



# VL Visual Editor Manual

## Important Notices


The VL Visual Editor (the Visual Editor) provides an easy, intuitive way to create, edit, and save basic voices for Yamaha VL Plug-in Board.

Do not operate the "mother" synthesizer/ tone generator while editing voices using the Visual Editor since you may inadvertently change the voice edit parameters by operating the hardware.

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### About this manual

The screens shown in this manual are almost all on Windows systems. Although some screens may differ for Macintosh systems, the basic operations are the same.

#### For Windows users

When you use the VL Visual Editor, set "Font Size" to "Small Fonts" at the "Control Panel | Display | (Settings |) Advanced" page. If "Large Fonts" is selected, messages in some dialog boxes may not be displayed properly.

#### For Macintosh users

When you use the VL Visual Editor on MacOS 8.5 or later, set "Large System Font" to "Charcoal" at the "Control Panels | Appearance | Font" page. Also, uncheck the "Smooth all fonts on screen" check box.

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Version 1.0, 2001

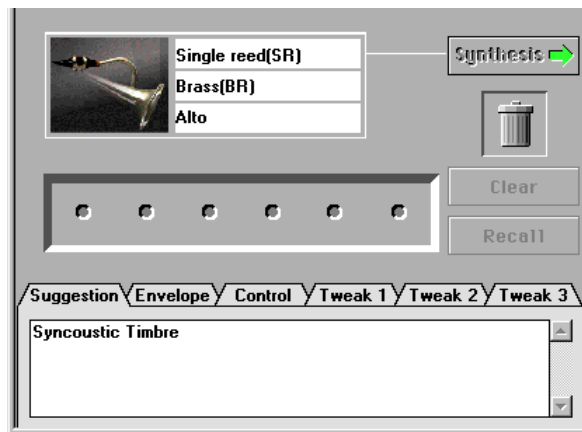
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# Editing Procedure

The Visual Editor mainly consists of two windows: the Synthesis Window and Edit Window.



Synthesis



Edit

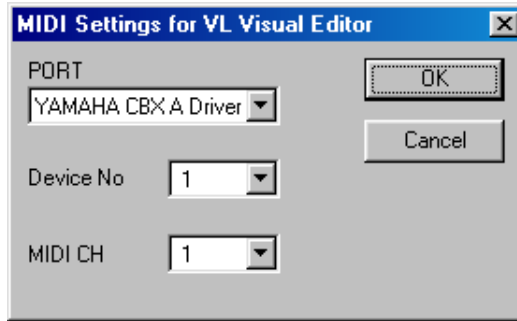
- 1 Select the combination of the Driver, Pipe/Strings and Variation to synthesize in the Synthesis Window.
- 2 Switch to the Edit Window after the selection. This process automatically creates a voice (a set of new voice parameters).
- 3 Make detailed changes on the parameters in the Edit Window to complete the new voice.

# MIDI Settings

## Windows

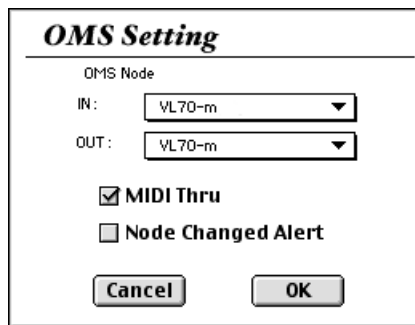
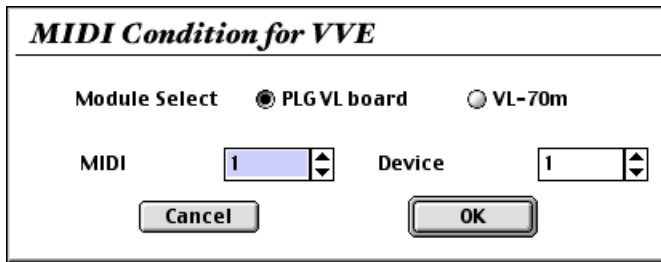
Select [VL Visual Editor MIDI...] from the [Setup] Menu to open the dialog box, which lets you select the MIDI Port, Device Number and Transmit Channel to send. Set the same MIDI Port, Device Number and Transmit Channel as the ones you set for the tone generator.

The Visual Editor is valid for the VL voice assigned to Part 1. Set the VL voice to Part 1 by operating the “mother” synthesizer/ tone generator.



## Macintosh

Select [MIDI...] or [Choose Input/Output...] from the [Window] Menu to open the following dialog boxes.



# Synthesis Window

Click on any of the “DRIVER” options to the left of the window to select it (the selected driver will be outlined in red). Next click on one of the PIPE/STRINGS options to the right of the window — the selected PIPE/STRINGS option will be outlined in red. A composite image representing the selected DRIVER and PIPE/STRINGS options will appear in the “PREVIEW” window. The “VARIATION” buttons will also appear and be selectable. If one of the “VARIATION” buttons in the lower part of the window is now clicked, the corresponding voice data will be transmitted to, and can be played via, the connected tone generator. The transmitted voice will sound briefly when the data has been successfully transmitted.

When the transmission process is completed, the Visual Editor informs you of it by playing a broken chord using the transmitted voice. You can audition the edited voice as a broken chord by clicking the composite image.



## The DRIVER Options

The Visual Editor provides 6 DRIVER options. This is the part of the instrument which generates the energy which will be converted into sound and subsequently “shaped” by the PIPE/STRINGS section.

- **Single Reed**

A single-reed woodwind mouthpiece like the type used on a saxophone or clarinet.



- **Double Reed**

A double-reed woodwind mouthpiece like the type used on an oboe or bassoon. The “grass flute” also works on this principle.



- **Lip Reed**

In a trumpet, the player's lips are pressed against a specially-shaped mouthpiece and forced to vibrate in response to the player's breath pressure. The trombone, horn, tuba, and most other brass instruments work on this principle.



- **Jet Reed**

The flute, pan pipes and shakuhachi all work on the "jet reed" principle: i.e. sound is generated by the air turbulence produced by blowing across a solid edge.



- **Bow**

A bow drawn across a string causes the string to vibrate, thereby generating rubbed-string instrument sound: violin, cello, contrabass, etc.



**NOTE**

- Selecting the Bow (DRIVER) and String (PIPE/STRINGS) combination allows you to select Analog synthesizer waves in VARIATION.

- **Pluck**

Guitar, mandolin, and harp are all plucked string instruments. "Pizzicato" is plucked violin, viola, etc. This driver corresponds to plucking a string to produce sound.



## The PIPE/STRINGS Options

The Visual Editor provides 6 PIPE/STRINGS options. The pipe or string is the section of the instrument that amplifies and adds distinctive tonal characteristics to the sound energy generated by the driver.

- **Conical (large)**

This option simulates the type of conical horn used in instruments like the saxophone — a small entrance aperture, gradually expanding to a relatively large bell.



- **Conical (small)**

This conical pipe has a much smaller taper than the above, more like the type of pipe used in an oboe.



- **Straight (double-ended)**

A flute pipe, for example, is essentially straight along its length, but is driven at a point somewhere between its two ends. This type of pipe is “double-ended”.



- **Straight (single-ended)**

Similar to a clarinet pipe — driven from one end and essentially straight right up to the flare at the other end. In physical modelling terminology, this type of pipe is considered to be “single-ended”.



## • Flare

This is the type of pipe found on the trumpet and other brass instruments. Although it depends on the type of DRIVER selected, this type of pipe generally produces a relatively bright sound.



### NOTE

- If the Pluck driver is combined with the Flare pipe, the resultant pitch can be unpredictable. This is because the Flare pipe is inherently ambiguous — e.g. a trumpet player can vary the pitch of his instrument over a wide range simply by adjusting his embouchure (the way he uses his lips).

## • String

A drawn string, like the type used on a violin or guitar. The final result depends on the DRIVER selected, but the string generally has a relatively long decay.



## The VARIATION Options

Depending on the DRIVER and PIPE/STRINGS combination selected, two or more VARIATIONS corresponding to different instrument sizes and characteristics may be available. If the DRIVER and PIPE/STRINGS combination is a standard one (e.g. Lip Reed with Flare), the corresponding instrument names will appear in the VARIATION buttons (e.g. Trumpet, Trombone, etc.).

You can also select VARIATION by double-clicking, and it takes you to Edit window automatically.

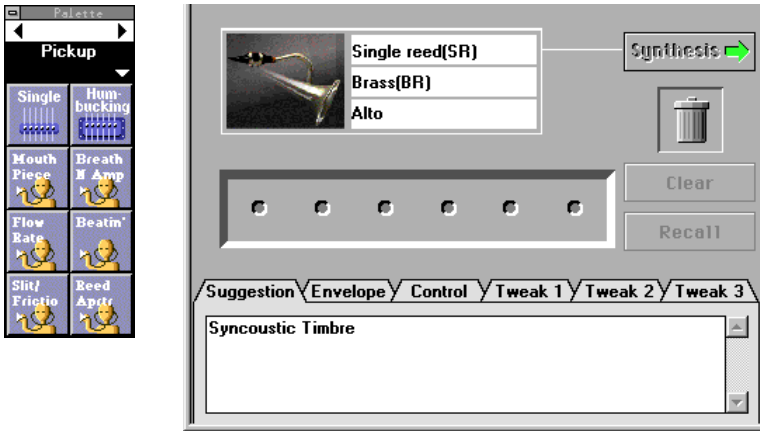


# Edit Window

Press the [Edit ->] button in the lower right corner of the “Synthesis” window to go to the “Edit” window. This window allows further editing of the basic voice created in the “Synthesis” window.

The labelled “menu tabs” in the lower section of the “Edit” window provide access to corresponding edit pages. By clicking each menu tab you can display various editing “pages”.

You can audition the edited voice as a broken chord by clicking the composite image.



## The Patch Palette

When the “Edit” window is selected, a smaller floating window labelled “Pickup” will appear to its left. This is the “Patch Palette” containing 8 menu pages for editing [Pickup](#), [Filter](#), [Resonator](#), [Combination-1](#), [Combination-2](#), [Variation](#), [Chorus](#), [Reverberation](#). Click on the left and right facing arrows at the top of the window to switch menus as required. You can also select a menu by clicking on the solid section showing the menu name to open the pop-up menu and directly choosing a menu from it.





A menu contains several icons (patches), each of which is assigned with specific effects. Editing will be executed by selecting the icons from various menu pages and arranging them in the patch holder row in the center of the Edit Window (above the labelled “menu tabs”).



Double-clicking on any of the icons in the “Patch Palette” causes that icon to appear in the patch holder, and the corresponding effect will be applied to the current voice. The items in the “Patch Palette” menu icons can also be moved to the patch holder by clicking and dragging. The icons can be selected, or moved to the patch holder according to the following rules:

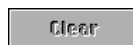
### NOTE

- Only one item can be selected from the same type menu. If one of these icons is selected while a previous icon of the same type exists in the patch holder, the new selection will replace the previous selection.
- The selected icons line up from left to right in the predetermined order: Pickup (left most), Filter, Resonator, Combination, Variation, Chorus, Reverberation (right most).
- Selecting the Combination item while the Variation, Chorus and/or Reverberation items are selected resets, or deletes the Variation, Chorus and/or Reverberation items. On the contrary, simultaneously selecting all three items (the Variation, Chorus and Reverberation) while the Combination item is selected deletes the Combination item.
- When you are using the synthesizer/ tone generator compatible with Modular Synthesis Plug-in System, the Combination, Variation, Chorus and Reverberation items have no effects.

To remove an item from the patch holder chain, simply click and drag it to the trash can icon.



If you want to remove all patch icons and start from scratch, click on the [Clear] button. Clicking [Recall] button restores the items deleted.



### NOTE

- Please note that when “Clear” is executed the other “Edit” parameters — “Envelope”, “Control” and “Tweak”, to be described later — are also cleared.
- The “Patch Palette” will always appear in front of any other open windows, but, like any other window, it can be closed by clicking on its close button. Once closed it can be re-opened by selecting [VL Show Patch Palette] from the [Window] Menu.

The various patches are described briefly below.

### <1> Pickup

Changing pickups is like changing pickups on a guitar or changing the position of a pickup on a brass or woodwind instrument. The Visual Editor provides 8 pickup types.

- **Single**

A simulation of a “single-coil” electric guitar pickup.



- **Humbucking**

A simulation of a “double-coil” humbucking electric guitar pickup.



- **Mouthpiece**

The effect produced by attaching a pickup to the mouthpiece of a wind instrument.



- **BreathNoiseAmp**

This pickup picks up the amplitude of the noise components of the breath noise.



- **FlowRate**

The saturation component of the air-flow within the instrument’s mouthpiece is converted to sound and amplified.



- **Beatin’**

The beating or “buzzing” of the mouthpiece reed is selectively amplified.



- **Slit/Friction**

The variation in the gap between the reed and mouthpiece is converted to sound and amplified. When the “Bow” driver is selected this pickup amplifies the friction of the bow.



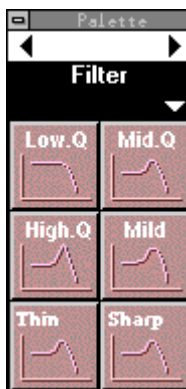
- **Reed Aperture**

The flexing of the reed is converted to sound and amplified.



- **<2> Filter**

The sound can be shaped with basic low-pass filters usually found on analog synthesizers. The frequency and resonance of the filter can be adjusted via the “Tweak” edit page, described later.



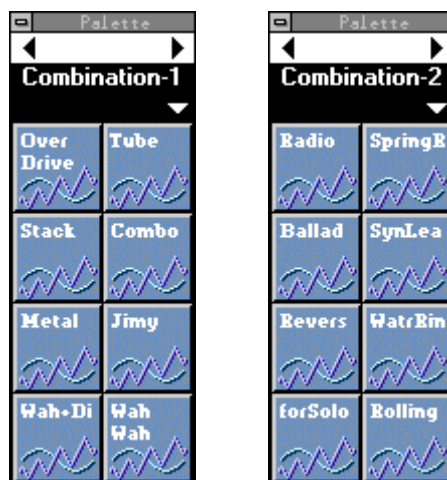
### <3> Resonator

These patches add, for example, the resonance of a violin or guitar body to the sound.



### <4> Combination 1, 2

A range of effect combinations are provided for use with different types of music.



**<5> Variation**

Mainly delay type effects based on the Variation Effect of the “mother” synthesizer/ tone generator.



**<6> Chorus**

Chorus type effects based on the Chorus Effect of the “mother” synthesizer/ tone generator.



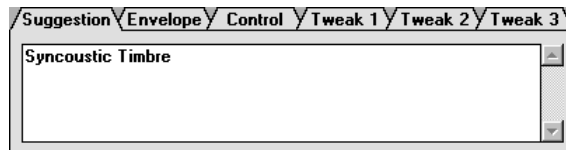
<7> Reverberation

Reverb type effects based on the Reverb Effect of the “mother” synthesizer/ tone generator.



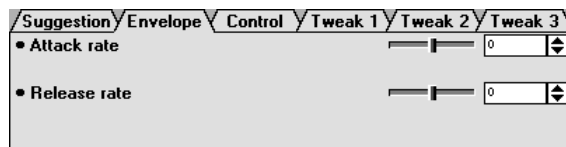
Suggestion

Clicking on the “Suggestion” tab in the lower part of the “Edit” window will bring the Suggestion page to the front. The Suggestion page provides notes on the current voice and the selected patches.



Envelope

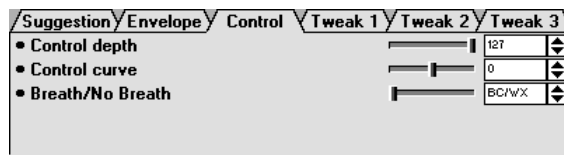
Click on the “Envelope” tab to access the Attack Rate, Delay, and Release envelope parameters. The Decay parameter is only available when the Pluck driver is selected. Each of these parameters can be adjusted from -16 to +16 (33 steps). The higher the value the faster the rate. A value other than “0” must be selected to produce any effect. With some DRIVER and PIPE/STRINGS combinations, however, only positive or negative values may be effective. Also, some envelope settings will produce no audible effect with some DRIVER and PIPE/STRINGS combinations.



## Control

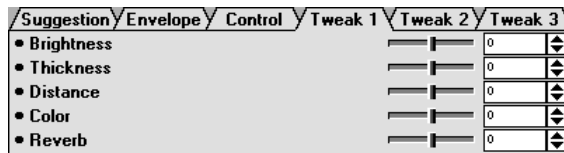
Click on the “Control” tab to access parameters that allows adjustment of Breath Controller operation. The “Control depth” parameter can be adjusted from 0 (no control) to 127 (maximum depth), and the “Control curve” parameter can be adjusted from -16 to +16 (33 steps). Positive values produce a softer curve while negative values produce a harder curve. The “Breath/No Breath” parameter selects the controller: “BC/WX” for the Breath Controller. “Velocity” for the keyboard velocity. “TouchEG” for touch EG control (i.e. keyboard velocity and aftertouch response) .

Be aware that the “Breath/No Breath” setting here affects all voices equally. Independent setting for each voice cannot be applied.



## Tweak 1, 2, 3

The “Tweak 1”, “Tweak 2” and “Tweak 3” tabs access a range of parameters that can be adjusted from -16 through +16 (33 steps). Additional parameters may also appear according to the selected patches.



**NOTE**

- When you use the synthesizer/ tone generator compatible with Modular Synthesis Plug-in System, some items on the Tweak pages have no effects.

## Recall

Clicking the [Clear] button resets the “Patch Palette”, “Envelope”, “Control” and “Tweak” parameters. Clicking [Recall] button restores the parameters which have been deleted.

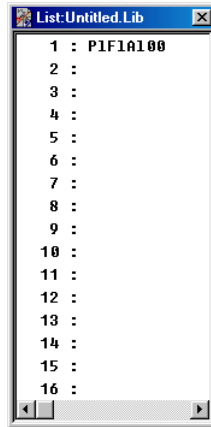


In some cases you might want to change the DRIVER, PIPE/STRINGS and/or VARIATION settings without affecting the “Edit” page settings. If you switch from the “Edit” window to the “Synthesis” window (the “Patch Palette”, “Envelope”, “Control” and “Tweak” parameters will be reset to the defaults) and then return to the “Edit” window, you can restore the original parameter settings.

The “Clear” and “Recall” functions will be effective to the values of the “Envelope”, “Control” and “Tweak” parameters even though the patch holder have not been assigned with the patch palette menu.

# Voice List

A Voice List window is automatically created the first time the “Edit” window is selected, and it can also be opened by selecting [VL Voice List] from the [Window] Menu. A newly created voice is automatically added to the Voice List each time the [Edit ->] button in the “Synthesis” window is clicked.



## Audition

When a voice name in the Voice List is clicked, the data for that voice is transmitted to the connected tone generator, and the selected voice can be played via the tone generator.

### NOTE

- This function will be inactive when you select a voice using the arrow keys on your computer keyboard.

## Edit

Commands in the [Edit] Menu from the Menu Bar can be used to edit Voice List items as in the conventional Edit commands. For example, copied voices by using [VL Voice Copy] command can be pasted to a new location by using [VL Voice Paste], or selected voices can be deleted by using [VL Voice Delete].

## File Management

The Voice List can be saved in the same way as any other file on the computer. Its file extension is .LIB.

Select [VL Voice Save] from the [File] menu to save the current Voice List. Select [VL Voice Save as ...] to specify a different save file name. The “Save As” dialog box will also appear the first time the “Save” option is selected for a Voice List. Subsequent uses of the “Save” option simply overwrite the previous file of the same name ... be careful not to accidentally overwrite a file you want to keep.

Select [VL Voice Open] from the [File] menu in order to open a previously saved Voice List. Use the “Open” dialog box to select the folder and file you want to open.

Select [VL Voice New] from the [File] Menu to create a new Voice List.



**NOTE**

- When a new or existing file is opened and a new voice is created (specifically, when the [Edit ->] button in the “Synthesis” window is clicked), the new voice will be added to the Voice List. If you want to add the new voice to the specific voice list, you must open it beforehand.
- Multiple Voice Lists cannot be opened at the same time. Voice copied from one list using the [Edit] Menu [VL Voice Copy] command can be pasted to a different Voice List to allow voice management between multiple Voice Lists.
- A new Voice List contains 128 blank voice locations, none of which contain data which can be transmitted to the tone generator. As voices are created they are placed in the Voice List in the order of creation, and are automatically saved up to the last existing voice location when the Voice List is saved.
- When a new voice is synthesized after performing edit operations, the existing voice in the Voice List may be overwritten.

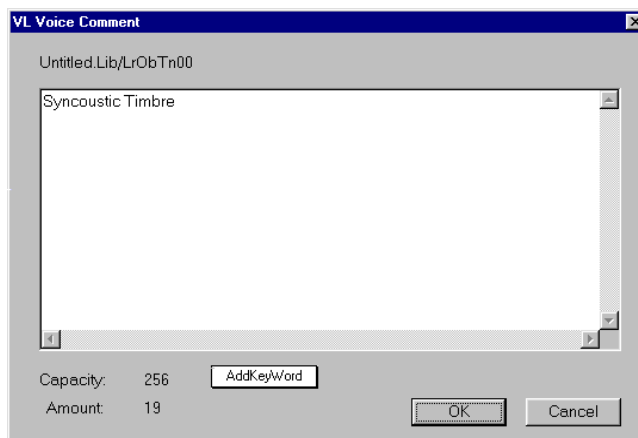
## Voice Names & Comments

The Voice Name window can be selected by double-clicking on the desired voice in the Voice List while holding the <Ctrl> key. A voice name of up to 8 characters can be entered as required.

*Macintosh* For Macintosh, it can be selected by double-clicking while holding the <⌘>key.

The Comment window can be selected by double-clicking on a voice in the Voice List while holding the <Ctrl> and <Alt> keys. The total number of characters that can be entered in the Comment window is shown next to “Capacity” in the lower left corner of the window.

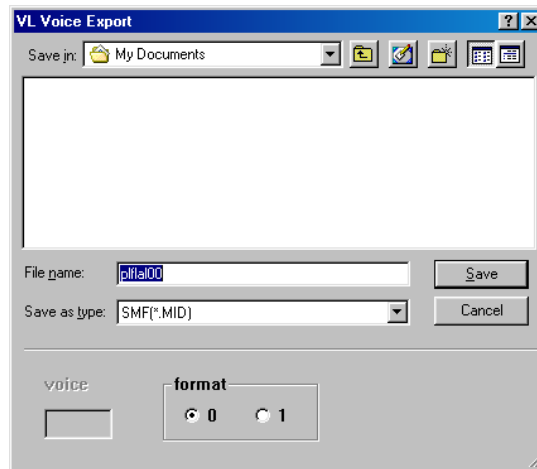
*Macintosh* For Macintosh, it can be selected by double-clicking while holding the <⌘> and <control> keys.



## SMF (Standard MIDI File)

The Standard MIDI File is a universally accepted file type format which enables MIDI song data to be transferred easily among different music sequencing software and hardware made by different manufacturers. The Visual Editor can save the voice data in the SMF format, which can be adopted to song sequence data.

- 1 After selecting the desired voice from the Voice List, select [VL Voice Export...] from the [File] Menu. The following dialog box appears:



The voice number in the Voice List is shown in the “voice”. Two SMF format types are available: format 0 and format 1 (only format 0 for Macintosh).

- 2 Designate the file name and the folder to which you want to save the voice.

### NOTE

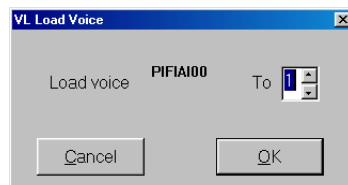
- Selecting [VL Voice Export...] when the voice is not specified in the Voice List allows you to save the currently editing voice. In this case, the voice number is not available.

## Loading the Voice Data to Custom Voice Bank

The currently edited voice can be transferred and loaded to the VL Plug-in Board as the Custom Voice in the Custom Voice Bank. Refer to the VL Plug-in Board’s manual for information on the Custom Voice.

- 1 Select [VL Load Voice...] from the [File] Menu.

The following dialog box appears:



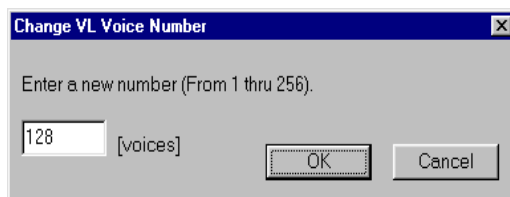
- 2 Enter the Custom Voice number (1 - 6) you want, and click [OK].

## Number of Voices in the Voice List

The number of voices in the Voice List can be predetermined.

- 1 Click the Voice List to be top, or active.
- 2 Select [VL Voice Number...] from the [Setup] Menu.

The following dialog box appears:



- 3 Enter the number (1 - 256) you want to have in the Voice List, and click [OK].

## Inserting the Voice Data in Songs

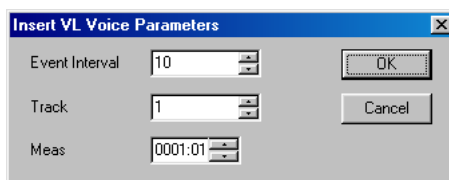
The voice data created by the VL Visual Editor can be inserted in the specified position in the track of a song.

### NOTE

- This function is enabled when you use the Visual Editor as Plug-in Editor on Windows systems.

- 1 After selecting the desired voice from the Voice List, select [Insert VL Voice Parameters...] from the [Setup] Menu.

The following dialog box appears:



- 2 Select the track number and specify the position you want to have the data inserted, and then click [OK].

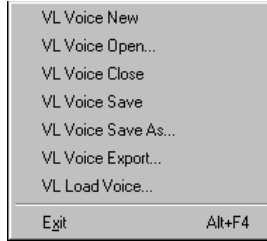
### NOTE

- Executing the operation above when the voice is not specified in the Voice List allows you to insert the currently editing voice.

# Quitting the Application

Click on the Close button at the top of the “Synthesis” or “Edit” Window to quit the VL Visual Editor application. If the currently synthesized or edited voice is not saved, a dialog box asking you to confirm whether you want to save the current Voice List will appear. Select the appropriate response to quit the program.

## [File] Menu



- **VL Voice New**

Opens a new Voice List.

- **VL Voice Open**

Displays the “Open” dialog box and you can select the desired Voice List file (extension .LIB).

- **VL Voice Close**

Closes the Voice List currently displayed.

- **VL Voice Save**

Saves the Voice List currently displayed.

- **VL Voice Save As**

Displays the “Save As” dialog box. You can name the file and save it as Voice List file (extension .LIB).

- **VL Voice Export**

Saves the voice data in the SMF format.

- **VL Load Voice**

Loads the currently edited voice to the VL tone generator as the Custom Voice.

- **Exit**

Closes the window and shuts down the application.

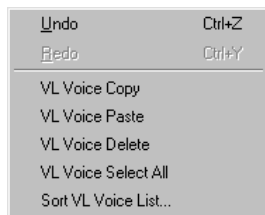
**NOTE**

If you use the VL Visual Editor as Plug-in Editor, the menu item is disabled. Click the Close button of the “Synthesis” or “Edit” window to quit the application.

**NOTE**

Though the menu names differ slightly for Macintosh systems, the basic functions are the same.

## [Edit] Menu

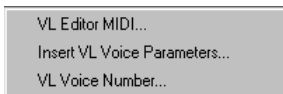


- **Undo**  
Undoes the most recent edit operation.
- **Redo**  
You can redo operations that you have undone.
- **VL Voice Copy**  
Copies the voice selected in the Voice List to the clipboard.
- **VL Voice Paste**  
The voice data on the clipboard will be pasted to the specified place in the Voice List.
- **VL Voice Delete**  
The voice selected in the Voice List will be deleted.
- **VL Voice Select All**  
All voices in the Voice List will be selected.
- **Sort VL Voice List**  
The voices selected in the Voice List will be sorted.

**NOTE**

Though the menu names differ slightly for Macintosh systems, the basic functions are the same.

## [Setup] Menu



- **VL Visual Editor MIDI**

You can make the MIDI settings for the VL Visual Editor.

*Macintosh* For Macintosh, the following menu items can be selected from the [Window] Menu.

- **OMS Studio Setup**  
This starts **OMS Setup** and opens the currently valid setup file. For more details on setting up OMS, see the OMS manual in PDF format.
- **OMS MIDI Setup**  
This opens the OMS MIDI setup dialog. Put a checkmark for the port you will be using, and click [OK] to apply the setting. For more details, see the OMS manual in PDF format.

- **Insert VL Voice Parameters**

The voice data created by the VL Visual Editor can be inserted in the specified position in the track of a song.

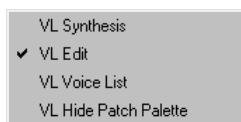
**NOTE**

This function is enabled when you use the Visual Editor as Plug-in Editor on Windows systems.

- **VL Voice Number**

The number of voices in the Voice List can be predetermined.

## [Window] Menu



- **VL Synthesis**

Opens the Synthesis Window.

- **VL Edit**

Opens the Edit Window.

- **VL Voice List**

Opens the Voice List.

- **VL Show/Hide Patch Palette**

Switches between displaying and not displaying the Patch Palette.

**NOTE**

Though the menu names differ slightly for Macintosh systems, the basic functions are the same.