SP4

Musician's Guide V2 Addendum

(For SP4-7, SP4-8, and SP76-II)

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SP4 V2 Addendum

Introduction

This addendum includes new features that are part of the V2 software update for the SP4 OS.

To view the OS version installed on your SP4, press the **Global** function button to the left of the display, then press the **Chan/Param** down button to the right of display.

You can download the most recent version of the SP4 OS at www.kurzweil.com by going to the Downloads section, then clicking on the SP4 link. For details on installing updates to your SP4, see the Chapter 10, System Mode in the SP4 Musician's Guide and the "Update Software" section on page 10-2 in the SP4 Musician's Guide.

You can also download the most recent version of the SP4 Musician's Guide in PDF format at www.kurzweil.com by going to the Downloads section, then clicking on the SP4 link.

Overview Of New V2 Features

The SP4 V2 OS introduces the ability to load Programs and Setups from the Kurzweil PC3K, PC3, and PC3LE. Within the limits mentioned below, converted programs and setups will sound the same on the SP4 as they do on the PC3K, PC3, or PC3LE. (See *The "Load (fill)" Dialogue* on page 4 for full details.)

Program Conversion Overview

When loading a program from the PC3K or PC3, the program will sound the same on the SP4 aside from the following limitations. The SP4 has 64 voice polyphony and cannot play as many notes at the same time compared the to the 128 voice polyphony of the PC3K and PC3. The SP4 cannot load some effects from the PC3K or PC3 if they use more than 10 DSP units. The SP4 does not load samples. If you load a PC3K program that contains user samples, keyranges that contain user samples will not play properly.

When loading a program from the PC3LE, the program will sound the same on the SP4. When loading a program from the PC3LE, the program's arpeggiator settings are loaded to the SP4. Once a PC3LE program is loaded to the SP4, there is no way to enable or disable the program's arpeggiator on the SP4.

Setup Conversion Overview

When loading a setup from the PC3K, PC3, or PC3LE, the setup will sound the same on the SP4 aside from the following limitations. When loading a setup from the PC3K, PC3, or PC3LE, only the first four zones can be loaded. The SP4 has 64 voice polyphony and cannot play as many notes at the same time compared the to the 128 voice polyphony of the PC3K and PC3. Also, setup features from the PC3K, PC3, and PC3LE that do not exist in the SP4 (such as arpeggiators and riffs) will not be available. The sound of converted setups will also depend on the sound of converted programs that you must load to load a setup.

Program Mode and Setup Mode

The Save Button

The **Save** button is used to save edited programs and setups to the Program mode or Setup mode User-bank (see the SP4 Musician's Guide for details). New in the V2 OS is the ability to delete single User-bank programs and setups by using the **Save** button.

To delete a User-bank program or setup, first select the program or setup that you wish to delete in the User-bank of Program mode or Setup mode. Next, press the **Save** button, then press the **Chan/Param** up button twice. The display will read "Delete xxx ?" (xxx will be the ID number of the program or setup being deleted). To finish, press the **Next** button below the display and the program or setup will be deleted. The display will show the ID number of the program or setup that was deleted followed by "Empty".

Deleting User-bank programs and setups is useful in combination with the new "Load (fill)" dialogue (see *The "Load (fill)" Dialogue* on page 4 for details.) For example, you could delete certain User-bank programs and setups that you no longer use by using the **Save** button, then use the "Load (fill)" dialogue to load previously saved User-bank programs and setups into the Empty User-bank IDs.

Group Favorites

Using The Group Select Buttons

In Program mode and Setup mode, you can browse through groups of eight programs or eight setups by first selecting a Bank with the **Bank** select button, then selecting one of the **Group Select** buttons (these buttons are located to the right of the display). After selecting a group with one of the **Group Select** buttons, one of the eight programs or setups in the group can be selected by pressing one of the eight **Sound Select** buttons (located to the right of the display, below the **Group Select** buttons). In Program mode, the eight programs in each group match the instrument type of the group name (Piano, String, Synth, etc.) In Setup mode, the eight setups in each group do not always match the instrument type of the group name, but the **Group Select** buttons can still be used to browse through groups of eight setups.

See Chapter 3 in the SP4 Musician's Guide for a more complete overview of how to select programs and setups in the SP4.

Setting Group Favorites

In Program mode and Setup mode, you can set one of the eight programs or setups in each group as a favorite program or setup. A favorite program or setup is the program or setup that is automatically selected when a group is selected using one of the **Group Select** buttons. For example, in Program mode you could set the program "10 Classic Wurly" as a favorite program that will automatically be selected when you press the **E. Piano** Group Select button in **Bank 1**.

To set a favorite program or setup for the currently selected group, first press one of the eight **Sound Select** buttons (to the right of the display) to choose the favorite program or setup for that group. Next press the **Global** mode **Function** button to enter Global mode, then press the **Program** mode **Function** button or **Setup** mode **Function** button to return to Program mode or Setup mode. Favorite programs and setups are automatically stored when exiting Global mode. After exiting Global mode, favorite programs and setups will be remembered by the SP4 even if it is powered off.

Edit Setup Mode

The Zone Specific Parameters

Aux Send Level

The Aux Send Level parameter determines the send level for the auxiliary effects of the currently selected Zone. You can select any level from **0** to **127**. Pressing both Value buttons simultaneously will set this parameter to **20**.

New in the V2 OS, you can now set the Aux Send Level parameter to **-1**. A setting of **-1** sets the Aux Send Level to use the value originally used by the program in Program mode. This is a convenient way to set a good Aux Send Level if you are unsure of what level to set.

For a description of the auxiliary effects of a Setup, see *About Auxiliary Effects on page 8-14* and *Common Parameters on page 8-14* of the SP4 Musician's Guide.

Global Mode

Global Mode Stored Parameters

Global mode contains parameters that allow you to customize the overall performance and MIDI settings of the SP4 *(see Chapter 9 in The SP4 Musician's Guide for details on each Global mode parameter)*. Some Global mode parameters (such as tuning) are reset to a default setting each time the SP4 is turned on. For other Global mode parameters, the SP4 remembers the setting you choose and stores your settings in the SP4. To store settings for Global mode parameters, you must exit Global mode by pressing one of the **Program**, **Setup**, or **Edit Setup** Function buttons. Global mode settings are saved when exiting Global mode. Stored Global mode settings will be used by the SP4 the next time the SP4 is powered on.

The following Global mode parameters are stored in the SP4:

- Velocity Map (VMap)
- FX Select (FXSel)
- Channel Enable (Chan1-Chan16)
- Destination (Dest)
- Bank Select (BankSel)
- Program Change (ProgChg)
- Local Keyboard Channel (LclKbdChan)
- Sysex ID (SysexID)

Note: The parameters listed above will be set to their default values after performing a Hard Reset. See Chapter 9 in The SP4 Musician's Guide to read about the default values of the parameters listed above, and for details on performing a Hard Reset.

The "Load (overwrite)" Dialogue

The "Load (overwrite)" dialogue is new in the V2 OS, and replaces the "Load All?" dialogue from the V1 OS. The "Load (overwrite)" dialogue has the same function as the "Load All?" dialogue from the V1 OS.

Use the "Load (overwrite)" dialogue to load previously saved SP4 User-bank programs and setups from an .SPX file. The "Load (overwrite)" dialogue deletes all User-bank programs and setups in the SP4 and replaces them with the User-bank programs and setups from the .SPX file you are loading. Files can be loaded to the SP4 from a computer via USB.

Note: The "Load (overwrite)" dialogue deletes all User-bank programs and setups in the SP4. Before using the "Load (overwrite)" dialogue, make sure to save a backup copy of any User-bank programs and setups in the SP4 that you would like to save using the "Save All" dialogue (see page 9-7 of the SP4 Musician's Guide for details).

To begin the loading process, first turn on the SP4 and your computer, then connect a USB cable from the SP4's rear panel USB port to a USB port on your computer. Next, with "Load (overwrite)" selected, press the **Next** Value button below the display. A temporary drive named "SP4" will mount on the computer and the SP4 display will show "Put the file to be loaded into the temporary drive". Pressing **Previous** will cancel the load operation and recall the "Load (overwrite)" dialogue. Pressing **Next** will load the file and the display will show "File loaded". If no file is in the SP4 temporary drive during the load, the display will show the message "Nothing loaded". If an error occurs during the load operation, then the display will show the error message "Load Error".

If the SP4 is not connected to a computer, the display will show the error message "Please connect the unit to the computer". Pressing **Previous** will recall the "Load (overwrite)" dialogue— pressing **Next** will retry to connect.

The "Load (fill)" Dialogue

The "Load (fill)" dialogue allows you to load previously saved SP4 User-bank programs and setups from an .SPX file. The SP4 can also load saved programs and/or setups from the Kurzweil PC3K, PC3, and PC3LE from .P3K, .PC3, and .PLE files respectively. Before loading a program or setup from a .P3K, .PC3, or .PLE file, read the sections below for details on properly saving and loading files as well as details on program and setup conversion.

The "Load (fill)" dialogue only loads to unused ID numbers in the SP4's User banks and does not delete any existing programs or setups in the SP4's User banks. Files can be loaded to the SP4 from a computer via USB.

To begin the loading process, first turn on the SP4 and your computer, then connect a USB cable from the SP4's rear panel USB port to a USB port on your computer. Next, with "Load (fill)" selected, press the **Next** Value button below the display. A temporary drive named "SP4" will mount on the computer and the SP4 display will show "Put the file to be loaded into the temporary drive". Pressing **Previous** will cancel the load operation and recall the "Load (fill)" dialogue. Pressing **Next** will load the file and the display will show "File loaded". If no file is in the SP4 temporary drive during the load, the display will show the message "Nothing loaded". If an error occurs during the load operation, then the display will show the error message "Load Error".

If the SP4 is not connected to a computer, the display will show the error message "Please connect the unit to the computer". Pressing **Previous** will recall the "Load (fill)" dialogue— pressing **Next** will retry to connect.

Loading Programs From The PC3K, PC3, or PC3LE

PC3K and PC3 Program Conversion

When loading a program from the PC3K or PC3, the program will sound the same on the SP4 aside from the following limitations. The SP4 has 64 voice polyphony and cannot play as many notes at the same time compared the to the 128 voice polyphony of the PC3K and PC3. The SP4 cannot load some effects from the PC3K or PC3 if they use more than 10 DSP units. For example, any "double leslie" KB3 program from the PC3K or PC3 will not be able to load its KB3 effects on the SP4. The SP4 does not load samples. If you load a PC3K program that contains user samples, keyranges that contain user samples will not play properly.

PC3K and PC3 Program Controller Assignment Conversion

When loading a program from the PC3K or PC3 to the SP4, any program parameters that were assigned to slider A, slider B, slider G, or slider I, on the PC3K or PC3 (labeled A Data, B MIDI 13, G MIDI 26, and I MIDI 28) will be controllable on the SP4. On the SP4, control each program parameter that was assigned to these sliders on the PC3K or PC3 by using the SP4's Control knob and selecting respectively the 1 Timbre LED, the 2 Mod LED, the 4 Effect LED, or the 5 Reverb LED. Use the SP4's **Control Select** button to select each LED. See the table below for the Program mode controls that correspond between the PC3K/PC3 and the SP4.

PC3K/PC3 Controller Assignments	SP4 Controller Assignments
slider A (Data)	1 Timbre
slider B (MIDI 13)	2 Mod
slider G (MIDI 26)	4 Effect
slider I (MIDI 28)	5 Reverb

PC3LE Program Conversion

When loading a program from the PC3LE, the program will sound the same on the SP4. When loading a program from the PC3LE, the program's arpeggiator settings are loaded to the SP4. If the program was saved on the PC3LE with the arpeggiator enabled, then the arpeggiator will be enabled for that program on the SP4. If the program was saved on the PC3LE with the arpeggiator disabled, then the arpeggiator will be disabled for that program on the SP4. Once a PC3LE program is loaded to the SP4, there is no way to enable or disable the program's arpeggiator on the SP4. Programs with arpeggiators enabled will not be arpeggiated if used in Setup mode.

PC3LE Program Controller Assignment Conversion

When loading a program from the PC3LE to the SP4, any program parameters that were assigned to knobs 1 through 5 on the PC3LE (labeled Timbre, Mod, Envelope, Effect, and Reverb) will be controllable on the SP4. On the SP4, control each program parameter that was assigned to these knobs on the PC3LE by using the SP4's Control knob and selecting respectively the 1 Timbre LED, the 2 Mod LED, the 3 Envelope LED, the 4 Effect LED, or the 5 Reverb LED. Use the SP4's **Control Select** button to select each LED. See the table below for the Program mode controls that correspond between the PC3LE and the SP4.

PC3LE Controller Assignments	SP4 Controller Assignments
knob 1 (Timbre)	1 Timbre
knob 2 (Mod)	2 Mod
knob 3 (Envelope)	3 Envelope
knob 4 (Effect)	4 Effect
knob 5 (Reverb)	5 Reverb

Loading Setups From The PC3K, PC3, Or PC3LE

To load a setup from the PC3K, PC3, or PC3LE, the object file containing the setup must also contain the programs used in the setup. For details, see *Tutorial: Save A Setup From The PC3K, PC3, Or PC3LE To Load To The SP4* on page 7.

PC3K, PC3, and PC3LE Setup Conversion

When loading a setup from the PC3K, PC3, or PC3LE, the setup will sound the same on the SP4 aside from the following limitations. When loading a setup from the PC3K, PC3, or PC3LE, only the first four zones can be loaded. The SP4 has 64 voice polyphony and cannot play as many notes at the same time compared the to the 128 voice polyphony of the PC3K and PC3. Also, setup features from the PC3K, PC3, and PC3LE that do not exist in the SP4 (such as arpeggiators and riffs) will not be available.

The sound of converted setups will also depend on the sound of converted programs that you must load to load a setup. See *Loading Programs From The PC3K, PC3, or PC3LE* on page 5 for details on Program conversion and limitations.

PC3K and PC3 Setup Controller Assignment Conversion

When loading a setup from the PC3K or PC3 to the SP4, any parameters that were assigned to slider A, slider B, slider C, slider D, or slider E on the PC3K or PC3 (labeled A Data, B MIDI 13, C MIDI 22, D MIDI 23, and E MIDI 24) will be controllable on the SP4. On the SP4, control each parameter that was assigned to these sliders on the PC3K or PC3 by using the SP4's Control knob and selecting respectively the 1 Timbre LED, the 2 Mod LED, the 3 Envelope LED, the 4 Effect LED, or the 5 Reverb LED. Use the SP4's **Control Select** button to select each LED. See the table below for the Setup mode controls that correspond between the PC3K/PC3 and the SP4.

PC3K/PC3 Controller Assignments	SP4 Controller Assignments
slider A	1 Timbre
slider B	2 Mod
slider C	3 Envelope
slider D	4 Effect
slider E	5 Reverb

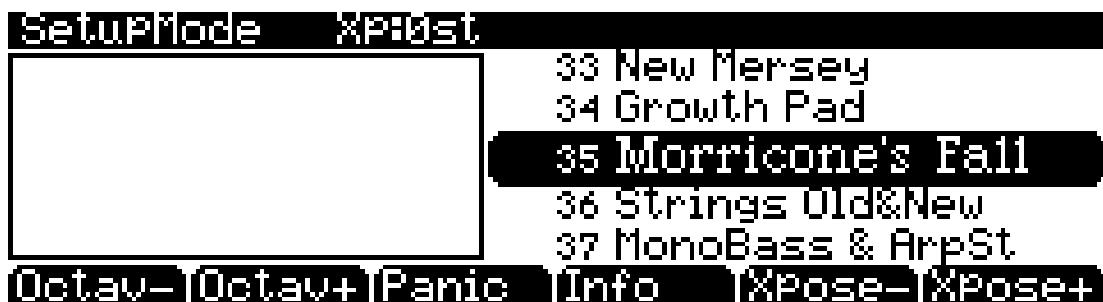*PC3LE Setup Controller Assignment Conversion*

When loading a setup from the PC3LE to the SP4, any parameters that were assigned to knobs 1 through 5 on the PC3LE (labeled Timbre, Mod, Envelope, Effect, and Reverb) will be controllable on the SP4. On the SP4, control each parameter that was assigned to these knobs on the PC3LE by using the SP4's Control knob and selecting respectively the 1 Timbre LED, the 2 Mod LED, the 3 Envelope LED, the 4 Effect LED, or the 5 Reverb LED. Use the SP4's **Control Select** button to select each LED. See the table below for the Setup mode controls that correspond between the PC3LE and the SP4.

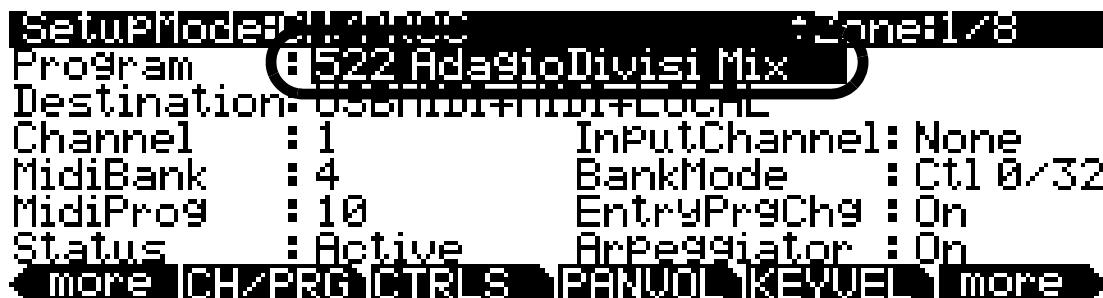| PC3LE Controller Assignments	SP4 Controller Assignments
knob 1 (Timbre)	1 Timbre
knob 2 (Mod)	2 Mod
knob 3 (Envelope)	3 Envelope
knob 4 (Effect)	4 Effect
knob 5 (Reverb)	5 Reverb

Tutorial: Save A Setup From The PC3K, PC3, Or PC3LE To Load To The SP4

To load a setup from the PC3K, PC3, or PC3LE, the object file containing the setup must also contain the programs used in the setup. This can be done on the PC3K, PC3, or PC3LE by saving the setup object file with "dependent objects". In order to save setup object file with "dependent objects", the setup's first four zones must contain user edited programs. To ensure that setups created on the PC3K, PC3, or PC3LE can be loaded by the SP4, follow these steps:

1. On the PC3K, PC3, or PC3LE, press the **Exit** button until you reach the Program mode main page. From the Program mode main page, press the Setup mode button to go to the Setup mode main page (see below), then select the Setup that you wish to save.

2. With the desired setup selected, press the **Edit** button to the left of the display. This will bring you to the SetupMode:CH/PROG page where you can view the program selected for the current zone in the **Program** field (see below).

3. If you are using a PC3K or PC3, see step **3-(For PC3K/PC3)** below. If you are using a PC3LE, see step **3-(For PC3LE)** below.

3-(For PC3K/PC3). On the SetupMode:CH/PROG page, the number of the current zone can be viewed in the top right corner of the display. Change the zone that you are currently viewing using the **Chan/Layer** buttons to the left of the display. Select zone 1 and look at the **Program** field. If the program ID number and name have an asterisk (star symbol) at their left, then the zone uses a user program and you can skip to step 6. If the zone does not use a user program, you must edit the program and save it as a user program. To do this, select the **Program** field on the SetupMode:CH/PROG page and press the **Edit** button to the left of the display. This brings you to the EditProg:KEYMAP page in the Program Editor for the program of the current zone. Press the left **more** soft button to find the **Save** soft button, then press the **Save** soft button (see below). This will bring you to the EditProg:Save page. Continue to step 4.

```
EditProg:KEYMAP        Prog 522  ◊Layer:1/6
KeymaP1: ┌25 Vlns Div2 L
KeymaP2: ┌26 Vlns Div2 R          Stereo: On
XPose   : 0ST          TimbreShift  : 0ST
KeyTrk  : 100ct/key    PlayBackMode: Normal
VelTrk  : 0ct          AltControl   : OFF
AltMethod : Switched
( more )KEYMAP LAYER   PITCH  AMP       more
```

```
EditProg:KEYMAP        Prog 522  ◊Layer:1/6
KeymaP1: ┌25 Vlns Div2 L
KeymaP2: ┌26 Vlns Div2 R          Stereo: On
XPose   : 0ST          TimbreShift  : 0ST
KeyTrk  : 100ct/key    PlayBackMode: Normal
VelTrk  : 0ct          AltControl   : OFF
AltMethod : Switched
( more  Name    Save    Delete INFO     more
```

3-(For PC3LE). On the SetupMode:CH/PROG page, the number of the current zone can be viewed in the top right corner of the display. Change the zone that you are currently viewing using the **Chan/Zone** buttons to the left of the display. Select zone 1 and look at the **Program** field. If the program ID number and name have an asterisk (star symbol) at their left, then the zone uses a user program and you can skip to step 6. If the zone does not use a user program, you must edit the program and save it as a user program. To do this, select the **Program** field on the SetupMode:CH/PROG page and press the **Edit** button to the left of the display. This brings you to the EditProg:PARAMETERS page in the Program Editor for the program of the current zone. Press the **Save** button to the right of the display, this will bring you to the EditProg:Save page.

4. On the EditProg:Save page (see below), an unused user ID number is automatically selected to save the program. (You can choose a different ID number if desired.) Press the **Save** soft button to save the program at the selected ID number as a user edited program. The display will quickly show the message "Save successful", then you will be returned to the EditProg:KEYMAP page (or the EditProg:PARAMETERS page on the PC3LE).

EditProg:Save

Save AdagioDivisi Mix as: **ID# 1026**

Rename **Save** Cancel

5. On the EditProg:KEYMAP page (or the EditProg:PARAMETERS page on the PC3LE), press the exit button and you will be returned to the SetupMode:CH/PROG page. On the SetupMode:CH/PROG page, look at the program ID number and name in the **Program** field. The program ID number and name should now have an asterisk (star symbol) at their left, which means the zone uses a user program (see below).

SetupMode: ͏ **Zone:1/8**
```
Program      :*1026 AdagioDivisi Mix
Destination: USB:MIDI+MIDI+LOCAL
Channel    : 1        InputChannel: None
MidiBank   : 8        BankMode    : Ctl 0/32
MidiProg   : 2        EntryPrgChg : On
Status     : Active   Arpeggiator : On
```
 more **CH/PRG** CTRLS PANVOL KEYVEL more

6. Repeat steps 3 through 5 for zones 2, 3, and 4 of the setup, then continue to step 7.

7. On the SetupMode:CH/PROG page, press the **Exit** button to the right of the display. This will bring you to the SetupMode:Exit page where you will be prompted to save the setup you have just edited (see below). Press the **Yes** soft button, this will bring you to the SetupMode:Save page.

SetupMode:Exit

The setup has been edited...

Save setup   **35 Morricone's Fall?**

Rename No   **Yes**   Cancel

8. On the SetupMode:Save page (see below), an ID number is automatically selected to save the setup. (You can choose a different ID number if desired.) Press the **Save** soft button to save the setup at the selected ID number. The display will quickly show the message "Save successful", then you will be returned to the Setup mode main page.

SetupMode:Save

Save Morricone's Fall as: ID# 1026

Rename **Save** **Cancel**

9. Use Storage mode to save the setup to an external device as a .P3K, .PC3, or .PLE file. See the Storage mode chapter in the PC3K, PC3, or PC3LE Musician's Guide for more details. When saving to an external device, Storage mode will present you with the Storage:Save Dependents page (see below.) The Storage:Save Dependents page prompts you with the message "Save Dependent Objects?". Press the **Yes** soft button to save the setup with dependent objects. The setup will be saved in an object file along with the program objects that are needed to load that setup.

Storage: Save Dependents

Save Dependent Objects?

Yes **No**

Troubleshooting

The LCD Display Appears Blank

If the SP4's LCD display appears blank or hard to read when the unit is powered on, the LCD contrast may need to be adjusted. There is a small contrast knob for the LCD display on the front panel of the SP4, above the Chan/Param buttons. The contrast knob is not labeled. Slowly turn the contrast knob until the LCD becomes readable. The contrast knob is sensitive and the LCD may only be readable with the contrast knob set within a certain range.