TASCAM ▶▶

GVI
Giga Virtual Instrument

Owner's Manual
091806

Copyright Information

Contents

CHAPTER 8: GVI TOOLBARS   48

CHAPTER 9: STACK PROPERTIES   56

CHAPTER 10: CHANNEL PROPERTIES WINDOW   60

CHAPTER 1: INSTALLING GVI

IMPORTANT:
Install the GVI software before inserting your eLicenser for the first time.

License Control Center

The GVI software uses a USB based eLicenser for license management. After installation, the eLicenser must be attached to the system that is running the GVI software. This eLicenser allows a user to install and run the GVI software on multiple systems without requiring any further interaction with the manufacturer by physically moving the eLicenser from system to system.

An eLicenser must contain a GVI license to run the GVI software. Depending on how the software and the eLicenser were acquired, the license may be currently activated on the eLicenser or the user may be required to download the license onto the eLicenser.

The GVI license management technology is provided by Syncrosoft (www.syncrosoft.com), and is the same technology used by popular workstations like Steinberg's Cubase SX and Nuendo. Because of the commonality of this copy protection it is possible to transfer your Syncrosoft based licenses from one eLicenser to another. For example, if you already have a Cubase SX eLicenser, it is possible to transfer the GVI license from the original GVI eLicenser onto the Cubase SX eLicenser, and vice versa. This helps reduce the number of USB devices connected to your system.

Installing the GVI software

Insert the Disc labeled 'GVI Installer Disc 1' into your DVD drive.

Note: If you have the Window's AutoPlay feature turned off, you will need to open the DVD drive icon on your desktop or in 'My Computer', then double-click the file GVI_Install.exe.

The following screen will be displayed:

There are two major components to the GVI installer, the GVI plug-in software and the factory sample content. The factory sample content includes over six Gigabytes of sounds and instruments that can be loaded into the GVI plug-in. Because of the large size of the factory sample content, the user is given the option to disable this portion of the installer.

By selecting the 'Install GVI' option from the main GVI installer menu, the user will be presented with the following screen.
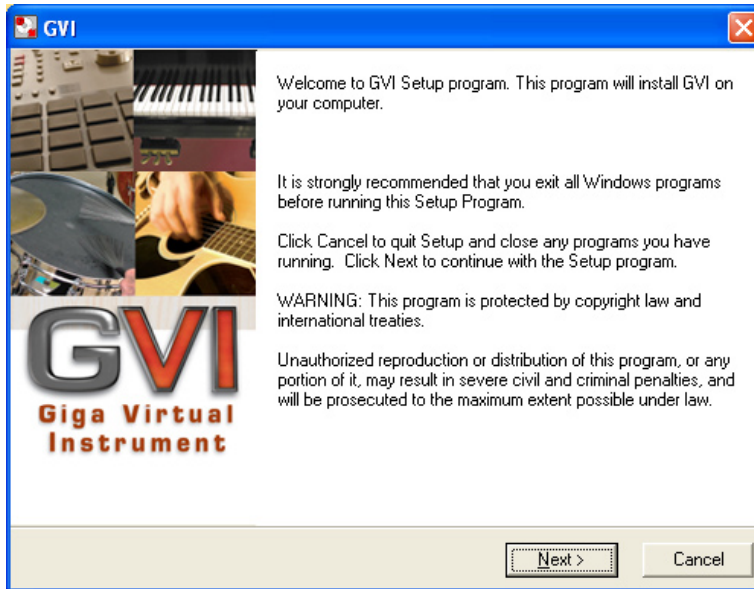
Select the 'Next' button to proceed to the software license agreement page.
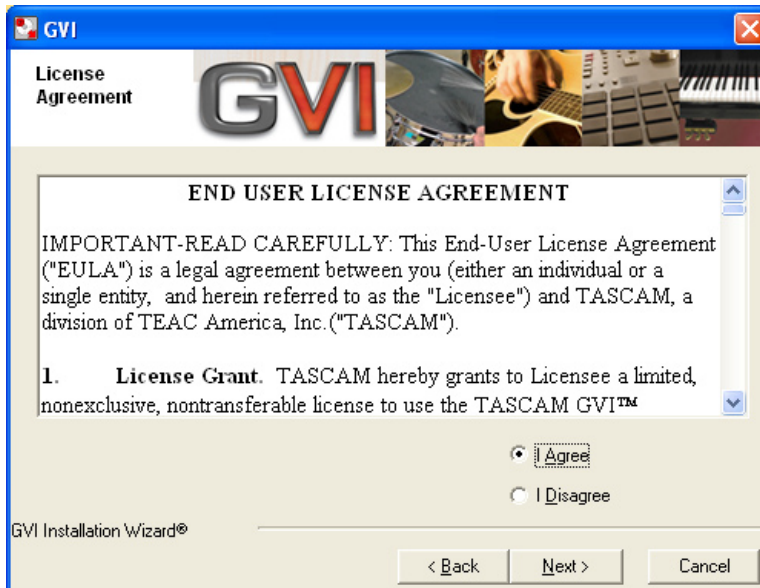
Assuming you select the 'I Agree' option, the 'Next' button will become active. Click the 'Next' button to proceed to the component and destination section of the installation.
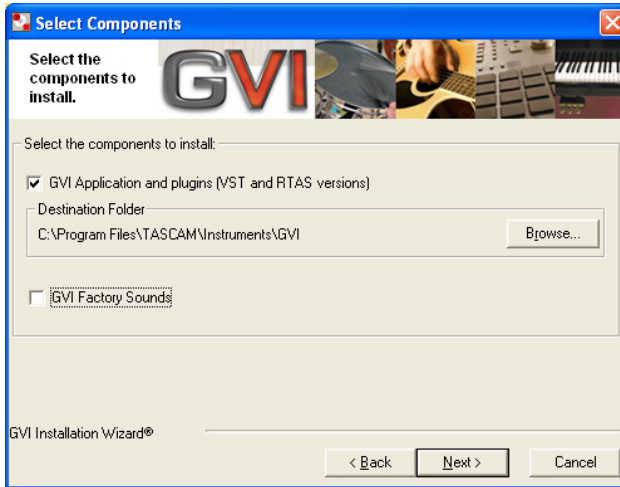
The 'Select Components' screen will allow the user to determine where on the hard-drive the GVI software will be installed. If the default location needs to be changed, use the 'Browse' button to select or create a new location. This screen is also used to determine whether the setup is going to install the GVI factory sample content. Remember, the content install is fairly large and will require a bit of time. If the 'GVI Factory Sounds' option is selected (checked) then the following dialog will be presented after pressing 'Next':

The 'Instruments to Install' page allows you to choose whether or not to install specific components included in the GVI factory sample content and browse to an install location. After the desired content components have been selected, clicking the 'Next' button will take the user to the installation verification screen, which appears as follows:
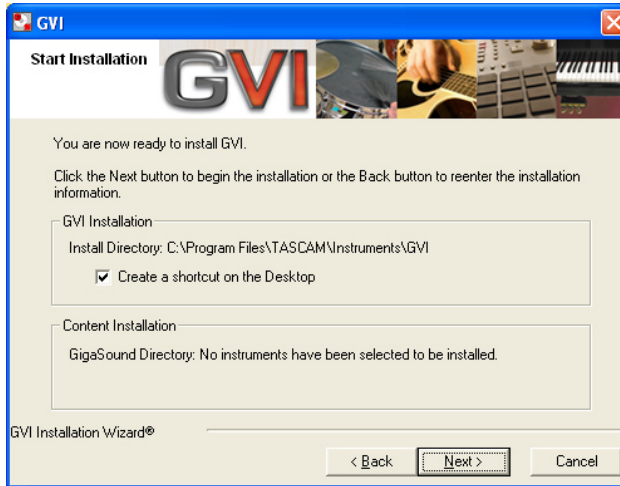
The 'Create a shortcut on the Desktop' checkbox will put a shortcut to the standalone version of GVI onto your Windows desktop. This does not affect the plug-in version.

After verifying that the information is correct, click the 'Next' button to begin the installation process. Once the installation has completed successfully, the following 'Finish' screen will be displayed.

Installing the eLicenser

After the GVI software has been successfully installed, the user can now connect the eLicenser to an available USB port. The eLicenser is compatible with USB hubs. If this is the first time you are inserting the GVI copy protection eLicenser, the Windows operating system will display the following message:

When asked whether or not to connect to Windows Update to search for software, select 'No, not this time'. Click 'Next' to continue.
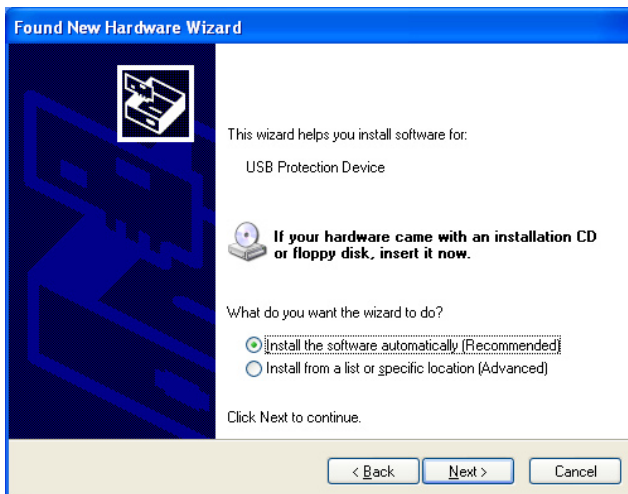
Select 'Install the software automatically (Recommended)' and click the 'Next' button to begin the driver installation. Once the installation is complete, the following screen will appear:

Click 'Finish' to exit the Hardware Wizard.

Once the wizard has completed, the next step is to verify that your eLicenser was properly installed. You can access the Syncrosoft License Control Center software that was installed with GVI through the Windows Start Menu as follows:

Start > Programs > Syncrosoft > License Control Center

A properly installed and licensed eLicenser will appear yellow within the Syncrosoft License Control Center. Please consult the Syncrosoft License Control Center Help file for instructions on transferring licenses between eLicensers.

CHAPTER 2: INSTALLING GVI IN HOST PROGRAMS

In order for your VST/RTAS compatible DAW to recognize GVI as a plug-in instrument, it must first be registered with the host application/sequencer. Your host software will provide full instructions on installing plug-in instruments such as GVI. The following guide is provided as a convenience so you can get up and running rapidly. If your DAW software is not covered below, please refer to that application's documentation regarding virtual instruments.

CAKEWALK SONAR 5 (PRODUCER OR STUDIO EDITION)

1. In order for Sonar to recognize GVI as a VST instrument, it is necessary to run Sonar's VST Configuration Wizard. The wizard can be accessed from Sonar's Tools menu (Tools > VST Configuration Wizard).
2. Click the Add button and navigate to the directory where GVI was installed.
    The default directory is C: > Program Files > Tascam > Instruments > GVI.
3. Click the Next button to begin the plug-in registration process.
4. Once the wizard is completed, GVI will be available to SONAR as a VST instrument.

STEINBERG CUBASE SX 3 / NUENDO 3

1. From the Cubase/Nuendo Device Menu, choose Plug-in Information.
2. Click the Add button and navigate to the directory where GVI was installed.
    The default directory is C: > Program Files > Tascam > Instruments > GVI.
3. Click Apply then close the Plug-in Information window.
4. GVI will be available as a VST plug-in the next time you launch Cubase/Nuendo.

CUBASE LE

1. Cubase LE only recognizes one user-definable VST Plug-in folder, therefore, in order to host GVI within Cubase LE you must install GVI into the Cubase LE VST Plug-in folder.
2. To install GVI into a directory other than the TASCAM default, direct the GVI install wizard to the Cubase LE VST Plug-in folder on the installers 'Select Components' page.

ABLETON LIVE 5

1. Ableton Live only recognizes one VST Plug-In Custom Folder. The default directory is C: > Program Files > Steinberg > VST plugins.
   Ableton's VST folder can be changed under the Plug-In Tab in the applications Preferences.
2. In order for Ableton to recognize GVI as a VST instrument, "GVI.dll" must be present in Ableton's VST Plug-In Custom Folder. This can done manually by copying the file titled "GVI.dll" from the original GVI install directory into Ableton's VST Plug-In Custom Folder, or by installing GVI directly into Ableton's VST Plug-In Custom Folder using the GVI factory installer.

SONY ACID PRO 6.0

1. From the Acid Options Menu, choose Preferences.
2. In the Preferences dialog, select the tab labeled 'VST Instruments'
3. Enter the search path (install directory) for GVI into either 'Alternative VSTi search folder 1' or 'Alternative VSTi Search folder 2'.
4. Hit the 'Refresh' button and exit Preferences.

DIGISEDIGN ProTools

Once Digidesign ProTools software has been installed on your system, the GVI installer will automatically install into the proper RTAS directory.

Note: Because GVI is a Stereo plug-in, it can only be inserted into a Stereo Audio/Instrument track within ProTools. GVI will not appear in Mono Audio/Instrument tracks within ProTools.

CHAPTER 3: OPTIMIZING YOUR SYSTEM FOR GVI

GVI is a high-performance instrument. Fortunately, it is also very efficient. However, in order to optimize GVI's performance on your system, please observe the following recommendations:

- Although GVI streams samples directly from disk, it also preloads a small portion of the loaded samples into RAM for a lower latency attack. The more RAM you have installed in your computer, the more instruments you will be able to load into GVI.

- Your installation of Windows XP (Home or Professional) must be updated to Service Pack 2. GVI will not work with SP1. To find out what your computer is running, right-click on My Computer, select Properties, and check under System (General Tab). You can update your computer to SP2 for free by going to www.windowsupdate.com.

- The DAW program hosting GVI may require significant computer resources. Your computer must meet the recommended system requirements of your host app before you start using GVI as a plug-in.

- GVI has 16 MIDI channels, and while opening up multiple instances of GVI is possible, operation is more efficient if you load the instruments you need into a single GVI instance. Ideally, a second instance of GVI should be loaded only when all 16 channels of the first instance are being used.

HARD DRIVE CONSIDERATIONS

SEPARATE DRIVE FOR SAMPLE CONTENT

Because GVI performance depends on hard disk performance, TASCAM strongly recommends you dedicate a separate physical hard drive to your sample content.

Creating a separate partition for sample content on your system drive is not the same as a separate physical drive.

DEFRAGMENTATION

Make sure you defragment your sample data drive after re-arranging the data on it. For office applications defragmentation isn't as crucial, but for audio and video applications defragmentation remains very important for optimum performance.

Before defragmenting, it is a good idea to make a back up copy of the data on the drive being defragmented.

To defragment your drive:

1. Go *Start > Programs > Accessories > System Tools > Disk Defragmenter.*

2. Click on the drive that contains your GVI sample data.
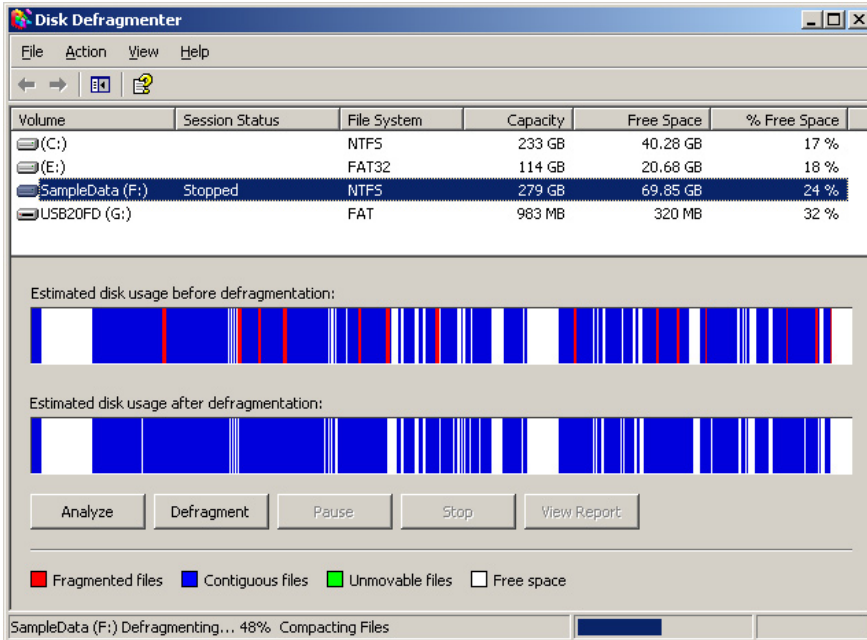
3. Click on the Defragment button.

This process may take a lot of time if a high-capacity disk has never been defragmented before. Note that there still may be a few fragmented files after the defragmentation process is complete; this is normal.

CHAPTER 4: GVI CONFIGURATION MANAGER

GVI SYSTEM AND STANDALONE SETTINGS

GVI can be run either as a hosted VST virtual instrument or as a standalone application, independent of a host program. For example, when performing live, you can run GVI from a laptop, hook up a MIDI keyboard controller, and treat it as you would any hardware sample player.

When using GVI as a plug-in, most of the global configuration settings are handled by the host program including Midi input, audio driver selection, sampling rate, bit depth, and latency preferences. However, when using GVI in standalone mode, global configuration settings must be made using the GVI Configuration Manager.

The GVI Configuration Manager can be launched either from the Window's Start menu (Start > Programs > Tascam > GVI > GVI Configuration Manager) or by selecting "Configuration..." from the GVI System menu while the program is running.
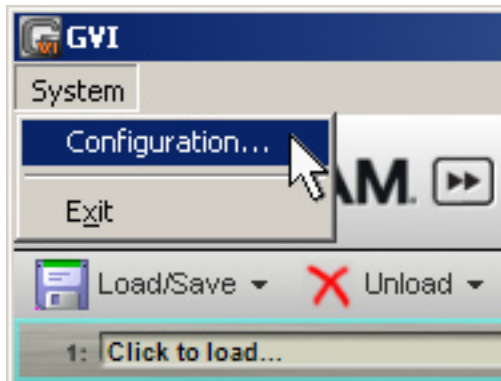
GENERAL PAGE

Click on the "General" tab to access the *Environment* and *Synthesizer Engine*
sections. The options found on the "General" tab apply to GVI in both hosted
and standalone modes while the options found on the "Stand Alone Mode"
tab apply only to GVI standalone.
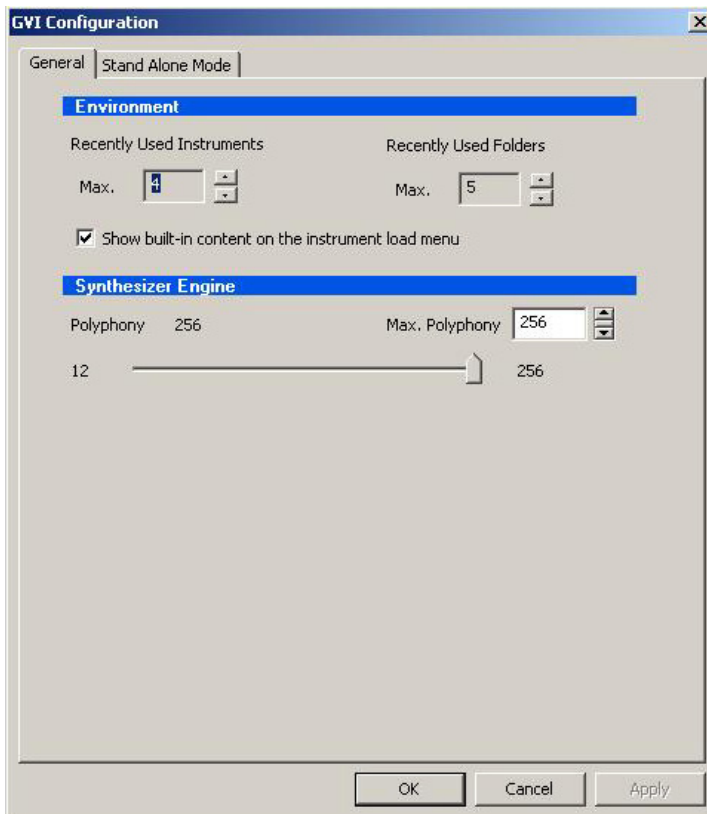
ENVIRONMENT SECTION

RECENTLY USED INSTRUMENTS

When you click on a channel's "Click to Load..." Pop-up menu on the GVI
MIDI Mixer screen, within the "Load" menu you will see a list of *recently
used instruments*. The Recently Used Instruments parameter in the GVI
Configuration Manager sets the number that will be listed in this menu,
from 4 to 32. The following screen shot shows what the load menu looks like
when the list of recently used instruments is set to 4.

RECENTLY USED FOLDERS

The *Recently Used Folders* value in the GVI Configuration Manager sets the
number of folders that appear in the "Recent" drop-down menu when you
open the GVI file browser (Load > Browse), and can be set between 5 and 32.

SYNTHESIZER ENGINE SECTION

MAXIMUM POLYPHONY FIELD

The GVI maximum polyphony, which defaults to 256 voices, is variable from 32 to 5,867 voices. Increasing the maximum polyphony demands greater CPU resources, so avoid setting the maximum polyphony higher than required. If your computer cannot handle the current maximum number of voices, reduce this number until no audio interrupts occur.
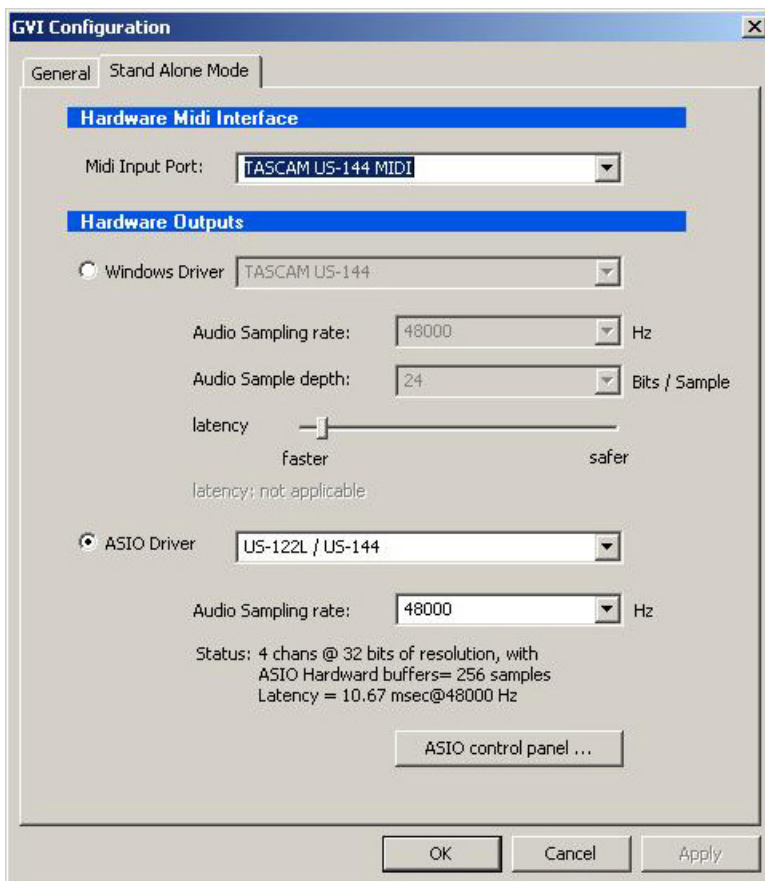
POLYPHONY SLIDER

The Polyphony slider allows setting the amount of polyphony between 12 voices and the specified maximum.

STAND ALONE MODE PAGE

The Stand Alone Mode page determines the MIDI interface, hardware outputs, and type of audio driver that GVI will use when operating in standalone mode.

(When GVI is used as a plug-in, these selections are not relevant)

HARDWARE MIDI INTERFACE SECTION

This is where you choose the computer MIDI input port from which GVI will receive MIDI data. Use the *MIDI Input Port* drop-down menu to select an input from the available ports.

HARDWARE OUTPUTS SECTION

GVI can work with Windows (WDM) or ASIO drivers. Both are capable of low-latency performance, although some audio interfaces will perform better with one driver type than another, or may support only one driver type. If multiple driver options are available, experiment to determine which offers the best performance.

WINDOWS DRIVER OPTIONS

Windows Driver drop-down menu: This lists all available Windows driver-compatible interface drivers installed on your system; only one driver may be selected at a time.

Audio Sampling Rate drop-down menu: This lists all sample rates supported by your audio interface hardware. GVI always reads in samples at their native sample rate and then upsamples/downsamples them to the specified audio interface sample rate.

Audio Sample Depth drop-down menu: This Lists all bit resolutions supported by your audio interface hardware. GVI always reads in samples at their native resolution and then processes them at 32bit resolution.

Latency slider: All computer-based systems require some processing time. Therefore, there is a slight delay between the time you trigger a note and when you actually hear it. Lower latencies are desirable for the tightest "feel" when playing, but require a faster CPU. Setting latency too low can cause pops and breakups in the audio stream, so choose a value that represents a good compromise between "feel" (faster) and performance (safer).

ASIO DRIVER OPTIONS

ASIO Driver drop-down menu: This lists all available ASIO-compatible interface drivers. Only one ASIO driver may be selected or active at a time.

Audio Sampling Rate drop-down menu: Lists all sample rates supported by your audio interface hardware. Changing this value may or may not be reflected in your audio interface's control panel, and these two settings must be the same. To verify changes, click on the "ASIO Control Panel" button and adjust your interface's sample rate if necessary. After altering the sample rate it may be necessary to close, then re-open GVI.

Status field: This is read-only and summarizes the characteristics of your ASIO audio interface. Click on the *ASIO Control Panel* button for more information on the performance and settings of your particular audio interface.

APPLYING CHANGES

After making any changes to the GVI Configuration Manager, it is necessary to apply them. Click on the Apply button, and then click on OK to exit the Configuration Manager.

CHAPTER 5: USER INTERFACE BASICS

GVI's interface can be as simple or as complex as needed and is divided into three basic sections: the MIDI Mixer (default), the Instrument editor (QuickEdit), and the GigaPulse/ FX editor. All three of these sections share the same set of graphical controllers and fields. The following section explains the use of these basic controls.

SLIDERS

- Click on the slider button and drag right or left to adjust the value. As soon as you click, the cursor hides to make for easier adjustments.
- Hold the Shift key while dragging for finer adjustments.
- Ctrl-click on the slider to set it to the default value.
- To enter a number directly, click within the slider's value field and type in a number. Be sure to hit 'Enter' to apply the value.

KNOBS

- Click on the knob and drag up or to the right to move the knob clockwise.
- Click on the knob and drag down or to the left to move the knob counter-clockwise.
- For fine adjustments, hold the Shift key while dragging.
- Ctrl-click on the knob to set it to the default value.
- To enter a number directly, click within the knob's value field and type in a number. Be sure to hit 'Enter' to apply the value.

DROP-DOWN MENUS
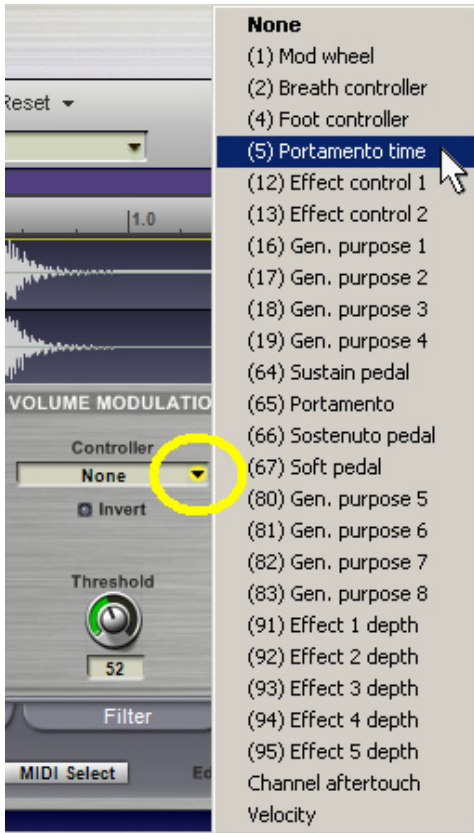
Downward-pointing arrows indicate a GVI drop-down menu. To open a menu, click on a field's downward-pointing arrow, move the cursor to the desired selection, then click. When a menu item contains additional options, a right-pointing arrow will be present next to that selection. Highlighting a menu item that contains additional options will reveal its contents.

BUTTONS

Most buttons are toggles: Click once to enable, once to disable. When a button is enabled it will be highlighted some obvious color (green, red, yellow, etc), a gray button is disabled. If a button opens up a window, closing the window turns the button off.
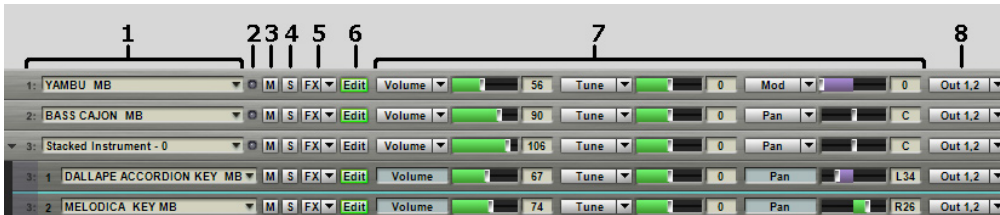
CHAPTER 6: MIDI MIXER

MIDI MIXER CONTROLS

Each MIDI mixer Channel and Sub-Channel (Stacked Instrument member) has a full complement of mixer-like controls. Following is a numbered diagram and description of each parameter found in the MIDI Mixer view.

1. Channel Slot – The channel slot field is where you load and detach instruments to a particular MIDI channel. Once an instrument has been attached to a channel or sub-channel, the name of that instrument appears in the channel slot field. Clicking on the Channel Slot drop-down menu opens a channel specific menu that allows you to Load, Stack, or Detach instruments, open the 'Loaded Instruments' dialog, or edit Stack and Channel properties (keyboard mapping).

2.MIDI activity light – illuminates when the channel is receiving MIDI data

3. Mute – silences a channel's incoming MIDI

4. Solo – silences the incoming MIDI of all other channels so you hear only the soloed channel

5. FX – displays the GigaPulse view for instruments that have embedded convolution. If there is more than one instance of GigaPulse embedded in the instrument, a popup menu will appear allowing you to select the desired instance. This button will appear green when embedded convolution is present on a channel.

MIDI MIXER CONTROLS-Continued:

6. Edit button – When a MIDI channel contains an attached instrument, the Edit button will appear green (active). Clicking the Edit button opens the QuickEdit View for the instrument loaded on that particular channel. Once the QuickEdit view is opened, you can then select instruments loaded on alternate MIDI channels using the drop-down menu located just under the file management toolbar.

7. Assignable MIDI sliders – The three available MIDI sliders default to controlling a channel's Volume, Tune, and Pan, but can be assigned to any MIDI controller from 1 to 119 as well as program change, fine tune and course tune via the controller name's drop-down menu. This provides a convenient way to adjust MIDI CC data from the main MIDI Mixer view. Changing a slider assignment does not alter the CC value of the previous assignment. For example, if you set a Channel's volume level, then change the slider to control LFO modulation, the volume level remains where you set it.

8. Output Assign – When hosted as a plug-in, GVI has sixteen stereo output pairs that can appear in your host applications mixer, and each MIDI Channel is assignable to one of these output pairs. When GVI is run as a standalone application, the output assignments in the MIDI Mixer correspond to the available physical outputs of the active audio interface. If there are active effects (embedded GigaPulse) present, there will also be one or more FX channels that you can assign your MIDI mixer (sub-)channel to. You can control the output routing of the FX channels by clicking on the GigaPulse button (on the menu bar).

THE VIRTUAL KEYBOARD

The Virtual Keyboard, located at the bottom of the GVI interface serves
many functions. You can 'play' the keyboard with a mouse to audition
sounds rapidly, allowing you to test and edit sounds even if a hardware
keyboard isn't connected. The Virtual Keyboard is also used to illustrate the
playable range of each instrument and any keyswitched articulations that
may be present in the instrument. With *MIDI Select* enabled in the QuickEdit
view, the Virtual Keyboard also enables you to select individual notes to be
edited.

COLOR CODED

Multiple colors are used to indicate the function of each active
Virtual Keyboard region. Following is a list of the colors used and their
corresponding function:

· Black/White – Indicates the playable range of an instrument

· Gray – Indicates that a key is unused

· Green – Indicates a Dimension keyswitch
 (a black dot shows the currently active key)

· Blue – Indicates a Stacked Instrument keyswitch
 (a black dot shows the currently active key)

· Bright Yellow (QuickEdit) – Indicates focus region, the single region whose
 parameters are displayed

· Dim Yellow (QuickEdit) – Indicates selected regions (other than the focus)
 to which edits will be applied

VIRTUAL KEYBOARD NAVIGATION

The pair of controls found on both the left and right side of the Virtual Keyboard performs the following functions:

Left Arrow

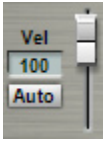Scrolls the Virtual Keyboard left, so that lower notes come into view

Right Arrow

Scrolls the Virtual Keyboard right, so that higher notes come into view

VELOCITY SENSITIVITY CONTROLS

The GVI Virtual Keyboard is also velocity sensitive. When the Auto option is enabled (highlighted green), clicking toward the bottom of a key produces a higher velocity while clicking towards the top of a key produces a lower velocity. When the Auto option is disabled, you can use the slider to set a fixed velocity level.

VIEWING AN INSTRUMENT'S LAYOUT

The virtual keyboard only shows the layout of the instrument(s) on the currently selected channel or sub-channel.

In the case of Stacked Instruments, when the Main MIDI channel is selected, the virtual keyboard shows the union of all sub-channel regions (Stack Members) in addition to any Keyswitches present. When a sub-channel (Stack Child) is selected, the Virtual Keyboard shows only the playable region of that single instrument in addition to any Keyswitch regions that it contains or belongs to (including a global Stack Keyswitch).

It is possible for a Stack Child (sub-channel) to contain a dimension keyswitch as well as be a member of a global Stacked Instrument keyswitch. In these cases, both green and blue regions will be present in the Virtual Keyboard layout when that sub-channel is selected.

CHAPTER 7: LOADING INSTRUMENTS AND PRESETS

GVI FILE FORMATS

There are three main file types that can be used with the GVI platform. Theses files include GIG files (GigaStudio Instrument files), GSI (GigaStudio Stacked Instrument files), and Presets that are accessed through the native GVI Load/Save Preset menu. GIG files would typically be stored on your dedicated sample drive while GSI files can be stored anywhere on your system. Presets are automatically stored in a single centralized location.

The GVI UI defaults to a sixteen channel MIDI Mixer view when initialized. Not only can you perform basic mixing and routing functions within the MIDI Mixer, it's also where you manage what instruments and files are loaded on each MIDI channel. Following is a more detailed description of GVI compatible file formats:

GIG Files - GIG (.gig) files can contain multiple (single) instruments and are arranged in banks. These instruments may be loaded or stacked into the MIDI mixer's individual channels using the MIDI Channel drop-down menus. When a GIG file is loaded that contains multiple instruments, all of the contained instruments are loaded into RAM, but only the first instrument is attached to the specified MIDI channel.

GSI Files - GSI (GigaStudio Stacked Instrument) files can be either loaded or exported (saved) from within GVI using the MIDI Channel drop-down menus. GSI files are similar to GVI Presets in that they remember much of the GVI interface including loaded instruments, MIDI Mixer settings, audio routing, instrument specific editor tweaks, and GigaPulse tweaks. The main difference between a Preset and a GSI file is that the sampler is reset (cleared) when a Preset is loaded while a GSI file can be loaded into a session that already contains instrument assignments.

GSI files can contain multiple instruments either loaded on separate MIDI channels or loaded on a single MIDI channel as a stacked instrument.

PRESETS -   Preset files are loaded through the Global Load/Save Preset Menu located in the GVI File Management toolbar. Presets recall the entire state of GVI instance including loaded instruments, MIDI Mixer settings, QuickEdit adjustments, GigaPulse tweaks, audio routing, etc. When a preset is loaded, the sampler is first fully reset to its default state before the preset instruments and settings are recalled.

*GSP (GigaStudio Performance) files are not compatible with GVI since those files reference multiple MIDI ports and the GigaStudio DSP Station Mixer, both of which are not present in GVI. Transferring configurations between GVI and GigaStudio is done via the GSI file format.

STACKING VS. LOADING

In this picture, Channel 1 has loaded a stacked instrument with the default name of 'Stacked Instrument – 0', which contains two stack members (single instruments), Melodica and Dallape Accordian. Channels 2, 3, and 4 each contain single instruments.

There are two ways to add instruments to a channel in the MIDI mixer using the MIDI Channel drop-down menus. You can select which mode to use by clicking on a channel's drop-down menu.

Loading an Instrument replaces anything currently loaded on a MIDI Mixer channel. The previous instruments are detached from the channel but not "unloaded" (see below).

Stacking adds an Instrument to a MIDI mixer channel without detaching any currently loaded instrument(s). When more than one instrument is loaded on a single MIDI Mixer channel, a stacked instrument is created containing all of the currently loaded instruments (stack members). The "Stack" option is not available until at least one instrument is loaded on a MIDI mixer channel.

DETACHING VS. UNLOADING

There are two ways to remove instruments from the MIDI mixer using the MIDI Channel drop-down menus.

Detaching clears the Instrument from a MIDI mixer channel, but it remains loaded in memory (RAM). Therefore, it can be recalled by a program change either into the original channel to which it was assigned, or into an alternate channel.

Unloading removes the Instrument from memory altogether. Use this if you don't expect to use the Instrument any more, thus freeing up RAM.

LOADING A SINGLE FILE INTO A MIDI CHANNEL

A MIDI channel that contains no instrument assignments displays "Click to Load..." in its channel slot field. Here's how to load a File:

1. Click on the Down Arrow located on the right border of the channel slot field of an empty MIDI channel to open that channels drop-down menu.
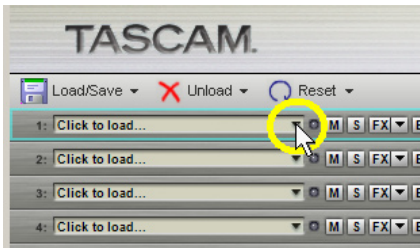
 Channel Load menu

2. Move the cursor over the "Load" menu item.
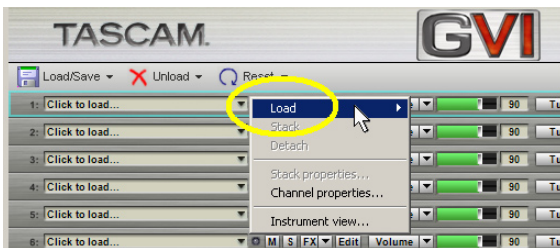
3. Under Load, a menu appears with two options: Browse followed by a list of recently loaded files.

4. If you choose one of the files from the list of recently loaded instruments, it will automatically load on the specified channel. If you choose Browse, a new navigation window appears allowing you to browse for GIG and GSI files. Refer to the numbered/lettered callouts below for what each section of the screen shows.
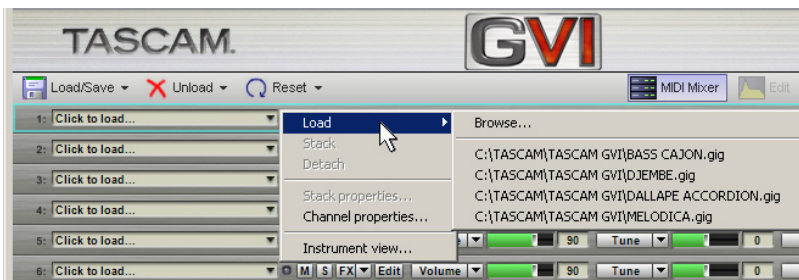
GVI Instrument Browser
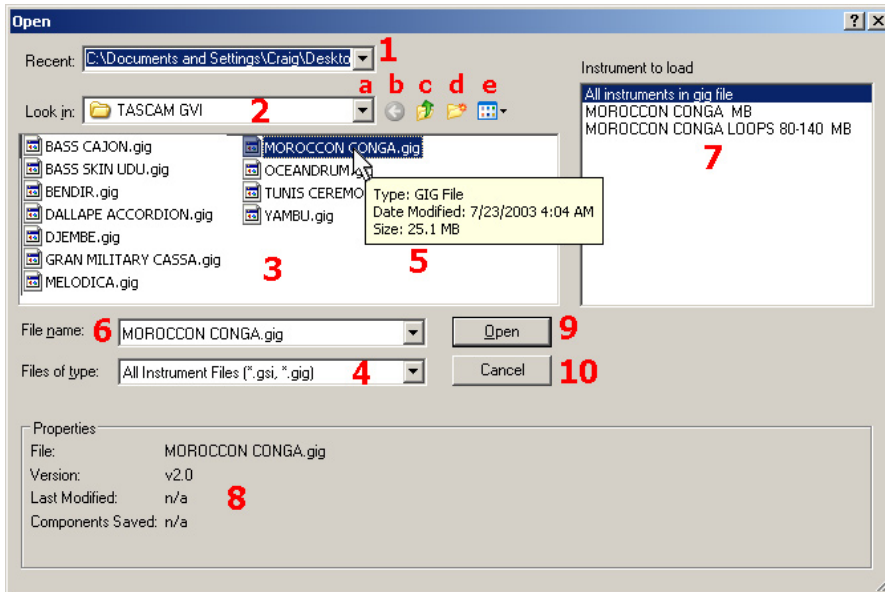
1. The drop-down menu in "Recent" displays recently-accessed folders. If you select one of these, it will appear in the "Look In" field.
2. The "Look In" field uses standard Windows navigation techniques to find folders containing GVI-compatible files. The drop-down button (a) shows your computer's file tree; the four navigation buttons are Back button (b), Up One Level of the file tree (c), create New Folder (d), and View Options (e).
3. Upon selecting a folder, this pane shows any .GIG or .GSI files within the folder.
4. In the Files of Type field, you can choose to display only .GIG, only .GSI, both types of files, or All Files (including non-GVI compatible types).
5. If you hold your mouse over one of the file names, a "tooltip" shows the type of file, date modified, and size.
6. Click on a file name, and its name appears in the File Name field.
7. If a .GIG file contains more than one instrument, the individual instruments show up in the "Instruments to load" pane. Here you can select to load an individual instrument or "All Instruments in Gig File."
8. The Properties section shows the file name, version, and other information.
9. Once you've selected the instrument(s) you want to load, click on Open.
10. This option closes the "Open" dialog.

Note: You can also drag-and-drop a .GIG file from the desktop into a MIDI mixer channel. If the channel already contains an instrument, the existing file will be detached.

Factory Content

If factory content was initially installed when GVI was installed, there will be categorized pulldown menus for that content under the 'Load' menu. To disable this display, uncheck "Show built-in content on the instrument load menu" on the General tab of the GVI Configuration window, which is checked by default.

DETACHING A FILE FROM A MIDI CHANNEL

Detaching removes an instrument from a channel but does not remove it from memory (RAM).

To detach an instrument, click on the down arrow located near the right border of the channel slot field, and select *Detach* from the drop-down menu.
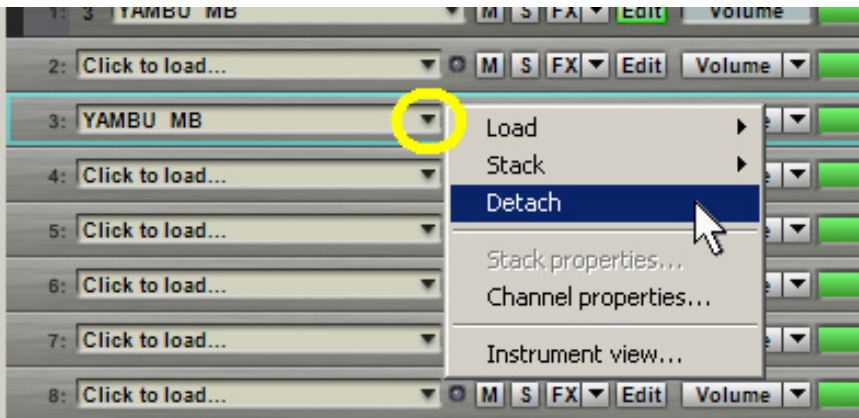
LOAD STATUS BAR

A Status Bar along the bottom of the GVI interface monitors the progress of an Instrument or Preset load. Note that MIDI messages received by GVI will not trigger sound while instrument loading is in progress.
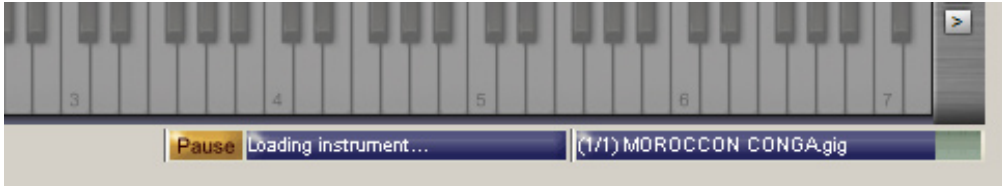
There are three components to the status bar. From left to right, these are:

- **Pause button.** Click here to pause or cancel the loading process.
- **Status field.** This field monitors the overall progress of all instruments currently loading.
- **Progress field.** If multiple Instruments are being loaded, this field shows which of the set of Instruments is being loaded (e.g., 2/7 means that the second of seven Instruments is being loaded), the Instruments name, and how much of the Instrument has been loaded.

NOTE: when loading a multi-instrument GIG file, only the first instrument contained in the GIG file will be attached to the specified MIDI channel. The other instruments are loaded into memory and can be found in the Loaded Instrument Viewer on the menu bar.

STACKING FILES ON A MIDI CHANNEL

Once a channel contains one or more loaded instruments, the option to *Stack* instruments appears in that channels drop-down menu. *Stack* works similarly to *Load*, and uses the same type of browser. However, selecting a file will not replace the existing instrument, but layer the newly selected instrument on the same channel. Without defining a Keyswitch (see below), MIDI messages sent to that channel are passed to all instruments on the stack, which play back simultaneously.

Note: To drag-and-drop a .GIG file from the desktop into a mixer channel and have it stack with an instrument instead of overwrite it, hold down the Ctrl key as you drag-and-drop.
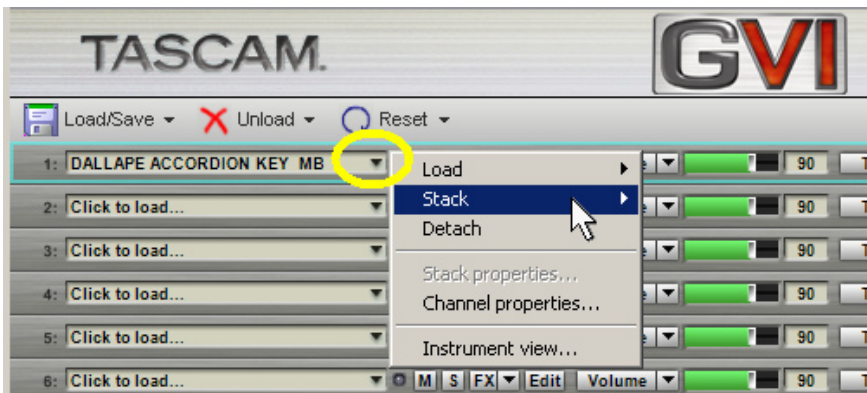
A Stacked Instrument can be seen as having two components, the "Main" instrument stack and the subsequent stack "Members" that appear in "sub-channels" beneath the Main Stacked Instrument MIDI channel. Changes made to a stacked instrument's Main MIDI Mixer parameters affect all of the stacks sub-channels. Changes made to a sub-channel's MIDI Mixers parameters affect only that single instrument.

DETACHING A SUB-CHANNEL INSTRUMENT

To detach one sub-channel instrument while leaving the other ones in place, click on the downward pointing arrow toward the left of the sub-channel field, and select Detach.
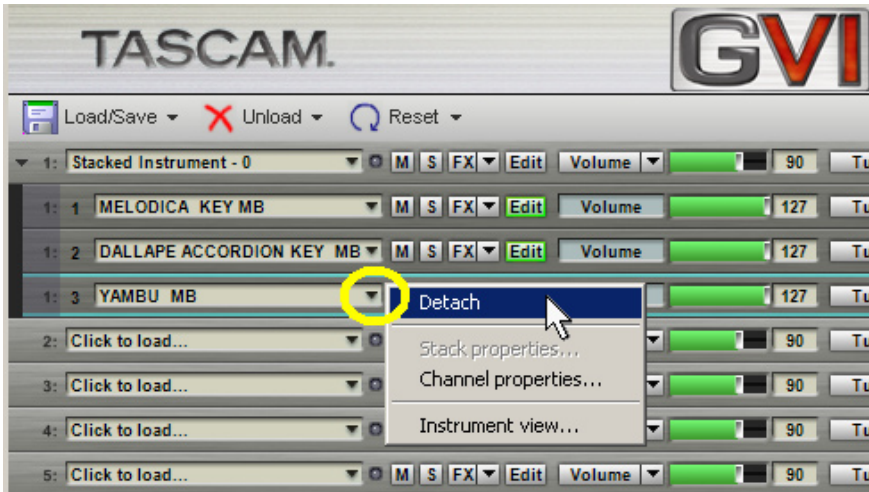

Note: when detaching one sub-channel instrument from a Stacked Instrument that contains a Keyswitch, it may be necessary to redefine the Keyswitch within the channels Stack Properties (see below).

RENAMING A STACKED INSTRUMENT

There are two ways to rename a Stacked instrument:

1. From the MIDI Mixer, simply click the current stack name within the Main channels slot field and type in a new name. Be sure to hit the enter key to apply your changes.

2. Open the Main channel's **Stack Properties** dialog from within the channel slot field drop-down menu. Replace the name in the "Stack Name" field with the new name and hit enter to apply your changes. Then click "OK" to close the **Stack Properties** dialog.
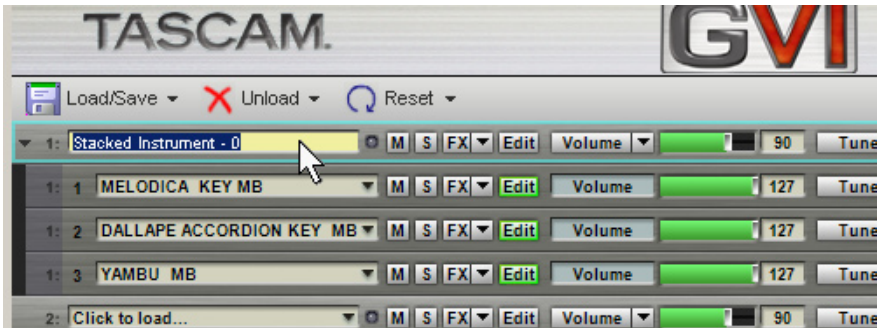
ADDING A KEYSWITCH TO AN INSTRUMENT STACK

The default behavior for a Stacked Instrument is for all of the sub-channel instruments to play back when a note is played, giving the user a simple way to create layered instruments quickly. However, it is also possible to limit Stacked Instrument playback to one sub-channel instrument at a time and control which sub-channel is active using either a MIDI Controller or a keyboard Keyswitch.

To enable MIDI switching for a Stacked Instrument, select "Stack Properties" from the Main MIDI channel's drop-down menu. Within the Stack Properties dialog, choose either 'Keyswitch' or 'MIDI Controller' from the *Instrument Selector* drop down menu.

If you choose 'Keyswitch', you can define the Keyswitch keyboard range by either typing in the boundaries manually or by using the 'Learn' feature (play the low boundary note first, then the upper boundary note).

If you choose 'MIDI Controller', you can either specify a controller using the 'Controller' drop-down menu or by using the 'Learn' feature (simply enable the 'Learn' button and toggle the desired controller to make the assignment).

To the right of the 'Learn' button is a drop-down menu labeled "Use (all) Instruments". This is where you define how many of the Stacked Instruments sub-channels are to be included in the Keyswitch. Unless you are including an encoded GigaPulse FX module on your Stacked Instrument, the default setting of 'ALL' should be used. Because GigaPulse FX Modules are to be applied to all sub-channels and because they are not sample-based instruments, they do not need to be included in a Keyswitch. Therefore, you would exclude GigaPulse FX Modules from a Stacked Instrument keyswitch.

Exit out of the stack properties dialogue by pressing OK
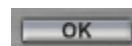
Note: *See section titled STACK PROPERTIES DIALOG for additional Keyswitch information.*

SHOW/HIDE SUB-CHANNELS

Because a stacked instrument can contain many sub-channels, it may be useful to collapse a stacked instrument so that only the Main MIDI Mixer channel is visible. The black arrow to the left of the Stacked Instrument channel field is a toggle switch that shows or hides the sub-channels.
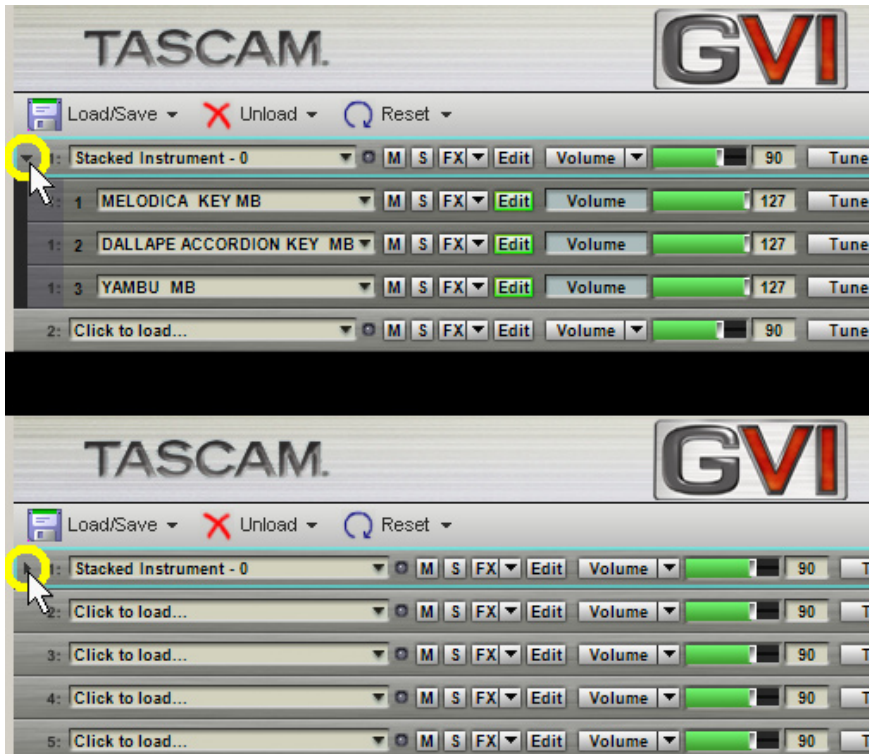
In the screenshot above, the upper view shows the sub-channels (notice the arrow points downward) and the lower view hides the sub-channels (notice the arrow points to the right).

DRAG-AND-DROP LOADING OF INSTRUMENTS

You can also load an instrument by dragging a GIG or GSI file directly from Windows Explorer into a MIDI channel. By default, when you drop a file onto a MIDI channel that already contains a loaded instrument, the currently loaded instrument is detached and replaced by the new instrument. In order to stack files on a MIDI channel, hold down the CTRL key while dragging and dropping.

LOADING FROM THE INSTRUMENT VIEWER

Once an instrument is loaded into GVI, it remains loaded in memory (RAM) whether it is attached to a MIDI channel or not. This makes it possible to attach/detach loaded instruments quickly using MIDI program changes.

To view all instruments currently loaded into memory, click on the'Instrument Viewer' icon located under the GIGA logo on the menu bar. This will launch the "Currently Loaded Instruments" display. You can drag instruments directly from this display into the desired MIDI channel slot field (hold down CTRL while dragging to stack an instrument).

You can also unload instruments from within the Instrument Viewer by right-mouse clicking on an instrument and selecting one of the following popup menu items:

· unload: unloads the single selected instrument

· unload all: unloads all loaded instruments

· unload unused: unloads all instruments that are not currently attached to a channel
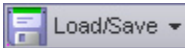
CHAPTER 8: GVI TOOLBARS

THE GVI FILE MANAGEMENT TOOLBAR

The upper left portion of the GVI Toolbar contains a group of three file management buttons: Load/Save, Unload, and Reset. This portion of the Toolbar allows you to save and load Presets, manage the unloading of instruments, and reset global aspects of GVI.
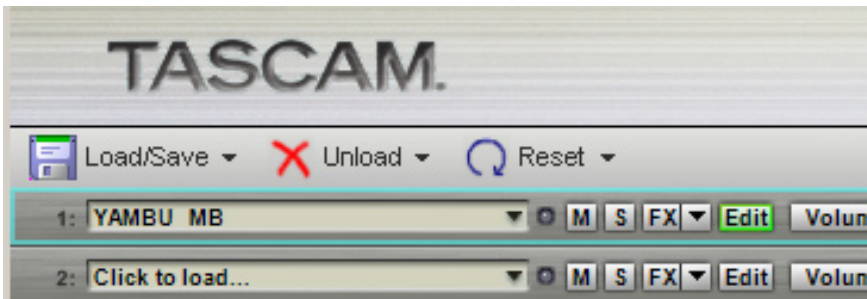
LOAD/SAVE BUTTON (PRESET AND GSI MANAGEMENT)


ABOUT PRESETS

GVI Presets are similar to GigaStudio GSP (GigaStudio performance) files in that they save and recall the entire state of the GVI instance. Presets allow for efficient loading of collections of instruments and MIDI mixer settings that you use frequently, or as a template.

Individual Presets can be organized into user-defined Banks or they can be saved directly into the default Preset menu. User-defined Banks appear in the *Load preset* menu as folders. Presets contained within a Bank are revealed when that Bank is highlighted in the Menu. Presets saved into the default Preset menu appear in the root level of the *Load Preset* menu for quick access.
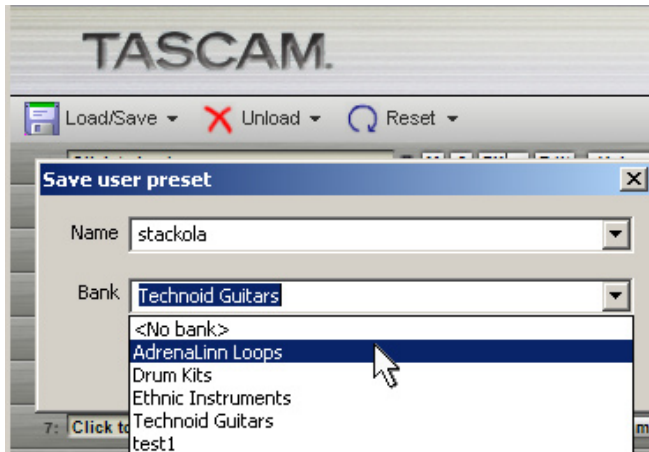
SAVING PRESETS

1. Click on the Load/Save button to open the drop-down menu.

2. Select Save Preset.
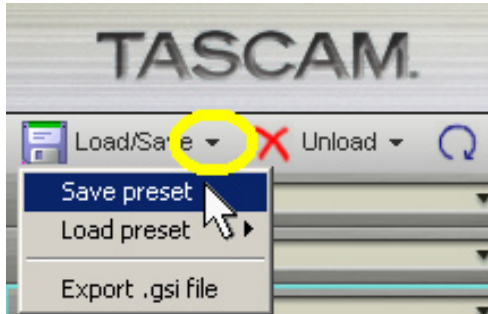
3. The 'Save user preset' dialog box appears.

4. To enter a new name, highlight the existing name in the 'Name' field and type over it. It is also possible to replace an existing Preset by selecting that preset's name from the 'Name' field drop-down menu.

5. To save a Preset without a Bank (into the root level of the Load Preset menu), select <No Bank> from the 'Bank' field.

6. To create a new Bank for your Preset, highlight the existing Bank name in the 'Bank' field and type over it.

7. To save the Preset into an already existing Bank, use the 'Bank' field drop-down menu to choose the desired Bank.

8. Click 'OK' to save the Preset/Bank and exit the 'Save user preset' dialog. Your newly saved Preset/Bank will now appear within the Load Preset menu.

LOADING PRESETS

NOTE: *When a preset is loaded, all current instruments are unloaded and the sampler is Reset to a default state.*

1. Click on the Load/Save button to open the drop-down menu.

2. Highlight the Load Preset menu item to reveal a list of Presets and Banks. Banks appear as folders indicated by a right arrow next to their name.
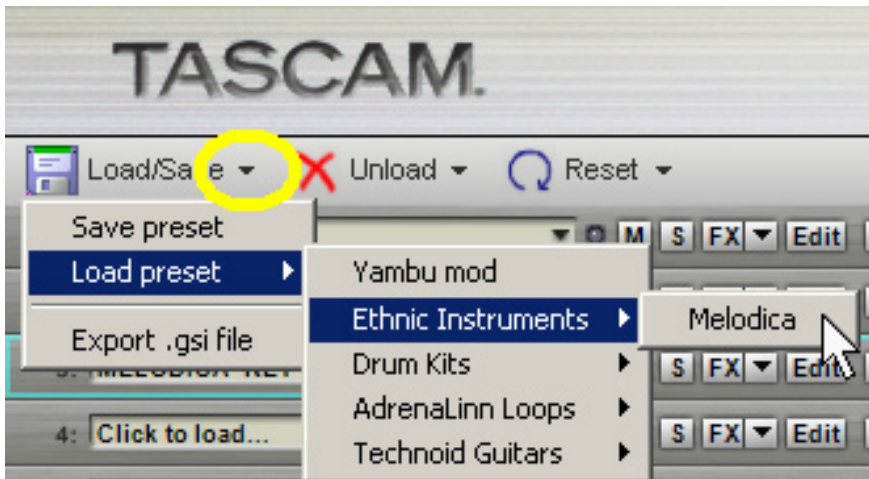

3. Highlight a Bank to reveal the Presets contained within. Click on a Preset to load it.

ORGANIZE PRESETS

The *Organize Presets* option in the Load/Save menu opens the 'Organize presets' dialog. This dialog allows you to delete Banks or Presets, create new Banks, rename existing Banks, or move Presets from one bank to another.

EXPORTING A GSI FILE

After creating a stacked instrument, save this as a .gsi file for later use in GVI or GigaStudio:
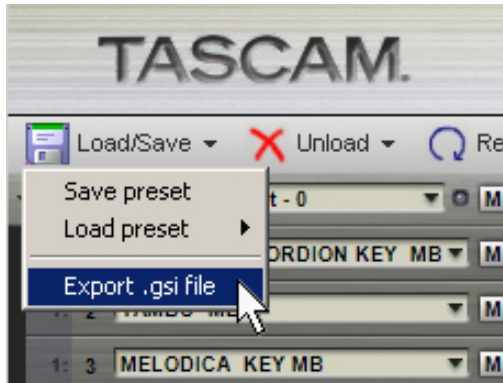
1. Click on a stacked instrument to export

2. Click on the Load/Save field in the upper left corner.

3. Select "Export .GSI File."

4. A "Save As..." dialog box opens up.

5. Navigate to where you want to save the file.
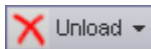
6. Click on Save.

ARCHIVING USER PRESET DATA

All user Preset information is stored in a folder titled 'User presets' in the following windows directory:

C:\Documents and Settings\All Users\Application Data\TASCAM\Gvi\ Presets\TASCAM\GVI

Creating a back-up of the 'User preset' folder will allow you to restore or transfer all of your Presets/Banks.

UNLOAD BUTTON

The Unload Button provides quick access for removing particular
Instruments from memory (RAM).
Click on the Unload button to open the drop-down menu. The menu
contains the five following choices: Unload instruments, Unload files,
Unload all instruments, Unload unused, Unload all unused. If a particular
menu item is not available it will be grayed out.

- **Unload Instruments** allows you to remove individual loaded
  Instruments from memory. Highlight the Unload instruments menu
  item and then choose the Instrument to unload from the drop-down list
  of loaded instruments.
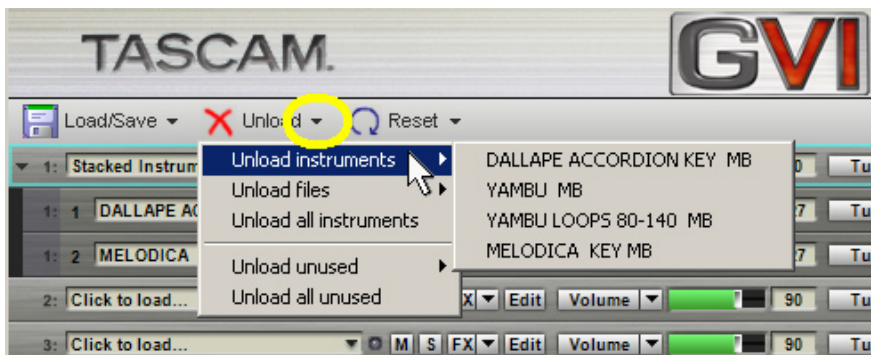
- **Unload Files** removes entire GIG files from memory, including all
  Instruments that are contained within that GIG file.
- **Unload All Instruments** removes all Instruments and GIG Files and
  Stacked instruments from memory.
- **Unload Unused** provides a list of instruments currently loaded in
  memory but not attached to a MIDI channel. Use this menu to remove
  individual instruments that are no longer needed.
- **Unload All Unused** removes all instruments not currently attached to a
  MIDI channel from memory.

*Note: It is a good idea to unload unwanted instruments and GIG files from
memory before saving a Preset or GSI file to save system resources.*

RESET BUTTON
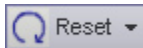
The Reset options provide shortcuts to returning GVI to various default states.

- Reset Sampler unloads all instruments and returns all MIDI Controller values (e.g., Volume and Pan) to their default positions.

- Reset MIDI Controllers retains all Instrument assignments and audio routing, but returns all MIDI Controller values to their default positions .

- Reset Controller Slider Assignments returns all MIDI slider assignments to their default assignments
(e.g., if you reassigned the 'Pan' slider to Foot Controller, invoking Reset Controller Slider Assignments would return this to Pan).

THE GVI NAVIGATION TOOLBAR

MIDI MIXER BUTTON

The MIDI Mixer view is the default state for GVI. The MIDI Mixer allows you to attach and detach instruments to MIDI channels, control the audio routing of each instrument, and gives you access to a wide range of MIDI Controllers including Volume, Tune and Pan.

EDIT BUTTON

Clicking this brings up the QuickEdit view for the currently selected instrument. The QuickEdit view is a tabbed UI exposing all editable parameters of an instrument including envelopes, filter settings, LFO's, Loop-points, and velocity response curves.

GIGAPULSE BUTTON
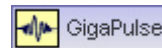
This button will only be enabled if the currently selected instrument has a GigaPulse effect built into it. Clicking this brings up the GigaPulse view for the currently selected instrument. If the selected instrument has more than one embedded GigaPulse effect, a popup menu will allow you select which instance you wish to view. Pressing the GigaPulse button is the same as pressing the (green) FX button on the MIDI mixer (sub-)channel of an instrument containing embedded convolution.

INSTRUMENT BUTTON

This will launch the 'Currently Loaded Instruments' display. This display lists all instruments currently loaded in memory. You can drag instruments directly from this display into a MIDI channel slot field (hold down CTRL while dragging to stack an instrument).

HELP BUTTON

· You can select 'Help Topics' to view this document via the Windows help interface.
· You can select 'About GVI' for version and copyright information about this application. Click anywhere on the 'about' screen to dismiss it.

GVI PLAYBACK STATUS BAR

When GVI is hosted as a plug-in, the playback status bar below the right of the keyboard displays information about voice playback.

VOICE METER

Voices – indicates the number of voices being played back at any given moment.

Peak – indicates the maximum number of voices that have been used since the samplers last reset. Clicking this display will reset it without resetting the entire sampler.

STANDALONE MODE STATUS METERS

CPU Meter - In addition to the *Voice Meter*, in standalone mode, a green "CPU meter" is provided to show how much of the system resources (CPU) are being used at any given moment. If the CPU meter is peaking, you may want to consider increasing the buffer size of your audio interface or decreasing the maximum number of voices allowed in the GVI configuration Manager.


Audio Output Meter – The stereo audio output meter monitors the highest value of any stereo pair at a given instant.

MIDI Monitor – Between the Voice and Audio Output meters is the MIDI Monitor. This Monitor lights green when MIDI information is received from the MIDI input port specified in the GVI

CHAPTER 9: STACK PROPERTIES

Once multiple instruments have been stacked on a MIDI channel, the 'Stack Properties' menu item becomes available in that MIDI channel's drop-down menu. The Stack Properties dialog is used to enable and define Key or MIDI Controller based instrument switching (Keyswitching) as well as to perform global stack functions such as stack renaming, modifying an instrument layers (stack child) active keyboard range, and loading/saving/editing stack templates.

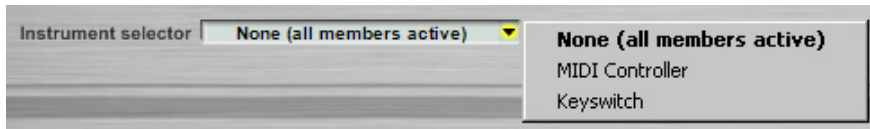## STACK PROPERTIES FIELDS AND MENUS
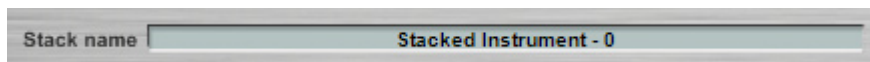
Stack name — this field can be used to rename a stacked instrument. Simply click within the field to highlight the existing name and then type the desired name. Be sure to hit the
'Enter' key to apply your changes.

INSTRUMENT SELECT SECTION

Instrument Selector – This drop-down menu is used to enable instrument switching by choosing either 'MIDI Controller' or 'Keyswitch'. When 'None' is selected, all stack members playback simultaneously when a note is played.
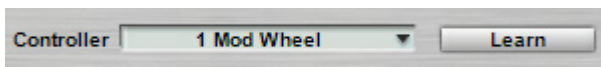
Controller - When 'MIDI Controller' is selected from the Instrument Selector drop-down menu, the Controller drop-down menu appears. Use this menu to choose which MIDI Continuous Controller will be used to perform the stack's instrument switching.

Keyswitch Range – When 'Keyswitch' is selected from the Instrument Selector drop-down menu, the Keyswitch range input fields appear. You can define the Keyswitch keyboard range by either typing in the boundaries manually or by using the 'Learn' feature (play the low boundary note first, then the upper boundary note). The Keyswitch range should include one note for every instrument on the stack.
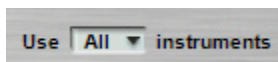
Use (X) Instruments – Use this drop-down list to specify how many of the stack members are to be included in the instrument switching. Unless you are including embedded GigaPulse instruments on your stack, this value should be left at 'All'.

PLAYZONES SECTION
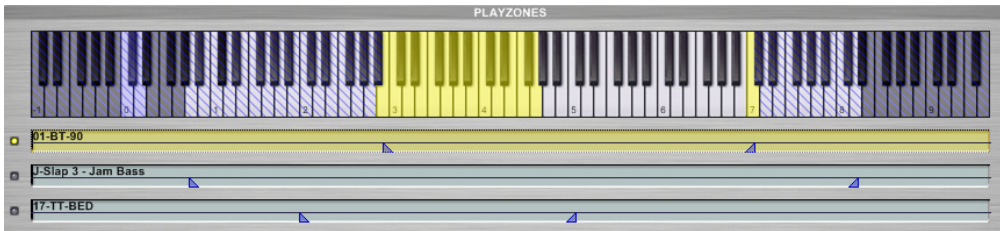
The virtual Keyboard in the PLAYZONES section of the Stack Properties dialog can be used as a MIDI trigger as well as being a visual reference for the various keyboard ranges of each instrument on the stack. The currently selected instrument layer appears yellow while other layers appear light purple. Stack Keyswitches appear light blue.

The active (playable) keyboard range of each instrument can be modified using the triangular brackets located in the lower half of each instrument layers window. First select the instrument layer you wish to modify by clicking in its window, and then move the upper and lower boundary brackets to the desired range.

Note regions on the stack that are beyond the range of the currently selected instrument layer will appear on the virtual keyboard with diagonal blue stripes.

TEMPLATE TOOLBAR

Stack Properties templates store and recall all Stack Properties parameters minus the stack name. They can be organized in Collections (banks) and may contain user specified comments or descriptions.

Clear Settings – Resets all Stack Properties parameters to their default settings.

Load Template – Clicking on load template produces a drop-down menu used to load a previously saved template

Save Template – Clicking on save template brings up a dialog that allows you to specify the Template and Collection name as well as add template specific descriptions.

Edit Templates – the Edit Templates dialog can be used to rename templates, reorganize templates, create new Collections, modify a templates description, delete templates, or view a templates properties.

CHAPTER 10: CHANNEL PROPERTIES WINDOW

Each of GVI's 16 MIDI channels has a Channel Properties window that allows the user to remap incoming MIDI data on a note by note basis. To open the *Channel Properties* window select the Channel Properties menu item from the desired MIDI channel's drop down menu. Channel Properties can be viewed as a simple MIDI transform between keyboard and sampler that allows the user to re-map incoming MIDI note values (Source Keys) to alternate outgoing note values (Destination Keys).
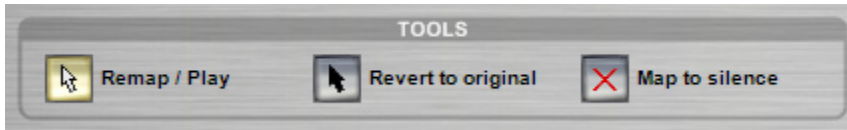
Source Keys

The upper keyboard in the channel properties window represents the channels *Source Keys*. You can view a *Source Key* as an incoming MIDI note value that does not change regardless of if it's Destination note. For instance, when you change the Destination note of the *Source Key* C5 to be D3, an incoming C5 Note On message will trigger the sample that is mapped to D3 on that channel.

Destination Keys

The lower keyboard in the channel properties window displays the channels *Destination Keys*.
Destination keys represent the note values that are passed on to the sampler in place of the incoming *Source Keys* original note value.

Channel Properties Tools

Remap/Play

The **Remap/Play** button (default) allows you to audition samples as well as remap samples by dragging them from the *Source Key* window into the *Destination Key* window.

Revert to original

When a Key is highlighted in the *Destination Key* window, it means that it has been remapped. The highlighted key is the *Source Key* and the *Destination Key* is displayed in text near the top of the keyboard. In order to clear a remapped key, depress the **Revert to Original** button and click on the remapped Source Key on either keyboard.

Map to silence

To disable incoming MIDI data on a particular key, depress the **Map to silence** button and click on the key you would like to silence on either the source or destination keyboard. Silenced keys appear dark grey in the *Destination Keys* keyboard.

Template toolbar

Channel Properties templates store and recall all remapped and silenced keys. They can be organized in Collections (banks) and may contain user specified comments or descriptions.

Clear Settings – Resets all remapped keys to their default mapping.

Load Template – Clicking on load template produces a drop-down menu used to load a previously saved channel properties template.

Save Template – Clicking on save template brings up a dialog that allows you to specify the Template and Collection name as well as add template specific descriptions.

Edit Templates – the Edit Templates dialog can be used to rename templates, reorganize templates, create new Collections, modify a templates description, delete templates, or view a templates properties.

Learn Mode menu

Instead of using the Channel Properties virtual keyboards, you can select a MIDI controller from the Learn Mode drop-down menu that allows you to remap keys by toggling between source and destination input keys. For instance, if the Sustain pedal is selected you can remap keys by depressing the pedal, selecting the Source Key, releasing the pedal then selecting the Destination Key.

Display by menu

This menu determines how a remapped key is labeled within the Destination Keys keybard, either as a note name or as a MIDI note number.

Saving Channel Properties settings

In addition to being able to save Channel Properties templates and apply them to any MIDI channel, Channel Properties are also saved by global GVI Presets. Channel Properties are not recalled by exported GSI files.