

How to use the SAC-2K with Digital Performer

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TABLE OF CONTENTS

SETTING UP THE SAC-2K	5
The Time Display	5
Using the Keypad	5
The Transport Buttons	5
THE JOG WHEEL	6
Display Manager mode	6
Scrub mode	6
Scrubbing resolution	6
A Scrub mode shortcut	6
Scrubbing while selecting	7
Exiting from Scrub mode	7
Shuttle mode	7
Exiting from Shuttle mode	7
THE MIXER CHANNELS	8
FADERS	8
Fader range	8
Setting Faders to unity gain	8
The Master Fader	8
GROUPING FADERS	9
Creating a Fader Group	9
Controlling a Fader Group	9
Disengaging a Fader from a Group	9
Disengaging a Fader from a Group under Master control	9
Suspending a Fader Group	9
Un-Suspending a Fader Group	9
Displaying Fader Groups	9
THE SELECT BUTTONS	10
Mute, Solo and Record-ready	10
Track Automation	11
THE LEVEL METERS	11
Clearing clip indicators	11
BANK SWAPPING AND CHANNEL SCROLLING	11
A Bank/Channel shortcut	11
Mixer Channel button shortcuts	11
Scroll Synchronization	12
Track order	12
ASSIGNING TRACK INPUTS AND OUTPUTS	12
PANNING WITH THE ENCODERS	12
Jumping to Pan center, Fader unity	12
Master Faders and Pan	12
Choosing a Send bank to work with	12
Using the Encoders for Send assignments & levels	13
Setting a Send to unity gain	13
WORKING WITH PLUG-INS	13
Automation	13
The Plug-in display	13
Choosing a track for the Plug-in display	13
Assigning a Plug-in to an Insert	14
Choosing a Plug-in Preset	14
Modifying individual Plug-in parameters	14
Setting a Plug-in to its minimum value	14
The COMPARE button	14
Bypassing/unBypassing a Plug-in	15
Viewing Plug-ins on your computer screen	15

THE WINDOW BUTTONS	15
THE ARROW BUTTONS	16
SCROLLING AND ZOOMING WITH THE ARROW BUTTONS	16
Scrolling	16
Zooming	16
SELECTING WITH THE ARROW BUTTONS	17
Selecting tracks	17
Selecting a time range	17
Extending/trimming a time range selection	17
NUDGING WITH THE ARROW BUTTONS	17
TAKE MANAGEMENT WITH THE ARROW BUTTONS	18
SELECTION TECHNIQUES	18
Selecting tracks	18
Selecting a time range	18
Selecting a time range during playback	18
Selecting while scrubbing	19
Trimming a time range selection with the ARROW buttons	19
BASIC EDITING WITH THE EDIT BUTTONS	19
Pasting	19
Undoing an edit	19
SAC-2K AND DIGITAL PERFORMER MIDI TRACKS	19
WORKING WITH DIALOG BOXES	20
SAVING THE DIGITAL PERFORMER PROJECT	20
SAC-2K PREFERENCES	20
Scroll Tracks [enable/disable]	20
Fader Touch Sensitivity	20
Help Displays [enable/disable]	20

SETTING UP THE SAC-2K

1. Copy the SAC-2K driver into the Plug-ins folder that is inside the Digital Performer folder.
2. In the FreeMIDI Setup, add an SAC-2K device that uses one MIDI transmit and one MIDI receive channel.
3. In Digital Performer, go to “Control Surface Setup” and select SAC-2K in both the Hardware and MIDI Communication pull-down menus. Click OK. The SAC-2K driver will send a message to the SAC-2K to set its MIDI send/receive to the chosen channel.
4. Place the supplied templates around the three button fields accordingly.

Time Display

The SAC-2K time display uses the time format currently selected in Digital Performer.

Using the Keypad

The NUMBER key selects the functions of the other 11 keys in the numeric keypad (0-9 and ENTER). When the NUMBER key is illuminated the numeric keys mirror the computer keyboard’s function. Pressing [SHIFT+ENTER] key sends the ESCAPE key equivalent. As on the computer keypad, the numeric and enter keys are context sensitive and will either enter numeric values or trigger DP’s remote controls depending upon the state of the top window in Digital Performer. This gives the user the ability to use Digital Performer’s Remote Controls window to set up access to custom capabilities via the SAC-2K.

When the NUMBER key is not illuminated the keypad keys perform the actions labeled in blue type with the following exceptions:

1. The 1/App> key behaves as the OPTION key modifier.
2. The 6/App< key behaves as the CONTROL key modifier.
3. The Enter key selects the ARROW key modes.
4. Pressing any modifier key (SHIFT, OPTION, CONTROL) with the NUMBER key acts as the ESCAPE key equivalent. Note that the OPTION and CONTROL keys are not available when the NUMBER key is illuminated.

The Transport Buttons

The REWIND, FAST FORWARD, STOP, PLAY and RECORD buttons behave as you would expect. Holding the SHIFT key while pressing the REWIND/FAST FORWARD keys bring the play wiper to the beginning or end of the sequence or Memory Cycle Loop points.

The FROM/TO buttons set the current selection start/end points to the current wiper position. Holding down the SHIFT key while pressing these keys sets the Memory Cycle loop start/end points. Holding down the CONTROL key (Keypad 6) while pressing FROM/TO sets the Auto Record punch in/out locations at the current wiper position.

Store Marker toggles the Auto Record function.

Recall Marker toggles the Memory Cycle function.

You can arm tracks for recording by holding the SHIFT key while pushing the MUTE/SOLO key. This key flashes to indicate that the track MUTE buttons are currently behaving as record enable indicators.

THE JOG WHEEL

The Jog Wheel operates in three different modes:

- Display Manager mode
- Scrub mode
- Shuttle mode

Display Manager mode

When the SCRUB button is not illuminated or flashing, the Jog Wheel is used to scroll text across the right-most display (or across all three displays when you are editing Plug-in parameters). See the section on Plug-in editing for more information.

Scrub mode

To enter Scrub mode, press the SCRUB button to illuminate it.

In Scrub mode, the front-most window in Digital Performer determines what the Jog Wheel does.

For the Tracks window, MIDI Graphic Editor, MIDI Notation Editor, or any other non-audio window that displays a playback wiper, the Jog Wheel in Scrub mode moves the playback wiper, just like dragging it. If Audible mode is enabled, MIDI tracks play back as you scrub, just like they do when you drag the wiper.

For the Audio Graphic Editor, the Jog Wheel in Scrub mode is also like dragging the wiper. But you can also scrub an individual soundbite. To do so:

1. Press the SCRUB button to put the Jog Wheel in Scrub mode.
2. Move Digital Performer's playback wiper over the soundbite you wish to scrub.
3. Hold down CONTROL and then press the SELECT button for the desired track. This pop-edits the soundbite. Alternately, hold down [SHIFT+CONTROL] when pressing the SELECT button to open a stand-alone sound file editor window for the soundbite.
4. Once the soundbite is pop-edited, (or the editor window is open) use the Jog Wheel to scrub within the soundbite.

In Digital Performer's Waveform Editor window, scrubbing with SAC-2K's Jog Wheel operates just like the Waveform Editor's scrub tool.

Scrubbing resolution

Scrubbing resolution is based on zoom resolution of the window in which you are currently scrubbing.

A Scrub mode shortcut

While the SCRUB button is illuminated, pressing the REWIND or FAST FORWARD buttons while rotating the Jog Wheel makes Digital Performer's wiper (or scrub cursor) jump to the beginning or end of current selection. Alternately, in Scroll/Zoom or Nudge Arrow Key modes, hold OPTION and press the LEFT or RIGHT Arrow keys while rotating the Jog Wheel to jump the scrub point to the beginning or end of the current selection.

Scrubbing while selecting

When scrubbing a pop-edited soundbite or scrubbing in the Waveform Editor, you can make a selection while scrubbing as follows:

1. Scrub to the desired location.
2. Hold down the [SHIFT+OPTION], or [SHIFT+CONTROL] buttons and scrub either forward or backward, to define the selection. Continue holding down the [SHIFT+OPTION] or [SHIFT+CONTROL] button while scrubbing to further extend the selection, if needed.
3. Refine your selection by bouncing back and forth between the edges of your selection using the FAST FORWARD/REWIND keys (or [OPTION+LEFT/RIGHT] ARROW keys) and continue to scrub holding the [SHIFT+OPTION] or [SHIFT+CONTROL] keys.

Exiting from Scrub mode

To exit Scrub mode press the SCRUB button again. Pressing the STOP, PLAY or RECORD transport buttons also exit Scrub mode. Additionally, you can freely switch back and forth between Scrub and Shuttle modes.

* Exiting Scrub mode closes any pop-edited soundbites. You can use this feature to “pop out” of scrubbing a sound bite by pressing the SCRUB button twice. The first press closes the pop-edited sound bite, the second puts you back into Scrub mode, ready to locate to a new time.

Shuttle mode

To enter Shuttle mode, Press the [SHIFT+SCRUB] buttons, The SCRUB button will flash when the Jog Wheel is in Shuttle mode. Shuttle mode corresponds to the arrows in the position bar just below Digital Performer’s main transport buttons, which operate as slow/fast Rewind and Fast Forward buttons.

At the moment you enter Shuttle mode, the current position the Jog Wheel is “Null”. From the Null position, there are two speeds both forward and two speeds backward for a total of five positions:

- Stop (Null)
- Slow Forward
- Fast Forward
- Slow Rewind
- Fast Rewind

The modes “wrap around” in that if you turn the knob past Fast Forward, you will enter Fast Rewind mode.

Exiting from Shuttle mode

To exit Shuttle mode press the SCRUB button again. Pressing any of the transport buttons (REWIND, FAST FORWARD, STOP, PLAY or RECORD) also exit Shuttle mode. Additionally, you can freely switch back and forth between Shuttle and Scrub modes.

THE MIXER CHANNELS

The SAC-2K provides eight channel strips, which can be used to view and control any of the tracks in your DP Project. Each channel strip provides a motorized Fader, a button for selecting the track for various assignments and groupings, a multi-purpose MUTE/SOLO/RECORD-Enable button, a rotary Encoder with a push button function for controlling pan and sends. The left and center displays provide two 10 line character displays for each of the eight tracks.

In the center of the eight channel strips is a bank of buttons that can be used to assign the functions of the select buttons and Encoders, alter the displays accordingly and scroll the track assignments. Five of the keys are used to control windows in Digital Performer.

FADERS

The channel Faders controls the volume level of each track. The channel Fader is a touch-sensitive, servo-controlled motorized Fader that tracks any current volume automation in Digital Performer's corresponding track. As soon as you touch the Fader, you "take over" its servo control and the Fader immediately begins controlling track volume, even if you don't actually move it. If the track is currently set to record automation, SAC-2K's Fader begins to write new automation data into the track as soon as you touch it. When you release the Fader, the result depends on the track's current Automation mode. If it's in Touch mode, the SAC-2K's Fader will time-out after a brief moment and return to tracking existing automation in the track. In Overwrite or Latch modes, recording continues until you stop Digital Performer's transport.

Fader range

The SAC-2K's Fader range (from bottom to top) matches the range of Digital Performer's virtual faders (-inf to +6.02 for Audio tracks, 0-127 for MIDI tracks).

Setting Faders to unity gain

To set an audio track to unity gain (0.00dB), or to set a MIDI track to maximum volume (127), first make sure the PAN button is illuminated. Then hold down the SHIFT button and press the track's Encoder button. Unity gain corresponds to the thick hash line.

The Master Fader

The Master Fader is a user assignable Fader that is initially mapped to track #1. You can assign the Master Fader by pressing the Master track's SELECT key. The Master Fader will be assigned to the same function of the next track Fader that you touch. The Master Fader will remain assigned to this track even when banks or tracks are scrolled.

GROUPING FADERS

Creating a Fader Group

To group Faders:

1. Make sure the INSERT SELECT button is not illuminated.
2. [SHIFT+SELECT] the tracks to be grouped.
3. Press the CREATE GRP button. A Fader Group will be created and automatically assigned the next available group name (A-Z).

The newly created Fader Group's name will appear in the second line of each track display.

Controlling a Fader Group

To control a Fader Group, move any member Fader.

Disengaging a Fader from a group

To temporarily disengage a Fader from its group, hold down the CONTROL while moving the Fader.

Disengaging Faders from a group under Master control

The first Fader that you touch in a group becomes the temporary group master, controlling the rest of the Faders in the group until you release it. If you touch other Faders in the group while still touching the master, they are temporarily disengaged from the group. When you release a non-master Fader it returns to tracking the group, but maintains its new relationship to the other members. The very first Fader you touch remains the temporary master Fader until you release it, regardless of any other Faders you touch or release.

Suspending a Fader group

1. Press the GROUP button.
2. Press the Encoder button of any track in a non-suspended group.
3. The name will change to "—" and the group behavior of that set of Faders will be suspended.

Un-Suspending a Fader group

1. Press the GROUP button (or make sure it is illuminated).
2. Press the Encoder button of any track in a suspended group.
3. The name will change back to the actual group name and the grouped behavior of that set of faders will be reinstated.

Displaying Fader Groups

The left and center displays will indicate the Fader groups when the GROUP button is illuminated. Press it to illuminate it.

How to use the SAC-2K with Digital Performer

THE SELECT BUTTONS

The SELECT buttons perform one of two functions depending upon the state of the INSERT SELECT button. If this button is illuminated, the channel SELECT buttons choose which track's inserts to edit in the right-most display.

When the INSERT SELECT button is not illuminated, the SELECT button selects the track for various purposes. For example, if you are making an edit across several MIDI and audio tracks in the Tracks Overview, the SELECT buttons control which tracks become selected for the edit. When the SELECT button is illuminated, the track is selected; when it is dark, the track is not selected.

Hold down the following KEYBOARD SHORTCUT buttons when pressing a track's SELECT button for the following track selection shortcuts:

Hold down this SAC-2K modifier key button	To do this
- none -	To select just one track.
SHIFT	To add the track to the current selection.
OPTION	To select all tracks.
CONTROL	To pop-edit the soundbite at the current playback wiper location. For details, see "Scrub mode"
SHIFT + CONTROL	To open a stand-alone sound file editor for the soundbite at the current playback wiper location. For details, see "Scrub mode"

For information about selecting a time range for editing, see "Selection techniques" and "Selecting tracks".

MUTE, SOLO and Record-ready

Each track has a button above its SELECT button that can be used to set that channel's MUTE, SOLO and Record-ready state. The MUTE/SOLO selector button at the left of this row determines the mode of these buttons. When the MUTE/SOLO selector is dark, the buttons act as track MUTE buttons. When the MUTE/SOLO selector is illuminated (not flashing), these buttons act as track SOLO buttons.

If you hold the SHIFT key while pressing the MUTE/SOLO selector, the button will start flashing and the corresponding channel buttons will control each track's Record-ready function. If Digital Performer is in MultiRecord mode, you can arm multiple tracks at one time as usual. If not, the Record-ready buttons will arm one track at a time (as usual).

* If the track does not currently have an input assignment, the Record-ready button (or the corresponding record-enable buttons in Digital Performer) will not be able to arm the track. If nothing happens when you press any of these buttons, make sure the track has an input assignment. You cannot record enable Aux or Master Fader tracks.

How to use the SAC-2K with Digital Performer

Track Automation

The AUTOMATION button puts the channel Encoders into Automation mode. The bottom line of the channel display will indicate the current Automation mode, and the channel Encoders may be used to select the Automation mode.

THE LEVEL METERS

On either side of the track name display, the SAC-2K gives a graphic representation of the track's level. Audio track levels are displayed with a range from -60 to zero (0) dB and MIDI track levels according to note-on velocity (0-127).

For MIDI tracks and mono audio tracks, the SAC-2K displays the same mono level on both stereo meters. For stereo audio tracks, or mono audio tracks with stereo output due to a mono-to-stereo plug-in, the SAC-2K's stereo metering matches Digital Performer's stereo metering.

Clearing clip indicators

To clear the clip/hold indicators in Digital Performer's Mixing Board window), hold down the OPTION key modifier (keypad 1 when the NUMBER button is not illuminated) and press the SELECT button above the Master Fader.

BANK SWAPPING AND CHANNEL SCROLLING

If your Digital Performer Project has more than eight tracks, use the channel scroll buttons to control which tracks are currently being displayed in (and controlled by) the SAC-2K's eight channel strips. The BANK scroll buttons scroll left and right eight tracks at a time; the TRACK scroll buttons scroll left and right one track at a time.

+1-8-----	+9-16-----
<	>
Track	Track
Left	Right
+17-24-----	+25-32-----
<<	>>
Bank	Bank
Left	Right
+-----	+-----

A Bank/Channel scrolling shortcut

To immediately scroll all the way left or right, hold down either the SHIFT or OPTION button while pressing one of the BANK or TRACK scroll buttons.

Mixer Channel Button Shortcuts

Hold down the following SAC-2K modifier key buttons to affect all SELECT or MUTE/SOLO/Record-ready buttons as follows:

OPTION To set them all to the new state.

[SHIFT+OPTION] To set all selected tracks to the new state.

CONTROL To set the pressed button and clear all others.

How to use the SAC-2K with Digital Performer

Scroll Synchronization

The SAC-2K normally will try to keep the on-screen display in sync with the tracks scrolled into view in the track strips. See “Scroll Tracks [enable/disable]” for more information.

Track order (left to right)

The track order in the SAC-2K’s channel strips always matches the track order in Digital Performer’s Mixing Board window (left to right). If you drag a track left or right in the Mixing Board to change its position, the change is immediately reflected in the SAC-2K’s channel strips. All tracks are displayed when scrolling with the BANK and TRACK buttons, regardless of whether the tracks are currently being shown or hidden in the Mixing Board window.

ASSIGNING TRACK INPUTS & OUTPUTS

Use the SAC-2K’s INPUT and OUTPUT buttons, along with the channel strip Encoders and right-most display, to change the input and output assignments for both MIDI and audio tracks.

To make input and output assignments, use the INPUT or OUTPUT buttons to go into assignment mode as follows:

1. Press and hold either the INPUT or OUTPUT button as desired to illuminate it.
2. Turn the Encoder of any track you’d like to adjust. As you do, watch the right display, which tracks your changes until you stop on the desired assignment.
3. To confirm the assignment right away, press the Encoder button. Otherwise, the current setting is automatically confirmed after a few seconds. To abort the selection, press ESC (SHIFT+NUMBER).

PANNING WITH THE ENCODERS

The rotary Encoders in each channel strip are used for several purposes, including track Panning, Input/Output assignments and Send assignments. For Panning, make sure that the PAN button is illuminated.

Jumping to Pan center, Fader unity

To set the Pan Encoder to pan center, press the Encoder button when the PAN button is illuminated. You can set the Fader to its default value (0.00dB for audio tracks and 127 for MIDI tracks) by holding down the SHIFT button while pressing the Encoder button.

Master Faders and Pan

Tracks that have been assigned to DP Master Faders do not have pan controls, but they do have Mono mode buttons. On the SAC-2K when displaying a Master Fader track, the Encoder knob is disabled, but the Encoder button toggles Mono mode.

Choosing a Send bank to work with

Digital Performer’s Mixing Board provides four Sends per track. To select a Send bank, press and hold the appropriate SEND (1-4) button on the SAC-2K. The button illuminates, and the Send bank is displayed below each of the track names. When you release the SEND button the display will show the Send level in dB.

How to use the SAC-2K with Digital Performer

Using the Encoders for Send assignments & levels

The Encoder knob is used to make Send assignments and to control each Send level. When one of the SEND (1-4) buttons is illuminated, the track Encoders are used to set the Send levels. The Encoder buttons are used to toggle Mute/Unmute for each track and the status is displayed under the track names. Momentarily pressing the according SEND button again will change the display back to showing the Send level in dB.

Making a Send assignment with the SAC-2K is the same as making it with the Send assignment menus in the Mixing Board: the Send can be assigned to any physical output or bus currently available in your Digital Performer virtual mixing environment. Accordingly, the output assignment possibilities you see in the SAC-2K's displays are the same as the assignments currently visible in the assignment menus in Digital Performer's Mixing Board.

If you hold a SEND (1-4) button down, the Encoders are used to select the Send bus. Pushing the Encoder button locks in your choice (it will automatically lock in after a few seconds unless you cancel with the ESC function).

Setting a Send to unity gain

To set a Send to unity gain, hold down the SHIFT button while pressing the Encoder button.

WORKING WITH PLUG-INS

The SAC-2K's displays and its associated Encoders give you complete control over Plug-in selection, Preset selection, and automated remote control of individual effects parameters.

Automation

Almost all of the tasks discussed in this section can be executed while Digital Performer is playing back. If Automation recording is enabled for the track being modified, you can record your moves (Bypassing, unBypassing, Plug-in parameter tweaking, etc.) as automation data in Digital Performer.

The Plug-in display

During normal operation, the right display shows four Plug-in inserts for a single track, along with up to four Plug-ins, currently assigned to each insert and their currently chosen Presets, if any. You can also choose to display up to twelve Plug-in parameters at one time across all three displays, with horizontal scrolling via the Jog Wheel, covering as many parameters as the Plug-in provides. The Plug-in display is divided into four sections that correspond to four of the five inserts for the track currently selected. Normally the right screen displays Inserts 1-4. You can scroll the display to show Inserts 2-5 by using the Jog Wheel.

Each insert is controlled by its corresponding Encoder.

The column of buttons on the far right of the SAC-2K is used to control the Plug-in editing functions.

Choosing a track for the Plug-in display

The SELECT button in each channel strip serves two functions, depending upon the state of the INSERT SELECT button. When the INSERT SELECT button is illuminated, the channel strip SELECT buttons determine which track's inserts are available for viewing and editing.

Assigning a Plug-in to an Insert

1. Make sure that the PRESET button is not illuminated (so that the boxes separating each Insert in the right display are in the top row).
2. Turn the Encoder for the Insert you're assigning the plug-in to. As you do, watch the plug-in display, which tracks your changes until you stop on the desired Plug-in.
3. When you stop turning the Encoder, you may confirm your choice right away by pressing the Encoder button. Otherwise, your current selection will be automatically confirmed after a few seconds. To abort the selection, use the ESC function.

Choosing a Plug-in Preset

1. Press the PRESET button to illuminate it. Doing so makes the blocks separating the Inserts in the Plug-in display jump down to the second line.
2. Turn the Encoder for the desired Plug-in. As you do, watch the display, which tracks your changes until you stop on the desired Preset.
3. When you stop turning the Encoder you may confirm your choice right away by pressing the Encoder button. Otherwise, your current selection will be automatically confirmed after a few seconds. To abort the selection, use the ESC function.

Modifying individual Plug-in parameters

1. Press the Encoder button corresponding to the effect you wish to edit. The "left arrow" indicator in the Plug-in display will shift to point to that slot.
2. Press the EDIT button to illuminate it. The Plug-in parameters will now be displayed across all three displays, up to 12 twelve parameters at a time.
3. To edit a Plug-in parameter, adjust the Encoder below it.
4. If the Plug-in has more than twelve parameters, use the Jog Wheel to scroll horizontally through all of the Plug-in's automatable parameters.
5. To exit parameter editing, press the EDIT button again.

Setting a Plug-in parameter to its minimum value

1. Make sure that the EDIT button is illuminated.
2. Press the Encoder button for the desired parameter.

The COMPARE button

The COMPARE button lets you toggle between a Plug-in Preset and a modified version of the Preset. The COMPARE button LED indicates which Preset state is currently active on the Insert.

When you first enter parameter Edit mode, the COMPARE button will be dark. If you have selected a Preset for the effect, as soon as you modify any parameter, the COMPARE button glows solid green. This indicates that the Preset has been modified, and the modified version is currently active on the Insert.

Pressing the COMPARE button when it is solid green saves the current effect state and restores the original Preset. The COMPARE button flashes to indicate that the original Preset is currently active, and the modified Preset has been stored for later recall. At this point, you can toggle between the two Preset states as much as you like. Digital Performer remembers both Preset states until you choose a different Preset or edit another effect. Here is a summary of COMPARE button states, along with the corresponding state for the Compare mini-menu item in Digital Performer's Effects window mini-menu:

The COMPARE button only works in parameter Edit mode (EDIT button illuminated).

Bypassing/unBypassing a Plug-in

1. Press the according Insert's Encoder button to select it (if it is not already selected).
2. Press the BYPASS button to illuminate it. The plug-in's name in Digital Performer's Mixing Board will become italic, indicating that the plug-in is bypassed. If the Effects window is on-screen, its bypass button will illuminate as well.
3. To unbypass the plug-in, press the BYPASS button again.

Viewing Plug-ins on your computer screen

All of the operations discussed so far can be done entirely from the SAC-2K control surface using visual feedback from the Displays and Encoder positions. However, if you'd like to view the Plug-in on your computer screen as you work, you can certainly do so. To open the Effects window, press the EFFECTS button. Once it is open, the Effects window continuously updates to reflect the current insert and Plug-in you have chosen to work on with the SAC-2K. (Pressing the Plug-in's Encoder refreshes the screen, when necessary).

THE WINDOW BUTTONS

The WINDOW buttons let you open, close, or bring to the front various important windows, including the Mixing Board, the Audio Graphic Editor and Effects. When a window button's LED is illuminated, pressing the button again will close the window.

*Hold CONTROL with
any window key
to close top
window. If the
window button
LED is lit,
pressing it
will close the
window (toggle)*

+HiEQ-----+		
	Effects	
	Window	
	Toggle	
+HiMidEQ----+		
	Audio	
	Monitor	
	Window	
	Toggle	
+LoMid-----+		
	Mixer	
	Window	
	Toggle	
+Low-----+		
	Markers	
	Window	
	Toggle	
+Audio-----+		
	AudioEdit	
	Window	
	*Tracks	* ShiftPressed
	Window	
+-----+		

How to use the SAC-2K with Digital Performer

THE ARROW BUTTONS

The ARROW buttons in the SAC-2K's number pad provide scrolling, zooming, selecting and nudging capabilities. They can also be used to control Digital Performer's 'take' management features. The ARROW buttons are only accessible when the NUMBER key is illuminated.

The ARROW buttons operate in three different modes shown in the table below. You can cycle through the three modes by repeatedly pressing the ENTER button at the lower right corner of the number pad, or you can use the shortcuts below to go directly to each mode:

Mode	Shortcut
Scroll/Zoom Mode	SHIFT + ENTER
Selection	CONTROL + ENTER
Nudge	OPTION + ENTER

SCROLLING AND ZOOMING WITH THE ARROW BUTTONS

To put the ARROW buttons into Scroll/Zoom mode, press the ENTER button repeatedly until the right-most display indicates you are in Scroll/Zoom mode, or hold down the SHIFT button while pressing the ENTER button.

Scrolling

The ARROW buttons scroll the top-most Digital Performer window as follows:

Press This	To do this
UP ARROW	Scroll up
DOWN ARROW	Scroll Down
LEFT ARROW	Scroll Left
RIGHT ARROW	Scroll Right
OPTION + LEFT ARROW	Jumps scrolling to left edge of selection (Scrubmode)
OPTION + RIGHT ARROW	Jumps scrolling to right edge of selection (Scrubmode)

Hold down the SHIFT key to scroll the window as far as it can go.

Zooming

The ARROW buttons zoom the top-most Digital Performer window as follows when used with the modifier keys in the KEYBOARD SHORTCUTS section:

Press This	To do this
CONTROL + UP ARROW	Zoom in vertically
CONTROL + DOWN ARROW	Zoom out vertically
CONTROL + LEFT ARROW	Zoom out horizontally
CONTROL + RIGHT ARROW	Zoom in horizontally

Hold down the SHIFT key together with the CONTROL key to zoom the window as far as it can go.

How to use the SAC-2K with Digital Performer

SELECTING WITH THE ARROW BUTTONS

To put the ARROW buttons into Selection mode, press the ENTER button repeatedly until the right hand display indicates you are in Selection mode, or hold down the CONTROL button while pressing the ENTER button.

Selecting tracks

The ARROW buttons can be used to select tracks as follows when used with the modifier keys in the KEYBOARD SHORTCUTS section:

Press this	To do this
UP/DOWN ARROW	To change the currently selected track.
SHIFT + UP/DOWN ARROW	To add the next track above or below the current set of selected tracks.
OPTION + UP/DOWN ARROW	To remove the top or bottom track from the current set of selected tracks.

Selecting a time range

The ARROW buttons can be used to make a new time range selection as follows:

1. Locate Digital Performer's main transport to the start, end, or middle of the time range you wish to select.
2. Press the FROM button to initiate a selection.
3. Use the ARROW buttons as follows to create a new selection starting from the FROM location:

Press this	To do this
LEFT Arrow	To move the edge of the selection to the left by the Nudge amount.
RIGHT Arrow	To move the edge of the selection to the right by the Nudge amount.
OPTION + LEFT ARROW	Chooses the left side of the current selection as the edge to edit.
OPTION + RIGHT ARROW	Chooses the right side of the current selection as the edge to edit.

Use the ARROW keys to edit one edge of the selection, then jump to the other edge by holding OPTION and pressing RIGHT or LEFT.

Extending/trimming the current time range selection

If you already have a time range selection, you can use the ARROW button techniques described in the previous section to extend or trim the existing selection by the current nudge amount.

NUDGING WITH THE ARROW BUTTONS

To put the ARROW buttons into Nudge mode, press the ENTER button repeatedly until the right hand text display indicates that it is in Nudge mode or hold down the OPTION button while pressing the ENTER button.

Nudge mode provides the following controls:

- The UP/DOWN ARROW buttons cycle through the various time formats in the Nudge Amount window.
- The LEFT/RIGHT ARROW buttons nudge any currently selected data.

How to use the SAC-2K with Digital Performer

TAKE MANAGEMENT WITH THE ARROW BUTTONS

The ARROW buttons provide access to Digital Performer's take management features (New Take, Next/Previous Take, etc.) To do so:

1. Record-enable the track or tracks you wish to work with.
2. Put the ARROW buttons into Nudge mode by holding down the OPTION button while pressing the ENTER button.
3. Use the ARROW buttons as follows:

Press this	To do this
CONTROL + UP ARROW	Previous Take
CONTROL + DOWN ARROW	Next Take
CONTROL + RIGHT ARROW	New Take
CONTROL + LEFT ARROW	Erase Take

The action is applied to all record enabled tracks.

SELECTION TECHNIQUES

The SAC-2K provides several ways to select tracks and make time range selections within those tracks.

Selecting tracks

There are two ways to select and deselect tracks:

- With the SELECT buttons in the SAC-2K's eight channel strips.
- With the ARROW buttons.

Selected tracks are included in the current time range selection, if any. You can select and deselect tracks at any time, before or after making a time range selection.

Selecting a time range

When you make a time range selection, it applies to all currently selected tracks, if any. You can change the time range selection at any time, before or after selecting tracks (as described in the previous section).

To make a time range selection:

1. Using any transport control features you wish, locate Digital Performer to the beginning or end of the time range.
2. Press the FROM button (above the Jog Wheel).
3. To define the other edge of the selection (before or after), locate somewhere else and press TO.
4. If you haven't done so already, use the channel strip SELECT buttons to include or exclude tracks in the selection.

Selecting a time range during playback

Use the same procedure as described above to capture a selected region during playback: press FROM at the beginning of the region and press TO at the end.

Selecting while scrubbing

You can use the FROM and TO technique to select while scrubbing. For details, see “Scrub mode” and “Scrubbing while selecting”.

Trimming a time range selection with the ARROW buttons

You can use the ARROW buttons to extend or trim either edge of an existing selection — or to make a new selection altogether. For details, see “Selecting with the ARROW buttons”.

BASIC EDITING WITH THE EDIT BUTTONS

Once you’ve made a selection as described in the previous sections, make sure the NUMBER key is not illuminated and press the COPY button to copy the selected time range. All currently selected tracks are included in the operation.

Pasting

To paste data that has just been cut or copied:

1. Using any transport control features you wish, locate Digital Performer to the point in time at which you’d like to paste.
2. Choose the destination tracks. If no tracks are selected, as is the case after a Cut operation, the data will go back into the track or tracks it originated from. Otherwise, select or deselect tracks as desired. Data will be pasted into the currently selected tracks. Make sure that the number of tracks you select matches the number of tracks that were cut or copied. If you are mixing audio and MIDI tracks in the operation, make sure the quantity and order of tracks being pasted into matches the source tracks.
3. Press the PASTE button. The data on the clipboard — including the entire time range that was originally cut or copied — is pasted at the current playback wiper location in Digital Performer.

Undoing an edit

When you perform an edit from SAC-2K, you can undo it with the UNDO button (the NUMBER key must not be illuminated).

SAC-2K AND DIGITAL PERFORMER MIDI TRACKS

MIDI tracks can be controlled from the SAC-2K in much the same way as audio tracks. For example, MIDI track input and output assignments can be made from the SAC-2K as described earlier in this chapter. Also, the SAC-2K channel strips work the same way for MIDI tracks as they do for audio tracks. The only real differences are fairly obvious. For example, MIDI tracks do not have sends, so there is no send control from the SAC-2K, either. But MIDI tracks do have inserts and MIDI plug-ins, which can be controlled from the SAC-2K.

How to use the SAC-2K with Digital Performer

WORKING WITH DIALOG BOXES

When a dialog box appears on-screen in Digital Performer, here are some ways to get around the dialog:

THE SAC-2K action	Software result
Press ENTER on the keypad	To click OK
Press ESCAPE (SHIFT+NUMBER)	To cancel the dialog
Press digit keys on the keypad	To enter numbers in the currently selected text box, if any.

SAVING THE DIGITAL PERFORMER PROJECT

The SAVE button allows you to save your Digital Performer project at any time, just like choosing Save from Digital Performer's File menu. Because it is easy to accidentally press the SAVE button, the procedure for saving actually requires that you press the SAVE button twice: once to "arm" it and again to actually save. This procedure helps avoid accidentally saving a project at the wrong time.

SAC-2K PREFERENCES

The SAC-2K provides several preferences. To access the SAC-2K preferences:

1. Hold down the CONTROL key while pressing the SELECT button above the Master fader.
2. As you hold down the Master SELECT button (you can release the CONTROL button), the right hand text display shows the preferences. While continuing to hold down the Master SELECT button, press the Encoder button in the insert section directly below the preference you wish to modify. The Encoder button toggles each preference between two settings.
3. See the following sections for an explanation of each preference.
4. When you are finished modifying the preferences, release the select button.

Scroll Tracks [enable/disable]

The Scroll Tracks preference (Scrl Trks) determines whether Digital Performer tries to keep the scroll state of the front-most window in sync with the tracks currently displayed in the 8 track strips. When enabled, the Tracks Overview, Audio Graphic Editor and Mixing Board will all scroll and show and hide tracks as necessary to keep the on-screen view in sync with the tracks displayed in the SAC-2K track strips.

Fader Touch Sensitivity [enable/disable]

The Touch Sensitivity preference determines whether the SAC-2K's main channel Faders operate as touch-sensitive Faders or not. By default, touch sensitivity is enabled. (For an explanation of this feature, see the "Faders" section.) When touch sensitivity is disabled, the SAC-2K's Faders don't actually generate data (for Digital Performer to respond to and record) until you move the Fader. In addition, when you release the Fader, the punch-out time is subject to the Punch-out Delay time that is specified in Digital Performer's Mixing Board window mini-menu. See the Mixing Board chapter in your Digital Performer manual for details. Unless you are running into problems with "stuck faders" you should leave touch sensitivity on.

Help Displays [enable/disable]

The right hand text display sometimes shows help hints when you press a key with a label that does not perform a function that seems intuitive. Once you've learned your way around the SAC-2K you may wish to disable this feature.