immediately, as the attack setting is increased, the sound takes longer to reach maximum volume.

Release. Affects the volume of the sample after the key is released. Set at zero, the sample will stop as soon as the key is released. As the release setting is increased, the sample fades away gradually. Higher settings increase the length of time.

OUTPUT

The OUTPUT section contains a big stereo level meter. Like any meter, you’ll want to make sure this isn’t slamming into the red, otherwise you’ll get nasty digital clipping.

Volume. Adjusts level of each pad individually, letting you obtain an optimum mix. Its middle setting represents unity; Omni Sampler won’t add or subtract gain, but turning the master volume up make quiet samples louder, and dialing back will prevent super loud samples from distorting, which can be helpful when the filter’s resonance control is cranked up.

You’ll notice a few extra buttons beneath the Sample Display window as well. Like the other performance parameters, these are individually settable for each sample pad. They are:

◆ **Loop**

Makes the sample indefinitely loop back to its beginning if a key is held longer than the entire duration of the sample.

◆ **Reverse**

Plays the sample backward in case you’re doing a cover of Paul Revere.

◆ **Lo-Fi**

Processes samples down to an 8 kHz sample rate and eight-bit word depth for a crunchy, aggressive sound similar to classic vintage 8-bit hardware samplers and drum machines.

MASTER SECTION

The master section’s controls affect *all pads simultaneously* – these controls have a yellow background.



GLOBAL

The *Global* button makes the Performance Controls (*Pitch*, *Filter*, *Envelope*, *Output*, *Loop*, *Reverse*, and *Lo-Fi*) affect all currently loaded sounds simultaneously. This is handy when multiple loops or drum sounds are playing and you want to modify everything at once (such as a filter sweep on everything). *Global* mode is toggled on and off by clicking the button; when global mode is active, the Performance Controls background turns yellow. When Global mode is switched off, the background returns to gray and the Performance Controls become independently settable for individual pad locations.

If you've already set Performance Control parameters for individual pads prior to engaging *Global* mode, the settings for that parameter will remain *until that parameter is adjusted* at which point it will affect all pads equally. For example, let's say filter cutoff is set to differing amounts for multiple pads, then the *Global* is engaged. The individual filter cutoff settings for each pad will remain *until the cutoff knob is adjusted*. At that point, all pads will jump to the current setting. Keep in mind that this becomes the "current" knob position – changed knob positions won't return to their old values if the *Global* button is disengaged.

MODULATION

The Modulation section consists of a low-frequency oscillator (LFO) capable of controlling Omni Sampler's pitch or filter cutoff frequency, resulting in vibrato, wah wah effects, and more. One good way to think of a modulation LFO is as a "third hand" to automatically turn controls up and down. Modulation amount is controlled using your keyboard controller's mod wheel (or any other physical controller set to transmit MIDI controller #1).

Speed. Adjusts the rate of the LFO.

Filter and Pitch Buttons. These buttons select the modulation destination. Pressing Filter causes the LFO to modulate the cutoff frequency of the filter. Pressing Pitch causes the LFO to modulate the pitch. Both can be selected simultaneously.

Triangle/Square Wave Switch. Toggle between triangle and square LFO waves. The triangle waveform cycles up and down in a smooth and uniform fashion, making it a good choice for subtle vibrato or, at extreme settings, swooping sirens or extreme wah effects (when modulating the filter). The square waveform jumps back and forth abruptly, good for sirens with alternating pitch, or when used with the TEMPO SYNC switch, “synchro-sonic” type rhythmic effects.

Tempo Sync. When the the *Tempo Sync* button is on, the LFO rate is synced to the tempo of the current project and, now, the speed knob snaps to musically relevant values, making the LFO modulate in lock-step with the beat. The synced note values range from a whole note to sixteenth-notes.

Master Volume. Adjusts the volume level of all samples at once. Its middle setting represents unity. The digital meter indicates relative level; for optimum gain, set it so that it stays strongly in the green and doesn't go into the red often.

MIDI. Though it's not located in the yellow master section, you'll see a MIDI light to the left of the Sample Display window. This indicates incoming MIDI data, and can be helpful in those inevitable, “why the heck isn't this making any noise?” situations.

WORKING WITH SAMPLES IN OMNI SAMPLER

You can play and record with Omni Sampler by simply playing pads or keys on your MIDI controller. Each sample pad also has three buttons across the top:

◆ **Play Button**

This is a handy way to preview a pad's current sample. It will play the sample as long as it's held (or until the sample runs out).

◆ **M [Mute] Button**

This toggles muting for the selected pad. It's handy if you've sequenced a lot MIDI elements and would like to temporarily remove a sample.

◆ **S [Solo] Button**

Opposite of muting above; it toggles all other pads off when pressed. Multiple pads can be soloed as well. If you're having a “why won't this thing make any noise?!?” moment, make sure none of the solo buttons are pressed.

Move a sample pad. To move a sample from one pad to another, simply click and drag it.

Duplicating a sample pad. To duplicate a sample to a different pad right-click and choose *Duplicate Selected*. A copy of the sample will appear at the next available pad. You can also copy to another pad by option-dragging the selected sample pad.

Renaming a sample pad

To rename a sample pad, right-click and choose *Rename*. The current name will be highlighted; type a new name and hit the return key, or click anywhere outside the current pad.

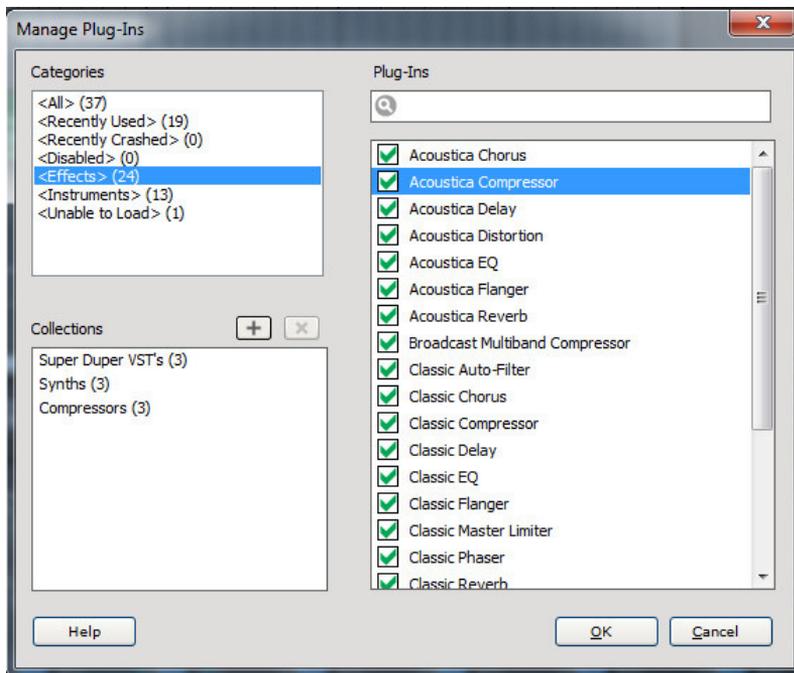
Deleting a sample pad. To delete a sample, highlight a pad, right-click and choose *Delete Selected*, then click *Yes* at the next dialog box. Don't worry, this won't actually erase the sample from your hard drive, it just removes it from the Omni Sampler pad location.

PLUG-IN MANAGEMENT

Mixcraft lets you enable and disable virtual instruments and plug-ins, as well group and sort plug-ins when loading using *Collections*. These are handy if you have a large number of plug-ins; they can be used to create groups for most frequently used plug-ins, organize specific types of plug-ins, etc.

To access the *Plug-In Management* window, click on the Mixcraft *File* menu at the top left and select *Plug-In Management*. You can also access the *Plug-In Management* Window via *File>Preferences>Plug-Ins>Manage Plug-Ins*.

The *Plug-Ins* window on the right displays built-in and third-party installed virtual instruments and effects plug-ins. The *Categories* window filters which plug-ins are displayed. The green checkboxes next to each plug-in enable or disable individual plug-ins. (For instance, you might want to disable older versions, plug-ins that are causing issues, or plug-ins that you're not currently using.)



CREATING PLUG-IN COLLECTIONS

To create a plug-in collection, click on the Mixcraft *File* menu at the top left and select *Plug-In Management*. Choose an effect category to be displayed in the *Plug-Ins* list.

To create a new collection, click the + sign button, then type a name for the collection and hit return. Now select a category above, and drag the effects you'd like in your newly created collection onto the collection name in the *Collections* list.

You can drag as many plug-ins as you'd like into a collection. You can also mix virtual instrument and effect plug-ins, but only the appropriate type of plug-ins will display when viewing and loading plug-ins into a track. In other words, if you've clicked a track's keyboard icon to load a virtual instrument, only virtual instruments within a collection will be displayed (or vice versa). You can place the same effect or instrument into as many collections as desired.

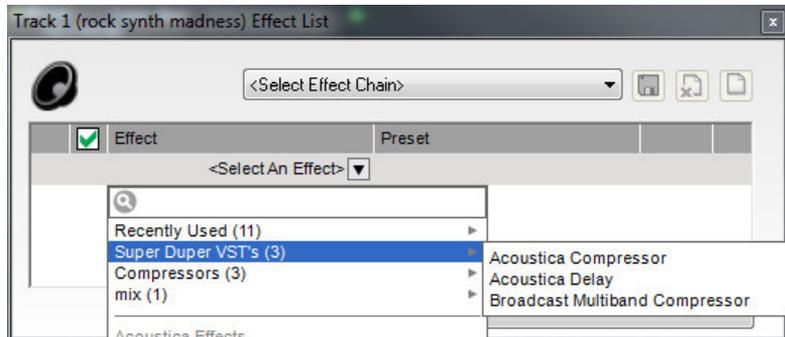
DELETING PLUG-IN COLLECTIONS

To delete a collection, simply highlight it and click the X button.

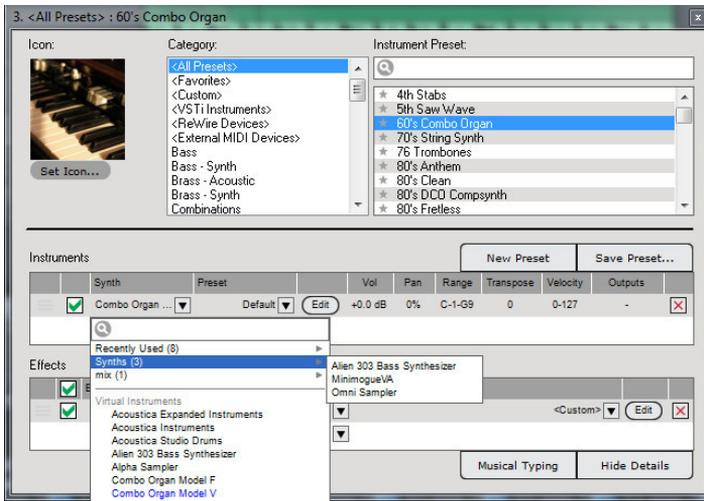
SEARCHING FOR PLUG-INS

If you have a large number of plug-ins, you can use the search field next to the magnifying glass icon to find effects by typing in the name of a particular plug-in (or part of the name).

USING PLUG-IN COLLECTIONS



To access an audio channel's plug-in collections, click the track's *fx* button, then click *<Select An Effect>*. Collections will appear at the top of the plug-ins list, and hovering over the collection name will display the plug-in names; click on a plug-in's name to open it.



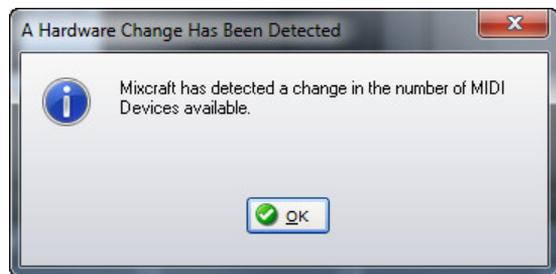
USING NATIVELY SUPPORTED HARDWARE CONTROLLERS

Mixcraft 7 features native support for the Mackie Control Universal (formerly known as “Logic Control”), Frontier Design Group Tranzport, and Novation Launchpad, as well as Acoustica’s own Mixcraft Remote mobile app for smart phones and tablets (see pg. 272, “[Configuring the Mixcraft Remote Mobile App](#)”). This means Mixcraft already “knows” how to interact with the knobs, sliders, and switches for these hardware controllers. Once they’re plugged in and enabled, no further assignment or MIDI mapping is needed. Hooray!

CONFIGURING NATIVELY SUPPORTED USB AND MIDI CONTROLLERS

No special drivers are necessary to set up a Mackie Control Universal, Tranzport, Launchpad, or the Mixcraft Remote mobile app to work in Mixcraft. Here’s how to add them.

- ◆ Plug it in. If you’re using a newer Mackie Control Universal, Tranzport, or Launchpad, plug a USB cable into the control device on one side, and an open USB port on the other. If you’re using an older Mackie Control with MIDI ports, plug these into either a dedicated MIDI port on a USB MIDI interface, or use the MIDI in/out jacks on your audio interface.
- ◆ Upon plugging in the controller device, Mixcraft will display the following window. This acknowledges that you’ve plugged in a new piece of hardware. Click *OK*.



- ◆ In the upper left corner, click *File>Preferences*, then select *Control Surfaces*. In the Type column at the left, click on Add New. When you see a the device in the drop-down menu, click to select it.

◆ If the device is USB, select it in the *Input* and *Output* columns to the right. If the device is MIDI, select the name of the MIDI interface in the *Input* and *Output* columns. If you're using the MIDI I/O on your audio interface, select it by name in the *Input* and *Output* columns.

Note: If you're using an older Mackie Control and the large fluorescent display doesn't work properly, please choose Logic Control in the Type column; otherwise select Mackie Control.

◆ Click *OK* at the bottom of the *Preferences* window and you're set!

USING MACKIE CONTROL UNIVERSAL WITH MIXCRAFT

The Mackie Control Universal (aka MCU) is a full-featured mixer-style control surface with channel strip and transport controls, a jog wheel, and numerous other controls. Because it's designed to work with numerous DAW programs, all of its controls may not apply to Mixcraft, but we've implemented as many controls as possible in order to best take advantage of MCU's control interface. Below is a list of the currently implemented controls:

MCU Control	Function
Rewind Transport Control	moves playhead back by 4x snap value
Fast-forward transport control	moves playhead forward by 4x snap value
Stop transport control	stops playback or recording
Play transport control	initiates playback
Record transport control	initiates recording
Master fader	sets master volume
Jog wheel	moves playhead forward or back by snap value
Flip button	reverses V-Pot pan and vol fader controls
Channel fader	sets track volume
V-Pot rotate (channel strip)	above channel strips, sets pan
V-Pot push (channel strip)	resets panning to center
Rec/Ready (channel strip)	arms channel recording
Solo (channel strip)	solos the track
Mute (channel strip)	mutes the track

Select (channel strip)	selects the track
Bank Left/Right (fader banks)	shifts faders controlling onscreen mixer by eight channels
Channel Left/Right (fader banks)	shifts faders controlling onscreen mixer by one channel
SMPTE/Beats	toggles Time/Beat display mode
Click	toggles metronome on/off
Undo	cancels last action
Redo	restores last undo action
Save	saves the current project
Touch	enables automation Touch mode
Cycle	toggles loop mode on/off
Arrow up/down	selects tracks up or down
Arrow left/right	moves position caret according to <i>Snap To</i> setting
Arrow left/right w/ <i>Zoom</i> engaged	increases/decreases horizontal view size

MACKIE CONTROL DISPLAY



The Mackie Control display shows the following information for each of the current tracks:

- ◆ Track panning percentage, left or right
- ◆ Track number
- ◆ Track name (abbreviated to four characters)

OVERWRITE AND TOUCH FADER AUTOMATION MODES

When used in conjunction with a Mackie Control Universal, automation data can be written in real time by moving the faders. There are two write modes regulating how Mixcraft interprets fader movements and position. These can be set either in *Mix>Automation Recording Mode* in the Main Window menus, or on the MCU in the *Automation* section with the *Write* and *Touch* buttons.

OVERWRITE MODE

When a lane's automation is armed and recording, Mixcraft continuously writes the current fader or V-Pot position for the duration of recording. As a fader or V-Pot is moved during recording, the current position is what gets written to Mixcraft. Bear in mind that if you have automation already written, Mixcraft erases previous automation and overwrites as it moves along.

TOUCH MODE

Mackie Control Universal and other MCU-compatible devices feature touch-sensitive faders - they literally know if you're touching them. This gives Mixcraft the ability to write automation *only while a fader is being touched*. When an automation lane is armed and recording, Mixcraft only writes (or overwrites) automation if a finger is touching the fader. Mixcraft immediately stops writing as soon as the finger is released. Next to all the faders automatically scurrying up and down on power-up, this is the MCU's most impressive party trick!

USING FRONTIER DESIGN GROUP TRANZPORT

Tranzport is a compact, wireless remote control surface featuring transport controls, a jog wheel, and other button controls.

Here's a list of Tranzport's functions when used with Mixcraft:

Tranzport Control	Function
Rewind Transport Control	moves playhead back by 4x snap value
Fast-forward transport control	moves playhead forward by 4x snap value
Stop transport control	stops playback or recording
Play transport control	initiates playback

Record transport control	initiates recording
Jog wheel	moves playhead forward or back by snap value
Jog wheel+Shift button	adjusts volume of currently selected track
Track L/R	increments track selection up and down
Rec (small black button)	arms recording for currently selected track
Mute (channel strip)	mutes currently selected track
Solo (channel strip)	soloes currently selected track
Undo	cancels last action
Punch	toggles recording punch in/out
Loop	toggles loop mode on/off
Markers/ Prev	moves playhead back to next earliest marker
Markers/ Add	inserts a marker at current playhead location
Markers/ Next	advances playhead to next marker

TRANZPORT LCD DISPLAY

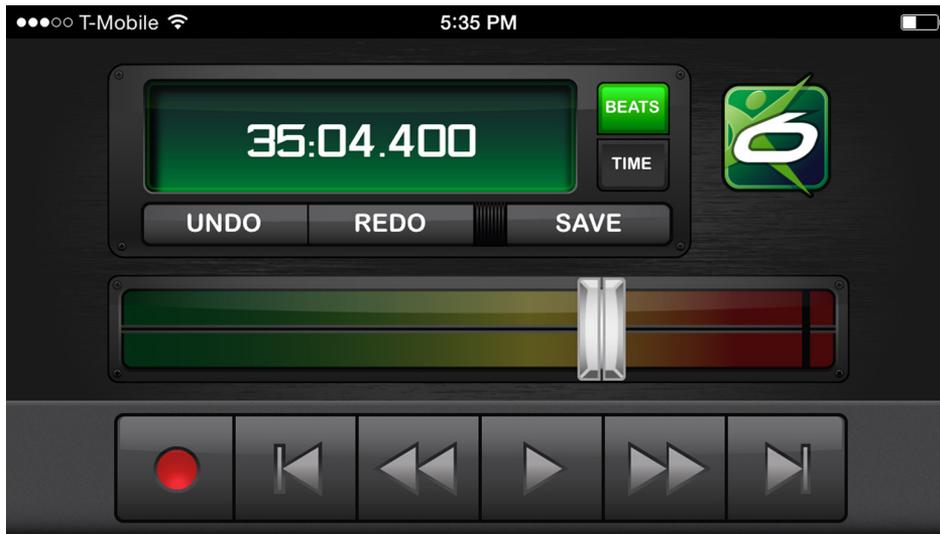


Tranzport's display shows the following:

- ◆ Track name (abbreviated to a maximum of six characters)
- ◆ Track number
- ◆ Fader volume level

Current playhead position (displayed in time or beats depending on current *Time/Beats* setting).

CONFIGURING THE MIXCRAFT REMOTE MOBILE APP



Mixcraft Remote is a free mobile app for iOS and Android that lets you control the transport and other functions wirelessly using an iPhone, iPad, or Android phones and tablets. Android versions are downloadable via Google Play Store; iOS versions are downloadable via the Apple App store. Here's how to use it.

- ◆ Download and install the Mixcraft Remote mobile app in your mobile device.
- ◆ In your computer's upper left corner, click *File>Preferences*, then select *Control Surfaces*. In the *Type* column at the left, click on *Add New*. Select *Mixcraft Remote* in the dropdown menu. (Unlike other external hardware controllers, you won't need to set the *Input* and *Output* drop-down menus.)
- ◆ Click *OK* at the bottom of the Preferences window and you're all set!

Launch Mixcraft Remote on the mobile device; it will automatically locate and pair to your computer.

USING THE MIXCRAFT REMOTE MOBILE APP

The following functions are controllable with the Mixcraft Remote app.

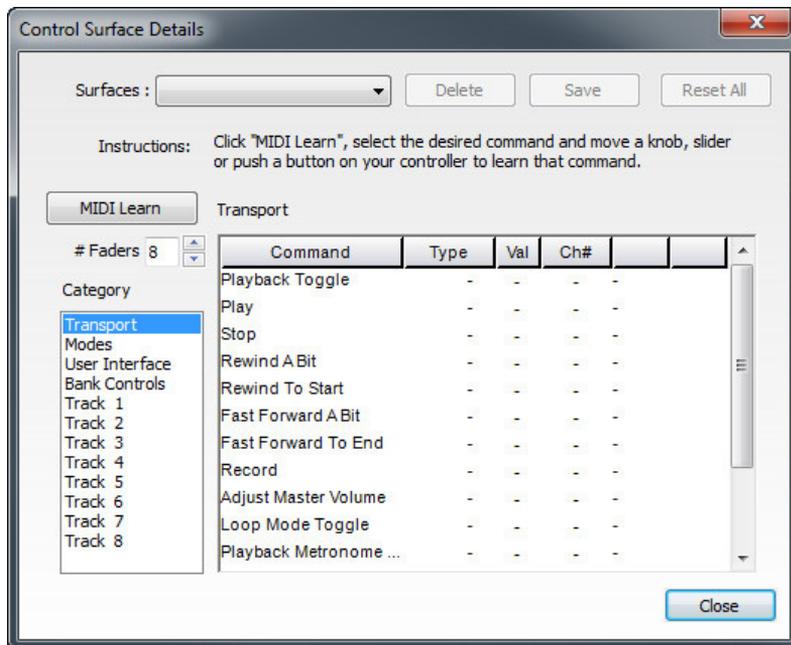
Mixcraft Remote Control	Function
Record transport Control	initiates recording
Return to beginning control	moves playhead to start of project

Rewind transport control	moves playhead back by 4x snap value
Play transport control	initiates playback
Fast-forward transport control	moves playhead forward by 4x snap value
Fast-forward to end transport control	moves playhead to end of project
Undo	cancels last action
Redo	restores last action
Save	saves the current project
Master volume slider	adjusts project volume
Song position	touch the <i>Beats/Time</i> display, then slide the pop-up bar to move the playhead to any position in the current project

USING GENERIC MIDI CONTROLLERS AND CONTROL SURFACES

A MIDI keyboard or other MIDI device with knobs, sliders, or buttons can be set up to control Mixcraft functions such as starting and stopping playback, record, fast forward, track arming, etc.

To configure a control surface, select *Mix>MIDI Control Surfaces...* from the Main Window menus.



MIDI LEARN

Here you'll be able to use a MIDI controller's buttons, knobs, sliders, etc. to control TONS functions and controls in Mixcraft. This is a super powerful and fun feature!

◆ Click the *MIDI Learn* button. Alternatively, you can click the *MIDI* button in the Main Window top toolbar.



- ◆ Click on the command to learn. Command categories can be chosen using the *Category* menu on the left side.
- ◆ Move the knob, button, slider or push a key on your MIDI keyboard/controller that you wish to trigger the command.
- ◆ If you wish to learn another command, select it.

Alternatively, the Mixcraft interface will highlight buttons and sliders in purple. Simply click on a button or control, then move the MIDI knob to assign it.



Once you've finished assigning controllers, click the *Stop Learning* button. (Incidentally, this disproves the theory that you're never too old to stop learning.)

SAVING AND LOADING CONTROL SURFACES ASSIGNMENTS

Control surfaces assignments can be saved and loaded if you have multiple keyboards or want to reuse your settings for various projects. To save the current control surface assignments, click the *Save* button. To delete the current control surface assignments, click the *Delete* button.

Fields	Description
Command	This is the command being assigned or mapped
Type	Can be a CC, note-on, or note-off message
Val	The number of the CC or note-on
Ch#	MIDI channel of controller
Any (-), Dn, Up	This field determines what type of CC data to respond to. Any or (-) means it could be anything. "Dn" means that a CC button has been pushed down. "Up" means that a CC button has been released.
X	Removes the current controller assignment

These files will be stored in %programdata%\Acoustica\Mixcraft\control-surfaces\.

To load a previous control surface, click the *Surfaces* drop-down menu and choose one.

CONTROL SURFACE COMMANDS LIST

The following commands can be assigned to MIDI control:

MAIN TRANSPORT CONTROLS

- ◆ Playback Toggle
- ◆ Play
- ◆ Stop
- ◆ Rewind A Bit
- ◆ Rewind To Start
- ◆ Fast Forward A Bit
- ◆ Fast Forward To End
- ◆ Record
- ◆ Adjust Master Volume
- ◆ Loop Mode Toggle
- ◆ Playback Metronome Toggle
- ◆ Recording Metronome Toggle
- ◆ Count In Metronome Toggle
- ◆ Punch In/Out Toggle
- ◆ Set Punch In To Current Position
- ◆ Set Punch Out To Current Position
- ◆ Set Loop Start To Current Position
- ◆ Set Loop End To Current Position
- ◆ Add Marker At Current Position
- ◆ Play From Previous Marker
- ◆ Play From Next Marker

SELECTED TRACK CONTROLS

- ◆ Select Previous Track
- ◆ Select Next Track
- ◆ Set Selected Track Volume
- ◆ Set Selected Track Pan
- ◆ Mute/Unmute Selected Track
- ◆ Solo/Unsolo Selected Track
- ◆ Arm/Disarm Selected Track
- ◆ Monitoring For Selected Track Toggle
- ◆ Guitar Tuner For Selected Track Toggle
- ◆ EQ High For Selected Track
- ◆ EQ Mid For Selected Track

- ◆ EQ Low For Selected Track
- ◆ Send Adjustment For Selected Track

OTHER

- ◆ Undo
- ◆ Redo
- ◆ Save
- ◆ Insert Virtual Instrument Track
- ◆ Insert Audio Track

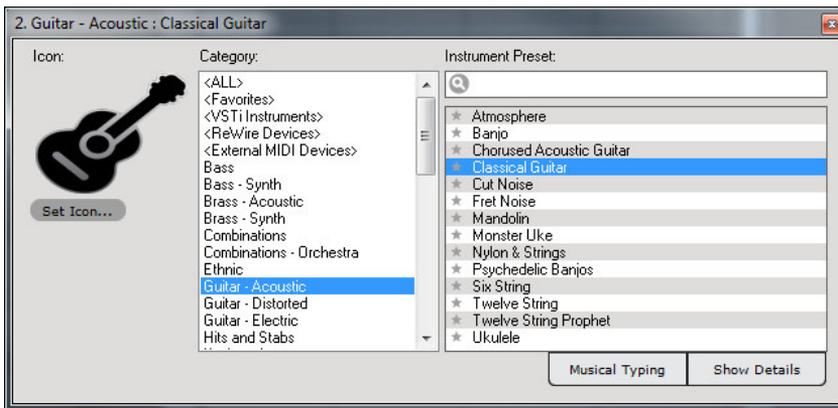
MUSICAL TYPING KEYBOARD (MTK)

If you do not have a MIDI keyboard attached to your computer, you can use your computer's standard QWERTY keyboard to play notes.



OPENING THE MTK

Select *View>Musical Typing*, click the *Musical Typing...* button in the *Instrument Preset* window, or use the keyboard shortcut CTRL+ALT+K.



PLAYING AND RECORDING NOTES

The MTK has a 17-note range (1 ½ octaves), playable via the computer's keyboard. Add a Virtual Instrument track and choose a preset. Press the keyboard buttons on the MTK to trigger notes. Press multiple keys to play chords. Press the SHIFT key to sustain notes. Adjust the default velocity by clicking the velocity adjust keys < or >. To bend pitch up or down, click the 1 or 2 keys while playing back notes. To adjust the modulation amount, click the keys 3 to 8 to choose from off to maximum modulation.

ADJUSTING THE PLAYABLE RANGE

The MTK may be transposed in steps or octaves. To transpose by an octave, press the Z or X keys. To transpose in half-steps, press the C or V keys. Alternatively, you can click on a note on the smaller keyboard on the bottom to set the start key of the playable range.

MUSICAL TYPING KEYBOARD SHORTCUTS

Keys	Function
A thru "	Mapped to playable notes (white keys)
Q thru {	Mapped to playable notes (black keys)
1, 2	Adjust the pitch bend
3 - 8	Adjust the modulation from "off" to "max"
SHIFT	Sustain the currently played notes, even if keys are released
Z, X	Transpose the playable range by +/- one octave
C, V	Tranpose the playable range by +/- one note.
<, >	Adjust the default velocity for new notes.

Need More Keys, Please!

Musical Typing functionality will depend upon your computer's keyboard. Many computer keyboards do not allow more than three keys to be pushed simultaneously.

Please keep in mind that the MTK is supplied as a way to make music and is not necessarily the best way to play a keyboard! The good news is that there are many affordable "piano keyboard" controllers on the market... if even those are beyond your price range, there are plenty of great deals to be found on ebay or Craigslist.

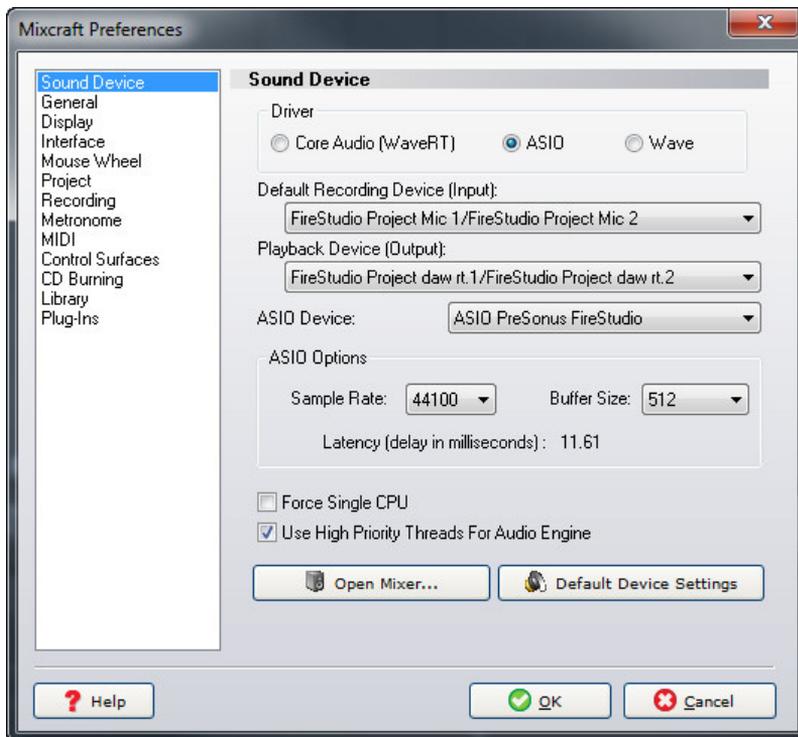
PREFERENCES

Preferences are options that are changed infrequently and allow you to customize how the software behaves. To open the Preferences, select *File>Preferences* from the Main Window menus, or click the gear button in the top toolbar. You can also access Preferences by pressing CTRL+ALT+P.



SOUND DEVICE

Choose settings for sound devices.



SETTINGS COMMON TO ALL SOUND DEVICES

◆ Driver

Select Wave, ASIO, or WaveRT audio drivers. This setting affects other options on this page. The ASIO option will be unavailable if no ASIO drivers are found. (*WaveRT mode is not available on Windows XP.*)

◆ **Force Single CPU**

This will force the sound engine to use a single CPU for mixing audio. This is only applicable to multiple-CPU machines, such as a dual-core or quad-core computer. Single-CPU computers will not offer this option. This option may offer better compatibility with older VST effects and virtual instruments.

◆ **Use High Priority Threads For Audio Engine**

This will cause all audio mixing sound engine threads to mix at a high system priority. By default, Mixcraft uses high priority.

◆ **Default Settings**

This button will reset the drivers and settings to defaults. This changes settings to the Wave driver to 44,100 Hz, stereo, 16-bit (8 buffers @ 16384 bytes).

◆ **Open Mixer...**

This opens the Windows or ASIO mixer control panel, allowing you to change some settings. This typically applies when using ASIO driver mode.

CORE AUDIO/WAVE RT-SPECIFIC SETTINGS

Settings when WaveRT mode is selected. WaveRT stands for “Wave Real Time” and is the preferred driver. Make sure you’ve downloaded the latest drivers for your sound device. Also, contact the sound device manufacturer to see if the drivers support WaveRT.

Note: WaveRT is not available when using Windows XP.)

◆ **Sample Rate**

Choose a sample rate supported by the device. Higher sample rates provide better audio quality but require more hard disk space and CPU resources.

◆ **Bit Depth**

Select the number of bits for one sample.

◆ **Latency**

Adjust the latency in milliseconds. Lower settings result in better performance - you’ll hear less “slapback” delay when recording with software monitoring, and Virtual Instruments will be more responsive when played live. The downside is that lower latency settings increase the potential for audio gapping or non-continuous audio (a.k.a. obnoxious crackling noises).

◆ **Exclusive Mode**

For Windows 7 and above, you have the option of running Mixcraft in *Exclusive Mode*. This will take over exclusive control of the sound device and allow super-low latency settings down to three milliseconds! (You’ll also be welcome at ritzy L.A. clubs and red carpet events.)

When using *Exclusive Mode*, other programs will not have access to the sound

***It’s All About
The Drivers***

Always make sure that you’ve downloaded the latest audio drivers for your sound device or audio system. Not only are audio hardware makers constantly improving driver performance, audio issues are frequently solved with a simple driver update, so head on over to the manufacturer’s website to check for updates!

device and will need to be restarted after Mixcraft is either shut down or out of *Exclusive Mode*.

ASIO-SPECIFIC PREFERENCES

These are the preference if ASIO mode is selected. ASIO is an alternative driver system that allows for lower latency and improved synchronization between playback and recording.

◆ **Default Input (Recording)**

Choose the default audio interface physical input to record audio from. Make sure the device is on and plugged in, otherwise it may not show up.

◆ **Default Output (Playback)**

Choose the default audio interface physical audio output. Make sure the device is on and plugged in, otherwise it may not show up.

◆ **ASIO Device**

Choose the default ASIO Device to record from. ASIO only allows for one device at a time.

◆ **Open Mixer...**

ASIO audio device drivers often have their own dedicated control panel hardware where audio settings are configured. The *Open Mixer...* button opens the ASIO device mixer control panel and allows you to select latency and other advanced settings.

WAVE-SPECIFIC PREFERENCES

Preferences when Wave mode is selected in the Sound Device Preferences. We only recommend using Wave mode if nothing else is available. (Sorry Wave mode, no hard feelings, ok?)

◆ **Default Input (Recording)**

Selects the default sound device from which to record audio. Make sure the device is on and plugged in, otherwise it may not show up.

◆ **Default Output (Playback)**

Selects the sound device from which to play audio. Make sure the device is on and plugged in, otherwise it may not show up.

◆ **Sample Rate**

Choose a sample rate for both recording and playback. The default CD-quality sample rate is 44.1 kHz. If your sound card (and hearing range!) supports it, Mixcraft supports sample rates up to 192 kHz.

◆ **Bit Depth**

This is the number of bits per sample. 16-bit is the default for CD quality. Mixcraft supports bit depths up to 24-bit for ultra high quality. Only use 8-bit if you have no other option. (8-bit audio is very noisy)

◆ **Number Of Buffers**

This is the number of audio buffers to pre-mix before starting playback. The number of buffers determines audio latency. More buffers result in higher latency. Fewer buffers result in lower latency but possible audio gapping.

◆ **Buffer Size**

The size of the buffer also determines audio latency. Larger buffers result in higher latency. Smaller buffers result in lower latency but can cause audio gapping. Buffer settings may require some trial-and-error to achieve the best balance of latency vs. performance.

◆ **Open Mixer...**

This button opens the Windows mixer, allowing configuration of inputs and recording levels for sound devices.

GENERAL

LANGUAGE

Choose a language to view Mixcraft in. You'll need to restart Mixcraft for newly selected languages to take effect.

PLAY EXPORTED FILES AFTER THEY'RE CREATED

After mixing to an audio file, this option launches the associated player and begins playback.

ASK ME PERIODICALLY TO CHECK FOR NEW SOFTWARE UPDATES

Allows Mixcraft to check online for new versions.

TEMPORARY FILES DIRECTORY

Choose a directory to store any temporary files used by Mixcraft, such as peak data, beat map data and other data Mixcraft temporarily stores while performing operations. Click *Browse...* to select a new directory.

DELETE TEMPORARY FILES

This deletes all temporary files and folders from the *Temporary Files Directory* above. This includes all .tmp, .isk, .beatmap .isk, and .ipk files used in Mixcraft.

EXTERNAL WAVE EDITOR

Selects an external wave editing application to launch when *Edit In External Editor* is used. Click *Browse...* to locate the the external audio editor application.

DISPLAY

DRAW AUDIO AND MIDI DATA ON CLIPS

Determines whether or not the audio and MIDI data is displayed on the clips. Turning this off could speed up your computer.

DRAW NOTE TEXT ON PIANO ROLL NOTES

Displays the text note on a note for easier recognition. For example, if the note is an A, it will display an "A" on it.

CHANGE NOTE COLOR FOR PLAYING NOTES

This option makes it easier to see what notes are currently audibly playing.

ENABLE LOGGING FOR TROUBLESHOOTING

Logging can slow down some computers. However, this option should be left on for support troubleshooting. (and to create jobs in the Pacific Northwest...)

LIMIT DRAWING DURING PLAYBACK

Allows limiting the maximum frame rate Mixcraft draws the screen at in order to reduce CPU usage. By default, the screen will not draw more than 30 frames/second.

DISPLAY VOLUME AS:

Choose between Decibels or Percentage. This affects track volume sliders and editing of volume envelope points on clips.

DEFAULT AUDIO TRACK COLOR

Choose a default track color. (Default color is green.)

DEFAULT INSTRUMENT TRACK COLOR

Choose a default track color. (Default color is blue.)

INTERFACE

AUTO-SCROLL DURING PLAYBACK

This makes the Main Clip Grid scroll to automatically follow playback indicator.

KEEP THE PLAYBACK INDICATOR CENTERED

If *Auto-Scroll During Playback* is checked, this keeps the playback indicator to be centered during playback. This auto-scrolls the project instead of moving the playback indicator.

SET PLAYBACK INDICATOR WHEN CLICKING INSIDE SOUND WORKSPACE

Places the Playhead at the click location. Also restarts playback from this location if the project is playing back.

AUTO-REWIND TO START POSITION WHEN PLAYBACK/RECORDING ENDS

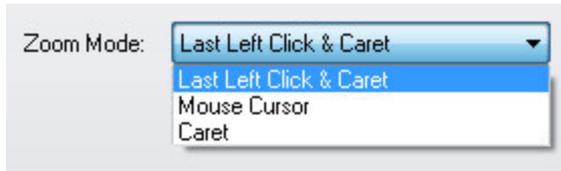
After recording or playing, the Playhead rewinds to where it started prior to record or play.

MAKE CLIPS "STICKY" SO THAT THEY ARE HARDER TO MOVE

This helps to maintain the exact offset of notes or clips when dragging up or down. For example, if you are zoomed way out and move a clip to a different track, it may change the time offset ever so slightly causing the sound to go out of sync.

ZOOM MODE

This lets you customize zoom behavior.



◆ Last Left Click & Caret

The center point of zoom in and out is the most recent left-click in the in the Main Clip grid.

◆ Mouse Cursor

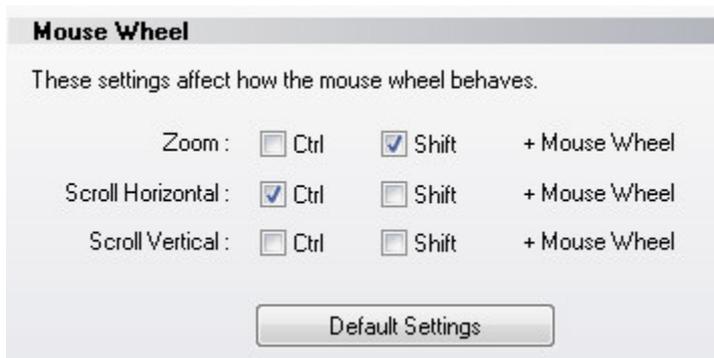
The center point of zoom in and out is the current mouse position.

◆ Caret

The center point of zoom in and out is the current caret position.

MOUSE WHEEL

These settings affect how the mouse wheel controls zooming and scrolling. Choose combinations to custom configure the mouse wheel behavior.



The default setting is:

Mouse wheel = Zoom

CTRL + Mouse wheel = Horizontal Scroll

SHIFT + Mouse wheel = Vertical Scroll

PROJECT

AUTHOR

The default author will be filled into each new project's author information.

COPYRIGHT

The default copyright information will be filled into each new project's copyright information.

CHANGE PROJECT TEMPO AND KEY TO MATCH FIRST SOUND

When adding loops or sounds with a known key or tempo, the software will change the master tempo and/or key so that it sounds good. For example, if a sound was normally at 68 bpm and you tried to play it at 120 bpm, it would sound terrible. Time stretching works best when the tempos are no more than 10 to 30% different. This option conveniently sets the tempo or key of the project to match the sound's tempo or key.

ASK TO CHANGE PROJECT TEMPO AND KEY ON FIRST SOUND

This option will cause the software to prompt you to see if you want to change the tempo or key for the *Change Project Tempo And Key To Match First Sound* option above.

CREATE BACKUP FILE WHENEVER PROJECT IS SAVED

Every time you save, Mixcraft creates a backup file located in the project folder in a sub folder called backup. MX7 backup file's contain the date and time they are saved.

RECORDING

DEFAULT PROJECT FOLDER

The default project folder is where recordings and other important files are placed. Click Browse... to choose a new default project folder location.

DELETE UNUSED RECORDINGS DURING SAVE OR ON EXIT

If this option is checked, Mixcraft delete any recordings made that are not currently on any tracks during a project save or when the exiting the software. If recordings appear to be disappearing from the recording folder, it may be because they weren't part of the project. To prevent these recordings from being deleted, uncheck this.

AUDIO TRACK DEFAULT RECORDING MODE

Choose from *Takes*, *Overdub*, or *Replace* mode.

INSTRUMENT TRACK DEFAULT RECORDING MODE

Choose from *Takes*, *Overdub*, or *Replace* mode.

WHEN RECORDING INPUT IS USED ON MORE THAN ONE TRACK

This instructs the software on how to handle two different tracks set to use the same recording input.

The default is *Do Not Allow Duplicate Recording Inputs*. This routes the selected input to the newly armed track and disarms previously armed tracks.

Allow Duplicate Recording Inputs allows any number of tracks to be armed; it's possible to accidentally record numerous independent tracks of the same thing, so be careful if this option is chosen.

RECORDING FORMAT

Choose from uncompressed WAV or compressed OGG. OGG saves disk space if audio quality does not have to be perfect. If OGG is selected, audio quality can be adjusted with a slider (lower quality = smaller file sizes, higher quality = larger file sizes).

METRONOME

Clicking the *Browse* buttons allows customization of metronome sounds at the beginning of each measure and for individual beat clicks respectively. Default and user metronome sounds reside in the *Program Files>Mixcraft* folder.

METRONOME SOUND FILE (MEASURE)

The default measure tone is *HighTone.wav*. Click *Browse* to replace with a custom user sound.

METRONOME SOUND FILE (BEAT)

The default measure tone is *LowTone.wav*. Click *Browse* to replace with a custom user sound.

METRONOME VOLUME

Adjust the metronome volume to desired level with the horizontal slider.

MIDI

Set MIDI preferences here.

DEFAULT MIDI INPUT DEVICE

If you have MIDI interfaces or MIDI keyboards, choose the interface that you'd like to play and record from. The default is *All MIDI Devices*.

"CHASE" UNFINISHED MIDI NOTES ON PLAYBACK AND LOOPING

MIDI is not actual sound, it's a series of commands instructing the computer play (or shut off) notes. With that in mind, what happens if you initiate playback in the middle of a note? The Chase option tells Mixcraft to send a "note on" message even if the playback start point is after the beginning of a note. This might not be significant if the song contains quick, percussive sounds (like clavinet, or wood blocks), but if the song has very long sustained pads, it's entirely likely that large musical elements will be missing if playback isn't started in the correct location. *Chase* helps alleviate this possibility.

RELEASE HOLD / SUSTAIN PEDAL (CC64) WHEN CLIP ENDS

Like the Chase situation above, this is another potential MIDI problem you wouldn't consider until it occurs. If a sustain pedal isn't realized at the end of recording a clip (or you trim the clip's right edge so the sustain pedal off message no longer gets transmitted), it's possible to end up with notes that sustain forever. *Release Hold/ Sustain Pedal (CC64) When Clip Ends* automatically sends a CC64 (that's the MIDI controller number for a sustain pedal) message of 0 to prevent possible "forever" notes.

RELEASE HOLD / SUSTAIN PEDAL (CC64) WHEN PLAYBACK ENDS

This performs the exact same function as *Release Hold / Sustain Pedal (CC64) When Clip Ends* described above, but does so when playback is stopped.

DEFAULT VIRTUAL INSTRUMENT

Choose an instrument to be the default instrument when creating a new Virtual Instrument Track.

REMOVE PROGRAM CHANGE MESSAGES FROM MIDI FILES

Embedded program changes in imported MIDI files (usually of the downloaded or purchased General MIDI file variety) can cause things to go haywire with undesired program changes. *Remove Program Change Messages From MIDI Files* strips the program changes.

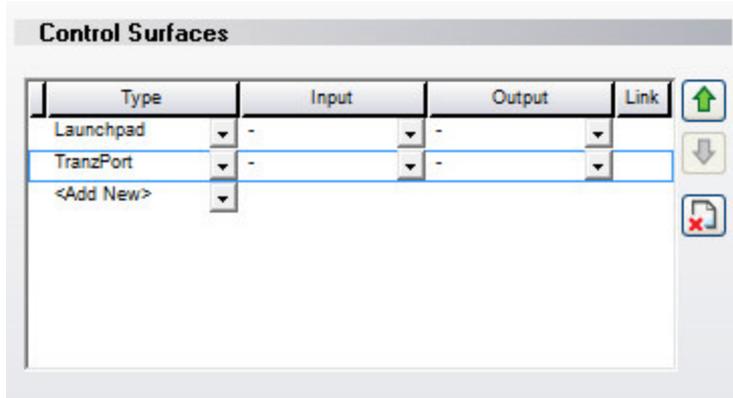
DEFAULT MIDI SETTINGS

Reverts all settings on this page back to default settings.

CONTROL SURFACES

As of the initial release of Mixcraft 7, natively supported Control Surfaces include the Novation Launchpad, Mackie Control (aka MCU, and previously, Logic Control) and compatibles, Frontier Design Group TranzPort, and Acoustica's own Mixcraft Remote app for Android and iOS mobile devices.

Note: For more information on configuring Control Surfaces, see pg. 267, "[Using Natively Supported Hardware Controllers](#)".



TYPE

For Mixcraft to recognize any of these devices, plug in the device (or in the case of Mixcraft Remote, makes sure your computer and mobile device are on the same wireless network), click *<Add New>* and select the appropriate device. If you're using an older Emagic Logic Control, be sure to choose it (instead of *Mackie Control*) in the *Type* list, otherwise all functions won't work correctly.

INPUT

Specifies the input for the Control Surface. If it's a MIDI device, choose the appropriate MIDI interface. If it's plugged into a USB port, choose the name of the Control Surface.

OUTPUT

This is specifies the MIDI or USB output for the device and is set just like the input setting. If it's a MIDI device, choose the appropriate MIDI interface. If it's plugged into a USB port, choose the name of the Control Surface.

Note: The Mixcraft Remote mobile app does not require any *Input* or *Output* settings.

LINK

Linking two or more control surfaces (e.g. Mackie control surfaces), will cause them to act as one large single control surface.

UP/DOWN ARROWS

If you're using more than one of the same fader controller, these let you move devices up and down in the list. This effectively lets you change the fader order of cascaded units to align with their physical placement in your workspace.

X ICON

This deletes the currently selected Control Surface.

CD BURNING

BURNING ENGINE

Choose between Primo or IMAPI. Primo is the default and recommended CD burning engine. It burns audio CD's without gaps between tracks and supports CD-Text burning.

IMAPI is Windows default audio CD burning method. The drawback is that when burning more than one track, it inserts a two-second gap between tracks and automatically converts to WAV prior to burning.

LIBRARY

These are the loop library settings.

LOOP LIBRARY DIRECTORY

The folder where the loop library is stored. When new loops are downloaded, they are saved in this directory. This folder is shared for all users on this computer.

If you're using Mixcraft in Administrator mode, you can change this folder location. To run Mixcraft in Administrator mode, browse to the Acoustica Mixcraft folder, right-click *Mixcraft7.exe* and choose *Run As Administrator...*

Type in a new folder path or click *Browse* to select a new folder. Schools or labs can set the folder to reside on a server in order to save space on individual workstations.

LOOP LIBRARY DOWNLOAD

Select a Loop Library download site from the drop-down. If you experience problems downloading sounds, please go to the "[Troubleshooting](#)" section on pg. 312

PLUG-INS

LOAD VST EFFECTS AND INSTRUMENTS (VST/VSTI)

Mixcraft will load VST effects and virtual instruments upon launch when this box is checked.

EDIT VST/VSTI FOLDERS

Click this button to add, edit, or delete folders Mixcraft scans to locate VST Plug-Ins.

RE-SCAN ALL VST PLUG-INS

Scans VST folders for new plug-ins. This is useful when installing new VST Plug-Ins. (And also helps thwart the dreaded "lookin' for plugs in all the wrong places" phenomena.)

AUTOMATICALLY ADD ALL INSTRUMENT OUTPUT TRACKS FOR VIRTUAL INSTRUMENTS

This will add a child output channel track for each output channel in the VSTi. This is only important for instrument plug-ins with multiple output channels. If this is off and the instrument has multiple output channels, this creates a single output track for the instrument.

RESET PLUG-INS ON PLAYBACK AND MIX DOWN

If playback is stopped before a delay or reverb effect has faded out, the remaining decay can get stuck in the audio buffers; this "stuck" audio can be heard the next time playback is initiated. Checking *Reset Plug-Ins On Playback And Mix Down* automatically clears Mixcraft's audio buffers the next time play is pressed or when the *Mix Down To Audio File* command is used, eliminating these annoying audio artifacts.

ENABLE REWIRE HOSTING

Toggle this option to enable or disable ReWire hosting. You'll need to restart Mixcraft to use newly added ReWire clients.

MAIN WINDOW MENUS

FILE MENU

NEW PROJECT (CTRL+N)

Creates a new project and shows the New Project Settings dialog.

OPEN PROJECT... (CTRL+O)

Opens or loads an existing project or template.

SAVE (CTRL+S)

Saves the current project

SAVE AS...

Saves the current project or mixes down to an audio file depending on Save as type format selection.

COPY PROJECT FILES TO...

Copies Project Files to a folder or a new ZIP file. This is useful for backing up projects (i.e. to CD), reorganizing project files, or collaboration with others.

MIX DOWN TO

Mixes the current project to an audio or video file format.

SAVE AS MIDI FILE...

Saves the MIDI data of the current project as a Type 1 Standard MIDI file.

BURN CD... (CTRL+B)

Burns an audio CD, compatible with any standard audio CD player.

LABEL CD...

This launches the optional *Acoustica CD/DVD Label Maker* application for printing CD labels, etching a LightScribe disc, or printing on a direct-to-CD printer.

PRINT... (CTRL+P)

Prints the notation display, if currently selected.

PREFERENCES

Opens the *Preferences* dialog.

SET NEW PROJECT DEFAULTS

Opens the *New Project Settings* window.

MANAGE PLUG-INS...

Opens the *Plug-In Management* window.

RECENT PROJECTS

Displays the ten most recently loaded or saved projects for quick access. To load a recent project, click on it.

EXIT

This closes Mixcraft. Before exiting, it will prompt you to save unsaved changes.

EDIT MENU

UNDO (CTRL+Z)

This will undo any action up to the point of the last save, load, or new project.

REDO (CTRL+Y)

This will redo any "undone" action.

CUT (CTRL+X)

This cuts or removes any currently selected audio, MIDI data, or video (or parts thereof). The cut operation also stores the cut sounds in the Clipboard for pasting if desired.

COPY (CTRL+C)

This copies audio, MIDI data, or video currently selected or in the selection rectangle to the Clipboard for pasting if desired.

PASTE (CTRL+V)

Pastes or inserts audio, MIDI data, or video currently stored in the Clipboard buffer at the caret location. If necessary, new tracks are created if the Clipboard buffer stored audio, MIDI data, or video spanning multiple tracks.

CROP (CTRL+Q)

The opposite of cut. Cropping something keeps what is selected and discard everything else on the selected clips.

DELETE (DELETE)

This will remove any sounds or parts of sounds that are currently selected or in the selection rectangle. Unlike, Cut, this will not store the deleted audio in the Clipboard.

SELECT ALL (CTRL+A)

This selects all clips in the project.

SPLIT (CTRL+T)

This splits selected clips at the current Caret location.

REMOVE SPACES BETWEEN CLIPS (CTRL+J)

Removing space between the clips eliminates gaps or silence between selected clips by moving the selected clips together.

MERGE TO NEW CLIPS (CTRL+W)

This merges the selected clips into a new clip. This functions on a per-track basis and does not combine clips from different tracks.

LINK

The *Link* submenu allows clips to be linked or unlinked. When clips are linked, they move together when dragging. Linked clip retain their relative offset to each other. The submenu link options are:

- ◆ Link Selected Clips
- ◆ Unlink Selected Clips

Linked clips will have a  button in the title bar. Click this button to unlink clips.



INSERT SELECTED TIME

When a purple selection region is made in the Timeline or Main Clip grid, this function inserts additional time into the selected area. Any clips within the insert area are split and the right halves are advanced. Automation data is also moved to maintain the proper location.

REMOVE SELECTED TIME

When a purple selection region is made in the Timeline or Main Clip grid, this function deletes the time in the selected area. Any clips (or parts of clips) within the area are removed. Automation data in the selected area is also removed.

MIX MENU

PLAY/STOP PLAYBACK ([SPACE BAR])

Starts and stops project playback at the Playback Indicator position.

PLAY FROM

Displays a menu allowing playback from project Markers.

REWIND TO START ([HOME])

Moves the Playhead to the beginning of the project. If the project is currently playing, the project starts playback from the beginning.

FAST FORWARD TO END ([END])

Moves the Playhead to the end of the project. If the project is playing audio, playback is stopped.

RECORD (CTRL+R)

Beings recording on any armed tracks.

SET MASTER VOLUME

Sets the master volume to an exact amount or from 20% to 200%.

MIDI RESET!

Sends a panic message to all virtual synthesizers and external synthesizers instructing them to stop playing any “stuck” notes. Use this if you can’t a sound to stop.

MIDI CONTROL SURFACE

Configures playback, recording, and other transport functions from a MIDI controller or device.

EDIT MASTER EFFECTS

Opens the Master Effects window. Use to apply and edit effects on the Main Mix two-track bus.

ADD REWIRE APPLICATION

Choose a ReWire application to control, if available.

ADD TEMPO/KEY CHANGE

Adds a marker at the current Playhead position and opens the Marker Edit window where a tempo, key, or time signature change may be added.

MARKERS

Opens a submenu to add, edit, or delete Markers.

TRANSPOSE KEY CHANGES

Opens a submenu with Up or Down options for global transposition of a project, including all Markers containing key changes.

METRONOME AND COUNT-IN SETTINGS (M, SHIFT+M)

Toggles the metronome on and off independently for playback and recording, and specifies the number of count-in measures prior to recording.

LOOP PLAYBACK MODE (L)

Loop playback of a selection or the entire project.

USE RECORDING TIMER

Sets the recording timer allowing recording to stop after a specified duration.

AUTOMATION RECORDING MODE

Selects the behavior of automation recording when using a control surface.

◆ Overwrite Mode

Continuously writes the current fader or V-Pot position for the duration of recording, overwriting existing automation data as it records.

◆ **Touch Mode**

When used with a control surface with touch-sensitive faders Touch Mode overwrites automation data only when the fader is being touched. When used with control surfaces with non touch-sensitive faders, recording of automation initiates only after Mixcraft detects a fader has been moved. From this point on, automation writing behaves the same as Overwrite Mode, overwriting as it goes until Mixcraft is stopped.

TRACK MENU

ADD TRACK

Adds a new Audio Track (CTRL+G), Virtual Instrument Track (CTRL+E), Video Track, Send Track, SubMix Track or Output Bus Track to the end of the project.

INSERT TRACK

Inserts a new Audio Track (CTRL+G), Virtual Instrument Track (CTRL+E), Video Track, Send Track, SubMix Track or Output Bus Track before the currently selected track.

DELETE TRACK (CTRL+SHIFT+D)

This deletes the currently selected track.

SHOW MASTER TRACK

Click to show or hide the Master Track.

PROPERTIES

These submenus contain numerous track options.

◆ **Mute (CTRL+M)**

Mutes or unmutes the selected track. A checkmark indicates that the track is muted.

◆ **Solo (CTRL+L)**

Solos or un-solos the selected track. A checkmark indicates the track is soloed.

◆ **Set Volume**

Sets the volume for the selected track to either an exact amount or from 20% to 200%.

◆ **Set Pan**

Sets the pan position of the selected track. If the clip on the track is a stereo file, pan will act as a left/right balance control.

◆ **Track Color**

Selects a color for the track and its clips.

◆ **Track Height**

Opens a submenu for setting the selected track height to *Small*, *Normal*, or *Large*.

◆ **Choose Image...**

Opens the Track Image dialog allowing the use of custom track list images.

LANES

The *Lanes* submenu lets you add, delete, and mute clip lanes.

◆ **Add [ALT+L]**

Add a new lane to the currently selected track.

◆ **Delete**

Delete the currently selected lane and any clips on it.

◆ **Delete Empty Lanes [ALT+K]**

This removes unused lanes from the currently selected track.

◆ **Mute All**

Mutes all clips on the selected lane.

◆ **Unmute All**

Unmutes all clips on the selected lane.

◆ **Select All**

Select all clips on the selected lane.

ARM FOR RECORDING (CTRL+B)

Arms the selected track.

MONITOR

Allows you to hear audio as it records, including any effects on the recording track.

ARM RECORDING CHANNEL AND DEVICE

Selects the recording input source for an Audio Track, Virtual Instrument Track, or MIDI Track.

RECORDING MODE

Selects *Overdub*, *Takes*, or *Replace* mode for the currently selected track.

GUITAR TUNER

Activates the Guitar Tuner on the current track (Audio Tracks only).

FX...

Displays the Effect List for the selected track.

SHOW/HIDE AUTOMATION LANE

Shows or hides automation lane(s) for the selected track.

MIX TO NEW AUDIO TRACK

Mixes the selected track to a new audio track with current effects applied. The original track is retained and muted after the new audio track is created. This can be useful if effects are using excessive CPU resources or RAM and compromising performance.

DUPLICATE TRACK

This copies and pastes all clips and settings of the current track and creates a new track beneath the selected track with the same clips and settings. Useful if you'd like to make serious edits but would like to maintain an "untouched" version.

FREEZE TRACK (CTRL+SHIFT+F)

Freezes the selected track. This is useful if the project is using too much CPU or RAM.

SELECT ALL CLIPS ON THIS TRACK (CTRL+SHIFT+A)

Selects all clips on the selected track.

SOUND MENU

ADD SOUND FILE... (CTRL+H)

Use for adding audio, MIDI data, or videos to the current project. New files will be inserted at the current Caret location.

ADD INSTRUMENT CLIP

This will add a blank Virtual Instrument Clip on the closest Virtual Instrument Track. You can also Double-click a Virtual Instrument Track to create a blank Virtual Instrument Clip.

MIDI EDITING

These submenus contain numerous MIDI editing options including Quantize, Humanize, Transpose, Velocities, Offsets, Durations, Soloize, and Double.

(See "[Virtual Instrument \(MIDI\) Clips](#)" for full details on pg. 84.)

PROPERTIES

These submenus specify individual clip properties. See pg. 63, "[Audio Clip Properties](#)" for full details.

- ◆ **Mute**
Mutes or unmutes the selected clip.
- ◆ **Channels**
Selects the active/audible channel for audio clips. (Audio clips only)
- ◆ **Phase**
Selects the phase of the audio clip. (Audio clips only)

◆ **Normalize (CTRL+K)**

This sets the volume of all selected sounds to the normalized level. Normalized level is based on the loudest peak. Reselect to deactivate normalization.

◆ **Lock**

Locks or unlocks the selected clip(s) to prevent resizing, movement, or other modifications.

ENVELOPES

Submenu for *Envelopes*, a.k.a. *Clip Automation*.

◆ **Reset Envelope (CTRL+ALT+T)**

Restores the current envelope to its default setting for all selected sounds.

◆ **Invert Envelope (CTRL+ALT+Y)**

Inverts or flips the current envelope vertically for all selected sounds.

◆ **Fade Out**

Displays pop-up menu with the following options: *Fast*, *Medium*, and *Slow*. Each option adds a fade-out of the current envelope type to all selected sounds. Note that the fade is applied to the selected area. If there is a selection rectangle, the fade only occurs in the selection rectangle

◆ **Fade In**

Displays a pop-up menu with the following options: *Fast*, *Medium*, and *Slow*. Each option adds a fade-in of the current envelope type to all selected sounds. If there is a selection rectangle, the fade only occurs in the selection rectangle.

◆ **Boost**

Displays a pop-up menu to boost all selected sounds by a set percentage for the current chosen envelope type. If there is a selection rectangle, the boost is applied only to the selected area.

◆ **Reduce**

Displays a pop-up menu to reduce all selected sounds by a set percentage for the current chosen envelope type. If there is a selection rectangle, the reduction is applied only to the selected area.

LINK

The Link submenu allows clips to be linked or unlinked. When clips are linked, they move together when dragging. Linked clip retain their relative offset to each other. The submenu link options are:

◆ Link Selected Clips

◆ Unlink Selected Clips

Linked clips will have the button in the title bar. Click the button to unlink clips.



SPLIT (CTRL+T)

This splits selected clips at the current Caret location.

REMOVE SPACES BETWEEN CLIPS (CTRL+J)

Removing space between the clips eliminates gaps or silence between selected clips by moving the selected clips together.

MERGE TO NEW CLIPS (CTRL+W)

This merges the selected clips into a new clip. This functions on a per-track basis and does not combine clips from different tracks.

REVERSE

This makes audio clips play backwards, which is almost always awesome.

ADD TO LIBRARY

Adds the audio clip to the sound library, for easy future use.

SET LOOP TO CROP

Sets the loop point on a clip to its current crop. (Audio clips only)

TRIM SILENCE (CTRL+I)

This removes any silence from left and right edges of clips. (Audio clips only)

EDIT IN EXTERNAL EDITOR...

Opens the sound or a copy of the sound in an external third-party sound editor.

VIDEO MENU

ADD A VIDEO FILE...

Adds a video file to the project.

ADD STILL IMAGES...

Add image files to the video track. JPG, BMP, and PNG formats are supported.

ADD TEXT...

Adds text to the Text Video child track.

ADD SCROLLING TEXT...

Adds scrolling text to the Text Video child track.

ALIGN CLIPS...

Aligns image and video clips for creating slide shows or aligning them to the beat.

SET NON-CLIP BACKGROUND COLOR...

Sets the color of the background if no video or image clips are present.

SHOW/HIDE VIDEO WINDOW

Shows or hides the video playback window.

SET PREVIEW WINDOW SIZE

Selects standard video sizes for the Video Window.

LINK

The Link submenu allows clips to be linked or unlinked. When clips are linked, they move together when dragging. Linked clips retain their relative offset to each other. The submenu link options are:

- ◆ Link Selected Clips
- ◆ Unlink Selected Clips

Linked clips will have a  button in the title bar. Click this button to unlink clips.



VIEW MENU

ALL TRACKS HEIGHT

Opens a submenu for setting the selected track height to Small, Normal, or Large.

TIMELINE MODE

Selects Beats or Timeline viewing mode.

SNAP TO GRID

Disable Snap or choose a snap setting for the Timeline in the pop-up submenu.

SHOW/HIDE DETAILS AREA

Shows or hides the most recently selected details tab. (*Project, Sound, Mixer, or Library*)

MUSICAL TYPING

Opens the Musical Typing keyboard. This allows MIDI note input using a standard QWERTY computer keyboard.

PERFORMANCE PANEL

Toggles viewing and hiding of the Performance Panel.

ZOOM IN [+]

Zooms in to the project for a more detailed view.

ZOOM OUT [-]

Zooms out for a wider view.

ZOOM TO PROJECT [0]

Fits the entire project to the screen.

HELP MENU**HELP FILE...**

Opens the *Help File*. (the thing you're reading right now)

CHECK FOR UPDATE...

Checks the Internet for a newer or updated version of Mixcraft.

ENTER REGISTRATION CODE...

If unregistered, use this to enter your registration code.

BUY NOW!

Displays a window with instructions on purchasing and registering the software.
(Unregistered versions only)

ABOUT MIXCRAFT...

Displays Mixcraft credits, copyrights, and thanks.

KEYBOARD SHORTCUTS

NAVIGATION, PLAYBACK, AND RECORDING

Function	Keyboard Shortcut
Play / Stop	[SPACE]
Play From Next Marker	CTRL+[SPACE]
Play From Previous Marker	CTRL+SHIFT+[SPACE]
Record	R or CTRL+R
Toggle Loop Mode	L
Toggle Playback Metronome	M
Toggle Recording Metronome	SHIFT+M
Move Clips	 <p>If snap is on, the selected clips will move at the current snap setting.</p> <p>CTRL + arrow keys moves +/- 20 milliseconds. CTRL + SHIFT + arrow keys move +/- 1 millisecond.</p> <p>Up/down arrow keys move the selected clips to a different track.</p> <p>MC7_man_keyb_shortcuts_arrowsIf snap is on, the selected clips will move at the current snap setting. CTRL + arrow keys moves +/- 20 milliseconds. CTRL + SHIFT + arrow keys move +/- 1 millisecond.</p> <p>Up/down arrow keys move the selected clips to a different track.</p>

Moving the Caret	 <p>If snap is on, the caret will move at the current snap setting.</p> <p>CTRL + arrow keys moves the caret +/- 20 milliseconds. CTRL + SHIFT + arrow keys move the caret +/- 1 millisecond. Up/down arrow moves the caret to a different track or lane.</p>
Move Clip Without Changing Time Offset	[SHIFT]+Drag

EDITING COMMANDS

Function	Keyboard Shortcut
Undo	CTRL+Z
Redo	CTRL+Y
Cut	CTRL+X
Copy	CTRL+C
Drag a Copy	ALT+drag
Drag Copy and Preserve Time Offset	SHIFT+ALT+drag
Paste	CTRL+V
Delete	[DELETE]
Crop	CTRL+Q
Split	CTRL+T
Remove Spaces Between Clips	CTRL+J
Merge To New Clip	CTRL+W
Trim Silence	CTRL+I

SNAP ADJUSTMENTS

Function	Keyboard Shortcut
Off	~
Measure	1
1/2 Notes	2
1/4 Notes	3
1/8 Notes	4
1/16 Notes	5
1/32 Notes	6
1/64 Notes	7

MIDI EDITING

Function	Keyboard Shortcut
Arrow Selection Tool	W
Eraser Tool	E
MIDI Reset/Panic	CTRL+SHIFT+M
Drag Copy	ALT+drag
Draw Selected Velocities Only	SHIFT+drag
Select Next Note	[TAB]
Select Previous Note	SHIFT+[TAB]
Select All Notes	CTRL+A
Unselect All Notes	[ESC]
Musical Typing Keyboard	CTRL+ALT+K
Move Note/Retain Offset	SHIFT+Drag

SELECTING CLIPS

Function	Keyboard Shortcut
Select All	CTRL+A
Select All On Track	CTRL+SHIFT+A
Select All On Lane	CTRL+SHIFT+ALT+A
Select Next Clip	[TAB]
Select Previous Clip	SHIFT+[TAB]
Deselect All	[ESC]
Delete Selected Note(s)	[DELETE]
Drag Notes Vertical Only	SHIFT+DRAG

TRACKS

Function	Keyboard Shortcut
Delete Track	CTRL+SHIFT+D
Add Audio Track	CTRL+G
Add Virtual Instrument Track (MIDI)	CTRL+E
Arm Track Toggle	CTRL+B
Mute Track Toggle	CTRL+M
Solo Track Toggle	CTRL+L
Move Track Down	CTRL+D
Move Track Up	CTRL+U
Freeze Track	CTRL+F
Add Lane	ALT+L
Delete Empty Lanes	ALT+K

ZOOMING AND SCROLLING

Function	Keyboard Shortcut
Zoom To Project	0
Zoom In	-
Zoom Out	+
Scroll Up/Down	Mouse Wheel
Scroll Horizontal	SHIFT+Mouse Wheel
Scroll Vertical	CTRL+Mouse Wheel
Scroll Tracks Up	[PAGE UP]
Scroll Tracks Down	[PAGE DOWN]

MISCELLANEOUS

Function	Keyboard Shortcut
View/hide Performance Panel	P
Add Sound File...	CTRL+H
Normalize Sound	CTRL+K
Adjust Volume Slider, Pan Slider, EQ Knobs	CTRL, ALT or SHIFT + click and drag
Reset MIDI Devices	CTRL+ALT+M
Print Virtual Instrument Clip	CTRL+P
Fade In Clip Fast	ALT+1
Fade Out Clip Fast	ALT+2
Fade In Clip Medium	ALT+3
Fade Out Clip Medium	ALT+4
Fade In Clip Slow	ALT+5
Fade Out Clip Slow	ALT+6
Boost Clip 1%	ALT+CTRL+Q
Reduce Clip 1%	ALT+CTRL+A

Function	Keyboard Shortcut
Boost Clip 5%	ALT+CTRL+W
Reduce Clip 5%	ALT+CTRL+S
Boost Clip 25%	ALT+CTRL+E
Reduce Clip 25%	ALT+CTRL+D
Boost Clip 50%	ALT+CTRL+R
Reduce Clip 50%	ALT+CTRL+F

CURSORS



ARROW

The default cursor.



ENVELOPE POINT EDIT

This cursor shows that an envelope point can be added or moved.



ERASER

This cursor shows that notes or controller data can be erased.



FLEXAUDIO™

By holding down the CTRL key and dragging, this allows visual time-stretching of any audio clip.



I-BEAM

This cursor shows that a selection can be made on a sound.



PENCIL

This cursor shows that new notes or controller data can be drawn.



PLAY SOUND

This cursor shows that a sound from the sound library can be played.



RESIZE INTERFACE

This cursor is shown when resizing the details area or resizing a track.



RESIZE OR LOOP SOUND

This cursor shows that a loop a sound can be resized from the left or right.



SCISSORS

Clips can be split by holding down the CTRL+ALT keys and clicking on the desired split location - the cursor turns into the scissors icon while hovering over the clip. The split occurs at the closest Snap setting increment. If you'd like to split a clip at the exact cursor location, set the *Snap* setting to *Off*.



TRACK VOLUME

This cursor is used when changing the master volume or a track's volume slider.

**FLAT TOOL**

This cursor is used to lower a note or piano roll bar by one half step/semitone in *Notation View*.

**SHARP TOOL**

This cursor is used to raise a note or piano roll bar by one half step/semitone in *Notation View*. Always exercise caution when using a sharp tool.

TROUBLESHOOTING

Here are some answers to common problems and issues. If you can't find a solution in this section, you'll find numerous support options online at:

www.acoustica.com/product_support/

- ◆ Playing
- ◆ Recording
- ◆ Files Not Loading
- ◆ Effects & Plug-ins
- ◆ CD Burning
- ◆ Video
- ◆ Loop Library
- ◆ Control Surfaces

PLAYING AUDIO

SOUND DOES NOT PLAY

You've added sounds, but you can't play anything... Here are a few things to check.

- ◆ Are the speakers on and plugged in? (Sorry, management made us ask.)

- ◆ Can you play a Wave file through Windows or another sound application? If you can't, there may be a problem with the sound card's configuration or drivers. Refer to your sound card documentation to track down the problem.

- ◆ Load the volume control that came with your sound card and make sure that the Wave device is turned up and not muted.

- ◆ Another program may be using the sound card at the same time. (May happen with older versions of Windows.)
- ◆ Update or install your sound card's drivers. Check the manufacturer's website for the latest drivers and documentation.

SOUND IS BREAKING UP, POPPING, OR CLICKING

When playing back a project, if the audio sounds like it is starting and stopping quickly, it could be because the computer is over tasked due to other programs running at the same time. Your computer may not be powerful enough to mix the audio in your project. Here are some things to try.

Always shut down as many unnecessary programs as possible. It may even be advantageous to temporarily shut down virus software. (We don't recommend doing this unless you've done a full scan and are not connected to the Internet.)

Driver Type	Action
WaveRT	Go to the WaveRT preferences. Increase the latency time.
ASIO	Go to the ASIO preferences. Try a different ASIO driver, download the latest ASIO driver or increase the latency setting.
Wave	Go to the Wave preferences. Increase buffer size and/or the number of buffers

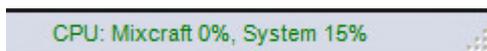
Increase the audio device latency setting. (Go to the Preferences>Sound Device in the Main Window menus.)

Freeze a track if there are many effects or compressed audio formats on the track. (Frozen tracks use far less CPU resources.)

Turn off some display features. Go to the *Preferences>Display* and try limiting the frame rate or not drawing audio and MIDI data. Turning off logging may also help.

Make sure that you have the latest drivers for your sound card. Visit your sound card manufacturer's website to check for updates.

Note the CPU meter in the lower right corner of Mixcraft; this indicates how much CPU Mixcraft is using compared to the entire computer's entire CPU usage.



SOUND IS DELAYED OR LAGGING (LATENCY)

The opposite of sound breaking up or gapping is an audible delay of sound playback and/or latency from the time an edit is made to the time you hear it. For example, a change is made to an envelope point during audio playback. If it takes several seconds to hear the effect of the change, you're experiencing latency. The solution depends on the type of audio drivers being used.

Driver Type	Action
WaveRT	Choose a lower latency time.
ASIO	Go to the ASIO preferences and click the <i>Open Mixer..</i> button. Use the ASIO driver control to configure the latency. There will usually be a latency setting, displayed in milliseconds. If possible, choose 10 milliseconds. 40-80 milliseconds is also tolerable.
Wave	Go to the Wave preferences. Reduce the number of buffers and/or size. Try different settings to find a balance between performance and smooth non-gapping audio.

Did we mention to make sure you have the latest drivers for your sound card? Of course we did. Visit your sound card manufacturer's website to check for updates.

NOTES WON'T STOP PLAYING!

Hey, this sounds like most of the lead guitarists we know. If you're playing back Virtual Instrument Clips and notes continue to play after stopping, this is referred to as "stuck" notes.

The solution is to click *Mix>MIDI Reset!* from the Main Window menus. This should stop all Virtual Instrument stuck notes.

If this does not stop the notes, try saving your project and restarting Mixcraft. If the stuck notes are coming from an external hardware synthesizer, try resetting or restarting the external synthesizer.

If none of this works, beat your computer into oblivion with a twenty-pound sledgehammer 'til the racket ceases. (incidentally, this works for lead guitarists too)

ASIO IS NOT AVAILABLE

Make sure you've installed the latest drivers for your sound card. Go to the sound device's manufacturer website to download and install them.

SOUND PLAYS BACK TO SLOW OR FAST

If loaded sounds play back too fast or too slow, it's most likely because the sound is being tempo adjusted by Mixcraft. You can check this by clicking on the sound, clicking the *Sound* tab, and clicking *Time Stretch* to hear the sound at its native tempo. (Audio can sound odd if it's being time stretched too drastically.)

RECORDING

RECORDING IS NOT WORKING!

You can play audio, but you can't record anything! There can be many reasons why this is not working. Here are a few:

- ◆ Make sure audio hardware/microphone/guitar is properly plugged in!

- ◆ Make sure the correct input/source is armed.

- ◆ Make sure the recording level of the armed track is turned up.

- ◆ Try recording using a different driver. Try ASIO, WaveRT, and Wave, in that order.

Make sure you have the latest drivers for your sound card. Visit your sound card manufacturer's website to check for updates.

RECORDINGS DRIFTING AND/OR START AT THE WRONG TIME

If you notice that recordings are not lining up properly at the start, you'll need to adjust the offset or start time of the recorded sound. Make sure snap is off and move the sound so that it lines up properly. Zoom in for the best accuracy. Switching to an ASIO driver or purchasing a better sound device may help.

If recordings are slowly drifting over time, the problem is due to an inaccurate clock on your sound card or sound device. Each device is made with more or less accurate clocks and not all devices have the same time as an atomic clock, for example.

If you have a Soundblaster LIVE, try recording in 48 kHz mode, by switching your Sound Device preferences to the 48 kHz sample rate.

◆ **Drift Work Around**

Assuming the start of the sound is lined up properly, go to the end of the sound and visually time stretch it with FlexAudio using the CTRL key so that it lines up properly. Make sure to change the pitch shift mode to Do Not Fix Pitch. Once you've lined up the end of the recording, you should be able to go to the Sound tab to view the time stretch percentage that was needed to get it in sync. (Example percentages will be around 99.995% or 100.004%). Following this, you can simply apply this drift percentage to all recordings. (Don't forget to change the pitch shift mode to Do Not Fix Pitch!)

RECORDINGS ARE NOT IN SYNC

There are a couple of possibilities:

◆ **Starting positions of recordings are wrong.**

If the start offset of the recording is wrong, try the following:

- ◆ Adjust the clips positions manually.
- ◆ Update your sound card's drivers if possible. Check the sound card manufacturer's website.
- ◆ Get a more professional sound card designed for recording music, if possible. Try switching to ASIO mode. or WaveRT mode for better synchronization.

◆ **Recordings slowly losing synchronization over time.**

If after 10 minutes or so, recordings are noticeably out of synchronization, you may need to get a new sound device that won't lose synchronization.

Always make sure that you have the latest drivers for your sound device. Visit your sound device manufacturer's website to see if there is an update. Pretty sure that's the seventh time we've said that... but it really makes a difference!

I CAN'T HEAR MYSELF DURING RECORDING!

Some sound cards or USB devices have no provision for monitoring live recording. If you can't hear yourself or whatever you're recording, you can use Mixcraft to play the incoming audio by monitoring the track (by pressing the speaker icon when a track is armed for recording). Always use headphones when monitoring to prevent audio bleed from other tracks.

NEW TRACKS ARE RECORDING SOUND FROM OTHER TRACKS (BLEEDING OVER)

If newly recorded tracks are picking up parts of other tracks, your microphone or input device is probably picking up the sound from your speakers.

Try using headphones- don't forget to turn off your speakers. If the “full immersion” of headphones is adversely affecting your pitch when singing, try pulling one side off your ear. (added plus: you'll look super cool like Kenny Loggins and Michael McDonald during vocal tracking.)

If that doesn't work, your sound device may have noisy circuitry. Go to the Windows mixer recording settings and make sure that only the devices you are interested in recording are heard. Mute any sources that are not being recorded (such as the CD player or auxiliary). To open the sound card's mixer click the Windows *Start* button, and click *Run...* Type in *sndvol* or *sndvol32* and press the ENTER key.

Also, make sure you've selected the correct recording source. If possible, it's best to choose a specific source, instead of something general like *Stereo Mix*, *What You Hear*, or *Digital Wave*. For example, if the recording source is a microphone, choose *Microphone*. If recording from your computer's *Line In* input, choose that.

To choose a recording source, click on the small down arrow to the right of the *Arm* button on the recording track. First, choose the sound device you want to use (you may only have one choice), and you'll see a submenu with a stereo source option.

Again, if you already have a specific source selected, your microphone could be picking up the sound from your speakers. Try turning off your speakers and using headphones to monitor the audio.

MY RECORDINGS ARE ONLY ON THE LEFT OR RIGHT CHANNEL!

This occurs when a mono input is plugged in to the left or right input of an audio device, but you've selected stereo recording. To remedy this, be sure to arm a track for the specific input you'd like to record from, either by input number, or by the channel (left or right). If you wish to preserve stereo recordings, right-click on the clip, select *Properties>Channels*, and select either the *Left* or *Right* channel. This will play only one channel of a stereo recording.

MY RECORDINGS ARE TOO LOUD AND ARE DISTORTING! WHAT DO I DO?

Distortion can ruin a good recording, and the worst part is, once distorted audio is recorded, there's no way to remove distortion. If the input signal is illuminating the meters all the way and the peak indicators are lit, your incoming signal is too loud. And if it's too loud, you're too old... ok, maybe that doesn't apply here.

If you're using Wave or WaveRT drivers and the track is armed, there should be a red input level slider available on your track. You can use this to attenuate the input level until the input source is no longer driving the meters into the red.

If you're using an ASIO device or other external audio device, you won't see an input level slider on armed tracks (this inherent to ASIO audio devices, not Mixcraft). You'll need to lower the output level of the hardware preamp or audio device to reduce the level being sent to Mixcraft.

FILES NOT LOADING

SOUND WON'T LOAD

There are many different types of sound file formats. Mixcraft currently supports Wave (.WAV and .AIF), MP3, OGG, and WMA formats.

In addition, Mixcraft works with the Windows Audio Compression Manager (ACM) to load compressed non-PCM Wave files.

If the audio file is a WMA file, make sure that WMA format support is installed and that the file does not have Digital Rights Management (DRM) on it. The preceding paragraphs might've set a record for acronyms... sorry about that.

WMA FILE SUPPORT

In order to load and save to WMA files, you must have support for Microsoft Windows Media Format 7.1. If you are trying to load a WMA file or export to a WMA file and the option is grayed out, you probably do not have this installed. To download and install it, please visit <http://www.acoustica.com/plug-ins/wma-install.htm>. (It isn't necessary to restart your computer.)

If you've already installed WMA support, you may be trying to open a WMA with Digital Rights Management (DRM). If the WMA file was created with Windows Media Player, try recreating it with DRM disabled. To turn off DRM, run Windows Media Player, choose *Options* from the *Tool* menu, click on *Copy Music* and ensure that *Copy Protect Music* is unchecked.

CAN'T LOAD OR SEE VIDEO FILE

To load a video, select *Video>Add Video File...* from the Main Window menu. Navigate to the folder containing the video.

If the video is not in .AVI or .WMV format, you'll need to switch the *File Type* dropdown from *Default Video Files* to *All Files*. Your video file should now be visible. Select it to load it.

Proper video codecs may need to be installed in order to load a given video. See *Video Is Not Loading* for more information.

VIDEO IS NOT LOADING

If the video fails to load, it's likely because you're missing the correct DirectX video codec. Do one of the following:

Install the software included with your video camera (or download the most current version from the manufacturer's website). It may also have come with a DirectX video decoder that would allow other programs such as Windows Movie Maker or Windows Media Player to play the files. (Assuming the file was created with a video camera that you own.) Restart your computer after installing new video codecs.

Download and install a video file converter application to convert the video to AVI or WMV. This is better than loading the original video format, as it will be faster.

Install a DirectX/DirectShow video codec for the video format you're attempting to load. Beware of many faulty/buggy/error prone decoders out there on the Internet! And make sure to download and install the latest version of Windows Media Player.

EFFECTS AND PLUG-INS

HOW DO I ADD A PLUG-IN (VST OR VSTI)?

Mixcraft allows you to add your own VST or VSTi plug-ins. Plug-ins are usually .DLL files. Download and install the plug-in file (.DLL) into your VST folder and restart Mixcraft. The new VST plug-in should now be in the effect drop-down list or Virtual Instrument list. Some plug-ins include their own installers. In that case, run the installer and point the software to the appropriate folder.

If you don't know where your VST folder is, you can create a new one and add it in the Plug-Ins section. To add your own VST folder, go to Preferences>Plug-Ins in the Main Window menus and click *Edit VST/VSTi Folders*. Click the Add button to add your own folder, or click *Auto-Scan For VST/VSTi Directories* to locate one automatically. Make sure to put the new VST plug-in (.DLL) into one of the folders in your VST folder list and restart Mixcraft. The effect should appear in the effect drop-down or Virtual Instrument lists, depending on the type of plug-in.

HOW CAN I PREVENT CERTAIN PLUG-INS FROM LOADING?

Mixcraft has two files which may be edited to exclude plug-ins from loading. These files are located in the *%programdata%\Acoustica\Mixcraft\folder*.

VSTIgnore.ini - VST plug-in ignore list

Open or double-click the file, add the name of the effect, and set it to *equal = 1*. For example, if you had an effect you didn't want to load called “Digital Media StudioDenoiser”, you would enter:

Digital Media StudioDenoiser=1

Save the ignore file, restart Mixcraft, and the effect will not be loaded. For VST plugins, you will need to use the name of the dll such as *SuperDuperReverb.dll=1*

HOW CAN I HEAR EFFECTS DURING RECORDING?

Some sound cards or USB devices have provisions for monitoring recording inputs independently of Mixcraft. But if you'd like to hear the effects during recording, you'll need to disable the sound device's monitoring and use Mixcraft's monitoring system. For example, if you are making a weird recording of your voice and would like to hear the echo or delay while recording, you'll need to turn on monitoring. You'll need to enable Mixcraft's monitoring and disable any sound card's built in monitoring.

CAN I USE 64 BIT PLUG-INS?

Yes, provided you've installed the 64-bit version of Mixcraft and are using a 64-bit version of Windows

The Mixcraft installer will install the 64-bit version on computers with 64-bit Windows, and the 32-bit version on machines with a 32-bit version of Windows. You can install both the 32-bit and 64-bit versions on a 64-bit computer, if desired.

If you don't have a 64-bit version of Windows, or if you're primarily using 32-bit plugins, we recommend installing the 32-bit version as it will run faster. (Running 32-bit plugins in 64-bit Mixcraft adds overhead and can be slower.)

CAN I USE 32-BIT PLUG-INS WITH THE 64-BIT VERSION OF MIXCRAFT?

Yes! Mixcraft allows 32- and 64-bit plug-ins to run simultaneously when using the 64-bit Mixcraft version.

WILL 64-BIT PLUG-INS HAVE BETTER SOUND FIDELITY?

Actually, no. The primary advantage of running in 64-bit mode is that Mixcraft (and other apps) are able to address more RAM. This is useful when using Virtual Instruments that require large amounts of sample RAM (like that European mega-orchestra you spent a week loading from 73 DVD's).

CD BURNING

MY CD/DVD RECORDER IS NOT SUPPORTED!

Mixcraft supports two burning engines: Primo and IMAPI.

CD Burning Engine	Details
Primo	The default and preferred burning engine. Burns on-the-fly, CD-Text, and supports gapless tracks.
IMAPI	The drawback to IMAPI is that it adds two-second gaps between tracks.

I'M GETTING BURN FAILURES

Here are some suggestions if CD's fail to burn properly:

- ◆ Try a burn in *Test Mode* first.
- ◆ Try a different blank CD (Make sure it's not full or scratched).
- ◆ Try a blank CD from a different manufacturer.
- ◆ Shut down other programs and temporarily shut down your virus checker during a burn. (Shutting down virus checker software should be done at your own risk. Make sure you're not connected to the Internet and have recently done a full virus scan.)
- ◆ Try burning at a slower speed, especially if your CD recorder does not support "Burn Proof" mode.
- ◆ Try checking the option *Convert To WAV First*.
- ◆ If you have more than one CD or DVD recorder, try burning with the other.
- ◆ If you're using Windows XP or Vista, try switching to IMAPI.
- ◆ Try switching to a different burning engine.
- ◆ Try burning a short sound just to verify that the CD recorder can burn and is not defective.
- ◆ Try burning with another program such as Windows Media Player to verify that your CD recorder is not defective or having a system conflict.

GET RID OF THE TWO-SECOND GAP BETWEEN TRACKS

By default, audio CD's burned in Primo mode will not have a two-second gap between tracks. If burning in IMAPI mode, there will be a two-second gap between tracks.

There are two options:

- Click the *Burn As One Track* checkbox in the *Burn CD* window. The disadvantage is that you'll have to fast forward or rewind the CD to get to a specific part.

◆ Mix the project down to WAV files and then use a third-party burning program that supports the CD- or DVD-burner. In the *Mix Down* dialog, make sure the *Create A New File For Each CD Marker* option is selected. We recommend using WAV files at CD quality for the mix down. Import the WAV files into the third-party CD burning software, arrange them in the correct order and burn the CD.

BURNED CD WON'T PLAY IN MY CD PLAYER

Here are a few things to try:

- ◆ Make sure that you actually burned the CD! Look at the back of the CD under a light and look for differences between the burned area and blank section.
- ◆ Make sure that there aren't any scratches or smudges on the CD data surface.
- ◆ Try a different burning engine. Primo is the latest and newest engine. Change the engine in the CD Burning preferences.
- ◆ Try burning using a blank CD from a different manufacturer. See if there is a recommended type of CD for your CD player
- ◆ Try burning at a slower speed. Older CD players are not as tolerant and if you burn at a slower speed, it will burn with higher precision. Also, some blank CDs are not rated for higher speeds. Check the information on the blank CD packaging for burn speed rating.
- ◆ If there is a paper sticker label on the CD, it could be interfering with the weight balance or it may not be spinning at the correct speed. Try a CD without a label on it.
- ◆ Check to see if the CD plays in other CD players or computers. (CD drives in computers typically are less finicky about playing burned CD's properly than dedicated consumer audio CD players.)

VIDEO

VIDEO PLAYBACK PROBLEMS

If after loading a video, Mixcraft does one of the following:

- ◆ Crashes with an error window
- ◆ Freezes and stops responding
- ◆ Mixcraft's CPU usage goes way up to above 60% or so.
- ◆ Video frames appear distorted

If one of the above is happening, it could be the DirectX video decoder. The best solution is to convert the video file to AVI or WMV format. AVI and WMV are compatible with Mixcraft. AVI files use less CPU power, as well.

Search the Internet for "video converter software" that will convert to AVI and/or WMV.

DIRECTX ERRORS OR ERRORS LOADING VIDEO

Mixcraft uses Window's DirectX layer to decode video, so video playback will be governed by the codecs installed on your computer. Codecs are little pieces of software that programs can use to decode special video file formats. Many codecs are poorly written and may not work properly for video editing. If you're having these types of issues, try the following:

- ◆ Download the latest Microsoft Windows Media Player.
- ◆ Install the software included with your video camera or download and install the latest version from the manufacturer's website. It may also have include a DirectX video decoder allowing other programs such as Windows Movie Maker or Windows Media Player to play the files. (If the file was created with a video camera that you own.) Make sure to restart the computer after installing.
- ◆ Download a video file converter that will convert movies to AVI or WMV format. This is better than loading the original video format, as it will be faster.

VIDEO FILE IS TOO BIG

If you want to send a video via email or upload it, you may find the file size to be far too large. Uploading or sending huge files is impractical and slow. Here are some suggestions:

- ◆ To send via email, upload the video to a video hosting site such as Youtube or Vimeo and send people a link to the video instead of sending the actual video file.
- ◆ Adjust the video settings to a lower quality prior to rendering/mixdown. Lower quality videos result in smaller file sizes. See the Video / Mixing Down section for more help.

LOOP LIBRARY

CAN'T DOWNLOAD SOUNDS

If you can't download sounds from the library, check the following:

- ◆ Make sure you're connected to the good ol' Internet. Try launching an Internet browser and going to a news article or website you haven't previously viewed. (This verifies that you aren't viewing previously cached content.)

- ◆ Verify that security software or an Internet firewall isn't blocking Mixcraft's access to the Internet. It may be necessary to reconfigure firewall or security software to allow Internet access for Mixcraft. (Check your security or firewall's documentation for assistance.)
- ◆ Change Mixcraft's Internet download server in *Preferences>Library>Loop Library Download* in the Main Window menus.

CAN I ADD MY OWN SOUNDS?

Heck yeah, you can! See pg. 120. "[Adding Sounds To The Mixcraft Library](#)". Supported sound formats include AIF, WAV, OGG, MP3 and WMA.

CONTROL SURFACES

MIXCRAFT DOESN'T RECOGNIZE MY CONTROLLER!

If the device is a natively recognized control surface, make sure you've added it in *Preferences>Control Surfaces* in the Main Window menus. Natively recognized control surfaces include Mackie Control (or others supporting the Mackie Control format), Novation Launchpad, Frontier Design Group TranzPort, and the Acoustica Mixcraft Remote mobile app.

If you're using a generic MIDI control surface, go to the *Control Surface Details* dialog box in *Mix>MIDI Control Surface* in the Main Window menus and make sure the device is selected, or set the *Surfaces* drop-down menu to Any for Mixcraft to receive control surface messages from all connected controller devices. If your device is not listed in the *Device* drop-down, check that it's plugged in and that the necessary drivers have been installed. You may need to close and re-open the *Control Surface Details* dialog to display new devices.

MIXCRAFT RECOGNIZES SOME KNOBS OR BUTTONS ON MY CONTROLLER, BUT WON'T RESPOND TO OTHER KNOBS OR BUTTONS.

Mixcraft's controls can be set to respond to MIDI Continuous Controller (CC) message, or specific notes on your keyboard. Some controllers only send MIDI Machine Control (MMC) or other types of system-exclusive data that Mixcraft does not respond to - just because it has a bunch of sliders and a MIDI jack, that doesn't necessarily mean it transmits MIDI CC messages. (We're lookin' at you, Roland JD-800 synth owners.) With that said, most newer MIDI or USB devices with a bunch of knobs/sliders/buttons usually do transmit MIDI CC data. (Check your controller's manual.)

GLOSSARY

ASIO

ASIO provides an interface between the audio application and sound card. It's an acronym for Audio Stream Input/Output. It was developed by Steinberg Media Technologies and helps manufacturers and developers to create hardware and driver software extending the personal computer's audio connectivity to meet the needs of musicians and audio engineers. ASIO offers a relatively simple way of accessing multiple audio inputs and outputs. The Audio Stream I/O API addresses the areas of efficient audio processing, high data throughput, synchronization, low latency and extensibility on the audio hardware side. The interface is not bound to any fixed number of input and output channels, and provides a constant streaming model.

ASPI

ASPI stands for Advanced SCSI Programming interface and standardizes communication between a SCSI host adapter and CD drives, hard drives and other devices. (Most people can think of it as a special driver to communicate with your CD writer.)

Audio Clips

Audio clips represent audio files that can be stretched, edited, looped and played in Mixcraft. Audio clips will usually be in OGG, WAV, MP3, WMA or AIFF format.

AVI

AVI (Audio Video Interleave) is a Microsoft video file format standard for storing audio and video on PCs. AVI files can contain compressed or uncompressed video and audio.

BPM

Beats per minute. The usual measurement of tempo in music. In Mixcraft, BPM means quarter notes / minute.

Burn Proof

Burn Proof is a proprietary technology for buffer under-run protection developed by Plextor. Other buffer under-run avoidance technologies are called Safe Burn, Power Burn and Just Speed. Most new drives have a buffer under-run protection technology.

Buffer Under-run

This is when the computer cannot deliver data fast enough to a CD writer.

CD-Quality

CD-Quality is the standard quality used on audio CDs. Its audio specs are 44,100 Hz sample rate, 16-bit, stereo.

Clipboard

The clipboard is a buffer of sounds that can be stored and pasted later. Clipboard operations involving sound is limited to Mixcraft and it will not share audio data with other programs unless you add the audio file directly.

DAO

DAO stands for Disc-At-Once. During the CD burning process, the entire CD is written continuously without the write laser being turned off. This results in seamless, uninterrupted audio with 'seek-able' tracks.

Decibel

The decibel (dB) is a logarithmic unit of relative measurement used to compare the ratio of the intensities of two signals. When an amplitude doubles, the increase corresponds to 6 dB.

Decoder

An algorithm or process for taking compressed or encrypted data and turning it into uncompressed or unencrypted data.

DRM

DRM stands for Digital Rights Management. DRM provides a security layer on software, audio or any type of media to help ensure proper licensing and use of the content. DRM on audio files is constantly evolving and the “jury is still out” as to whether it is effective.

Effects Chain

A group of multiple effects processing audio, arranged in series (i.e., one after the other). Audio is sent down the effect chain list from top to bottom and the final result is heard on your speakers.

Encoder

An algorithm or process for taking uncompressed data and turning it into compressed or encrypted data.

General MIDI

General MIDI or GM is a standardized mapping of patch numbers to specific instruments. For example, patch 0 is always 'Acoustica Piano'. Each GM standard synthesizer will have patch 0 mapped to “Acoustica Piano”. More details can be found on Wikipedia.

IMAPI

IMAPI is the built in burning system found in Windows. IMAPI stands for Image Mastering Application Programming Interface.

ISRC

ISRC stands for International Standard Recording Code. If your intention is to burn an audio CD for commercial use, you will need to enter in your ISRC codes for each track.

Key Signature

The key identifies the tonic triad, the chord, major or minor, which represents the final point of rest for a piece, or the focal point of a section.

Latency

Latency is a delay between the time something occurs and the time that you sense the occurrence. In audio software, this might be the difference from the time audio is mixed and processed to the time you hear it.

Megabyte

A megabyte is approximately one million bytes (1024 X 1024 bytes). A typical hard drive stores around 40 GB (gigabytes). A gigabyte is equivalent to a billion bytes or 1024 X 1024 X 1024 bytes.

Metronome

A metronome is a device or system that produces a regulated pulse, usually used to keep a beat steady in musical compositions.

MIDI

MIDI is an acronym for Musical Instrument Digital Interface. It is the way that physical and virtual synthesizers communicate with each other. For example, when you press middle C on your musical keyboard, it sends a message says "Play Middle C". It is a small and compact series of codes.

MP3

MPEG-1 Audio Layer 3, more commonly referred to as MP3, is a popular digital audio encoding, lossy compression format, and algorithm, designed to greatly reduce the amount of data required to represent audio, yet still sound like a faithful reproduction of the original uncompressed audio to most listeners.

option to upgrade to the full version of Mixcraft allowing CD burning, MP3 file creation, and unlimited tracks.

Multitrack

Multitrack recording ("multitracking" or just "tracking" for short) is a method of sound recording that allows separate recording of multiple sound sources to create a cohesive whole.

Normalize

The process of raising the volume so that the biggest volume in the sound is increased to the maximum possible and the rest of the sound is raised in volume by the same percentage.

OGG

Ogg is a patent-free, fully open, and standardized multimedia bit stream container format designed for efficient streaming and manipulation (concatenation and muxing) by the Xiph.Org Foundation.

Overdub

Overdubbing (the process of making an overdub, or overdubs) is a technique used by recording studios to add a supplementary recorded sound to a previously recorded performance.

Pan

The balance or ratio between the left and right speakers (channels).

Peaks

A visual display of a sound's amplitude over time. (Mixcraft displays one peak per millisecond.)

PCM

Pulse-code modulation (PCM) is a digital representation of an analog signal where the magnitude of the signal is sampled regularly at uniform intervals, then quantized to a series of symbols in a digital (usually binary) code. PCM has been used in digital telephone systems and is also the standard form for digital audio in computers and the compact disc red book format.

Primo

Primo is a CD burning engine created by Primo Software. It is the default burning engine.

Sample Bit Depth

In digital audio, bit depth describes the amount of data contained in each sample, using the unit bits (not to be confused with bytes). Common examples of bit depth include CD audio, which is recorded at 16 bits, and DVD-Audio which can support up to 24-bit audio.

Sample Channels

Sample channels describes the number of channels contained in each audio sample. For example, CD audio has two channels in each sample.

Sample Rate

The sampling rate, sample rate, or sampling frequency defines the number of samples per second (or per other unit) taken from a continuous signal to make a discrete signal. For time-domain signals, it can be measured in hertz (Hz).

Semitone

A semitone, or half-step is a musical interval. It is the smallest interval commonly used in Western music, and is considered the most dissonant.

Standard MIDI File

This is a standard file format that stores multiple tracks of MIDI data. Most MIDI software will read standard MIDI files (.MID)

Tag

A tag is extra ancillary information stored inside of an audio file, which includes things like artist, album, genre and copyright.

TAO

Track-At-Once or TAO is a recording mode where the recording laser stops after each track is finished and two run-out blocks are written. One link block and four run-in blocks are written when the next track is recorded. TAO discs can have both data and audio at the same time.

Tempo

In musical terminology, tempo (Italian for "time", from Latin Tempus) is the speed or pace of a given piece.

Time Signature

The time signature (also known as "meter signature") is a notational convention used in Western musical notation to specify how many beats are in each bar and what note value constitutes one beat.

Time Stretch

Time stretching is the process of changing the speed or duration of an audio signal without affecting its pitch.

Virtual Instrument Clips

A Virtual Instrument Clip contains MIDI data which is a series of notes and other events. To produce actual audio, it sends the note data to the synthesizer configured on a Virtual Instrument Track.

Virtual Instrument Track

A Virtual Instrument Track is a track that has a Virtual Instrument or external synthesizer which it sends MIDI information to.

Volume

The amplitude of sound. The minimum is 0% and the maximum is 200%

VST Effects

Virtual Studio Technology and its acronym VST refer to an interface standard for connecting audio synthesizer and effect plug ins to audio editors and hard-disk recording systems. VST and similar technologies allow the replacement of traditional recording studio hardware with software counterparts.

WAV

WAV (or WAVE), short for Waveform Audio Format, is a Microsoft and IBM audio file format standard for storing audio on PCs.

Waveform

Waveform means the shape and form of a signal, such as a wave moving across the surface of water, or the vibration of a plucked string.

WaveRT

This is the new low latency, high performance audio driver system on Windows Vista. It stands for Wave Real Time.

WDM

WDM stands for Windows Driver Model.

WMA

WMA stands for Windows Media Audio. WMA files contain perceptually encoded sound data.

The frequencies that humans cannot perceive are removed, although some audio purists say they can tell the difference between a high bit-rate WMA and a Wave file. A WMA file can be as much as 20 times smaller than an equivalent WAV file.

WMV

WMV (Windows Media Video) is a Microsoft video file format for storing and streaming audio and video on PCs. WMV files contain compressed video and audio.