

Chapter 5

Editing Conventions

Introduction to Editing

Programming (editing) the K2vx always involves three basic operations: mode selection, navigation, and data entry.

First, select the mode that relates to the object you want to edit—a program, a setup, etc. Then select the object you want to edit, and press the EDIT button to enter the editor within that mode. An editor contains all the parameters that define the object you’re programming.

Next, you navigate around the editor’s page(s) with the soft buttons, and select parameters with the cursor buttons. When you’ve selected a parameter (its value is highlighted by the cursor), you can change its value with one of the data entry methods. When you change a value, you’ll normally hear its effect on the object you’re editing. The K2vx doesn’t actually write your editing changes to memory until you save the object you’re working on. It then allows you to choose between writing over the original object, or storing the newly edited version in a new memory location.

What’s an Object?

If you’ve been wondering what we mean by the term “object,” it’s an expression we use for anything that can be named, saved, deleted, or edited. Here’s a list of all the types of objects:

- **Samples**—digital recordings of instrumental sounds or waveforms. Samples actually have two separate parts: the actual sample data and the sample header information, which contains start, alternative start, loop, and end points, as well as the information on the MISC page.
- **Keymaps**—collections of samples assigned to specific velocity ranges and/or keys.
- **Programs**—factory preset or user-programmed sounds stored in ROM or RAM. A program is one or more layers of sound, with programmable DSP functions applied to the keymaps within each layer.
- **Setups**—factory preset or user-programmed MIDI performance presets consisting of three zones, each with its own program, MIDI channel, and controller assignments.
- **Songs**—Type 0 MIDI sequence files loaded into RAM, or MIDI data recorded in Song mode.
- **Effects**—factory preset or user-programmed configurations of the K2vx’s onboard digital audio effects processor.
- **Quick access banks**—factory preset or user-programmed banks of ten entries each, that store programs and setups for single-button access in Quick Access mode.
- **Velocity maps**—factory preset or user-programmed curves that affect the K2vx’s response to, and MIDI transmission of, attack velocity values.
- **Pressure maps**—factory preset or user-programmed curves that affect the K2vx’s response to, and MIDI transmission of, pressure (aftertouch) values.
- **Intonation tables**—factory preset or user-programmed tables that affect the intervals between the twelve notes of each octave.
- **Master table**—the values that are set for the global control parameters on the Master mode page, as well as the settings for the parameters on the CHANLS page in MIDI mode, and the programs currently assigned to each MIDI channel.
- **Name table**—contains a list of dependent objects needed by the other objects in a file at the time the file was saved.
- **Macro**—list of disk files to be loaded into the K2vx’s memory at start-up time.

Object Type and ID

The K2vx stores its objects in RAM using a system of ID numbers that are generally organized into banks of 100. Each object is identified by its object type and object ID; these make it unique. An object's type is simply the kind of object it is, whether it's a program, setup, song, or whatever. The object ID is a number from 1 to 999 that distinguishes each object from other objects of the same type. For example, within the 200s bank, you can have a setup, a program, and a preset effect, all with ID 201; their object types distinguish them. You can't, however, have two programs with ID 201.

OBJECT TYPE	OBJECT ID	OBJECT NAME
Program	201	Hot Keys
Setup	404	Silicon Bebop
Velocity Map	1	Linear
Sample	3	Hey Moe

ROM (factory preset) objects have ID numbers from 1 to 199. When you save objects that you've edited, the K2vx will ask you to assign an ID. If the original object was a ROM object, the K2vx will suggest the first available ID, starting with 200. If the original object was a RAM object, you'll have the option of saving to an unused ID, or replacing the original object.

Objects of different types can have the same ID, but objects of the same type must have different IDs to be kept separate. When you're saving an object that you've edited, you *can* assign the same ID to an existing object of the same type, but if you do, the new one will be written over the old one. For example, if you assign an ID of 1 to a program you've edited, the K2vx will ask you if you want to "replace" the ROM program currently stored with that ID. We'll discuss this further in "Saving and Naming," later in this chapter.

Many parameters have objects as their values—the VelTouch parameter on the Master mode page, for example. In this case, the object's ID appears in the value field along with the object's name. You can enter objects as values by entering their IDs with the alphanumeric pad. This is especially convenient for programs, since their ID numbers are the same as their MIDI program change numbers (when you're using the Extended or Kurzweil Program Change format—see "Program Change Formats" in Chapter 10).

The object type and ID enable you to store hundreds of objects without losing track of them, and also to load files from disk without having to replace files you've already loaded. See "Memory Banks" later in this chapter for more information on object type and ID.

Saving and Naming

When you've edited an object to your satisfaction, you'll want to store it in RAM. There's a standard procedure for saving and naming, which applies to all objects.

You can press the Save soft button, of course, but it's easier to press the EXIT button, which means "I want to leave the current editor." If you haven't actually changed anything while in the editor, you'll simply exit to the mode you started from. If you *have* made changes, however, the K2vx will ask you if you want to save those changes. This is the first Save dialog. A dialog is any display that asks a question that you need to answer before the K2vx can proceed.

Save Righteous Piano before exiting?

Rename Cancel Yes No

The best way through this process is to press the **Rename** soft button. This takes you immediately to the naming dialog, where you assign a name to the object you're saving. You haven't saved yet, but you'll be able to after you've named the program.

Program Name: Righteous Piano

Delete Insert <<< >>> OK Cancel

The cursor underlines the currently selected character. Press the <<< or >>> soft buttons to move the cursor without changing characters. Press an alphanumeric button one or more times to enter a character above the cursor. The characters that correspond to the alphanumeric buttons are labeled under each button. If the character that appears is not the one you want, press the button again. Press the +/- button on the alphanumeric pad to switch between upper and lower case characters.

Press 0 one or more times to enter the numerals 0 through 9. Press CLEAR (on the alphanumeric pad) to erase the selected character without moving any other characters. Press the Delete soft button to erase the selected character. All characters to the right of the cursor will move one space left. Press the "Insert" soft button to insert a space above the cursor, moving all characters to the right of the cursor one space to the right.

Press the **Cancel** soft button if you decide not to name the object. Press **OK** when the name is set the way you want to save it.

In addition to the letters and numerals, there are three sets of punctuation characters. The easiest way to get to them is to press one of the alphanumeric buttons to select a character close to the one you want, then scroll to it with the Alpha Wheel. Here's the whole list:

! " # \$ % & ' () * + , - . / 0 1 2 3 4 5 6 7 8 9

: ; < = > ? @ A through Z

[\] ^ _ ' a through z. (space).

Pressing the Plus/Minus buttons simultaneously will select 0, A, a and (space).

If you're wondering how we came up with this sequence of characters, it's composed of ASCII characters 33 through 122.

When you press **OK**, the final Save dialog appears, where you assign an ID to the edited object. If you change your mind about the name, press the **Rename** soft button for another try.

Save Righteous Piano as: ID#200

Object

Rename Save Cancel

ROM Objects

If the object you started from was a ROM (factory preset) object, the K2vx will automatically suggest the next available (unused) ID as the ID for the edited object. If that's the ID you want, press the **Save** soft button, and the object will be stored in RAM with that ID. Otherwise, you can select any ID from 1 to 999. This screen also gives you the opportunity to return to the naming dialog (as described in the previous section) or, by pressing the **Object** soft button, to access the Object Utilities (described in Chapter 13 of this manual).

If you select an ID that's already in use, the K2vx will tell you that you're going to replace the ROM object that's already been assigned that ID. If you don't want to do that, you can select a different ID. Or you can press the Plus/Minus buttons simultaneously to toggle between the ID that the K2vx suggested and the original ID. Or press the **Cancel** soft button to cancel the operation.

If you decide not to cancel or change the ID, and you press the **Replace** soft button, the K2vx will write your newly edited object over the existing ROM object. Actually, it only appears that way, since you can't truly write to ROM. The ROM object will reappear if you delete the newly edited object (there are soft buttons in each editor for deleting objects).

RAM Objects

If the original object was a RAM object, the K2vx will assume you want to replace it, and will suggest the same ID as the original object (if it has an asterisk—*—between its ID and its name, it's a RAM object. As with ROM objects, you can cancel, replace, or change the ID and save to an unused ID. If you replace a RAM object, however, it's definitely gone!

Deleting Objects

Within most editors, there are soft buttons for deleting objects. When you want to delete an object, press the **Delete** soft button, and the K2vx will ask you if you want to delete the object. Press **OK** if you want to delete it, or press **Cancel** if you don't. Although it seems that you can delete ROM objects, you can't actually do it. The K2vx will behave as if it's deleting the ROM object, but it will still be there the next time you select it. (What actually happens is that the ROM object is copied to RAM as soon as you press EDIT, and when you "delete" the ROM object, you're actually deleting the RAM copy. The original ROM object remains in memory.)

RAM objects, on the other hand, are *gone* when you delete them! If you've "replaced" a ROM object by saving a RAM object with the same ID, the ROM object is invisible, but still there. Deleting the RAM object stored at the same ID will restore the ROM object.

You can use the Delete function to delete any object from the current list of objects. After you press the **Delete** soft button, use one of the data entry methods to select any other object in the current list of objects. Then press **Delete** again. You'll often delete objects to gain RAM space, or to organize the *memory banks* before saving objects to disk. To delete multiple objects, use the Delete Objects utility available in Master mode. It's described on page 11--9.

Memory Banks

To help organize the storage of your edited objects, the K2vx's memory is divided into ten banks, each of which stores objects having IDs within a certain range. Objects within the same range of IDs are stored in the same memory bank, regardless of their types. The banks are in increments of 100, that is, objects with IDs from 1 through 99 are stored in the first bank, IDs from 100 to 199 in the second bank, and so on. We refer to them simply as the "Zeros bank," "100s bank," "200s bank," etc. If you save an object as ID 203, for example, it's in the 200s bank.

You can store up to 100 objects of each type in each memory bank. The number of objects of a given type that can be saved in a memory bank depends on its type. For example, you can store 20 Quick Access banks in each memory bank. As you begin to save objects that you've edited, you'll notice that the IDs suggested by the K2vx sometimes increase in large chunks—from 219 to 300, for example. This is due to the limit to the number of objects of a given type that can be stored in a single memory bank. This limit can be important in terms of organizing your objects for storing to disk. Check out the section called "Storing Objects in the Memory Banks" in Chapter 2 of the *Reference Guide* for lists of how many objects of each type can fit into each memory bank.

You'll want to think about organizing your edited objects in the memory banks when you start using the floppy disk drive or a SCSI device to store your programs, samples, and other objects. Objects that are stored in the same memory banks are automatically stored in the same *file* on disk. You can also store all the banks to one file by selecting "Everything" in the Disk mode Bank *dialog*.

The memory banks work automatically, that is, you don't have to select the different banks to gain access to the objects stored in them. The K2vx selects the appropriate bank when you enter the object ID you want to work with. To select Program 201 while in Program Mode, for example, just press 2, 0, 1, ENTER on the alphanumeric pad. The 200s bank is automatically selected, and the program list will show programs numbered in the 200s. If your MIDI controller can send program change commands from 0 to 127 or 1 to 128 only, you'll probably want to adjust the way the K2vx responds to program change commands. See the discussion of the Program Change Type parameter (ProgChgType) in Chapter 10.

When you do a save operation in Disk mode, you're creating a file to be saved to disk. This will save either individually selected objects or an entire bank of objects from the K2vx's RAM. If you choose to save a complete bank, then all objects with IDs in the range of the selected bank, regardless of type, are saved as part of the file. For example, if you save the 200s bank (objects with IDs from 200 - 299), then every object with an ID from 200 to 299 will be saved to the file.

This system makes it easy for you to keep track of everything you save. The first program you save, for example, will have an ID of 200 (unless you specify another ID). The first setup you create will also have an ID of 200 (since they're different *types* of objects, the IDs can be the same). If you were to save the 200s bank, both your program and your setup would be saved to the same file.

Saving and Loading Files—Disk Mode

Saving to disk simply involves selecting objects or a complete bank of objects to be stored as a single file. All objects with IDs within that range will be saved to the file. When you *load* a file, the K2vx asks you which bank will receive the file. You can load a file into any of the ten banks, regardless of the bank it was saved from. The K2vx will automatically reassign the object IDs. A file saved from the 200s bank, for example will be stored on disk with its objects numbered from 200–299. If you load it back into the 300s bank, its objects will be renumbered from 300–399.

See Chapter 13 for more information on loading and saving files.

Special Button Functions

The mode buttons to the left of the display have additional functions, as described below:

PROGRAM / Mute 1	When you're in the Program Editor, this button will mute Layer 1 of the current program or the currently displayed layer for drum programs. While in the Setup Editor, it will mute Zone 1 of the current setup. On MIXER page of Song mode, mutes either track 1 or 9.
SETUP / Mute 2	When you're in the Program Editor, this button will mute Layer 2 of the current program, if any. For drum programs, solos currently displayed layer. While in the Setup Editor, it will mute Zone 2 of the current setup. On MIXER page of Song mode, mutes either track 2 or 10.
QUICK ACCESS / Mute 3	When you're in the Program Editor, this button will mute Layer 3 of the current program, if any. For drum programs, solos currently displayed layer. While in the Setup Editor, it will mute Zone 3 of the current setup. On MIXER page of Song mode, mutes either track 3 or 11.
EFFECTS / FX Bypass	When you're in the Program Editor, pressing this button will bypass (mute) the preset effect assigned to the current program, letting you hear just the sound of the layer(s) you want to hear. On MIXER page of Song mode, mutes either track 4 or 12.
MIDI / Prev pg	In the Program Editor, pressing this button will take you to the previously selected editing page. The K2vx remembers the four most recently selected pages, so you can press this button up to four times to backtrack through the pages you've viewed. Pressing it a fifth time will take you back to the ALG page. On MIXER page of Song mode, mutes either track 5 or 13.
MASTER / Mark	This is handy for marking Program Editor pages that you use frequently. Pressing this button will mark the currently selected page. You can mark as many pages as you like. Then you can use the Jump button to select the marked pages in the order you marked them. Marked pages will show an asterisk in the top line of the display, just before the name of the page. A marked page can be unmarked by pressing the Mark button while the page is visible. On MIXER page of Song mode, mutes either track 6 or 14.
SONG / Jump	Use this button to jump to pages in the Program Editor that you've marked with the Mark button. This will cycle through all the currently marked pages in the order they were marked. On MIXER page of Song mode, mutes either track 7 or 15.
DISK / Compare	This button works in most editors, and lets you compare your edits with the original version of the object you're editing. When you press the Compare button, the display changes to remind you that you're listening to the original version. Press any button to return to the currently selected page of whatever editor you're in. On MIXER page of Song mode, mutes either track 8 or 16.
CHAN/BANK / Layer/Zone	In the Program Editor, these buttons let you scroll through the layers in the currently selected program. In the Setup Editor, you can scroll through the zones. In the Effects Editor, you can scroll through the effect configurations. In the Quick Access Editor, they scroll through the entries in the currently selected Quick Access bank. In the Keymap Editor, they scroll through the velocity levels of multi-velocity keymaps. In Song mode, switches record track.
EDIT	Whenever the selected parameter's value is an editable object or a programmable parameter, pressing the EDIT button will take you to that object's editor, or to the parameter's programming page.