

# ***K250 Editor/Librarian***

***A Visual Editing System for the  
Kurzweil 250, RMX, Expander***

For use with the Macintosh Computer

**Version 2.0**



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## A Personal Word from the Creator of the Editor/Librarian

When the Kurzweil K250 first hit the market over six years ago, I was amazed at the quality of sound that could come from a synthesizer--so amazed that I wanted to learn everything I could about the product. This eventually led to me becoming a Kurzweil dealer and ultimately to the creation of third party products. (It was sort of like the Remington shaver guy on TV who was so impressed he bought the company--I didn't buy the company (!) but I did expand my own business to provide additional user support for the 250.)

Over the years of using the 250 on a daily basis, I became increasingly jealous of users of other synthesizers who had access to editor/librarian software. (Editing on the 250 offers tremendous flexibility, but it is a rather complex process.) Not being one to sit around and silently wish for something I really needed, I decided to approach some companies about the need for an editor/librarian. Yes, it would be nice, they said, but we're not going to do it.

From there, the next step was both obvious and difficult--add an editor/librarian to the Sweetwater line of Kurzweil support products. But like I said, I'm not one to sit around and just wish, and so the work began. The software package you have in your hand is the result of many months of work and a major financial investment. I believe it was worth it and I think you'll agree, once you start using the Editor/Librarian (I even had some people tell me during the development stage that they'd buy it at *any* price).

We started with Version 1.0 and upgraded to 1.5 almost immediately. Version 2.0,

the second upgrade, includes many new features which add great power to the Editor/Librarian and complete the editing functions.

Since software development costs are high and there is a small number of Kurzweil 250 owners, copy protection was necessary to protect our investment and make these upgrades possible. However, I *know* what an inconvenience it is to always have a master disk handy every time I start an application. I didn't want to do that to my customers who have been such super people, so I have selected the best copy protection available--one that allows a hard disk installation that does *not* require a master or "key" disk every time the application is started. I am confident this will be a happy solution that protects my investment without inconveniencing my customers.

If you have a problem or a question, feel free to give me a call. I'm here to help and to serve you.

Thanks for purchasing the Sweetwater K250 Editor/Librarian.

Chuck Surack



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# Introduction

## Registration


Complete the registration card, so you will be registered as a licensed owner of the Sweetwater Editor/Librarian. This is very important for telephone support and upgrades. You must register to receive telephone support!

## Master Disk

The master disk containing your Editor/Librarian has been shipped "locked" or erase protected as a safety feature. No information can be written onto the disk or erased from it when it is locked. You will need to unlock it to install (or remove) the Editor/Librarian on your hard disk. At all other times, it is recommended that you leave the master disk locked and *never* use it as your working disk. You may and should make working copies (either onto your hard disk or onto another floppy disk)--see the installation instructions in the **Getting Started** section. If the master disk is accidentally damaged, it can be replaced at a minimal cost to cover duplicating and shipping. However, the best medicine is always preventive.


## Special Tips



At various places in this manual, you will find special tips which can be identified four ways. First, they are in a box. Second, they are labeled "Special Tip." Third, they are in SansSerif Italic font (*This is SansSerif Italic*). Fourth, they all have this icon:  Special tips contain information not necessary for operation of the Editor/Librarian, but which can add to your efficiency or power in using it.

## 250 Notes

**250 NOTE** 

Information that explains how the Kurzweil 250 works is contained in "250 Notes" with this icon: **250 NOTE**  This is information that describes how the 250 itself functions when doing particular editing operations with the Editor/Librarian. It is provided in this manual to help answer questions that are likely to arise during use of the Editor/Librarian.

## If You Have a Problem...

Before calling Sweetwater, reread the section in this manual that pertains to what you are doing, as well as the Appendix. If you are positive that you are following the instructions correctly, restart your computer and try again--there could be a system bug or virus. If you still are having a problem, then call and we will be glad to help in any way we can.



# *Getting Started*

# 1

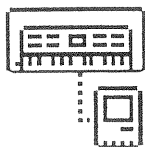
*Chapter  
One*

# *Getting Started*

## **A Quick Summary of How to Get Started:**

*NOTE: If you are an experienced Macintosh, MIDI, and Kurzweil user, this summary may be all you will need. If you need detailed instructions, read pages 11- 22.*

1. The Editor/Librarian requires both ports on your Macintosh. Connect a MIDI Interface to the modem port of your Macintosh; connect the MIDI out of your interface to the MIDI in of your K250 with a MIDI cable; connect your K250 to the printer port of your Macintosh with a QLS cable. MIDI must be on the modem port, and QLS must be on the printer port.
2. Start your Macintosh and check that under the Chooser, AppleTalk is turned off.
3. Install the Editor/Librarian on your hard disk or copy it onto a floppy disk.
4. Set the MIDI on your K250 so that "Receive Options"--"Receive Controls"--"Assign to Panel Buttons" is set to 80. Be sure MIDI Channel 1 is on.
5. If you want to use MIDI Manager, be sure MIDI Manager and Apple MIDI Driver are in your System folder and that you have started your Macintosh with them in the folder. Be sure PatchBay has been installed as a desk accessory.
6. Double click on the Editor/Librarian icon to start the program.
7. Select **Fetch** from the **Keyboards** menu, and click on the **Fetch** button in the screen that appears. Watch to make sure the display on your K250 display changes.
8. Select **Setup** from the **File** menu, check the appropriate boxes for your K250, and click the **Okay** button.



## What You Need

# Getting Started: The Specifics

In order to use the Sweetwater K250 Editor/Librarian, you will need the following:

A Kurzweil 250, RMX, or Expander

A Macintosh Computer with at least 1 megabyte of RAM (Plus or better)

Apple System Version 6.0.x or higher

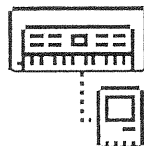
A MIDI Interface and connecting cable

1 MIDI cable

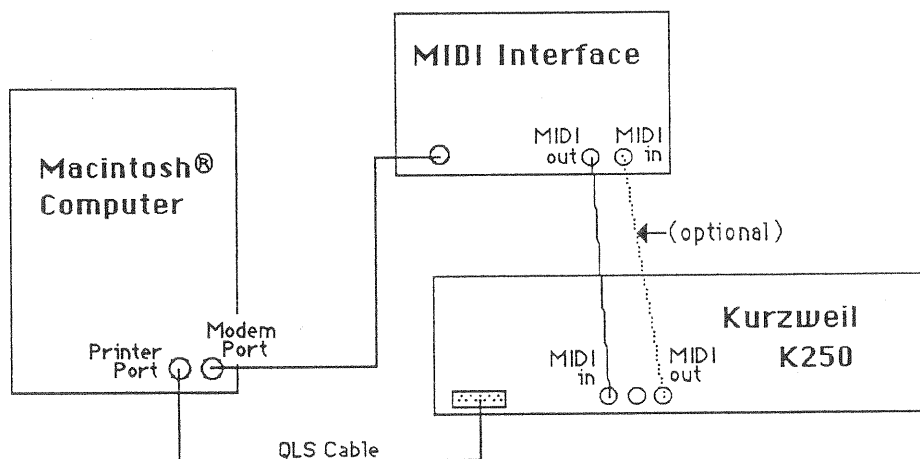
A Kurzweil QLS cable

Version 6 (or higher) software in your Kurzweil

Optional: MIDI Manager and Apple MIDI Driver in your system folder (included on Master Disk)



## Connect your cables



1. Connect your MIDI interface to the Modem port of your Macintosh.
2. Connect the MIDI out of your interface to the MIDI in of your Kurzweil with a MIDI cable. (You may also connect the MIDI in of your interface to the MIDI out of your Kurzweil. This connection is not necessary for the Editor/Librarian, but other MIDI applications may require it.)

See the diagram on the previous page if you have questions. If you have an RMX, an Expander, or are using another MIDI controller, see pages 127-128.

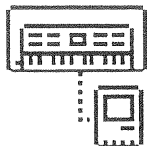
Use a QLS cable to connect your Kurzweil to the Printer port of your Macintosh.

### *Turn Apple Talk Off*

Start your Macintosh. Be sure AppleTalk is turned off. (To check this, select **Chooser** under the **Apple** menu. The Chooser screen will show you whether AppleTalk is Active or Inactive. AppleTalk must be *Inactive* for the Editor/Librarian to work, as well as most other MIDI applications. After you have clicked on the **Inactive** button, close the Chooser screen.)



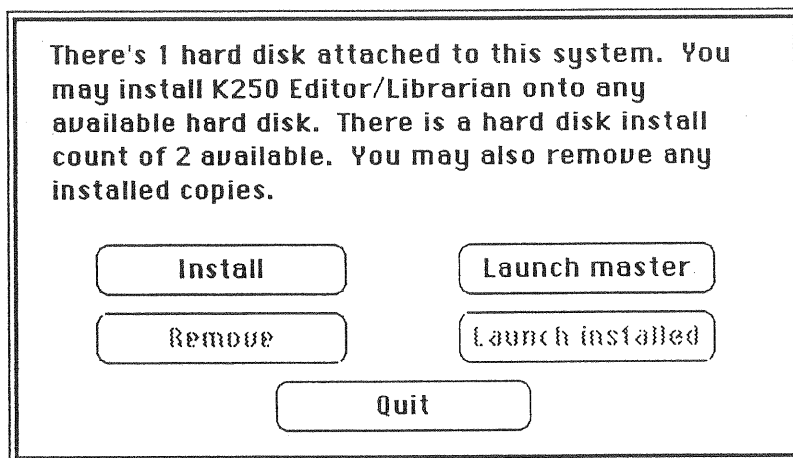
**Special tip:** *If you want to keep a printer connected to your Macintosh, buy a Switcher box and connect the "common" of the switcher box to the printer port on your Macintosh. Then use one of the individual connections on the switcher box for your printer and the other for your QLS cable. This will allow you to switch back and forth between using your printer, your Editor/Librarian (uses QLS cable), and MIDI (if connected), without changing cables. AppleTalk must still be turned off for the Editor/Librarian to work.*



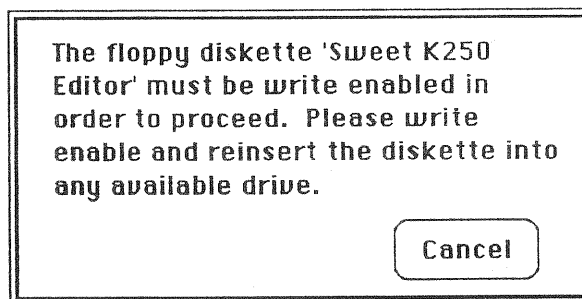
## Installation

### IF YOU HAVE A HARD DISK AND WANT TO DO AN INSTALLATION:

1. If they are not on, turn on your Macintosh and the hard disk.
2. Unlock (write enable) your Editor/Librarian master disk. (Push the tab on the back in the upper left hand corner down so that the opening or window is closed.)
3. Insert the master disk into a drive (internal or external).
4. Double click on the Editor/Librarian icon. You will see the following screen:



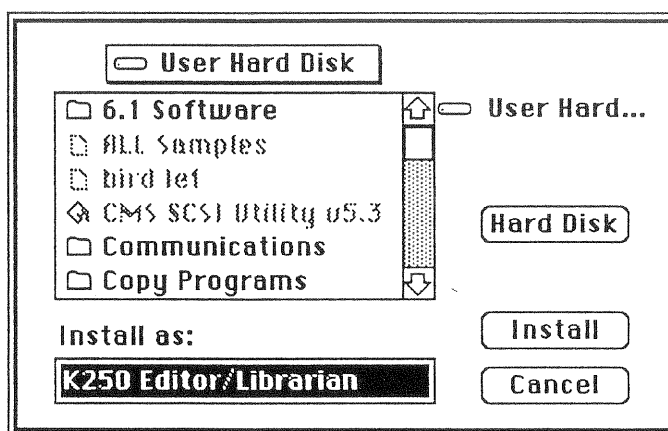
*NOTE: If you double clicked on the Editor/Librarian icon and the disk was locked, it will be ejected and you will see the following dialog box:*



*If this happens, simply unlock the master disk, reinsert it, and you will see the screen on Page 13.*

The screen on Page 13 tells you the number of installs available; initially it will be 2.

5. Click the **Install** button. (You could click on the **Launch Master** button instead and you would be opening the application from your master disk. However, this is not recommended.) You will see the following screen:



Clicking on the **Hard Disk** button will scroll through your drives and give the type of disk for each drive on the button. The name of the disk is given in the upper right corner. Note that the **Install** button is grayed out if you have scrolled to a floppy drive. If you have more than one hard drive, scroll until you have selected the one to which you want to install the Editor/Librarian. If you have one hard drive, scroll until you have selected it. (This screen will normally come up with your hard drive already selected.)

6. Type the name you want the application to have when it is installed. If you want to put it in a folder, open that folder by double clicking on its name in the files/folders list.

7. Click on **Install** and the Editor/Librarian will be installed on your hard disk. You will see the following dialog box:

**Operation completed:  
Installation successful.**

**Continue**

8. Click the **Continue** button, and the screen will return to the Finder.
9. Eject your Editor/Librarian master disk and store it in a safe place.

**NOTE:** The copy protection feature prevents you from installing the Editor/Librarian more than twice. Consequently, you should never “trash” the application from your hard disk. If you wish to remove the Editor/Librarian, insert your master disk and double click on the Editor/Librarian icon just as you did to install the application, and instead of clicking **Install**, click on **Remove**. The application will be removed from your hard disk, and you will be able to use the Install again--in effect, your master disk will receive a “credit” of one more install when you use the remove command. This is the procedure you should use if you are moving the application from one hard disk to another.

*Also see the notes on the enclosed warning sheet about hard disk operations that will cause the installation to be lost.*

**NOTE:** *If you do not want to actually install the Editor/Librarian on your hard disk, but you just want to drag a copy of the Editor/Librarian:*

- 1. Insert the Editor/Librarian master disk into the internal drive.*
- 2. Drag the Editor/Librarian icon from the master disk to the hard drive.*
- 3. Eject your Editor/Librarian master disk and store it close at hand. You will need to insert it once whenever you power up your Macintosh and open the application.*

**IF YOU HAVE A FLOPPY DISK SYSTEM WITH TWO DISK DRIVES:**

1. If it is not on, turn on your Macintosh computer.
2. Insert your startup disk into the internal drive.
3. After the computer has booted up and the Finder appears in the window, insert a blank disk into the external drive. Format and name it as an 800K disk (double sided).
4. Eject your startup disk from the internal drive.
5. Insert the Editor/Librarian master disk into the internal drive.
6. Drag the Editor/Librarian icon from the master disk to the blank 800K disk. This now becomes your working disk.
7. Eject your Editor/Librarian master disk and store it close at hand. You will need to insert it once whenever you power up your Macintosh and open the application.

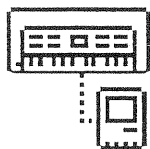
**IF YOU HAVE A FLOPPY DISK SYSTEM WITH ONE DISK DRIVE:**

1. If it is not on, turn on your Macintosh computer.
2. Insert your startup disk into the internal drive.
3. After the computer has booted up and the Finder appears in the window, eject your startup disk.
4. Insert a blank disk into the drive. Format and name it as an 800K disk (double-sided). Eject the blank disk from the drive.
5. Insert the Editor/Librarian master disk into the internal drive.
6. Drag the Editor/Librarian icon from the master disk to the blank 800K disk and follow the prompts from the Macintosh for disk swapping. The copy you made becomes your working disk.
7. Store your Editor/Librarian master disk close at hand. You will need to insert it once whenever you power up your Macintosh and open the application.





**Special Tip:** If You Want to Use the Editor/Librarian with Multifinder, you will need a Macintosh with 2 or more megabytes of RAM. By running under Multifinder, you would be able to have sequencing software like Mark of the Unicorn's Performer or Opcode's Vision open at the same time as the Editor/Librarian, which could be very useful for quick editing during sequencing.



## Setting the MIDI on your Kurzweil

The Editor/Librarian edits the Kurzweil by (remotely) "pushing the panel buttons." This information is sent as MIDI Controller #80; thus the MIDI receive controls on your K250 must be set to match.

1. Turn your Kurzweil on, press the **Edit** button, then the **MIDI** button. You will see "Receive Options?"
2. Press **Select**, then scroll with the right arrow key to "Receive Controls?"
3. Press **Select** again, and scroll to "Assign to Panel Buttons?"
4. Press **Select**; enter the number 80 from the numeric keypad on your K250, then **Select** again. Press **Play** to exit the MIDI editor.

### *MIDI Channel 1 On?*

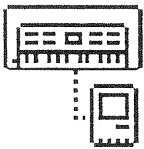
Also, be sure MIDI channel 1 on your Kurzweil is turned on:

1. Press the **Edit** button, then the **MIDI** button, then the **Select** button. Use the right arrow key to scroll to "Receive Channels MIDI 11."
2. Press the **Select** button and you will see "MIDI Channel 1?" (If it says "Current Setup" or the name of a keyboard setup, it is already on--press **Play** to return to the play mode.)

3. If it says "Off," press the **Select** button and use the right arrow key to scroll to either "Current Setup" or the name of a keyboard setup.
4. Press **Select** again.
5. Press **Play** to return to the play mode.

#### **Automatic MIDI Setup**

*As an alternative to setting the MIDI on your Kurzweil, you can load the file on the Editor Master disk called Editor Midi Setup. Start the Editor/Librarian (see below) and use the Load command under the File menu (this part of the Editor will work). It will automatically set the panel buttons to 80 and turn channel 1 on. However, it will also change any other MIDI settings you have in your K250. (You can also use your Kurzweil QLS software to load the Editor Midi Setup file.)*



#### **Starting the Editor/ Librarian**

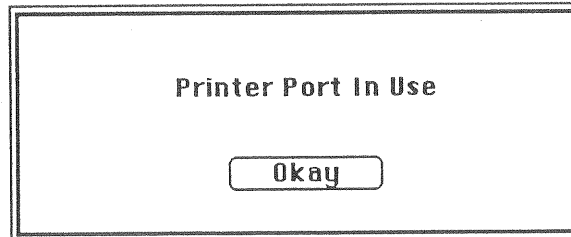
The Editor/Librarian supports Apple's MIDI Manager, using Apple MIDI Driver and PatchBay, which are included on your master disk. Although MIDI Manager is recommended for easier compatibility with other MIDI programs, it is not required. If you decide to use MIDI Manager, see the addendum sheet for installation instructions. **READ AND FOLLOW THESE INSTRUCTIONS CAREFULLY, SINCE INCOMPLETE OR IMPROPER INSTALLATION WILL KEEP THE EDITOR/LIBRARIAN FROM FUNCTIONING.**

Once you have installed MIDI Manager, Apple MIDI Driver, and PatchBay (or decided to run without MIDI Manager), restart your computer. Be sure that the Editor/Librarian is installed on or copied to your hard disk or is on a floppy disk in one of your computer's drives.

#### **Apple Talk Turned Off?**

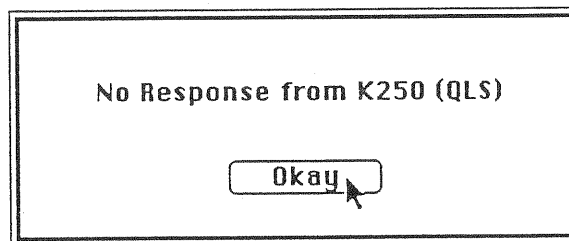
(MAKE SURE AppleTalk IS TURNED OFF--see page 12. If you try to start the Editor/Librarian with AppleTalk turned on you will see the following box:)

### *Open the Application*



Click on the Editor/Librarian icon and drag the mouse to the **Open** command in the **File** menu or double click on the Editor/Librarian icon. If you have installed the application on a hard disk, you will not need your original master disk. If you are working from a floppy disk or disks, the computer will ask you to briefly insert your master disk so it can read the encrypted code. (You will not need to insert the master disk each time you start the application. The computer only needs to see it the first time you open the application after powering up your computer or every 24 hours.) If your computer does not recognize MIDI Manager and/or Apple MIDI driver, restart your computer and open the application again.

If QLS is not connected, you will see the following dialog box:



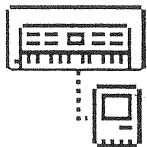
If this happens, click on the **Okay** button, check your QLS connections (see page 12), and reopen the application.

### *Startup and Menus*

As you start, the Editor/Librarian will read all the files in your Kurzweil (you will see an indicator bar on your screen as this happens.) Then there will be a blank screen with seven menus at the top: **Apple**, **File**, **Edit**, **Keyboards**, **Instruments**, **Digitizer**, and **Soundfiles**. The final step will be configuration setup. First, let's check to make sure everything works...

**Watch Out!**

*WARNING: If you have not set the K250's MIDI receive controls so that "ASSIGN TO PANEL BUTTONS" is set to 80, the Editor/Librarian will appear to work, but you will not get proper response from your K250. You will be doing "screen editing" only; i.e., the K250 will not actually be edited.*



**Check It!**

To make sure that the Editor/Librarian is actually working, select **Fetch** from the Keyboard menu and Click the **Fetch** button in the dialog box that appears. The display should flash quickly, do a QLS transaction, and then end by reading "Assign Options." If it does not, then the MIDI is not set right:

*Check Connections*

1. Check your MIDI connections.

*Check MIDI Setup*

2. Reread pages 17 and 18 and make sure you have set your MIDI for panel buttons, that MIDI Channel 1 is turned on, and that MIDI Manager and Apple MIDI Driver are in your System Folder (if you are using MIDI Manager).

**NOTE THIS!!!!**

**SPECIAL NOTE: Unless you are instructed to do so, DO NOT PRESS THE BUTTONS ON YOUR K250. Editing with the Editor/Librarian is done on your computer screen. If you try to work with both the K250 and the computer screen, the two will be out of sync and the Editor/Librarian will not work. If, for any reason, you do edit something directly on the K250, you must use the Refresh command (see page 126).**

## Setup

### File

Load...	⌘L
Save...	⌘S
Refresh	⌘R
Setup...	⌘P
Quit	⌘Q

Configuration setup is necessary to tell the Editor/Librarian what options are in your 250:

1. Select **Setup** from the **File** menu. You will see the following dialog box:

☐ Original CGP  
☐ Revised CGP  
☒ CGP w/SuperRam

☒ Sound Block A  
☒ Sound Block B  
☒ Sound Block C  
☒ Sound Block D  
☒ Sound Block SW800  
☒ Sound Block SW900

☒ Digitizer Bank 1  
☐ Digitizer Bank 2  
☐ Digitizer Bank 3  
☐ Digitizer Bank 4

Okay

### Setup for Your 250

2. Click the appropriate button for the CGP you have in your K250.
3. Click the appropriate boxes for the sound blocks in your K250.
4. For now, click the button for Digitizer Bank 1. (Later you will learn that this is where you select different banks for editing if you have SUPERAM I or II.)
5. Click the **Okay** button. Your Editor/Librarian is now ready for use.

*Not Sure?  
Here's How to Check*

*NOTE: If you are not sure which sound blocks are in your 250, try calling up a keyboard setup in the number range for each block, using the*

250's front panel:

- |                              |   |
|------------------------------|---|
| <i>Check for Block A</i>     | <i>Press Keyboard, 50, and Select twice. If the display reads CHOIR 50 PLAY MODE, you have Block A. If the K250 defaults to another keyboard setup, you do not have Block A.</i>  |
| <i>Check for Block B</i>     | <i>Press Keyboard, 300, and Select twice. If the display reads ROCK DRUMS 1 300 PLAY MODE, you have Block B. If the K250 defaults to another keyboard setup, you do not have Block B.</i>   |
| <i>Check for Block C</i>     | <i>Press Keyboard, 400, and Select twice. If the display reads SOLO VIOLIN 400 PLAY MODE, you have Block C. If the K250 defaults to another keyboard setup, you do not have Block C.</i>  |
| <i>Check for Block D</i>     | <i>Press Keyboard, 600, and Select twice. If the display reads SOLO TRUMPET 600 PLAY MODE, you have Block D. If the K250 defaults to another keyboard setup, you do not have Block D.</i>   |
| <i>Check for Block SW800</i> | <i>Press Keyboard, 800, and Select twice. If the display reads DX7 ELEC. PIANO 800 PLAY MODE, you have SW800 block. If the K250 defaults to another keyboard setup, you do not have SW800 block.</i>  |
| <i>Check for Block SW900</i> | <i>Press Keyboard, 900, and Select twice. If the display reads METRONOME 900 PLAY MODE, you have SW900 block. If the K250 defaults to another keyboard setup, you do not have SW900 block.</i>  |
| <i>Check for Revised CGP</i> | <i>If you are not sure if you have the Revised CGP, Press Keyboard, 198, and Select twice. If the display reads NULL KEYBOARD (MIDI), then you have the Revised CGP. If it does not, then you have the original CGP.</i>  |
| <i>Check for Superam</i>     | <i>If you are not sure if you have Superam, press Instrument and Select. If the display reads DIGITIZER BANK (1-2), you have Superam I. If the display reads DIGITIZER BANK (1-4), you have Superam II. If the display reads SOUND TYPE, you do not have Superam.</i> |

# *Kurzweil Basics*

## 2

*Chapter  
Two*

# Kurzweil Basics

## What Is?

### Keyboard Setup...

Instrument...

Sndfile/VoiceInst...

Source Keyboard...

Digitizer...

ROM...

RAM...

*NOTE: If you are confident that your knowledge of the K250 is already extensive, you may want to skip to Chapter 3. However, if you have any questions about Keyboards, Instruments, Digitizers, ROM, RAM, etc., this chapter will be a very useful foundation for using the Editor/Librarian.*

A Kurzweil keyboard setup would be called a preset in traditional synth terms. It is the combination of one or more *instruments* or other *keyboard setups*. Now, that statement can be confusing, so let's use an example to explain it.

Suppose you have keyboard setup #44 ACOUSTIC GUITAR and you want to add strings, so that both acoustic guitar and strings sound at the same time (this is called adding a layer). By adding keyboard setup #4 BOWED STRINGS FAST to your #44 keyboard setup, you would accomplish your objective. When you play your new keyboard setup you would hear guitar and strings layered together (simultaneously).

In this example we made a new keyboard setup by adding a layer of *another keyboard setup*. In the next section, you're going to learn that every keyboard setup has at least one instrument as part of it. As you read about instruments, keep in mind that when you add a layer or a split, you could choose to add an instrument as a layer (rather than another keyboard setup).

So remember that a keyboard setup is like a preset in traditional synth language. It is the combination of one or more instruments or other keyboard setups. You can edit the factory keyboard setups (presets) and store your edited versions in numbers 250-289.



### What Is?

Keyboard Setup...

Instrument...

Sndfile/Voice Inst...

Source Keyboard...

Digitizer...

ROM...

RAM...

An instrument in Kurzweil language is a combination of two parts--a soundfile and voicing instructions. An instrument is what actually sounds when you play a keyboard setup, but in order to hear an instrument, it *must* be assigned to a keyboard setup.

Again, an example will help. There is an instrument called SNARE DRUM (it is instrument #23), but there is no keyboard setup called "snare drum." The instrument SNARE DRUM is one of many instruments that make up the keyboard setup DRUM KIT 1. If you want to hear a snare drum sound, you must play DRUM KIT 1, which consists of many instruments like KICK DRUM, COWBELL, CRASH CYMBAL, etc. (Similarly, to hear the instrument GRAND PIANO, you must play the keyboard setup KURZWEIL GRAND PIANO; to hear the instrument FAST STRINGS, you must play the keyboard setup BOWED STRINGS FAST, etc.) All keyboard setups have at least one instrument; some keyboard setups have more than one.

### What Is?

Sndfile/Voice Inst...

Source Keyboard...

Digitizer...

Since we said that an instrument is made up of a soundfile and voicing instructions, it will be helpful to know what those two parts are and how they work together. A soundfile is digitally recorded sound data (a sample). It can be the flute sample, the trombone sample, the guitar sample, etc. On its own, a soundfile is useless and inaudible.

To use a soundfile, it must first be attached to an instrument voicing. Voicing instructions are the parameters that shape and color a sound file--things like envelope (attack, sustain, decay), vibrato waveforms, etc. Together, a soundfile and set of voicing instructions make up an instrument. *You cannot edit (reloop, retune, etc.) a factory sound file.* When you edit an instrument, you are actually editing the voicing instructions which apply to the sound of the instrument.

This is what changes the sound of an instrument when you edit it. *(Remember that the instrument, and therefore any changes made in editing, can only be heard by playing the keyboard setup to which the instrument is assigned.)*

## What Is?

Sndfile/VoiceInst...

Source Keyboard...

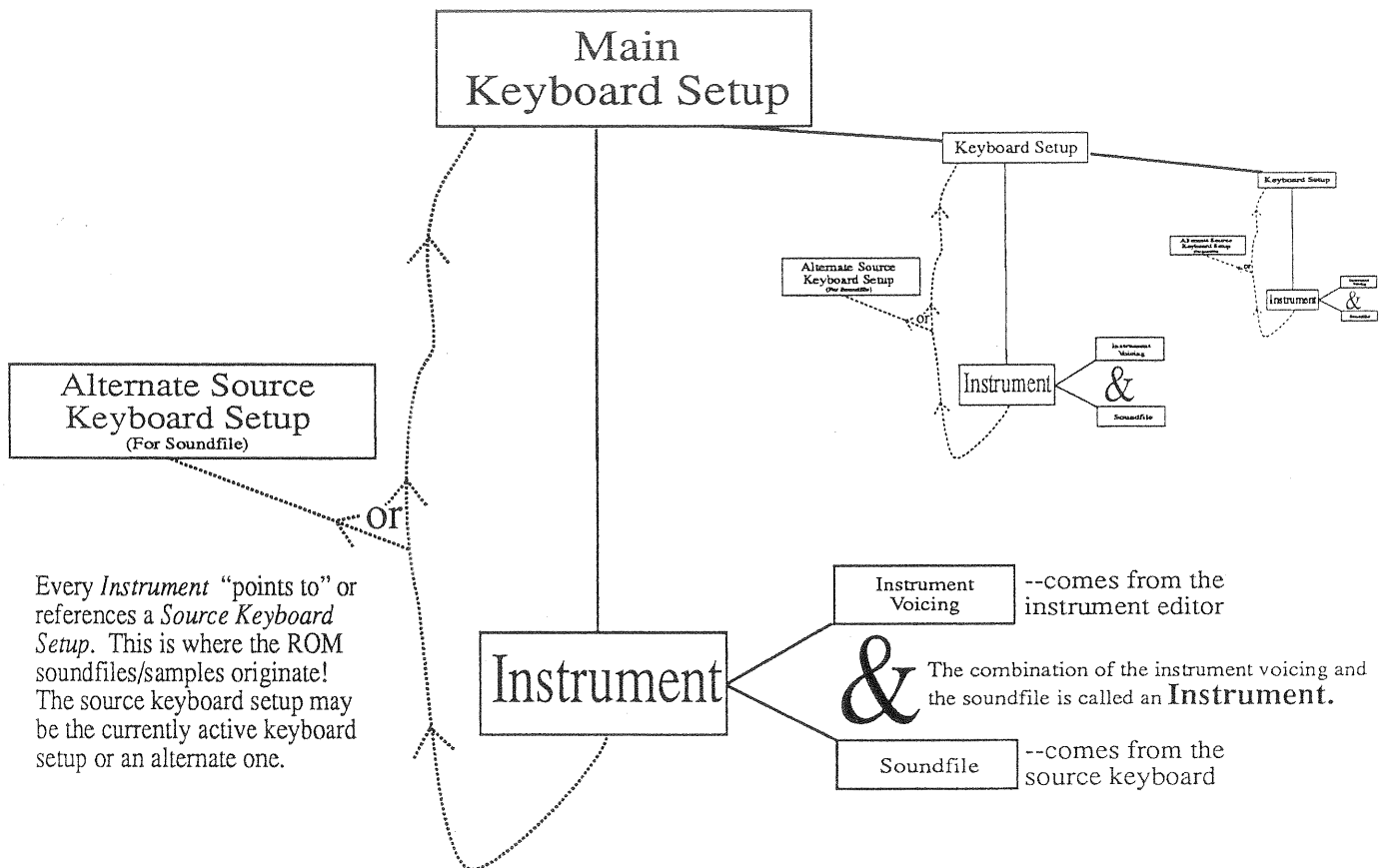
Digitizer...

We said that a set of voicing instructions combined with a soundfile make up an instrument. But where does the soundfile come from? The soundfile comes from a keyboard setup (notice how this loops back in kind of a circle) which is called the source keyboard. The source keyboard can be the currently active one *or another one*.

*NOTE: All of this means that you can substitute one set of voicing instructions for another while keeping the same soundfile, or you can substitute a different source keyboard (giving you a different soundfile) while keeping the same voicing instructions. In other words, since an Instrument is the combination of two parts (soundfile and voicing instructions), you can keep either one of those two parts and substitute something else for the other part when you edit!*

(The diagram on page 27 summarizes the information about keyboard setups, instruments, soundfiles, voicing instructions, and source keyboards.)

A keyboard setup consists of one or more instruments (or other keyboard setups)



### What Is?

Sndfile/VoiceInst...

Source Keyboard...

Digitizer...



The Digitizer is the sampling section of the 250. It is here that you sample sounds to create your own soundfiles, instruments, and keyboards. Instruments and keyboard setups created in the digitizer appear as numbers in the 500's. Editing digitizer files is different from editing factory files in three key ways:

1. You *can* edit a digitizer (user created) soundfile (sample); you *cannot* edit a factory soundfile.
2. You *cannot* directly edit a digitizer instrument or keyboard setup like you would factory instruments and keyboard setups. In order to edit digitizer instruments or keyboard setups, you must copy them into the instrument edit buffer (editing section of the 250) and save them to numbers in the 250-300 range.
3. Factory soundfiles are permanently stored in your 250 on ROM chips (see below) and cannot be lost or removed. User-created digitizer soundfiles *cannot* be stored permanently in the 250 in any way. They must be saved to a computer disk or to RAM cartridge before turning off your Kurzweil or they will be lost.

### What Is?

ROM...

RAM...



ROM stands for Read Only Memory. This is where the resident (factory) soundfiles, instruments, and keyboard setups are stored. ROM consists of computer chips. The information on these chips is permanent because it is READ ONLY--that is, it can be read by the 250 but cannot be rewritten. No matter how much editing you do, the information that is in ROM will not be lost or changed. Any edits of the ROM sounds you create are saved in RAM...

### What Is?

ROM...

RAM...



RAM stands for Random Access Memory, which means that you have access to this memory for storage. Your Kurzweil is equipped with battery-backed RAM that stores the instruments and keyboard setups you create and edit. They are stored in the 250-300 range (note that you cannot store *soundfiles* in the battery-backed RAM). It also stores any sequences you record on your 250. A certain percentage of RAM is set

aside for the instrument and keyboard setup editing and saving you do. Any files stored in the battery-backed RAM *are* remembered when you turn your 250 off.

In addition to the battery-backed RAM, your 250 has 1, 2, or 4 *banks* of sample RAM. If you have a standard Kurzweil, you have 1 bank of RAM. If you have SUPERAM I, you have 2 banks of RAM. If you have SUPERAM II, you have 4 banks of RAM.

These banks are where digitizer soundfiles and corresponding instruments and keyboard setups are created, saved to computer disk, and loaded from computer disk. Instrument and keyboard setup numbers are in the 500's.

If you have one bank of RAM, you have one available instrument position number--500. If you have two banks, you have 500 and 520 available. If you have four banks, 500, 520, 540, and 560 are available. Digitizer keyboard setups 501 and above are available if you have one bank of RAM. A second bank adds 521 and above, and the third and fourth banks add 541 and 561 and above. Since this is not battery backed RAM, any files in these banks are *not* remembered when you turn your 250 off.

*NOTE: Taking all of the above together, it should be easy to see the final result of what you can and cannot keep in the battery-backed RAM. Any editing of factory instruments and keyboard setups can be safely stored in the 250-300 range and becomes part of the battery-backed RAM. Any user instruments and keyboard setups created in the Digitizer can be copied into the instrument edit buffer and safely stored in the 250-300 range.*

*However, USER CREATED SOUNDFILES can be stored only on computer disk or RAM cartridge and must be loaded into the bank(s) of RAM every time you turn your K250 on. If you created and saved a keyboard setup and/or instrument in the 250-300 range that needs a USER CREATED SOUNDFILE to work, it will appear in the Kurzweil display window, but it will not sound until you load the appropriate soundfile into the right RAM bank.*



# *Editing Keyboard Setups*

## 3

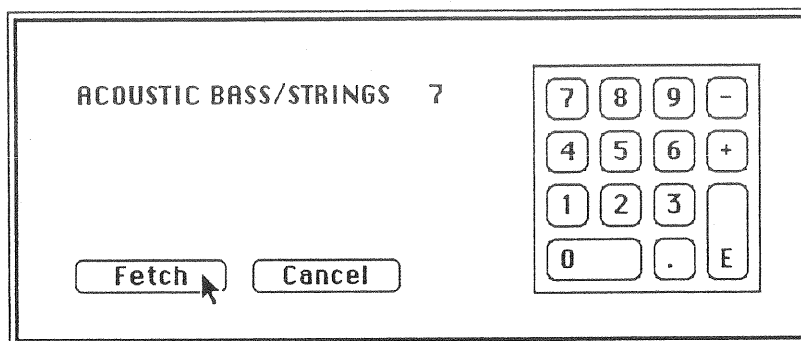
*Chapter  
Three*

# Editing Keyboard Setups

## Selecting a Keyboard Setup

Keyboards	
Fetch...	⌘K
Store...	⌘B
<hr/>	
Organize...	⌘O
Erase...	⌘E
<hr/>	
Erase All...	⌘A

Select the **Fetch** command under the **Keyboards** menu. You will be given a dialog box asking you for the number of the keyboard setup you wish to edit:



### Enter a Number

Enter the number of the keyboard setup you wish to edit by using one of these methods:

- Use the mouse to click the number buttons on the screen. Then click "E" for Enter.
- Use your Macintosh keyboard to type in the number and then type the "Enter" key.
- If you do not know the number of the keyboard setup you want to edit, you can use the + and - buttons on the screen or the + and - or up and down arrow keys on your Macintosh keyboard to scroll through the list of keyboard setups. (NOTE: FOR THIS AND ALL SIMILAR OPERATIONS, UP AND DOWN ARROW KEY SCROLLING IS NOT SUPPORTED FOR THE MACINTOSH PLUS MODEL.)

### Fetch It

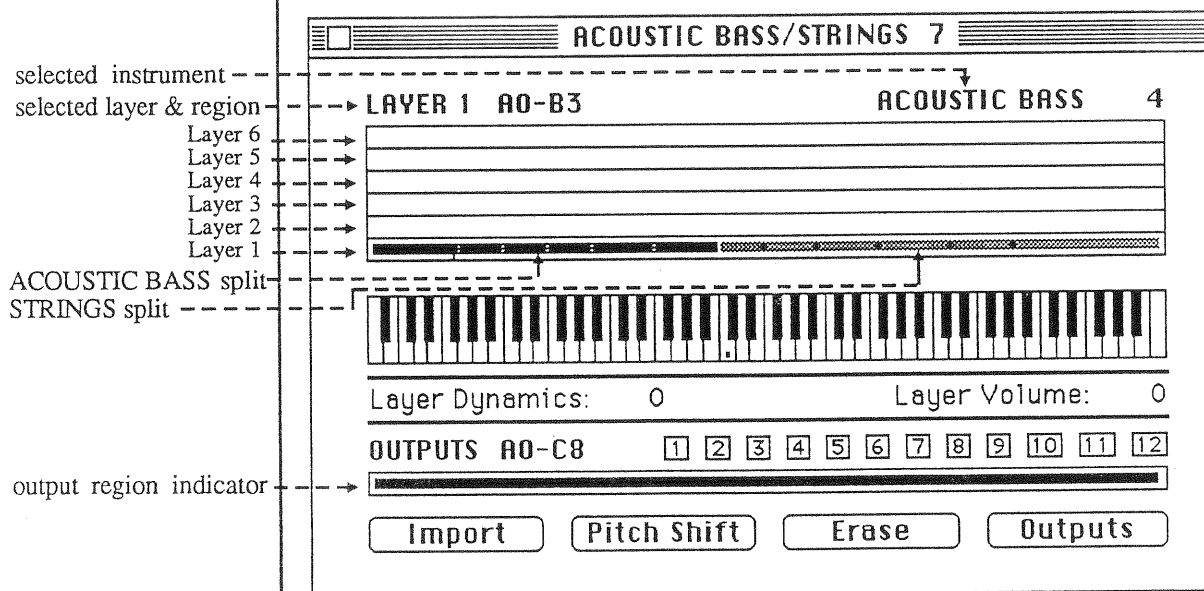
Once you have selected the keyboard setup you want to edit, click the **Fetch** button. A graphic of the keyboard setup you selected will appear on the screen.



## 250 NOTE

A keyboard setup (from now on called a keyboard) is the combination of one or more instruments (or other keyboards). When you create or edit a keyboard, you are telling the Kurzweil how to combine those instruments or keyboards to make a new keyboard setup.

For example, a keyboard consisting of acoustic bass and string sounds, each being activated by a portion of the K250's keys is a "split" keyboard. A keyboard consisting of bass and strings, with both sounding simultaneously is a "layered" keyboard.



Sample screen of a "split" keyboard selected for editing

### The Keyboard Window

- At the top of the window is the name and number of the keyboard you selected.
- The graphic shows each layer of the keyboard (up to 6, which is the

maximum number possible on the K250) and what region (or range) of K250 keys control that layer. If a layer is "split," i.e., containing more than one sound, there will be breaks in the shaded areas of each sound corresponding to the highest and lowest keys that activate that sound.

- The small hairline indicators tell you the range of each sample for an instrument.
- You can select any layer or region of a layer by clicking on it. In the upper left corner above the graphic is the number of the active (selected) *layer* and the playing range of the region that is selected in that layer. In the upper right corner above the graphic is the name and number of the *instrument* that is selected.

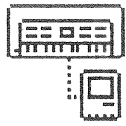
//

*The name of an instrument is the name of the voicing instructions, not necessarily the name of the soundfile. Therefore, the name that appears may not be what you would expect, particularly if the instrument has been created by substituting voicing instructions from a different instrument onto the soundfile.*

## 250 NOTE

*For example, if you open the keyboard window for keyboard #114 STRINGS AND FLUTE, and select each of the layers, you would see the instruments as ACOUSTIC BASS 4 and MONO OBOE HNP B 71--hardly what you'd expect! That is because Kurzweil used those particular sets of voicing instructions with the string and flute soundfiles to create keyboard #114.*

//



## Adding a layer (Importing a Layer)

To add a new layer to the keyboard:

1. Click the **Import** button at the bottom of the screen. You will see this Import window:

### *The Import Window*

You are being given a choice:

- Import a keyboard (**Assign Keyboard**)
- Import an instrument (**Assign Instrument**)
- Substitute a set of voicing instructions (**Subst Inst Voicing**)

If you are unsure what each of these is, read Chapter 2, **Kurzweil Basics**.

### *Choose Keyboard or Instrument*

2. Choose between **Assign Keyboard** and **Assign Instrument**. (For now, don't worry about voicing instructions.)

### *Enter a Number*

3. In the upper left hand corner is the name and number of what you are importing. To change it, use one of these three methods:

- Use the mouse to click on the numbers of the instrument or keyboard you want to import and then click "E" for Enter.
- Use your Macintosh keyboard to type in the number and then type the "Enter" key.

- If you do not know the number of what you want to import, you can scroll through the list of available keyboards or instruments with the + and - buttons on the screen or the + and - or up and down arrow keys on your Macintosh keyboard.

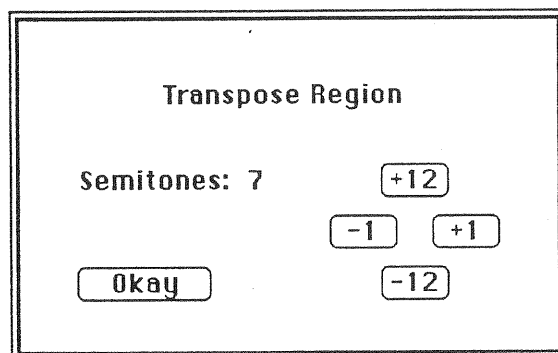
#### *Set the Range*

4. Click and drag the cursor across the picture of the keyboard to set the range of keys you want to be active for the layer you are importing. *You do not have to make all the keys active!* (Notice that the bar above the picture of the keyboard shows the active range and that the range is also given to you in note names above on the left.)

#### *Select "Layer"*

5. Since you want to import the keyboard or instrument you selected as a new *layer*, click the **Layer** button.

You will see the transpose window, asking you for the transposition you want for this layer (if any).



#### *Set the Transposition*

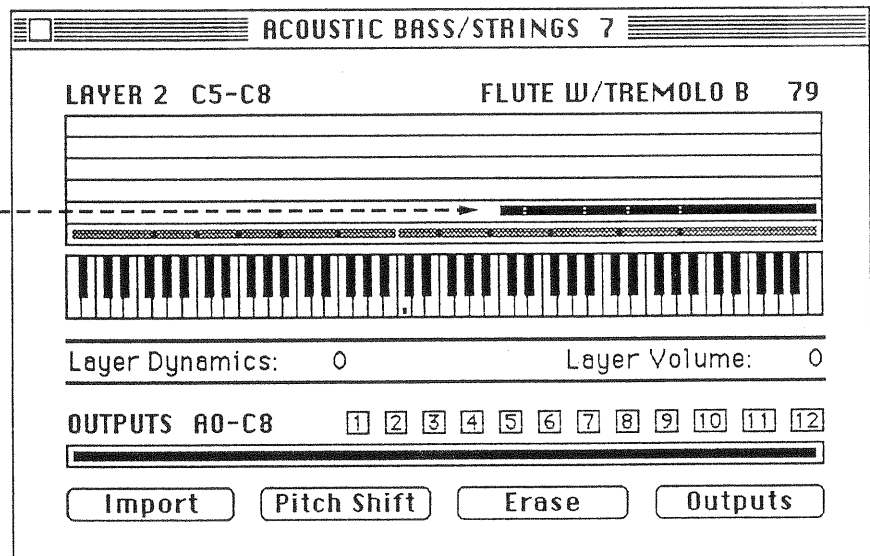
You must assign transposition to the layer at this time. If you later decide that you want to transpose a layer, you must import it again as a split (see page 35) and assign the transposition at that time.

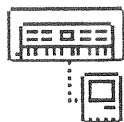
The number of semitones tells you the number of half steps you will be transposing (remember that there are 12 half steps in an octave). A positive number means transposition up, and a negative number means transposition down.

To change the amount of transposition:

1. Click repeatedly on the plus or minus 1 or 12 buttons until you arrive at the desired number of half steps. Plus 1 makes a change up one half step; plus 12 makes a change up one octave. Minus 1 makes a change down 1 half step; minus 12 makes a change down one octave. Notice that the number of semitones changes as you click on the buttons.
2. When you have set the transposition you want (or decided on no transposition), click the **Okay** button. The screen will return to the keyboard window with the keyboard you imported added as a layer.

*Keyboard with flute  
imported as a layer  
from C5 to C8* -----





## Adding a Sound to a Layer (Importing a Split)

### *The Import Window*

To add a sound to an existing layer, you will be importing a split.

1. Make sure the Keyboard window is active on your screen.
2. Select the layer you want to add a sound to by clicking on it. The upper left hand corner of the window will tell you what layer you have selected.
3. Click the Import button. You will see the Import window:

The same parameters that you worked with when you were importing a layer apply to importing a split. You must select whether you want to import (assign) a keyboard, an instrument, or a set of voicing instructions (Subst Inst Voicing).

### *Choose Keyboard or Instrument*

1. Continue to ignore the **Subst Inst Voicing** option for now and select either **Assign Keyboard** or **Assign Instrument**.

2. Use the numbers, your Macintosh keyboard, the + and - buttons on the screen, or the + and - or up and down arrow keys on your Macintosh keyboard to select the instrument or keyboard you want to import as a split.

### *Set the Range*

3. Drag the cursor across the picture of the keyboard to select the range of