Cakewalk SONAR 5.2 and TranzPort Plug-in v1.30

Changes from v1.27 to 1.30

Note - v1.30 features require SONAR 5.2 or later

New Features –

1. When selecting or adding Markers, the user defined marker name now appears for a few seconds on the top line of the display along with the marker number on the bottom line. This makes marker navigation much more useful for quickly identifying location.

2. The Punch mode LED is now functional and enabling Punch mode has been improved in SONAR.

3. True stereo metering has been added to both meter modes in the TranzPort.

Changes from v1.26 to v1.27

New Feature –

- added additional shortcut "virtual keys" to the
  choices in the SONAR/Tools/Frontier TranzPort pull-down
  lists to enable horizontal and vertical zooming capability:
  * ctrl-right & left - horizontal zooming
  * ctrl-up & down - vertical zooming

Bug fixes:

- fixed bug where assigning ctrl-shift-f# virtual keys to
  a TranzPort button could be off by one.
- the "small" meter's metering clip indicator should now
  work similar to that on the big meter

Changes from v1.24 to v1.26

New Features –described in detail later in this document:

1. New configuration dialog (under Tools Menu)
   * added easy re-mapping of Shift & Stop key combos
   * added ability to custom map Foot Switch
   * set default Jog Resolution
   * added ability to skip archived tracks
   * presets can be saved/recalled

2. Meter has peak indicator ("|").

3. Added BIG METER mode (Shift+Stop) with peak indicator and clip indicator.

4. Track Scrolling: hold either Track button and turn wheel for faster track changes. (Note - works faster on slow machines if track inspector is turned off.)

5. Play button now toggles between play and stop (like clicking the on-screen play button).

6. Marker Scrolling: Holding down PREV or NEXT marker button and turning data wheel now "scrolls" through markers.

7. Audio scrubbing (hold Stop+Play, turn wheel).

Bugs Fixed

 - Sometimes Mute/Solo/Rec LEDs would stop working on hyperthreading machines.

 - 'Skip Archived Tracks' caused bus track to not work (1.2.6b3).

Changes from v1.2 to v1.24

-   Fixes one bug to filter out TranzPort data so that TranzPort button presses won't trigger MIDI notes or be recorded onto SONAR tracks. This plug-in works with SONAR v3.1 and later.

This document assumes you have already installed the TranzPort Windows driver and have the TranzPort remote ready for operation. (If not, see the TranzPort Users Guide or Quick Start Guide for installation details.) It is based on using TranzPort v1.3.0 drivers with SONAR 5.2 or later, and the v1.30 SONAR control plug-in, but may apply to later versions of software as well.

SONAR Set-up

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

Start SONAR and open the Options\MIDI Devices window. Enable the TranzPort MIDI port for 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 "Frontier TranzPort" from the list, set both the In Port and Out Port settings to the TranzPort, then click OK. You can confirm your selections in the "Connected Surfaces" list then click Close if everything is correct. SONAR is now configured to operate with TranzPort. SONAR does support multiple control surfaces, and allows TranzPort to co-exist with other types of hardware controllers, however it is recommended that the TranzPort is the first control device in the list.

Operation

The TranzPort has 18 function buttons, 2 local control buttons, a data wheel, and a backlit, 2x20 character LCD display. Silk screened labels clearly indicate the basic functions of the buttons. The SHIFT and STOP buttons allow all other buttons to perform more then one function, expanding the range of control that TranzPort has over SONAR. SHIFT and STOP act as momentary buttons that are only active while being held.

When you open a SONAR project, TranzPort's LCD shows the name of the first track in your project, the track number, the track fader level, pan position, and the sequencer location. You may also have one or more status LED's lit indicating the track's solo, mute, record arm status, and loop mode status. Pressing play will cause the project to begin playback just as if you had clicked the play button on the screen. Likewise most of the buttons function just like their on-screen equivalents.

The following chart describes the normal and modified functions of each button. You will also find "SONAR Layout v1.30.pdf" on the TranzPort CDROM, which serves as a quick visual guide for the TranzPort functions with SONAR. You may want to print this document for quick reference.

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

Note: Versions of SONAR prior to v4.02 do not supply Track or Bus metering data for the TranzPort to display. The SONAR 4.0.2 update adds mono metering data which will be displayed by the track or bus currently selected for display. SONAR 5.2 adds stereo metering data to the TranzPort display.

TranzPort Button and Data Wheel Functions

Name	Normal Function	SHIFT + Function	STOP + Function
REW	Rewind	Return to zero	
FFWD	Fast forward	Go to end	
STOP	Stop	Toggle Big Meter mode	Modifier key
PLAY	Play	Toggle playback metronome on/off	Audio Scrubbing Hold and use wheel to scrub audio
RECORD	Record	Toggle record metronome on/off	
PREV	Go to previous marker Hold to scroll with wheel	User-defined as Shift+F1	Ctrl+Shift+F1
ADD	Add marker at current location	User-defined as Shift+F2	Ctrl+Shift+F2
NEXT	Go to next marker Hold to scroll with wheel	User-defined as Shift+F3	Ctrl+Shift+F3
IN	Set punch in point	Set loop in point	Ctrl+Shift+F4
OUT	Set punch out point	Set loop out point	Ctrl+Shift+F5
PUNCH	Toggle punch mode (LED inactive)	Cycle through time formats	Ctrl+Shift+F6
LOOP	Toggle loop mode	Toggle level/pan selection for shifted data wheel changes	Ctrl+Shift+F7
< TRACK	Previous track/bus (left/down) Hold to scroll with wheel	Show tracks	Ctrl+Shift+8
TRACK >	Next track/bus (right/up) Hold to scroll with wheel	Show buses	Ctrl+Shift+9
REC	Toggle track's record arm on/off	Clear all record arming	Ctrl+Shift+F10
MUTE	Toggle track's mute on/off	Clear all mutes	Ctrl+Shift+F11
SOLO	Toggle track's solo on/off	Clear all solos	Ctrl+Shift+F12
UNDO	Undo last action	Redo last undo	
DATA WHEEL	Scroll timeline	Adjust level or pan	
FOOTSWITCH	User Definable *see below*		

User-Definable Functions

User definable key combinations and the footswitch can be programmed either via the SONAR/Options/ Key Bindings menu, or from the SONAR/Tools/Frontier TranzPort panel. The Tools menu panel makes it easy to assign custom commands to the available STOP+key, SHIFT+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.

Simply choose a function from the pull-down list next to each button to create a set of custom commands. 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.
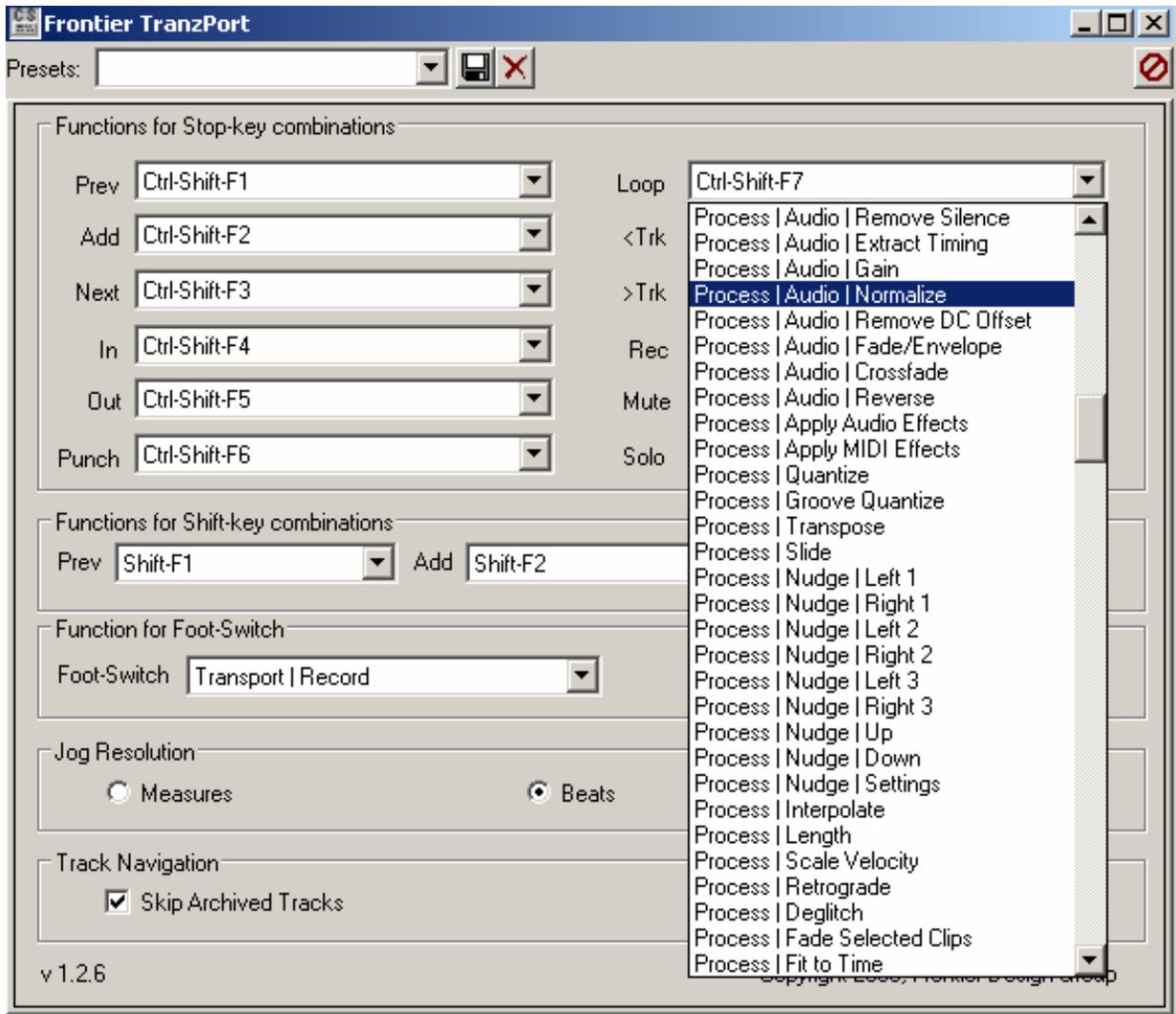
If you had previously assigned functions using the "Key Bindings" method described below then they will continue to operate using the default settings of Ctrl-Shift F1 through F12 in this panel. In this case it is recommended that you save the default settings by typing "Default" into the window labeled 'Presets' at the top, and clicking on the diskette icon.

Note - One advantage of the previous method of using Key Bindings to program the user-definable functions is that they offer the ability to use 'contextual' binding. Contextual binding permits you to use the same button combination to control different functions depending on what window is in the foreground. This adds another dimension of programming flexibility without needing to manually select from several Preset options. For more detail on this see **Using Key Bindings** later in this document.

* Jog Resolution - allows you to select Measures, Beats, or Ticks as the resolution of the Jog wheel.
* Track Navigation - allows you to select the option to 'Skip Archived Tracks' for faster navigation.
   When checked, the Track up and down buttons will skip over Archived tracks.

Track or Bus Control

TranzPort is able to navigate the split Track/Bus architecture of SONAR. Holding SHIFT and pressing the "< TRACK" button will place the TranzPort into track mode, allowing the display, data wheel and relevant function buttons to control and display individual track parameters. Pressing the "Track <" and "Track>" buttons alone will then let you move from one track to the next. The LCD display will show the currently selected track name, track number, and fader and pan settings. Likewise, LED's for record arm, mute, and solo status will update to reflect the state of the selected track. Use the REC, MUTE, and SOLO buttons as well as the data wheel to change or edit the settings for the current track.

Note – If the "Skip Archived Tracks" option is checked in the Frontier TranzPort tools panel then any archived tracks will not appear in the TranzPort 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.

Holding SHIFT while pressing "TRACK >" will place the TranzPort into bus mode. This mode operates the same as track mode except that you can now select, and control, any of the buses in your SONAR project by pressing the "< TRACK" and "TRACK >" buttons alone. Because a Bus cannot be armed for record, the REC button is not available while in bus mode.

Track/Bus Scrolling – Holding either TRACK button down while turning the wheel will quickly scroll through all tracks or busses without the need for repeated presses. This is particularly helpful with large track counts.

Beginning with SONAR release 4.0.2 the TranzPorts' '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 TranzPort plug-in will automatically detect which version of SONAR you have installed and behave accordingly.

The Data Wheel

In addition to controlling display contrast, backlight level and sleep mode delay when used with the local control buttons, the data wheel performs several functions within SONAR.

1. Rotating the data wheel will move the "now" time along the timeline of your project. This is handy for quickly locating a point to begin playback or recording.
2. However, if you press and hold the SHIFT button, an arrow will appear on the display next to the level or pan setting of the selected track or bus. If you continue to hold SHIFT and turn the data wheel, you will now be adjusting the parameter indicated by the arrow. Pressing the LOOP button while holding SHIFT will toggle between level and pan control.
3. Holding either TRACK navigation button down, and turn the wheel you can quickly scroll through all tracks or busses.
4. Holding either PREV or NEXT while turning the wheel will scroll through all current marker locations for fast marker navigation.
5. Holding STOP and PLAY while turning the wheel will scrub audio at the current Now Time.

Metering

Big Meter Mode – Pressing SHIFT + STOP toggles the entire TranzPort LCD display into a large calibrated meter. The current track name, number, etc. will appear on the display briefly to remind you of which track you are looking at. This will be repeated if you change tracks while in Big Meter mode. On the far right is a bar that indicates peak. This bar will turn to a box if clipping occurs and hold the clip symbol for approximately 6 seconds.

Pressing SHIFT + STOP again will return you to the normal display with a reduced level meter in the lower left of the display. A bar representing peak has also been added there with clipping indicated as a box also.

Note – Beginning with SONAR 5.2 true stereo metering is sent to the TranzPort display. Basic mono track level metering is provided in SONAR starting with v4.0.2. But if you have more than one control surface assigned in the Options/Control Surfaces setup panel, and they are not all turned on or connected, you may not see metering in the TranzPort display. The best way to prevent this is to make sure the TranzPort is first in the list of controllers. This should allow it to receive the meter signal from SONAR regardless of the status of other controllers.

Using Key Bindings

Using the SHIFT and STOP buttons as modifier keys, you can assign any command from the SONAR Key Bindings menu to up to 15 different programmable button combinations on the TranzPort. Also, because the SONAR Key Binding options are very flexible, and allow you to make assignments based on context, a single key combination can perform more than one command based on what view is active in SONAR. This means you can customize your TranzPort with many more than 15 personal commands.

To assign commands to these buttons go to the Options/Key Bindings panel and follow these steps:
1. Under "Type of Keys" make sure "Computer" is selected.
2. In the "Key" list, select the button combination you want to program, such as Shift+F1 (SHIFT+PREV). As a shortcut you can click on "Locate Key" and press the button combination (SHIFT+PREV) to find it in the list.
3. Choose the Bind Context you want. Hint: Global Bindings will perform the selected function regardless of the currently active view. All other context options will create bindings for a specific view. Changing the Bind Context will also change the functions available to match the selected view. (More on this below.)
4. Select a function from the list of available commands and click "Bind"
5. Repeat steps 2 through 4 with each of the 15 programmable button combinations, or click "OK" to close the window

You can also unbind individual keys or "ZAP" (clear) all bindings for a view list, or the entire list, from this window.

To make this more flexible you can create, name, and save window layouts under the View/Layouts panel, and they will show up as available functions in the Key Bindings menu under the "Global Bindings" context. The result is that you can create combinations of window layouts and window specific functions to get the most out of your TranzPort.

As an example, you can create a window layout that has the Track View in the foreground and save that as Shift+F1 under the Global Bindings context. Then select Track View context and assign the same Shift+F1 as a function like Scrub Tool. Now Shift+F1 can fill two purposes. It will move you to the Track View if you are currently in another view, and it will select/deselect the Scrub Tool once you are there. Repeat this with other window layouts or contexts, and you can come up with any number of helpful shortcuts.

Once you have programmed the desired key-bindings in SONAR you can use them by holding the modifier key, SHIFT or STOP, and pressing the button you have programmed.

Using the SHIFT button as a modifier you can program the PREV, ADD, and NEXT buttons as'Shift+F1' through 'Shift+F3'. Using the STOP button as a modifier you can program PREV, ADD, NEXT, IN, OUT, PUNCH, LOOP, < TRACK, TRACK >, REC, MUTE, and SOLO as 'CTRL+Shift+F1' through 'CTRL+Shift+F12'.