

Cakewalk SONAR 6 and AlphaTrack Plug-In v1.0.4

New Features in SONAR v1.0.4 plug-in: (complete details added later in this document)

- Added surround panning capabilities
 - + track pan will control angle
 - + added page two for pan mode: width, focus, angle
 - + track send pan will control send angle (no others)
 - + all surround parameters can be automated
 - + pan page two parameters can be flipped, w/select
- Added ability to toggle "fine" mode per encoder
 - + push encoder once to toggle ("*" next to adjust on display)
 - + double click encoders to set (old, undocumented feature):
 - = level to unity gain
 - = pan to center
- User checkbox for controlling the behavior of "PLAY" = Control-Play
- Track trim adjust: Pan mode, shift+ push Encoder 3 to toggle Pan/Trim adjust

Changes from driver v1.0 to v1.1 (SONAR plug-in v1.0.3):

New Features in SONAR v1.0.3 plug-in:

- You can now arm fader automation while you are in Auto Mode
- Added more keys to user –definable settings in AlphaTrack Tools menu. (arrow keys, page up/down, home/end)
- Added audio scrubbing (SHIFT+Touchstrip)
- Unnamed markers are displayed with their timeline position
- Improved EQ selection when changing tracks
- Improved behavior when in EQ mode and a MIDI track is selected

Bugs Fixed:

- Crashing SONAR when navigating unnamed markers with the encoder.

This document assumes you have already installed the AlphaTrack Windows driver and have the AlphaTrack ready for operation. (If not, see the AlphaTrack Users Guide or Quick Start Guide for installation details.) It is based on using AlphaTrack v1.1.0 drivers with SONAR 6 or later, and the v1.0.1 SONAR control plug-in, but may apply to later versions of software as well.

This configuration has been tested with SONAR versions 5 and 6. It may work with previous versions as well, but some functionality may be limited. ACT functions will only work with SONAR 6 and later.

SONAR Set-up

Important Note: User-defined settings in the AlphaTrack Tools menu are NOT saved when installing the SONAR plug-in update. If you are updating your drivers please write these down for reference if you want to reconfigure them after installing.

If you chose to install the SONAR plug-in file during the AlphaTrack driver installation procedure then you can skip ahead to the next paragraph. If not, then run the installer again and check the option box that includes the SONAR plug-in file. See "Installing Drivers in Windows 2000/XP/Vista" in the AlphaTrack User's Guide. This will place the AlphaTrack 'Plug-in' file called **AlphaTrack.dll** inside the Program Files\Cakewalk\ Shared Surfaces folder where SONAR is installed on your computer. Restart SONAR and you are ready to begin.

Launch SONAR and open the Options\MIDI Devices window. Enable the AlphaTrack MIDI port in both the Inputs and Outputs sections of the window, and then click OK. Next, open the “Options\Control Surfaces...” window within SONAR and click the yellow “+” symbol on the right to open the pop-up menu “Control Surface Settings.” Select “AlphaTrack” from the list and set both the In Port and Out Port settings to the “AlphaTrack” as well. Click OK to accept your settings. You can confirm your selections in the “Connected Surfaces” list. If you want to use SONAR’s ACT or WAI features then these options must also be selected here. Click Close when everything is correct. SONAR is now configured to operate with AlphaTrack.

SONAR does support multiple control surfaces, and allows AlphaTrack to co-exist with other types of hardware controllers such as the TranzPort wireless controller. It is recommended that all configured devices are connected to your computer prior to launching SONAR to prevent MIDI port assignments from being changed unexpectedly. **If AlphaTrack, or any other control device should stop working properly the first thing to check is that the MIDI port assignments are still correct in the Options\Control Surfaces panel.**

Overview

The AlphaTrack features a variety of controls, as well as an LCD display and LED’s for feedback, organized into four basic groups:

- A. Fader and Encoder group. This group consists of the 100mm, touch-sensitive, motorized fader, the adjacent SOLO, MUTE, and REC illuminated buttons, the 3 touch-sensitive encoders, the LCD display, and the 5 mode buttons (PAN, SEND, EQ, PLUG-IN, AUTO). This set of controls provides comprehensive access to the SONAR parameters associated with the *current track* – a SONAR track which is selected either directly from AlphaTrack or by clicking on the track on the main SONAR display.
- B. Programmable Function buttons. The buttons labeled F1 through F4 are user-programmable. They also have alternate functions (F5-F8), which are accessed by pressing SHIFT in combination with the F1-F4 button. User programmability is accomplished through a SONAR dialog available from the Tools | AlphaTrack menu item.
- C. Transport controls, including the scroll/shuttle touch strip. A set of standard transport buttons (REW, FFWD, STOP, PLAY, and RECORD) provide instant access to their equivalents on the SONAR display. These buttons have additional functions when pressed in combination with the SHIFT button. The touch strip provides three ways to navigate along the timeline in your project: scroll, shuttle, and marker-locate.
- D. Other miscellaneous controls:
 - a. The row of buttons above the transport controls contains track navigation buttons (for selecting the *current track*).
 - b. The LOOP button. This toggles SONAR’s Loop mode on and off. In combination with SHIFT, it toggles SONAR’s Punch-in mode.
 - c. The FLIP button. This button swaps a selected encoder function to the 100mm fader, for precise control during automation. When pressed with SHIFT, it is used to enable or disable the fader motor. (For example, you might want to disable the fader motor to conserve battery capacity when using AlphaTrack with a notebook computer.)
 - d. The SHIFT button. As mentioned SHIFT can be used with many controls to provide additional functionality. The SHIFT button itself can be used in a “sticky” mode to permit one-handed access to the alternate functionality. See the “SHIFT” section later in this guide.
 - e. Footswitch input. A number of functions can be assigned to the external footswitch input via the dialog SONAR’s Tools >| AlphaTrack menu.

Operational Details

SHIFT and “STICKY SHIFT”

The SHIFT key allows other buttons to perform more than one function, expanding the range of control that AlphaTrack has over SONAR. Press and hold SHIFT, then press another function button to access its expanded feature. Note that SHIFT has a “sticky” feature to simplify one-handed operation. Pressing SHIFT alone will lock it in the enabled position. The SHIFT LED will blink steadily. Now multiple shifted functions can be performed without holding the SHIFT key. Press SHIFT again to exit “sticky” mode.

Selecting Tracks or Buses

Most of the Fader and Encoder operations that AlphaTrack performs are directed to a track termed the *current track*. There are several ways to select the *current track*.

First, two dedicated buttons just above the REW and FFWD transport keys allow you to navigate one track at a time. This is handy when working on small projects, or within a narrow range of tracks.

Alternatively, you can use the left encoder to scroll through tracks in a rapid manner. When AlphaTrack is in PAN or AUTO mode the left encoder always has this function. When in any other mode, you can use SHIFT in combination with the left encoder to scroll through your tracks. Note that the fader position will not update until you release the encoder knob – this keeps the fader from continually jumping back and forth while you are selecting the target track.

Finally, you can select a track by clicking in SONAR’s main display, and AlphaTrack will update the *current track*. This is handy for many two-handed operations: click a track with the mouse, and then use your other hand to adjust its gain, pan, etc using the AlphaTrack fader.

AlphaTrack is also able to navigate the split Track/Bus architecture of SONAR. Anytime the left encoder is in track select mode press and turn the encoder one click clockwise to select Bus control. Now you can use either of the above track select methods to select the project busses. Press and turn the left encoder counter-clockwise to return to Track control mode. (Because a Bus cannot be armed for record, the REC button is not available while in bus mode.)

Note – If the “Skip Archived Tracks” option is checked in the Frontier AlphaTrack tools panel then any archived tracks will not appear in the AlphaTrack display. This helps to streamline workflow when working with a project that contains many tracks that are completed, or that you do not need to access.

Beginning with SONAR release 4.0.2 the AlphaTracks ‘Clear All’ functions, including Solo, Mute, and Record Arm are also affected by the Track or Bus mode selection. For example, pressing SHIFT+SOLO while in Track mode will clear all soloed Tracks only; no soloed Buses will be affected. Likewise, SHIFT+SOLO while in Bus mode will only clear soloed Buses. In earlier versions of SONAR 4 a ‘Clear All’ command will affect all Tracks and Buses regardless of which mode you are currently in. The AlphaTrack plug-in will automatically detect which version of SONAR you have installed and behave accordingly.

Encoders, Mode buttons and the LCD

AlphaTrack’s LCD display, the adjacent three rotary encoders, and the PAN, SEND, EQ, PLUG-IN, and AUTO buttons work together to provide a quick and powerful way to work with many of the parameters in your SONAR projects. The basic procedure for adjusting parameters is:

- A. Select the track that you want to work with.
- B. Press the Mode key indicating the basic type of parameter you want to adjust (PAN, SEND, EQ, PLUG-IN, or AUTO).
- C. Adjust the parameters named in the LCD display with the adjacent rotary encoders.

To familiarize yourself with this procedure, try navigating through one of your SONAR projects with AlphaTrack. When you first open the project AlphaTrack resets to PAN mode, and shows the name of the current track or bus on the top line of the LCD. The lower line of the LCD displays three adjustable parameters, one for each of the touch-sensitive encoders. In PAN mode, the track number, Marker, and Pan values are displayed. As soon as an encoder or the fader is touched, the display will instantly update with additional information about that parameter. Turn or press an encoder to make changes. In many cases both pressing and turning the encoder allows for fine-resolution adjustments. Releasing the encoder returns to the previous display. This cooperative behavior between the encoders, mode buttons, and LCD is an important part of AlphaTrack's overall design.

Note that in many cases the encoders can make coarse or fine adjustments. Pressing an encoder will toggle it between coarse and fine modes when available, and an "*" will appear on the far right-hand side of the display to indicate when fine mode is selected.

The following table shows the functions that are mapped to the encoders in each mode. Note that several modes (SEND, for example) have two pages. Press the mode button a second time to alternate between the pages.

Encoder Modes

	Encoder 1	Encoder 2	Encoder 3
PAN	Track Select	Marker Select (turn) Marker Add (push)	Pan (Angle) /Trim adjust
Page 2	Surround Width	Surround Focus	Surround Angle
Shift	Track Select		Pan/Trim select
SEND	Send Select	Send Level	Send Pan (Angle)
Page 2	Send Select	Enable/Disable Send	Pre/Post Fader
Shift	Track Select		
EQ	Frequency	Gain	Q
Page 2	Band Select	Filter Type	Band Enable/Disable
Shift	Track Select	EQ Type Select	EQ Enable/Disable
PLUG-IN	Plug-In Select	Parameter Select	Value Adjust
Shift	Track Select		
or	If ACT mode is selected	from the "AlphaTrack Tools"	Window.
ACT Page 1	Function 1	Function 2	Function 3
Page 2	Function 4	Function 5	Function 6
Shift	Track Select		
AUTO	Track	Read On/Off	Write On/Off

EQ Mode

AlphaTrack can detect and control 3 different types of channel equalizers. By default AlphaTrack automatically controls the built-in channel EQ. If a Sonitus Fx or Cakewalk FxEq plug-in is inserted on a track, AlphaTrack defaults to controlling it. You can use Shift+Encoder-2 to manually select which EQ to control.

Plug-In Mode and SONAR's ACT functionality

When Plug-In mode is enabled on the AlphaTrack you can use the AlphaTrack Tools menu to select between "Standard" or SONAR's "ACT" operation.


When Standard mode is selected the encoders follow the functions listed in the encoder chart above, and Plug-in Select, Parameter Select, and Value adjust are mapped to the 3 encoders.

If ACT is selected then each encoder can be programmed to any 2 plug-in parameters using the Page 1/Page 2 method. Unique ACT parameter assignments can be made for each different type of plug-in used, but these same assignments will be repeated on every instance of that plug-in within your project. The encoders, and ACT will follow the plug-in window that is forefront on your monitor even if that plug-in is not assigned to the current track.

Follow these easy steps to program ACT functions.

1. Open the AlphaTrack tools panel from the SONAR/Tools menu and select "SONAR ACT". Close window. (This setting can be changed at any time while working on a project)

2. Open an instance of the plug-in you want to program, and select Plug-In mode on your AlphaTrack.

3. Click on the "ACT Learn" button in the main or Controller/Surface toolbar to highlight it. 

4. Click on the desired parameter within the plug-in window to highlight that control, rotate an encoder, and click the "ACT Learn" button again.

5. Finally, click the pop-up window to accept the change.

Note - You will notice that the previously assigned parameter may move when the encoder is rotated. This is normal behavior, and the new assignment will be made when the change is accepted.

Repeat this procedure to program each encoder. And remember, pressing the Plug-In mode a second time (so that its LED flashes slowly) accesses a second page making a total of 6 assignments that can be made.

Note – Make sure the ACT box is checked next to AlphaTrack in the SONAR/Options/Control Surfaces panel. If this box is not checked then this functionality will not be enabled.

AUTO(mation)

AlphaTrack's hi-resolution fader and encoders can be used to write fader, pan, send, EQ and plug-in parameter automation where available. Selecting which of these can be automated is done in one of two ways.

To select one or more specific track parameters for write automation make that parameter available on AlphaTrack's display, i.e. select Send mode to arm Send Level and/or Send Pan for automation. While touching the fader or desired encoder press the AUTO button once. That parameter on the selected track is now armed for write automation and the red AUTO Write LED will illuminate whenever you touch that control to remind you. Likewise, that parameter will be outlined in red on screen. Repeat the procedure to dis-arm write automation for that parameter.

To arm ALL available track parameters for write automation select AUTO mode and press, or turn the right-hand encoder to "ON". This will only affect the currently selected track. Likewise, press or turn the middle encoder to turn On/Off Read automation for the selected track.

AlphaTrack recognizes when changing modes or tracks so that automation is not accidentally written to the wrong parameter or track.

Fader section

The high-resolution, 100mm motorized fader is also touch-sensitive to provide smooth operation and automation recording. Next to it are 3 illuminated buttons for setting, and indicating the *current track's* solo, mute, and record arm status, as well as LED's for automation status. An "ANY SOLO" LED illuminates to alert you whenever at least one track in the project is being soloed. As with the encoders, the fader and buttons here will affect the currently selected track or bus, regardless of whether it is selected with the AlphaTrack or the mouse.

Function Buttons

8 function buttons with discrete LEDs occupy the center portion of the AlphaTrack. Each of these buttons also has a shifted function. The bottom row is pre-assigned and labeled Track Down, Track Up, LOOP and FLIP. When SHIFT is added these become IN, OUT, PUNCH, and Motor On/Off. The upper row is labeled F1 - F4, and F5 - F8 respectively. These buttons are entirely user-programmable from the AlphaTrack Tools panel. All of the commands in the standard SONAR key-bindings menu, as well as several custom commands are available. More information about programming these can be found below.

The following chart describes the normal and modified functions of each function button.

Note: Versions of SONAR prior to v5.2 do not supply a MIDI message to light the Punch status LED. Therefore the AlphaTrack cannot indicate the on/off state of the Punch mode in earlier versions.

Button Functions

Name	Normal Function	SHIFT + Function
REW	Rewind	Return to Zero
FFWD	Fast Forward	Go to End
STOP	Stop	Local Settings (hold buttons)
PLAY	Play	Toggle Playback Metronome
RECORD	Record	Toggle Record Metronome
TRACK ◀	Move 1 Track Left/Up	Set Loop In Point
TRACK ▶	Move 1 Track Right/Down	Set Loop Out Point
LOOP	Toggle Loop Mode	Toggle Punch Mode
FLIP	Swap Fader and Selected Encoder	Motor On/Off (w/LED)
F1	F1 - User Definable	F5 - User Definable
F2	F2 - User Definable	F6 - User Definable
F3	F3 - User Definable	F7 - User Definable
F4	F4 - User Definable	F8 - User Definable
REC	Track's Record Arm On/off	Clear All Record Arms (All Safe)
SOLO	Track's Solo On/off	Clear All Solos
MUTE	Track's Mute On/off	Clear All Mutes
FOOTSWITCH	User Definable	

Transport Controls

The standard 5-button transport is located just above the scroll strip at the bottom. In addition to the basic REW, FFWD, STOP, PLAY, and RECORD functions, these buttons can also be used with the SHIFT key to Return-To-Zero, (go to) END, and toggle playback (SHIFT+PLAY) and record Metronome (SHIFT+RECORD) functions.

Scroll Strip

At the very bottom of AlphaTrack is located an innovative feature called the scroll strip. This behaves similar to a ribbon controller and is another touch-sensitive surface that can be used in several ways:

1. Move one fingertip along the strip in either direction to scroll through the project timeline in the same direction. Scroll resolution can be set in the Tools > AlphaTrack panel.
2. Move 2 fingers along the strip and it will act like a shuttle wheel, allowing you to move the current project position with a direction and speed proportional to the movement of your fingers.
3. A brief tap of a finger at either end of the scroll strip will cause a jump to the nearest marker in that direction. Additional taps will continue to move the timeline from one marker to the next in that direction.
4. Hold Shift and tap the Scroll strip to toggle Audible Scrub/Shuttle mode on and off. Audible scrub resolution is also determined by the Tools > AlphaTrack setting. See more below.

FLIP

The FLIP button allows the user to swap the functionality the fader with one of the encoders. In this mode the high-resolution fader can be used to adjust a parameter that would normally be assigned to an encoder. At the same time, the *selected tracks*'s channel level will be temporarily assigned to the encoder while this mode is enabled. To make this feature even more flexible, in some modes the user can choose which encoder is flipped. While holding down the FLIP button, the LCD display will show the word "FLIP" next to each encoder which is eligible to be swapped to the fader. While continuing to hold down the FLIP button, touch the encoder to assign it as the flipped encoder for the mode. Note that if the word "FLIP" does not appear when holding the FLIP button then no other assignments can be made in that mode.

Remember, even though an encoder is assigned to flip, it will not actually be flipped unless the FLIP mode button is enabled and its LED is lit.

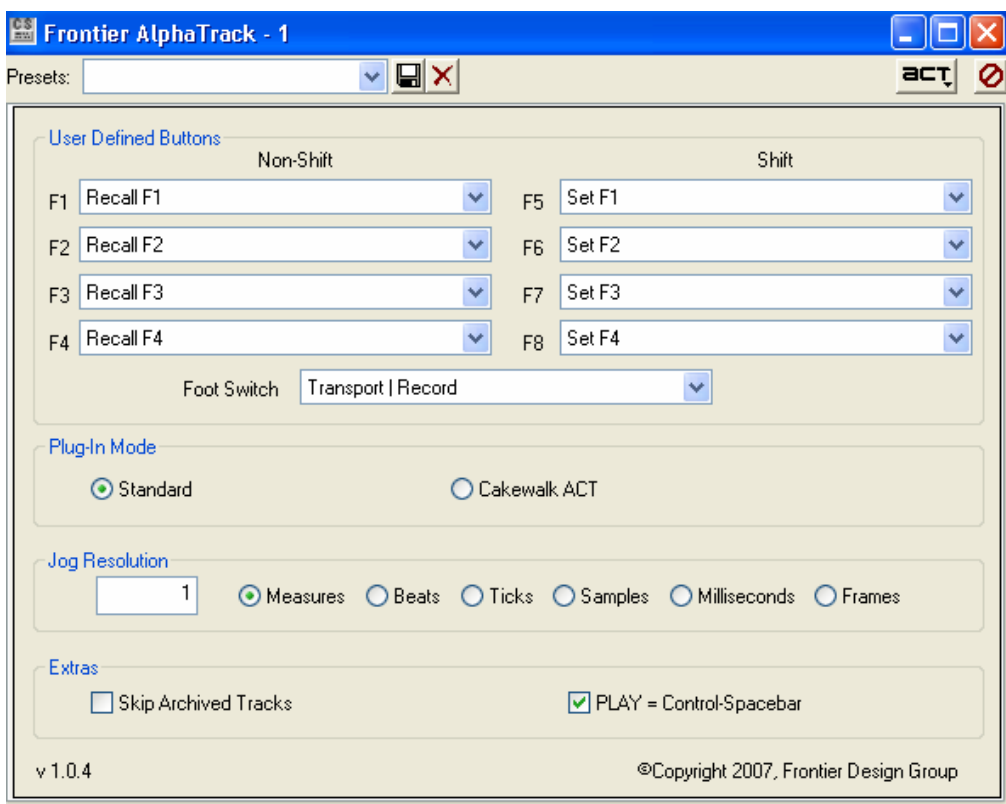
Note - With some plug-ins, including EQ plug-ins, there may be parameters that do not respond well to encoder adjustment. This is not the fault of AlphaTrack but rather a limitation of the plug-in interface. In these cases you may find that flipping control to the higher resolution fader provides improved control.

Motor On/Off

If you wish to turn AlphaTrack's fader motor off for any reason (for example, to conserve battery power when using AlphaTrack with a notebook computer) you can do so by pressing Shift + FLIP. The FLIP LED will reflect the motor status while the Shift key is held down.

AlphaTrack 'Tools' panel

The AlphaTrack tools panel (accessible at the bottom of SONAR's Tools menu) provides an easy way to customize the behavior of your AlphaTrack, and to store multiple setups for quick recall. Each of the sections is described in detail below.



User-Definable Buttons

User definable key combinations and the footswitch can be programmed either via the SONAR/Options/Key Bindings menu, or from the SONAR/Tools/AlphaTrack panel. The Tools menu panel makes it easy to assign custom commands to the available function key and footswitch combinations, as well as save multiple versions of this setup for different working scenarios. Available commands include options from all of the SONAR menus as well as several ‘virtual-keys’ such as Enter, Esc, Spacebar, and Arrow key combinations to access special functions.

Note - By default F1 through F8 are preset to store and recall the currently selected track. These 2 sets of custom commands allow the user to quickly select and toggle between up to 4 tracks that they may be working on at the moment.

To change the function of F1 through F8 simply choose a function from the pull-down list corresponding to the button. You can then save that command set by entering a name in the Presets field in the upper left corner and clicking on the diskette icon next to it.

Plug-In Mode

Determines whether AlphaTrack uses standard or ACT parameter control when “Plug-In” mode is selected. This setting can be changing at any time. ACT functionality is described above.

Jog Resolution

Select Measures, Beats, or Ticks x 100 to set the resolution of the Scroll Strip when using 1 finger to jog back and forth on the time line. Minimum resolution when using 2 fingers to shuttle is always 1 beat.

Extras

Skip Archived Tracks

If the “Skip Archived Tracks” option is checked in the AlphaTrack tools panel then any archived tracks will be bypassed by AlphaTrack, and will not appear in the AlphaTrack display. This helps to streamline workflow when working with a project that contains many tracks that are completed, or that you do not need to access.

Play = Control-Spacebar

When this box is checked pressing play will emulate a CTRL+ Spacebar command from the keyboard. This affects whether or not the “Now” time marker relocates to the current time position on a Stop command. For example, if “On Stop, Rewind to Now Marker” is checked in your Global Options panel, then pressing stop will return the current timeline back to the “Now” indicator. However, if this box is checked, then pressing Play instead of Stop, while the sequencer is moving, will stop the motion and move the “Now” time marker to the new timeline location.

Scrubbing Audio

Hold the Shift button and tap the Scroll strip to toggle audible scrubbing on and off. AlphaTrack’s LCD display will show “Audible: On” or “Audible: Off” indicating the currently selected state.

Use 1 or 2 fingers on the Scroll strip just as you would normally to scrub your project audio. Scrub resolution is determined by the Jog Resolution setting in the AlphaTrack Tools menu as mentioned above. Select Measures, Beats, or Ticks x 100 to set the resolution of the Scroll Strip when using 1 finger to jog back and forth on the time line. Minimum resolution when using 2 fingers to shuttle is always 1 beat.

Hint - You can keep the AlphaTrack Tools window open and experiment with different setting values to find the resolution that best fits your needs.