SONAR to REAPER Quickstart

A Transition Guide for Cross-Graders

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From SONAR to REAPER

Introduction and Preamble

This booklet has been produced as an aid to experienced users of SONAR who are trying out REAPER, or who have already decided either to make the switch or to add REAPER to their software collection.

It is an introductory guide, no more, no less. Each chapter consists of a table or a number of tables, devoted to one main aspect of using a DAW. Within each table you will find a number of key tasks identified, together with a summary of how that task is approached in SONAR and how the same (or most closely equivalent) task is approached in REAPER. The versions used are SONAR 8.53 and REAPER 3.65 with SWS Extensions 1.72. The SWS Extensions can be downloaded from http://www.standingwaterstudios.com

The layout has been designed so as to make it easy for you to print any page you wish as a summary information card. You will find more expansive and comprehensive explanations in the REAPER columns of the tables than the SONAR ones. That is simply because I have assumed that as an experienced SONAR user you are already familiar with how SONAR handles the various tasks. That information is provided as a reference point only, not to teach you how to use SONAR.

This document is far from being 100% comprehensive, nor is it intended to be, nor (probably) could it ever be. Keep in mind that there are some tasks that can be achieved in SONAR but not in REAPER and vice versa. I have had to take some fairly arbitrary decisions about how this documentation approaches these at times, including what to include and what to miss out. I didn't want to end up with another 400+ page manual! Its aim is to help you adjust to REAPER's way of working, not to teach you everything you could, possibly want to know about REAPER. Be prepared in most cases to consult the REAPER User Guide and the SWS Extension Guide for more information on most topics.

Finally, to state the obvious, SONAR isn't REAPER and REAPER isn't SONAR. I've considered questions like whether it would be a good idea to create pseudo-SONAR menus that you can use with REAPER, or pseudo-SONAR keymaps. After consulting with other ex-SONAR users I have decided against doing this. Apart from the extraordinary amount of time this would take, there are more philosophical reasons. These are:

- The two programs operate in many cases quite differently and according to different design paradigms. Trying to "Sonarize" the REAPER menu would be at best a fudge. Some commands would need to be included which are not strictly equivalent, others would be dropped off the menu all together.

- Changing REAPER's keyboard shortcuts to more closely align with SONAR's key bindings would mean re-allocating keys currently assigned some other function (and often an important function) in REAPER. In some of these cases, SONAR has no equivalent command.

- In the end, the only way you will ever successfully be able to learn and use REAPER is … to use it as REAPER, not as a sort of quasi-SONAR (or anything else). This might make the learning curve a little steeper at first, but in the longer term this should save you time and deliver you benefits.

This represents a first attempt at producing this document. If you find any significant errors or omissions,or would like to suggest improvements, please PM nicholas on the REAPER forum.

Finally, here's one more point to consider …

One criticism sometimes leveled at REAPER (often by people who have never made any serious attempt to learn or use the program) is that it is "complicated" or "difficult" to use because of its many hundreds of extra actions, many of which lie hidden below the surface. In my opinion, nothing could be further from the truth. REAPER's standard interface contains all of the commands, functions and features needed to run it as a standard DAW. For the most part, the extra actions are there to help you if you want to tailor the program to work more precisely in line with your own needs (for example, to improve your productivity and workflow). You don't need to do this if you don't wish to!

Enjoy!

– Geoffrey Francis, August 2010

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From SONAR to REAPER

1. Fundamental Design Differences

On the surface, SONAR and REAPER look quite similar. They are both Digital Audio Workstations. Both allow you to record audio and MIDI items. Both provide you with facilities for editing these items. Both offer a number of useful features (such as VST plug-ins and automation envelopes) to help you to bring your projects to a final mix. And so on ….

That's on the surface. Once you start looking below the surface you will discover four very important things:

- There are some tasks common to both SONAR and REAPER which are accomplished in a similar fashion in both programs. However, these tasks are relatively few in number and relatively basic. They include such standard Windows activities as saving files, opening files, closing files, deleting clips and items.
- There are some features which are common to both SONAR and REAPER but which are accomplished by different means in the two programs. For example, the default methods of zooming in and out of, and navigating thru, a project are significantly different in both programs.
- There are some features which though broadly comparable in SONAR and REAPER vary significantly in their implementation and their functionality. For example, SONAR's Audio Snap and REAPER's Dynamic Splitting both exist to serve similar purposes. Both, however, work differently from each other, and most users would consider SONAR's Audio Snap to be more fully featured. Likewise, both programs make automation available to you, thru the use of envelopes and (in the case of REAPER) parameter modulation. Most people who have used both programs for automation would say that REAPER is superior in this regard.
- Both programs possess features that the other simply does not have. For example, REAPER possesses no feature that is remotely comparable to SONAR's Staff and Lyrics Views. On the other hand, REAPER does include channel splitting and includes a Routing Matrix View for which SONAR has no equivalent.

You will find the transition from SONAR to REAPER easier if from the outset you develop at least a general sense of the differences in the design paradigms of the two different programs. The table below aims to explain some of the most important differences. It comes with the usual disclaimer that its statements are generalizations and perhaps at times over-simplifications. Nevertheless, it should help to get you thinking along the right track.

SONAR	REAPER
- Audio and MIDI items are called "clips". In this document I'll use the REAPER term "media items" when referring to SONAR clips.. - Makes extensive use of Main Level Menus. These can be customized. - Includes a large number general and specialist of toolbars, makes extensive use of tools. User can create custom toolbars. - Makes some use of right-click context menus. - Limited keybinding capability. - No extra actions other than what appears on menus. No user macros. - Some scripting capability thru CAL. - Limited ability to customize program settings and options.	- Audio and MIDI items are called "media items". - Makes extensive use of Main Level Menus. These can be customized. - Default toolbar is minimal. By default, REAPER makes little use of tools, but users can customize the main toolbar. You can also create your own tools and your own custom toolbars. - Makes extensive use of right-click context menus. - Almost unlimited keybinding capability. - Literally hundreds of extra actions that can be combined with each other and with REAPER commands into user-defined macros. - Supports scripting using Python and/or Pearl. - Very many aspects of program behavior can be customized.

Some of these issues will be discussed further in the section **Customization.**.

From SONAR to REAPER

2. Setting Up and Getting Started

Section Overview

Any DAW requires a certain amount of time to set up. These tasks include, for example, selecting your audio drivers and specifying the location of your VST plug-ins. In addition, you will find that REAPER has many more pages of preferences settings – and many more options within those pages – than does SONAR. Don't be intimidated by this. Part of the REAPER design philosophy is that wherever possible individual users should be able to customize program behavior if they wish to suit the way they want it to work. We'll get to many of these later, but for the most part you'll most probably find that you can work perfectly well just leaving many preferences options at their default settings.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
The Install Process	Run the setup file, either downloaded or from DVD	Download the latest version from http://www.cockos.com/reaper/downloads.php (updates with bug fixes, performance enhancements and new features are usually released every two weeks or so). You'll notice straightaway that REAPER installs quickly (a couple of minutes at most) and leaves a small footprint. Most of the elements listed in the Choose Components screen are self-explanatory. Check the Additional Functionality options for such features as x64 VST Bridging, Control Surface Support, CD Ripping/Burning, and Rewire. By default, most of these options are enabled. You should also install ReaRoute ASIO drivers if you want to run REAPER linked to another program such as SONAR.

Setting up Audio	Options → Audio	Options → Preferences → Audio
		
		Options → Preferences → Audio → Device (or click once on right end of main menu bar)
		
		Note the following:
		    REAPER's Solo in Front is equivalent to SONAR's Dim Solo
		    REAPER's Channel Name Aliasing is similar to SONAR's Friendly Names
		    REAPER prefers ASIO drivers.

Setting up MIDI	Options → MIDI Devices	Options → Preferences → Audio → MIDI Devices Double-click on any input or output device to configure settings.
Installing to a Flash or Thumb Drive	SONAR does not support this feature.	From the Windows start menu, chose All Programs → REAPER → Install REAPER to USB Key or Removable Media.

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| Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Setting up Control Devices	Options → Controllers/Surfaces	Use Options → Preferences → Control Surfaces for any device operating in any of these modes: Behringer BCF2000 HUI Novation Automap Frontier Alphatrack Mackie Control Extender Presonus Faderport Frontier Tranzport Mackie Control Universal YAMAHA 01X For BCR2000 users, please note that a plug-in has been developed by REAPER forum member ajaym that allows you to install the BCR2000 as a control surface. See REAPER web site. For other devices , use Options → MIDI Devices. Configure device to Input (Control Only) and output disabled.
System Info and File Locations	SONAR stores much of its system information in the Windows Registry. You can use Options → Global → Folders to specify the locations pf various file types.	REAPER does not use the Windows Registry. Most system information (FX Chains, Color Themes, Key Maps, Menu Sets, JS Effects etc) are stored in the App Data directory, accessed from REAPER's Options → Show REAPER Resource Path ... command. Native ReaPlugs (ReaEQ, ReaComp, etc.) are stored within the REAPER program directory. Global default location for media files is specified under Options → Preferences ->Audio → Recording. This can be overwritten for any project when saving the project file by selecting the Create Subdirectory and Move All Media Items to Project Directory options. You can also set this in the File → Project Settings dialog box.
Setting up VST and DX Plug-ins	Options → Global → VST Plug-ins	Options → Preferences → Plug-ins → VST Options → Preferences → Plug-ins → Rewire/DX Some DX plug-ins may not be automatically be recognized by REAPER. If this is the case, go to your \Application Data\REAPER folder and edit the text file reaper-dxplugins.ini. You will need to change the line Load=0 to Load=1 for those plug-ns that have not been recognized.

Keyboard Shortcuts, Tips and Techniques:

File → Project Settings   Alt + Enter

Options → Preferences   Ctrl + P

Navigate Preferences pages either with mouse or keyboard (press first letter off page name (e.g. type C to jump to Control Surfaces page).

Use **Find** text box (bottom left corner of Preferences window) to search – see image on right.
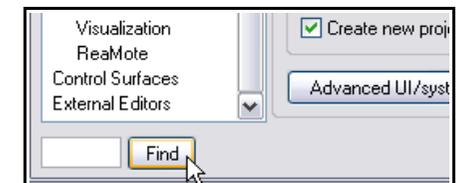
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3. Recording Essentials

Section Overview

For the most part SONAR and REAPER handle creating tracks and recording in ways that are quite similar. The biggest and most obvious differences can be found in how the two products handle MIDI recording. SONAR uses different track types for audio and MIDI, whereas REAPER uses one common track type for both audio and MIDI. In fact, with REAPER you can record both audio and MIDI items on the same track if you wish. REAPER's basic track controls do not by default include the many controls that are included in SONAR's MIDI tracks. You can add these via the command Show Track MIDI Controls in the main Track menu or the track context menu. Another major difference is that REAPER does not include a separate Synth Rack View. REAPER does, however, include the following features:

- ◆ A Virtual Keyboard that you can use for MIDI input. Using either your mouse or your PC keyboard.
- ◆ It allows you to use as many different synths (and/or different instances of the same synth) as you wish within a single track, either in serial or in parallel.
- ◆ You can play back MIDI events from different channels thru different synths within a single track.

These features go beyond the scope of this "quick start" guide: for more information, consult the REAPER User Guide and/or REAPER Power!

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Create Audio Track(s)	Insert → Audio Track Insert → Track from Track Template Insert → Multiple Tracks	Track → Insert New Track *or* Insert → Track Track → Insert Track from Template *or* Insert → Track from Template Insert → Multiple Tracks
Create MIDI Tracks(s)	Insert → MIDI Track Insert → Track from Track Template Insert → Soft Synths	Track → Insert New Track *then* Track → Show Track MIDI Controls Track → Insert Track from Template *or* Insert → Track from Template Insert → Virtual Instrument on New Track
Arm/Disarm Audio Track For Recording	Use the track's Record On/Off toggle button.	Use the Record Arm/Disarm Toggle button in the track control panel. Default setting is to record track input.
Select Option to Record Track Output (rather than input)	Not available.	Right click on track Record Arm button, follow menu to Record: Output, then select your preference from sub-menu..
Assign Track Inputs	Use Inputs drop down list in track controls.	Right click on track Record Arm button, follow menu to Mono Input, Stereo Input, or MIDI input.
Assign Track Outputs	Use Outputs drop down list in track controls. By default, all audio track output automatically goes to the Master.	Click on track I/O button to open the track's routing window. By default, output of all top level tracks goes directly to the Master. Output of all child tracks (contained within folders) goes to the folder and from there to the Master.

Task/Activity	In SONAR you did this …	In REAPER you do this …
Enable/Disable Input Monitor	Use the track's Input Echo button.	Use the track's Record Monitoring button, or right click on Record Arm button, follow menu to either Monitor Input or Monitor Input (Tape Auto Style). Optionally, you may also enable Monitor Track Media When Recording.
Input Quantize(MIDI)	Tracks → Input Quantize	Right click on track Record Arm button, then choose Track Recording Settings.
Select Record Mode Normal	Transport → Record Options then make sure Auto Punch is *not* enabled.	Options → Record Mode: Normal
Select Record Mode Autopunch	Transport → Record Options then enable Auto Punch.	Options → Record Mode Time Selection Autopunch *or* Options → Record Mode Autopunch Selected Items
Enable/Disable Multiple Takes	Transport → Record Options then select Sound on Sound or Overwrite.	REAPER's default behavior is similar to SONAR's Sound on Sound mode. Ctrl +L toggles display of multiple takes in lanes. To use its equivalent of Overwrite mode, choose (from the Options menu) Trim Existing Items Behind New Recording. REAPER also supports Free Item Positioning Mode (on track context menu).
Show/Hide Virtual MIDI Keyboard	SONAR does not support this feature.	View → Virtual MIDI Keyboard.
Show/Use Metronome	Options → Project → Metronome	Options → Metronome and Pre-Roll Settings, *or* Insert → Click Source (on selected existing empty track)
Start Recording	Transport → Record or use Transport Bar	Click Record button on Transport Bar.
Stop Recording	Transport → Stop or use Transport Bar.	Click Stop button on Transport Bar.
Other Transport Bar Functions	Core functions (Play, Stop, Pause, etc.) are similar. See SONAR and REAPER documentation for other features and differences.	

Keyboard Shortcuts, Tips and Techniques:

Insert → New Track	Ctrl + T	Show Multiple Takes in Lanes (toggle)	Ctrl + L
Options → Preferences	Ctrl + P	View → Big Clock (toggle)	Alt +C
Start Recording	Ctrl + R	View → Docker (toggle)	Alt + D
Stop Recording	Spacebar		

See also Options → Preferences → Audio → Recording for various options and settings.

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4. Tracks and Track Management Essentials

Section Overview

In many respects, REAPER's and SONAR's track management features are quite similar, and are available in the Arrange (Track) view and Mixer (Console) view . However, there are some important differences, as explained in the table below. Not every option or feature is listed, only the most common ones. One key area of difference is in routing. REAPER makes no pre-distinction between tracks and busses. Any track can be used as a bus and any bus can be a track.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Input Trim for Track or Bus	Use trim fader in the track panel.	No real input trim. Use Volume (Pre FX) envelope or a JS Volume plug-in in FX chain.
Adjust Volume	Click and drag track volume fader.	Click and drag volume fader. Use Ctrl key for fine tuning adjustments *or* Scroll mousewheel over volume fader (this can be disabled in Preferences, Editing Behavior, Mouse) *or* Right click over volume fader and enter a value.
Adjust Pan	Click and drag track pan fader.	Click and drag pan fader. Use Ctrl key for fine tuning adjustments *or* Scroll mousewheel over pan fader (this can be disabled in Preferences, Editing Behavior, Mouse) *or* Right click over pan fader to over-write default pan law.
Mute Track (toggle)	Click on track mute button.	Click on track mute button, or right click for various mute options.
Solo Track (toggle)	Click on track solo button.	Click on track solo button, or right click for various solo options.
Solo in Front	Use Dim Solo button.	Options → Solo in Front. Use Audio page of Options → Preferences to configure.
Freeze/Unfreeze Track	Click on Freeze button.	REAPER does not fully support a freeze function. Create and use a freeze/unfreeze macro.
Set Automation Mode	Click on Read or Write button.	Right-click on Env button, choose one of Trim/Read, Read, Write, Latch or Touch.
Add FX to Track	Right click over track FX bin.	Click on FX button.
Save Track(s) as Track Template	Right-click, then Save as Track Template.	Select track(s), right-click, then Save Tracks as Track Template.
Group Parameters	Right click over parameter, then select a group or choose Group Manager.	Right click and choose Group Parameters (or use Group Matrix View).
Hide/Show Track	Right click and choose Hide Track, *or* Press M to display track manager	Right click and deselect Show track in track list, *or* Right-click, Filter Visibility by Track Name, *or* View → SWS Tracklist (requires installation of SWS Extension Pack).
Archive Track	Use track's Archive button.	REAPER does not support this feature. However, by default tracks that are muted and hidden will use no resources.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Change Track Order	Drag and drop - be careful!	Drag and drop (on track number) – be careful!
Use Mixer View	Views → Console. Use buttons on left to customize.	View → Mixer. Use right click menu (over background area) to customize.
Create a Send to a Bus	Create the bus, then right-click in track panel, Insert Send then choose bus.	Create an empty track to be used as a bus, then …. Drag and drop from the track I/O button to the bus I/O button, or Click on the track I/O button and add send, or Use the Routing Matrix View.
Create a Send to Another Track	SONAR does not support this feature.	Drag and drop from the source track I/O button to the destination track I/O button, or Click on the track I/O button and add send, or Use the Routing Matrix View.
Create Submixes	Create a bus. In the track panel for each track to be included in the submix, select the bus from the output drop down list.	Create a track to be used as submix and create sends from each track to be included. Disable direct output to Master for each of these tracks, or Insert a new empty track above the first track in the group. Click on its track folder icon once to make it a folder. Click twice on the track folder icon for the last track in the group.
Lock Track Controls (toggle)	SONAR does not support this feature.	Right click over track number, choose Lock Track Controls.
Show Bus/Track Peak Markers	Use Meter Options drop-down list on toolbar.	REAPER does not support this feature.
Bus Waveform Preview (toggle)	Use the bus Waveform Preview button.	REAPER does not support this feature.

Mouse and Keyboard Shortcuts, Tips and Techniques:

REAPER has numerous shortcuts and actions that can be used to control track display and visibility. Listed here are those most commonly used:

Track Display and Navigation Shortcuts

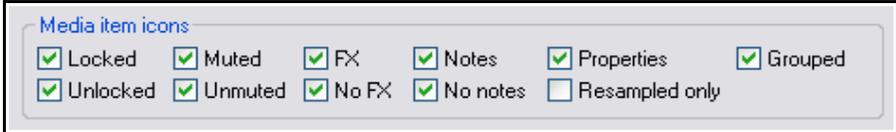|			
Drag between tracks with mouse	Adjust individual track height	W or Home	Go to start of project
PageUp	Increase all track heights (zoom in vertical)	End	Go to end of project
PageDown	Decrease all track heights (zoom out vertical)	Ctrl + Alt + Up	Go to previous track
` key	Toggle all tracks normal/minimized	Ctrl + Alt + Down	Go to next track
~ key	Toggle maximize track	Toggle View → Mixer	Ctrl + M
Double-click vertical scroll bar	Toggle minimize/normal/maximize	Ctrl + Alt + M	Show/Hide Master in Arrange View
+	Zoom out horizontal	Mousewheel	Zoom in/out horizontal
-	Zoom out horizontal	Ctrl + Mousewheel	Zoom in/out vertical
Ctrl + PageDown	Zoom to project length		

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5. Media Item Management Basics

Section Overview

REAPER and SONAR superficially have quite similar approaches to managing and editing media items: however, the deeper you dig, the greater the differences. The information on this page should at least get you started. Some points to note:

- Fade-ins, fade-outs and slip edits are handled similarly by both programs.
- Basic techniques for copying, moving and deleting items are quite similar. REAPER also has many nudge options, including a Nudge window (right-click, Nudge Items).

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Insert Media Item	File → Import *or* use Loop Explorer.	Insert → Media File *or* use Media Explorer (View → Media Explorer).
Modify Clip/Item Properties	Right click, choose Clip Properties.	Right-click, choose Item Properties (*or* press F2). Many of the options available are equivalent.
Display Media Item Icons	FX button will be displayed if FX have been added to the media item. Other icons used include mute clip and lock clip.	Options → Preferences, then Appearance, Media. Enable/disable as you wish.
Open MIDI Item with MIDI Editor (Piano Roll View)	Double-click on item.	Double-click on item. At a glance, the two MIDI Editors appear quite similar, but there are many fundamental differences. For example, SONAR makes extensive use of tools, REAPER of actions.
Open MIDI Item with In-Line Editor	Click PRV button in track pane.	Select item, right-click, Open Items in Editor → Open in In-Line Editor.
Open Audio Items with External Audio Editor	Tools → Select Editing program from menu.	Right-click on item, then Open Items in Editor → Open Items with editor as specified in Options → Preferences then External Editors.
Snap to Grid (settings and enable)	Use Snap to Grid button/combo on toolbar.	Options → Show Grid Settings, *or* use Grid button on main toolbar.
Ripple Editing	SONAR does not support this feature.	Options → Ripple Editing (toggles one track, all tracks, off)
Add FX to Media Item	Right-click, Insert Effect	Click on item FX button, *or* Right-click, Take → Show FX Chain for Active Take, *or* Shift + E
Toggle Display of Takes in Lanes	Use track's Track Layers Button *or* Tracks → Layers → Show Layers	Options → Show All Takes in Lanes *or* Ctrl+ L

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Use Navigator View	Views → Navigator.	View → Navigator.
Adjust Take Volume	Closest equivalent is the track Trim Fader.	Click and drag down from top edge of of item to lower: Shift click and drag up from top edge of item to increase.
Show Media Item Envelopes	Right-click, Envelopes → Create Clip Envelope	Right click, Take, then Take Volume Envelope, or Take Pan Envelope, or Take Mute Envelope.
Split Media Item	Select item, position cursor, press S	Select item, position cursor, press S.
Create Loop From Item	Right-click, Clip Properties, then Audio Stretching, then Enable Looping	By default REAPER's media items are loop enabled. To toggle this status off/on, right click, Item Settings → Loop Item Source.
Mute Part of Media Item	Use Mute tool.	Create a custom action to split and mute, or use track or take Mute envelope.
Mute Media Item (toggle)	Right-click, More → Clip Mute/Unmute	Right-click, Item Settings → Mute *or* use item mute button.
Lock Media Item (toggle)	Right-click, More → Clip Lock/Unlock	Right-click, Item Settings → Lock Item *or* use item lock button.
Render Item	Right-click, Bounce to Clip	Right-click then select one of the Apply Track FX or Render Items options.
Group Media Items	Select media items, right-click, then Create Selection Group from Clips.	Select items, right click Group → Group Items.
Manage Grouped Media Items Status	SONAR has no real equivalent.	Select items, right click Group, then choose from menu.
Nudge Items	Process → Nudge from main menu, or use keyboard shortcuts.	Use keyboard shortcuts (see below), or right-click then choose Nudge Items ... for Nudge dialog box.

Keyboard Shortcuts, Tips and Techniques:

View/Edit Item Properties	F2	Split Item(s) at Cursor	S
View Source Media Properties	Ctrl + F2	Split Item(s) at Time Selection	Shift + S
Cut Selected Area of Item	Ctrl + Delete	Nudge item(s) up/left/right/down	Num Lock 2/4/6/8
Copy Selected Area of Items	Ctrl + Shift + C	Nudge contents of item left/right	Num Lock 1/3
Copy Loop of Selected Area of Items	Ctrl + Alt + L	Grow/Shrink left edge of item	Ctrl + Num Lock 4/6
Time stretch (warp) item	Alt click and drag from start or end	Grow/Shrink right edge of item	Alt + Nim Lock 6/4
Show FX Chain for Active Take	Shift + E	Move cursor to left/right edge of item	Ctrl + [/ Ctrl +]

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6. Managing and Editing MIDI Items

The way in which MIDI items are managed and edited in REAPER is very significantly different from SONAR. This really is an area where you may need to take some time to adjust to the differences. The following table contains some useful pointers.

Task/Activity	In SONAR you did this …	In REAPER you do this …
Create MIDI Items	Record, or use Piano Roll View.	Record, or select track and make time selection, then Insert → New MIDI Item. Double-click on this to open MIDI Editor.
Loop Enable MIDI Item	Clip Properties → Enable Looping	By default, all media items (including MIDI) are loop enabled. This can be changed for individual items (or selections of items) using the Item Settings → Loop Item Source toggle command from the right-click context menu. To change the default behavior for new items, disable Loop source for new MIDI items in Project → Defaults.
Assign MIDI Items to a Synth.	Use a separate audio track or instrument track.	Insert Synth in track FX chain.
Assign Different Channels from the Same MIDI Item to Different Synths.	SONAR does not support this feature.	Use a separate send (track i/o button) for each channel that requires a separate instrument.
Edit MIDI Items or Clips	Use in-line Piano Roll, standard Piano Roll, or Event List View.	Double click to open in standard MIDI Editor or right-click and choose Open Items in Editor → Open Items in Inline Editor. Use View → Mode: event list in the standard MIDI editor for CCs and other events.
Manage Items in Sequence on a Single Track	All MIDI notes on the same track are essentially treated as a single clip (item). For example, all are accessible when you open the Piano Roll or Event List View. You may also Bounce to Clip to join a selection of shorter items.	Each item is separate and can be opened in its own MIDI Editor Window. By default, the dimensions of that MIDI Editor window will be constrained by the dimensions of the MIDI item. This issue simply does not arise in SONAR. If in REAPER you think you are likely to need to add notes (or other events) before an item, after an item, or between existing items then it would be wise to prepare for this *before* opening the MIDI Editor. To do this, you should disable the Loop Item Source option (right-click, then Item Settings, then disable the Loop Item Source toggle option), then stretch its edges outwards (slip edit style), *or* Join the items together, by selecting them, then right clicking and choose Glue Items from the context menu. See screen shots below table. This enables you to open them all together in the MIDI Editor and add notes in between the original items. You can also drag the edge of a loop disabled item in the MIDI Editor in order to extend it. Also, if within the MIDI Editor you insert a note that goes beyond the end of the item then that item will automatically be extended.

Task/Activity	In SONAR you did this …	In REAPER you do this …
Read Cakewalk .ins Instrument Definition File for Bank/Patch Names.	Options → Instruments, then click on Define, then Import. Select file, click on Open.	Right-click on track name or number and choose Show Track MIDI Controls. This opens ReaControl MIDI in the track FX chain. Display this, click on Load File, select file, then click on Open. ReaControl MIDI can also be used with individual MIDI items, via their FX chains.
Use Various MIDI Track Controls	Use widgets in track control panel.	Use the various ReaControl MIDI controls. Also, many JS MIDI plug-ins are available. Type "MIDI" in the FX Filter for a list.
Handling System Exclusive Data	Use Sysx View.	Drag and drop a .syx file directly on to the track to load directly into a track, *or* Use ReaControl MIDI: click on Sysex Edit button and paste data in. F0 and F7 are added automatically at the start and end respectively.
Export MIDI Data as MIDI File	File → Save As. For individual clips, Export→ MIDI Groove Clip	File → Export Project MIDI. For individual items, open in MIDI editor, then File→ Export to new MIDI File.
Add Lyrics to Project	Views → Lyrics.	REAPER has no lyrics view, but has rudimentary lyrics handling via text import. In the MIDI editor, choose Import Lyrics for Selected Notes from File from the Action list. Lyrics and other text can also be displayed directly on the item: Right-click, then Item Settings → Item Notes. You can then use the Load button to import a file, or paste text in.

Joining MIDI Items in REAPER

Before … two separate discrete MIDI items on a track.

After selecting both items and choosing **Glue Items** from the context menu.

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7. Plug-in and FX Management

Section Overview

Most SONAR users who come to REAPER find that at first they miss being able to manage a track's plug-ins directly from a bin in the track control panel (although these can be accessed directly in the Mixer view). However, you will soon discover that REAPER's FX Window includes an impressive selection of other features which should more than make up for this.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Add FX to a Track	Right-click over FX bin, then follow menu.	Click Add button on track FX window. Double-click on required FX or drag and drop.
Change Order of Track FX	Drag and drop.	Drag and drop.
Delete FX from Track	Select FX, press Delete.	Select FX, press Delete.
Bypass FX (toggle)	Use FX Bypass toggle in track FX bin.	Use FX Bypass toggle in track FX Chain window or FX window.
Rename and Reorganize Plugins	Tools → Cakewalk Plug-In Manager.	View → FX Browser.
Create FX Chain	SONAR does not support this feature.	Right-click on track FX chain then Save FX Chain *or* Save Selected FX as Chain.
Create Track Default FX Chain	SONAR does not support this feature.	Right-click on track FX chain then Save Chain as Default for New Tracks.
Add FX Chain to a Track	SONAR does not support this feature.	In FX Chain Window choose FX → Add FX Chain from top menu.
Rename Individual FX Instance	SONAR does not support this feature.	Select the FX, then press F2 *or* right-click, then Rename FX Instance.
Adjust FX Wet/Dry Mix	SONAR does not support this feature.	Use Wet/Dry rotary control next to bypass checkbox in FX window.
Use in Track Parallel FX Processing	SONAR does not support this feature.	Click on pin connector (labeled 4 in 2 out or similar) to assign FX inputs and outputs to specific channels. Use a JS mixer plug-in to mix different parallel FX streams.
Add Parameter Controls to Track Control Panel and Mixer Control Panel	Up to four controls per track can be displayed at any one time in Console View only.	Touch parameter control with mouse, then click on Param button in FX chain window. Choose Show in Track Controls.
Show per Track EQ in Mixer View.	Use EQ Plot and EQ toggle buttons in Console View.	Need to be added individually to each track (or use FX chains or track templates).
Manage Plug-in Preferences/Settings	Options → Global → VST Plug-ins	Options → Preferences then Plug-ins, VST, and ReWire/DX pages.

8. Automation

Section Overview

Both SONAR and REAPER use envelopes to automate track and FX parameter data, but their respective feature sets are significantly different. This table should help steer you thru these. Probably the most significant difference between the two is that SONAR does not support Parameter Modulation.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Create Track Control or Send Envelope	Right-click on media item, Envelopes → Create Track Envelope then choose from menu.	Click on track Env button to display envelopes window for track, then check boxes for envelopes required, *or* use keyboard shortcuts (V for Volume, P for Pan).
Create Track FX Parameter Envelope	Right-click on media item, Envelopes → Create Track Envelope then select FX, then select parameter.	Click on track Env button to display envelopes window for track, then check boxes for FX parameter for envelopes required, *or* In FX window, touch parameter with mouse then click on Param button, then Show Track Envelope.
Create Media Item Control Envelope	Right-click on media item, Envelopes → Create Clip Envelope then select parameter..	Right-click on media item, then Take, then select Volume, Mute or Pan envelope from submenu.
Create Item FX Parameter Envelope	Right-click media item, Envelopes → Create Clip Envelope then select FX and parameter.	REAPER does not support this feature.
Setting Automation Mode	Use Track Controls – Read or Write only.	Right-click on Env button, select one of Trim/Read, Read, Write, Touch, or Latch.
Global Automation Override	SONAR does not support this feature.	Right-click Global Automation Override button on Transport Bar.
Add/Manage Envelope Points	Use mouse.	Options → Preferences → Editing Behavior → Envelopes sets mouse behavior (click, shift-click, double-click, etc.) for adding, editing and resetting points, adjusting segments, etc.
Curve Shape and Other Options	Right-click on envelope.	Right-click on envelope.
Show Envelope in Separate Lane	SONAR does not support this feature.	Right-click on envelope, choose Show Envelope in Lane (toggle).
Draw Envelope Curves with Mouse	Select Envelope Draw tool, click and drag.	Depending on preferences, Ctrl-click and drag.
Envelope Bypass Mode (toggle).	Right-click envelope, then Automation Read Disable.	Right-click on envelope, then Bypass Envelope.
Parameter Modulation	SONAR does not support this feature.	Parameter Modulation is a very big topic. To cover it in detail would go beyond the scope of this document. In short,it lets you use any audio stream or FX parameter from any track to control the behavior of any FX parameter on itself or any other track.

From SONAR to REAPER

9. Loops, Markers and Regions

Section Overview

Both SONAR and REAPER use loops and markers to help you manage your projects. With the addition of the SWS Extensions, REAPER offers you several extra features. The information in this table assumes that the SWS Extensions have been installed. REAPER also uses regions, something that SONAR does not recognize.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Create Loop Selection	Click and drag along timeline, then Loop → Set Loop Points.	Click and drag along timeline.
Create Time Selection	Click and drag along timeline.	Click and drag in background area in Arrange View.
Link Loop Points to Time Selection	SONAR does not use this concept.	Options → Loop Points Linked to Time Selection (toggle).
Create Marker	Insert → Marker *or* (on the fly) press F11	Insert → Marker *or* (on the fly) press M or Shift+M.
Display Marker View	Views → Markers	View → SWS MarkerList.
Reorder/Renumber Markers	SONAR does this automatically.	Right-click in MarkerList window, Reorder Marker IDs
Go to Marker	Use Transport Bar or Markers window.	Type number or use MarkerList window.
Delete Marker	Select in Markers window, press Delete.	Alt click on marker in timeline, or right-click and choose Remove Marker.
Create Smart (Command) Markers	SONAR does not support this feature.	Begin marker name with ! Followed by command ID or IDs.
Create Marker Sets and Sub-Sets	SONAR does not support this feature.	Right-click in MarkerList window, Save Marker Set.
Recall Marker Set or Sub-Set	SONAR does not support this feature.	Right-click in MarkerList window, choose Load Markername.
Copy Markers to Another Project	SONAR does not support this feature.	Right-click in MarkerList window, Copy Marker Set to Clipboard. Open other project in new project tab, then right-click in MarkerList window, Paste Marker Set from Clipboard.
Create a Region	SONAR does not support this feature.	Define time selection, then either right-click on timeline, Create Region from Selection or press Shift+R.
Move Region	SONAR does not support this feature.	Click and drag along timeline.
Copy Region	SONAR does not support this feature.	Ctrl click and drag along timeline.

10. Project Rendering and Related Topics

Section Overview

With both SONAR and REAPER you can mix down and render your projects for export, for example, as internet ready MP3 or CD ready WAV files, or for export to other programs. The topics listed here fall loosely into this category. There are some interesting differences between the two feature sets.

Task/Activity	In SONAR you did this …	In REAPER you do this …
Export as OMF File	File → Export → OMF	REAPER does not support this feature.
Export as EDL or EDL Text File	SONAR does not support this feature.	File → Save As, then select file type.
Export Mix as Stereo MP3 File	File → Export → Audio. SONAR also includes Pyro Web Publisher.	File → Render. Select Stereo from Channels drop down list and MP3 as output format. Select Render Master Mix.
Export Mix as Stereo 16 bit WAV File (for audio CD)	File → Export → Audio. SONAR also includes Pyro CD Burner.	File → Render. Select Stereo from Channels drop down list and WAV as output format. Select Render Master Mix. Select Bit Depth 16, Sample rate 44100.
Export Individual Tracks as Separate Files	Various options and permutations available from Source Category drop-down list.	Include with your settings and specifications Render Stems (Selected Tracks).
Export in Multichannel Format	Requires Multichannel Format to have been specified in Surround tab of Project Options. Choose Multichannel from Channel Format drop-down list.	Along with your other settings, select the required number of Channels and if required enable the option Render Multichannel Tracks to Multichannel Files.
Import Audio from CD	File → Import → Audio CD.	Use the Media Explorer View. Drag and drop to arrange view.
Export Mix to Audio CD	After preparing projects to required format, Tools → Burn Audio CD.	After preparing project to required format, File → Render. Amongst other options, select Output Format Audio CD Image. See User Guide for details.
Batch Render Files	SONAR does not support this feature.	Prepare individual files in File → Render dialog box, clicking each time on Queue Render. Then File → Show Render Queue, with Render All or Render Selected.

From SONAR to REAPER

11. Customization

Section Overview

Understanding REAPER's customization lies at the very heart of really getting to grips with the program. Now read on ..

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Create Custom Actions	Some ability to bind keys to commands thru Options → Key Bindings. Cannot create custom actions or macros.	Use Actions → Show Actions List to access actions editor. Any command can be assigned a keyboard shortcut. Many hundreds of additional actions that can be assigned to keyboard shortcuts, menus, toolbars, or control devices. Any number of actions can be chained together to create custom macros, also assignable to keyboard shortcuts, menus, toolbars, or control devices.
Custom Menus	Use Options → Menu Editor to rearrange SONAR menus, including hiding unwanted commands.	Use Options → Customize Menus/Toolbars to customize menus and/or toolbars. You can rearrange REAPER's menus, including hiding unwanted commands. You can also add REAPER actions and your own custom actions to REAPER menus and toolbars.
Custom Toolbars	Right-click on any displayed toolbar and choose Customize. Finite range of custom tools is available.	
Custom Colors and Skins	SONAR supports custom color schemes but is not skinnable.	Use Options → Preferences then Appearance, Theme Editor to modify or create your own color schemes. You can also create and import your own skins.

12. Miscellaneous: What Else Is Similar, What's Different and What's Missing?

Section Overview

This section summarizes in overview those areas where SONAR and REAPER are most significantly different. Also included here are some features that are present in one or other of these DAWs but not the other.

Task/Activity	In SONAR you did this ...	In REAPER you do this ...
Assign Parameter Controls to Control Surface	Use ACT.	REAPER handles this very differently, via Param button in FX window and Actions list editor.
Create/Use Audio/MIDI Matrix	Use Matrix View.	REAPER does not have a Matrix view.
Edit Notation or Lyrics	Use Staff View or Lyrics View.	REAPER does not include a Staff View or Lyrics view, but you can use an external MIDI Editor for this.
Stretch and fit items to tempo, etc.	Use Audio Snap.	The closest equivalent to this in REAPER is Dynamic Splitting: right-click on media item, then Item Processing → Dynamic Split Items.
Automatically correct vocal pitch	Use V-Vocal.	The closest equivalent in REAPER is the Cockos VST plug-in ReaTune.
Surround panning	Use the Surround Panner.	REAPER does not have a surround panner. You can mix for surround sound in REAPER, but if you wish to do so it is advisable to use a third party VST plug-in.
Automatically color tracks according to the label	SONAR does not support this feature.	View → SWS Auto Color (requires SWS extensions).
Create and manage mixer snapshots	SONAR does not support this feature.	View → SWS Snapshots (requires SWS extensions). Snapshots allow many different mixer, track, FX, etc. settings (and different permutations of these) to be saved and recalled within a single project file, and even to be copied between project files.
Create and manage screen sets	Use Views → Layouts window to create and manage layouts.	View → Screen Sets. Screen sets allow different windows and track layouts to be saved and instantly recalled.
Monitor and manage CPU, disk and RAM performance	SONAR displays only minimal information on its CPU and Disk meters.	View → Performance Meter for comprehensive performance management. Double-click on any track name in the Performance Meter Window to open FX window for that track.