Manual Addendum

Document authored by: Adam Hanley, Aleksander Rebane

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Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

Germany

Native Instruments GmbH
Schlesische Str. 29-30
D-10997 Berlin
Germany
www.native-instruments.de

USA

Native Instruments North America, Inc.
6725 Sunset Boulevard
5th Floor
Los Angeles, CA 90028
USA
www.native-instruments.com

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1 What's New in REAKTOR 5.7?

Welcome to REAKTOR! This manual addendum provides information about the new features in version 5.7 of REAKTOR. Here is a brief overview of the most important changes and additions:

- Improved loading times (↑1.1, Compiled Core Cell Code Cache)
- ↑1.2, Explicit Play and Edit Modes
- ↑1.3, Screensets
- ↑1.4, Universal Wire Debugging Mode
- ↑1.5, Layout and Transport Changes

1.1 Compiled Core Cell Code Cache

When opening an Ensemble with large Core Cell structures in REAKTOR 5.7, a cache file of the compiled Core Cell code is saved on your hard drive. When you next load the Ensemble, REAKTOR will access this cache file, allowing it to skip this compiling stage of the loading process to significantly decrease loading times.

Important Details of the Compiled Core Cell Code Cache Feature

- The Compiled Core Cell Code is **only used when REAKTOR is in Play Mode** (see ↑1.2.1, Play Mode).
- **Switching to Edit Mode** (see ↑1.2.2, Edit Mode) when using Ensembles with large Core Cell structures causes a re-load of the Core Cells, which **can cause REAKTOR to pause momentarily**.
- The loading time optimization **only works for Ensembles saved with REAKTOR 5.7 or later**.

Default Cache Location

The default location of the Compiled Core Cell Code Cache is:

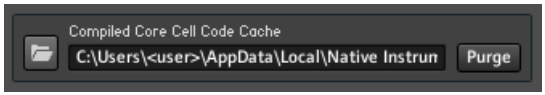
- On Windows: .../<user>/AppData/Local/Native Instruments/Reaktor5/Cache/

- On Mac OSX: .../<user>/Library/Application Support/Native Instruments/Reaktor5/Cache/

Changing the Compiled Core Cell Code Cache Location

To change the Compiled Core Cell Code Cache location:

1. Open the Preferences window by clicking on *Preferences...* in the File menu or by pressing [Ctrl] + [,] on PC or [Cmd] + [,] on Mac.
2. Navigate to the Directories tab. At the bottom of the Directories tab you will see an area labeled Compiled Core Cell Code Cache.



3. To change the Cache location, either click the browser button on the left to locate the target directory on your system, or type in the location manually.
4. Close the window.
5. If your operating system prompts you, allow REAKTOR to make changes to your hard drive.

Purging the Compiled Core Cell Code Cache

To delete all unused or corrupt files from the Cache directory, click on the Purge button in the Compiled Core Cell Code Cache preferences. These files will be deleted:

- Any Compiled Core Cell Code file for which the parent Ensemble can no longer be found
- Any corrupt Compiled Core Cell Code files

You can remove all of the files in the Cache manually, but REAKTOR will re-create the Compiled Core Cell Code files the next time you load Ensembles containing large Core Cell structures in Play mode.

1.2 Explicit Play and Edit Modes

New in REAKTOR 5.7 are dedicated Play and Edit modes that optimize REAKTOR for playing and for editing Ensembles.

1.2.1 Play Mode

REAKTOR 5.7 introduces a new Play Mode, which optimizes REAKTOR for the case of using, rather than editing Ensembles. The main benefits of Play Mode are:

- **Streamlined interface to maximize the Ensemble Panel space:** In Play mode, all of the editing controls are hidden and disabled, presenting a more streamlined workspace for those who do not need all of the editing capabilities of REAKTOR, but want to use instruments and effects built in REAKTOR.
- **Optimized loading times for Ensembles:** Play Mode is required to be active in order for REAKTOR to use the new Compiled Core Cell Code Cache, and so can decrease loading times of larger Ensembles significantly.
- **Easier use of REAKTOR as a plug-in:** Play Mode also makes working with REAKTOR as a plug-in easier by disabling any control options that are not saved in a Host Chunk — that is to say, any options that require you to save the Ensemble file when you are using REAKTOR as a plug-in. This means you no longer need to worry about the auto-save functions and host recall for your projects.

Features and Options Unavailable in Play Mode

The following controls and options are disabled when using Play Mode:

- Entering the Ensemble structure
- Editing the Panel
- Storing and recalling Panelsets
- Viewing or editing the properties of any element
- Changing the Control Rate or Sample Rate
- Snapshot and Bank editing (though loading snapshots is still possible, saving is only possible by saving with the Host Chunk or by saving a single preset)
- Sample Map editing
- MIDI Learn

1.2.2 Edit Mode

Toggle Edit Mode

REAKTOR 5.7 now has an explicit Edit Mode that is similar to the classic workspace of previous REAKTOR versions. In this mode, all of the controls related to changing the structure or options of an Ensemble are present and visible.

► To activate Edit Mode, click on the button with the Structure icon to the left of the Snapshot Selection menu in the Header or use the keyboard shortcut [F1].

A comparison of Sinebeats2 in Edit Mode on the left, and in Play Mode on the right

The Edit Mode setting is persistent between sessions when using REAKTOR in stand-alone mode. If you use REAKTOR mainly to build or edit your own Ensembles, it is possible to activate Edit Mode and leave REAKTOR in this state for each time you return to it.

Creating a new Ensemble will automatically activate Edit Mode.

1.3 Screensets

Screensets are a new tool to help you navigate your Ensembles. They are located in the sidebar, below the Debug and MIDI Learn buttons.

The Screensets are located in the sidebar

Screensets are like Bookmarks from previous REAKTOR versions, but include two major improvements: the use of keyboard shortcuts, and saving the state of your workspace — your current workspace set up is automatically saved in your currently selected Screenset.

The icon for a specific Screenset depends on its contents (Pane, Structure, or both) and the orientation of the screen split (if used).

Any Ensembles created or saved in a REAKTOR version earlier than 5.7 will have their Bookmarks imported as Screensets. A new Ensemble will automatically have two Screensets: The Panel, and the Ensemble structure.

1.3.1 Creating Screensets

To create a new Screenset, either

- ► click the + button below the Screensets, or
- ► pressing [Ctrl] + [T] ([Cmd] + [T] on Mac) on your computer keyboard.

1.3.2 Deleting Screensets

To delete a Screenset, either

- ► right-click the Screenset icon and select *Delete Screenset*, or

- ► close all of the Panes in the workspace.

[Ctrl] + [F4] ([Cmd] + [W] on Mac) closes your current Pane. If this closes the Screenset, then it is removed from the list.

1.3.3 Navigating Screensets

The following keyboard shortcuts have been added to make navigation of your Ensembles even quicker and easier.

Action	Mac OS X	Windows
Append Screenset	[Cmd] + [T]	[Ctrl] + [T]
Recall Screenset 1…8	[Ctrl] + [Cmd] + [1…8]	[Ctrl] + [Alt] + [1…8]

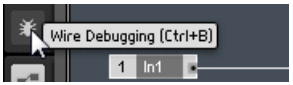
Action	Mac OS X	Windows
Next Screenset	[Ctrl] + [Tab]	[Ctrl] + [Tab]
Previous Screenset	[Ctrl] + [Shift] + [Tab]	[Ctrl] + [Shift] + [Tab]
Close Pane / Screenset	[Cmd] + [W]	[Ctrl] + [F4]

► To select a specific Screenset, click on the corresponding icon.

1.4 Universal Wire Debugging Mode

In REAKTOR 5.7 there is no longer a distinction between debugging wire values in Primary or Core. Instead, there is now one universal debugging mode that remains persistent when navigating between Core and Primary structures. As an added benefit, viewing the values of cables in Primary is now no longer linked to the Info Hints setting.

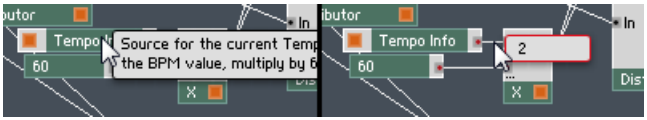
► To activate Wire Debugging Mode, either click on the bug icon below the MIDI Learn button in the Sidebar, or press [Ctrl] + [B] ([Cmd] + [B] on Mac).



Enable Wire Debugging

► To view a wire's value, hover the mouse cursor over the wire.

The format in which the values are presented have been updated slightly to highlight the difference between wire values and Info Hints.



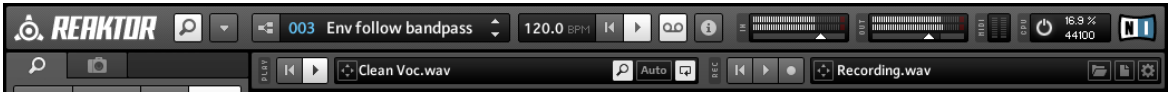
A comparison between Info Hints (left) and a wire value (right)

1.5 Layout and Transport Changes

The main changes to the layout of REAKTOR 5.7 are:

- Edit Mode button in Header.
- Changes to the Sidebar to include Screensets.
- Audio Recorder and Player have moved into the Header area.

Updated transport controls.



The Updated Header, including the Recorder Bar

The Transport controls have been updated to work in a more logical fashion:

- The Play button starts and pauses playback.
- The Restart button sets the Song Position to zero, but will not alter the playback state.

2 What's New in REAKTOR 5.6.2?

The following are a list of changes introduced before 5.7, but that are still applicable to the addendum:

- 64-bit support for Windows and OS X
- New Module Reference manual
- Simplified handling of Snapshots
- Easily save the state of an existing Ensemble as a Preset file
- Quickly navigate Structures using the breadcrumb navigation feature
- Scroll the Structure with [Alt]+Drag
- Show the previous Structure with [Alt]+[B]
- Show the contents of a Macro in the other Split Pane with [Alt] + double-click on the Macro
- Add Objects to the Structure using the Searchbox (just press [Enter] in Structure View)
- Delete Objects and Wires using [Backspace] or [Delete]
- Duplicate Objects with [Ctrl] + Drag ([Alt] + Drag on OS X)
- Drag copies of Objects to the other Split Pane with [Ctrl] + Drag ([Cmd] + Drag in OS X)
- Navigate to the parent folder in the Browser's folder tree with Left Arrow
- The Recorder Bar now shows the recorded time when recording
- The XY Module now features the "transparency" and "hide frame" properties
- Improved loading time for Ensembles with many Send and Receive Modules
- Added "Abort" function to the File Not Found dialog upon project recall
- Changed keyboard shortcuts

Bug fixes and latest changes of this update are documented in the README.TXT file which was copied to your hard disk along with this document. For all other questions regarding REAKTOR, please refer to the Getting Started Manual, Application Reference, and Module Reference. This addendum assumes that you have a basic understanding of what is explained there.

2.1 Improved Structure Navigation

REAKTOR version 5.6.2 now comes with a number of usability enhancements that make navigating Structures a breeze.

2.1.1 Breadcrumb Navigation

The breadcrumb navigation feature lets you directly access different hierarchy levels of the Structure. This feature is activated when Edit mode is turned on. The breadcrumb navigation basically displays a view of the hierarchical levels above the currently shown Ensemble Structure. To jump to a higher level, just click its entry in the path display. REAKTOR also displays the last lower-level Structure you visited, so that you can quickly return to that Structre's level with a mouse click. For a walkthrough of the breadcrumb feature, follow these instructions:

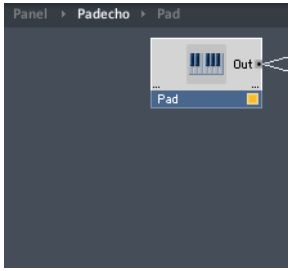
1. First, open an existing Ensemble with at least a couple of Structure hierarchy levels. Here we use Padecho.ens, found in the Factory Content section of the Browser. More precisely, it is located under *Ensembles > Tutorial Ensembles > Padecho.ens*.

2. Make sure you are in the Ensemble's Panel View, as shown in the figure below.

3. Now turn on the Ensemble's Edit mode by using the keyboard shortcut [F1] or by pressing the Edit button, shown in the figure below.

4. Now you should see the breadcrumb navigation, as shown in the figure below. It displays a hierarchical view of the Ensemble Structure, including the Panel. The current location is highlighted. In our case we are in Panel View, so the Panel entry in the path interface is highlighted (see figure below). To navigate one level down in the Structure using the breadcrumb navigation, left-click the next path element.

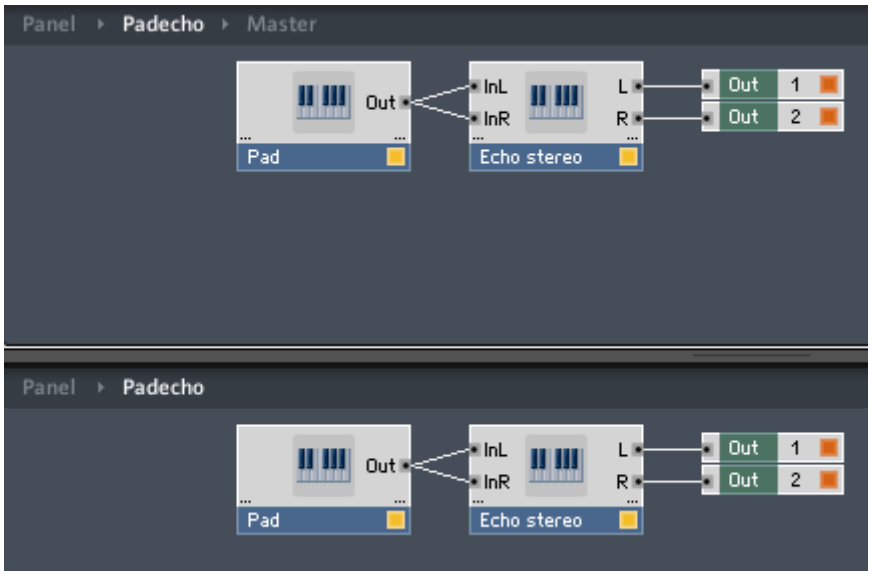
5. As expected, you have navigated one level down in the Structure. Accordingly, the corresponding path entry is highlighted. This is shown in the figure below.



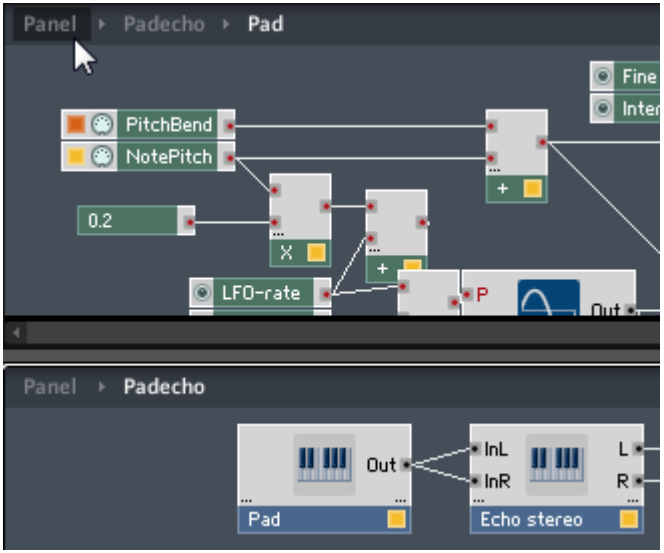
6. Now let's split the Structure by left-clicking the Horizontal Split button, shown in the figure below. Alternatively you can use the keyboard shortcut [F2].

7. You should see the Split View with two Structures, as shown in the figure below. Note that each Split Pane has its own breadcrumb navigation interface. In the top Pane, navigate one level deeper into the Structure. The breadcrumb navigation shows the lowest level in the Structure navigated to. In the case of the figure below, the Master Instrument was the lowest Structure level visited. The idea of the breadcrumb navigation is to easily navigate through complex Structures. If the breadcrumb navigation does not display all of the Structure's levels, just navigate as usual by double-clicking the desired Objects in the

Structure. This will add the levels you have visited to the breadcrumb navigation bar. Both Split Views have their own breadcrumb navigation interface:



→ The figure below shows the result of the last navigation operation. Each of the Split Panes can be navigated independently with their own breadcrumb navigation interfaces.



To quickly toggle between the Panel View and the current Structure View:

► Press the Edit button (or [F1] key on your computer keyboard), shown in the figure below.

Use the Edit button to toggle the Edit mode on and off.

► Alternatively, you can use the Close button, shown in the figure below, to close a Split Pane. If only one Structure Pane is shown, pressing the Close button directly navigates you to the Panel View. Pressing the Close button in Panel View turns the Edit mode off.

The Close button at the very right of the breadcrumb navigation interface.

If you have reached Panel View by repeatedly pressing the Close button as described above and you then press the Edit button, you will return to the Split Pane setup displayed before you first pressed the Close button. That is, even if you first closed a Structure Split Pane, you will be returned to the Split View.

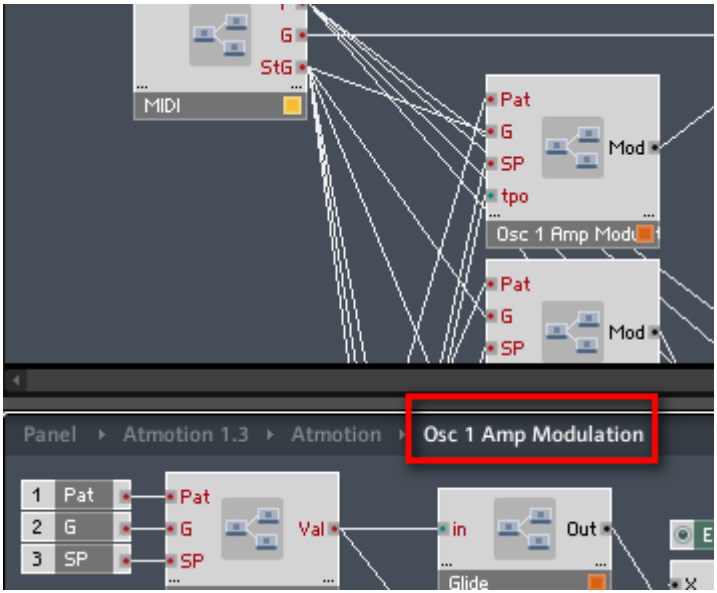
2.1.2 Other Structure Navigation Improvements

Opening a Macro in the Other Split Pane

► To show the contents of a Macro in the other Split Pane, double-click the Macro while holding down the [Alt] key. This is shown in the sequence of two figures below. The red outline indicates that the displayed Structure is indeed the contents of the Macro.

This also works for Instruments, Core Cells and Core Macros.

Open the contents of a Macro in the other Split Pane by double-clicking it while holding down the [Alt] key.

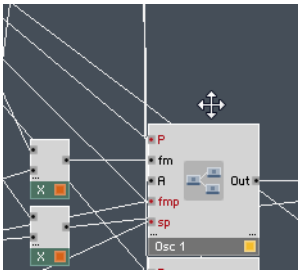


The breadcrumb navigation interface indicates that the content of the Structure is indeed that of the [Alt] + double-clicked Macro.

You can also perform the same action by right-clicking the Macro and selecting the *Structure in other Pane* menu entry.

Scrolling the Structure with the Mouse

► You can now scroll the Structure by clicking and dragging the Structure background while holding down the [Alt] key. During this operation the mouse cursor should change shape. This is shown for the case of Windows in the figure below.



Scroll the Structure by clicking and dragging while holding down the [Alt] key.

2.2 Improved Object Manipulation

In addition to the navigation improvements discussed in the previous chapter, building in REAKTOR has now been made faster and more efficient in a number of ways. For example, you can use the Searchbox to directly type in the name of the Object you wish to load without having to search around for the right menu entry. Also, new keyboard shortcuts have been implemented so that you can quickly duplicate Objects, even between different Split Panes.

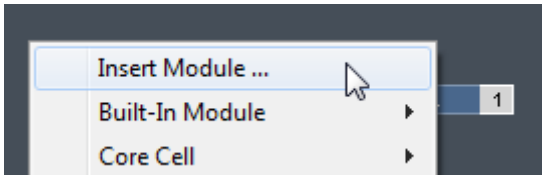
2.2.1 Adding Objects with the Searchbox

To add Objects to the Structure using the Searchbox, follow the instructions below:

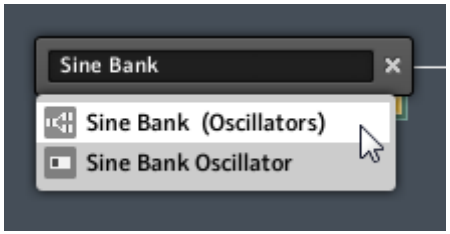
1. With the keyboard focus in the Structure View, press the [Enter]/[Return] key or use the combination [Ctrl]+[F] in Windows ([Cmd]+[F] in Mac OS X). This opens up the Searchbox, as shown in the first figure below.

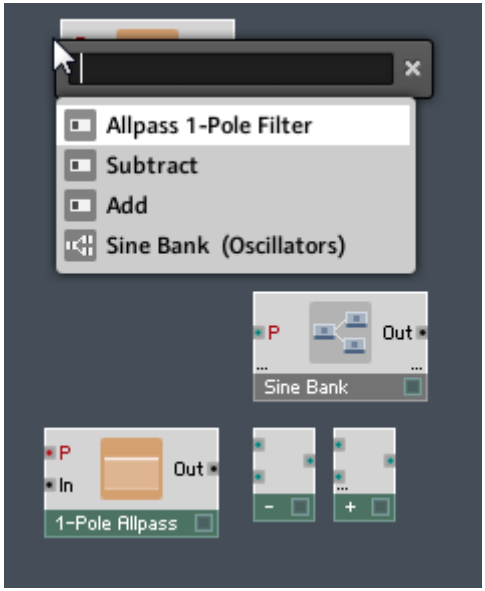
   Alternatively, you can right-click the Structure background and choose the *Insert Module …* menu entry. This is shown in the second figure below.

2. Once the Searchbox has been opened, start typing the name of the Object you wish to place into the Structure. As shown in the figure below, typing "Sine Bank" narrows down the menu of Objects down to the Sine Bank Oscillator Module and the Sine Bank Macro.



3. Now choose the Object you wish to load by navigating to the corresponding menu entry using the [Up] and [Down] Arrow keys or simply by clicking on the menu entry.
4. After having added some Objects with the Searchbox notice how the last eight Objects you added automatically appear in the Searchbox menu before you have typed anything in the edit field. This is shown in the figure below.



→ The last eight Objects that were added using the Searchbox appear in the menu right after opening the Searchbox.

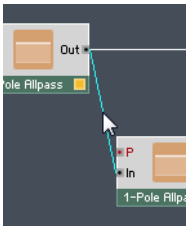
If you wish to close the Searchbox without adding anything to the Structure, just press the x icon at the right of the Searchbox (or the [ESC] key on your computer keyboard).

2.2.2 Other Structure Workflow Improvements

Additionally to the Searchbox, improvements have been made in the way Objects are removed, copied, and duplicated in Structure View.

Deleting Wires and Objects Using Backspace or Delete

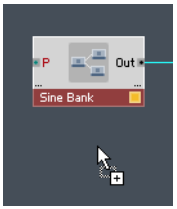
► To delete a Wire or Object from the Structure, just select the desired element and press the [Backspace] or [Delete] key. A selected Wire is shown in the figure below.



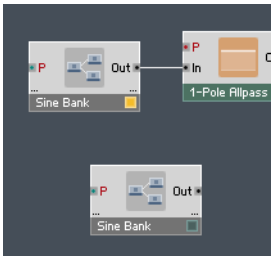
You can now use either the [Backspace] key or [Delete] key to remove Objects and Wires from the Structure.

Duplicating Objects with Ctrl-Drag

► You can now quickly duplicate Objects in the Structure by holding down [Ctrl] in Windows ([Alt] in Mac OS X) and then clicking an Object and dragging to an empty part of the Structure. A duplicate of that Object will appear at the site of the Structure where you release the mouse button. This sequence of two steps is shown in the two figures below.



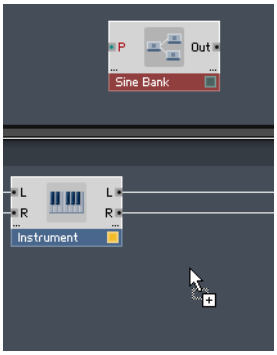
To duplicate an Object, hold down [Ctrl] in Windows ([Alt] in Mac OS X) and click and drag the Object to an empty part of the Structure.



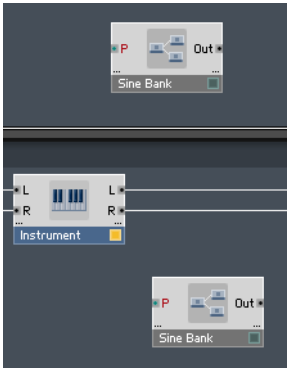
The duplicate Object will appear in the part of the Structure where you release the mouse button.

Copying Objects to the Other Split Pane

► You can now easily copy Objects from one Structure Split Pane to the other by holding down [Ctrl] in Windows ([Alt] in Mac OS X) and then clicking and Object and dragging to an empty part of the other Split Pane. A duplicate of the selected Object will appear at the site of the other Split Pane Structure where you release the mouse button. This sequence of two steps is shown in the two figures below.



To copy an Object to the other Split Pane Structure, hold down [Ctrl] in Windows ([Alt] in Mac OS X) and click and drag the Object to an empty part of the other Split Pane Structure.



A copy of the Object will appear in the part of the other Split Pane Structure where you released the mouse button.

2.3 Miscellaneous Improvements

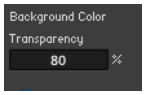
This chapter covers various improvements, such as new hat propeties in the XY Module, 64 Bit compatibility, quicker Browser navigation and the improved Recorder Bar display.

2.3.1 XY Module

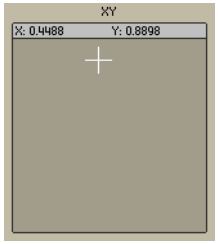
The XY Module now features the transparency property and the option to hide the frame in Panel View.

Panel Element Transparency Setting

1. To turn on transparency for the background of the XY Module's Panel Element, first go to the Module's Properties View.
2. Then enter the View page.
3. Now enter the desired transparency value into the Background Color Transparency edit field, shown in the figure below. '100' corresponds to completely transparent and '0' corresponds to completely opaque.



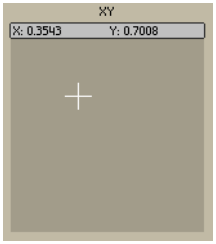
4. The result of an 80% transparency value is shown in the figure below. If need be, go to the Instrument's Panel View to see the result of your transparency setting.



Hiding the Panel Element's Frame

1. To hide or display XY Module's frame in Panel View, first go to the Module's Properties View.
2. Then enter the View page.
3. To hide the XY Module's frame, disengage the Has Frame checkbox, shown in the figure below. On the other hand, to display the frame, make sure the Has Frame checkbox is engaged.

4. The result of hiding the Panel Element's frame is shown in the figure below. If need be, go to the Instrument's Panel View to see the result of hiding the frame. The XY Module's Panel Element without the frame:



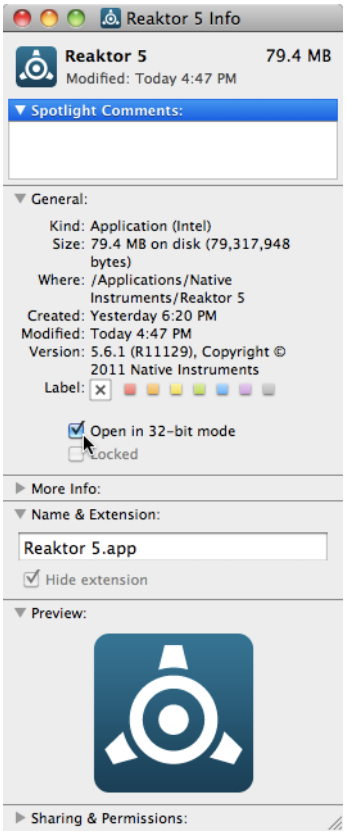
2.3.2 64 Bit Support

REAKTOR is now compatible with 64-bit processor architectures. This will enhance your REAKTOR experience provided that you are running REAKTOR on a computer that utilizes a 64-bit processor. On 64-bit Windows operating systems, you can select where to install the 32-bit and 64-bit plug-in versions of REAKTOR during the REAKTOR installation procedure.

Mac OS X: Switching between 32-Bit and 64-Bit Mode

In Mac OS X you can switch between running REAKTOR in 32-bit and 64-bit modes:

1. To switch between running REAKTOR in 32-bit and 64-bit mode (in Mac OS X), open the Get Info window by pressing [Cmd]+[F] on the Reaktor 5.app in the OS X "finder" application.
2. Then use the Open in 32-bit mode checkbox to toggle the 32-bit mode on and off. This is shown in the figure below.

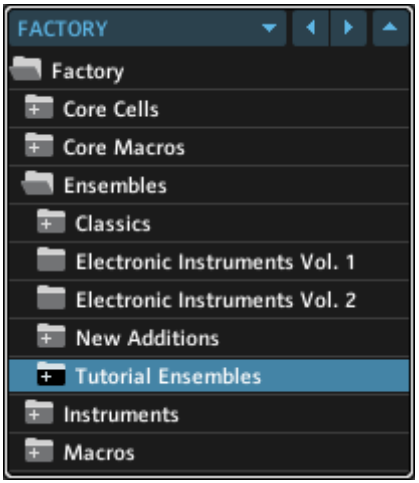


Engage the "Open in 32-bit mode" checkbox to run REAKTOR in 32-Bit mode (in Mac OS X).

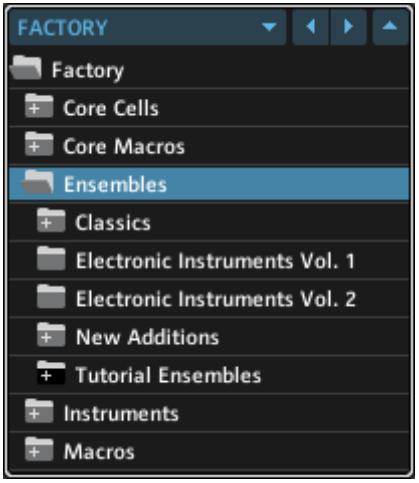
2.3.3 Browser Navigation

Browser navigation has been improved by letting you navigate to the parent folder in the Browser's folder tree with the left Arrow key. The instructions below demonstrate this feature:

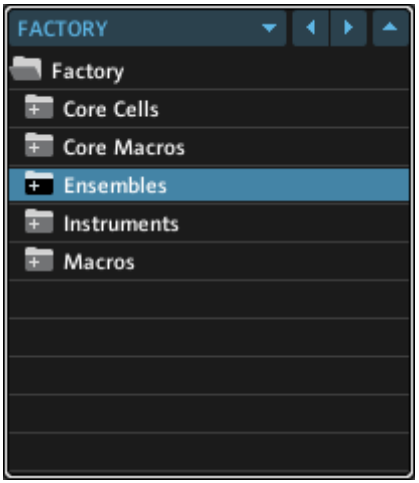
1. Open the Browser and in the folder tree, navigate to a folder which lies within another folder. This is shown in the figure below, where the folder tree has the Tutorial Ensembles folder selected. This folder lies within the Ensembles folder.



2. Now press the left Arrow. If the selected folder is in its "closed" state, this will select the parent folder. In our case this is the Ensembles folder, shown in the figure below.



3. Press the left Arrow key again. In the case of an "open" folder, this closes the folder's branch in the folder tree, as is shown in the figure below. The right Arrow key opens the folder in the folder tree again.



2.3.4 Recorder Bar

The Recorder Bar now conveniently displays the length of the time interval recorded. This is shown in the figure below.

The Recorder Bar displays the recorded time of the current recording.

2.3.5 Supported Graphics Formats

As from REAKTOR 5.6, Modules capable of loading graphics files support the PNG file format, in addition to TGA and BMP graphics files. Independent of the file format, the loaded graphics files can be used as Picture, Multipicture, Knob, etc.

2.4 Snapshots

How to Read this Chapter

REAKTOR 5.6.2 features simplified Snapshot handling. Additionally, you can easily save and load the complete state of an existing Ensemble as a handy Preset file. This chapter may be read in two ways, depending on what you already know about the Snapshot tab:

- If you are already familiar with the Snapshot tab of REAKTOR 5.5, and have read the chapter on the Snapshot tab in the Application Reference, you can get a good overview of the differences between the new and old Snapshot behavior by just reading sections ↑2.4.8, Defining Snapshot Behavior for Instruments and ↑2.4.9, Opening and Saving Presets. Use the cross-reference links to directly jump to these sections.
- For those who are not yet familiar with REAKTOR's Snapshot tab, you should read the whole chapter, as it contains a complete guide to using the Snapshot tab, including the new features.

What are Snapshots?

Snapshots (also known as patches, programs, or presets) enable you to store and recall an Instrument's sounds. When you create a Snapshot, the current settings of all the Instrument's Panel controls and MIDI controllers are stored in the Snapshot. Among the Panel controls, settings like the knob and fader positions, list box and switch settings, and button states are saved. When you recall a Snapshot, all the Instrument's controls are restored to the settings they were in when the Snapshot was originally created. Each REAKTOR Instrument can store 16 Snapshot Banks containing 128 Snapshots each, for a total of 2048 Snapshots. In this chapter you will learn how to recall and create Snapshots in addition to working with Snapshot Banks and features like “Snapshot Compare” and “Snapshot Randomize”. All of these features are accessed from the Snapshot tab (see below).

The Snapshot tab lets you do all the possible Snapshot operations in REAKTOR.

2.4.1 Recalling Snapshots

There are five different methods you can use to recall an Instrument's Snapshots:

- The first way to recall a Snapshot is by using your mouse to select the desired Snapshot from the Snapshot drop-down menu in the header, shown in the figure below. When using REAKTOR as a plug-in, it is this Ensemble Snapshot List which is forwarded to the host application. The Snapshot List always shows the Snapshots of the Ensemble or Instrument set as the Snapshot Master (see subsection ↑2.4.8, Defining Snapshot Behavior for Instruments). The Snapshot drop-down menu looks like this:

- You can also use your mouse to select Snapshots from the Snapshots drop-down menu in the Instrument Header (shown in the figure below). With the Instrument header selected, you can use the Up and Down arrow keys on your computer keyboard to select previous and next Snapshots, respectively. The Snapshot drop-down menu in the instrument header:

- Another option is to go to the Snapshots tab. In the Snapshot tab you first need to select the desired Instrument (or Ensemble) for which the Snapshot recall is to take place. This is done using the Select Instrument drop-down menu shown in the figure below. Then click on the Snapshot you wish to recall in the Snapshot List.

- Additionally, you can select Snapshots by sending MIDI Program Change messages from a MIDI keyboard (or some other MIDI device). For this to work, the Recall by MIDI checkbox in the Function page (see subsection ↑2.4.8, Defining Snapshot Behavior for Instruments) of the corresponding Instrument's Properties should be engaged. The MIDI Program Change message selects a Snapshot by its number (an integer in the range [0 … 127]). A Program Change value of “0” selects the first Snapshot, a Program Change value of “1” selects the second Snapshot, and so on. The Recall by MIDI checkbox:

- Last, if you are a REAKTOR builder, you can use the Snapshot Module to recall, store, randomize, and morph Snapshots. Please read the entry of the Snapshot Module in the Module reference for more information on this Module.

Parent and Child Instruments

Any Instrument that contains another Instrument is called a "parent" Instrument. For example, an Ensemble (top-level Instrument) that contains another Instrument is a "parent" Instrument. A "child" Instrument is an Instrument that is contained within another ("parent") Instrument.

Recalling a "parent" Instrument's Snapshot recalls the Snapshots of "child" Instruments as well, but only if the Snap Isolate checkbox in the respective Instrument's Function page is disengaged (see section ↑2.4.8, Defining Snapshot Behavior for Instruments for more information on this).

Note that recalling a "parent" Instrument Snapshot not only recalls the "child" Instrument's Snapshot that was loaded at the time of storing the "parent" Snapshot, but also sets the "child" Instrument's controls to the state in which the "parent" Snapshot was stored.

Selecting the Instrument for the Snapshot List

If you have several Instruments in your Ensemble, there will be a Snapshot List for each of these Instruments in the Snapshot tab. This will be the case even if some of these Instruments have no Snapshots at all; that Snapshot List will then be empty. The Snapshot tab can only display one Snapshot List at a time. How do you choose the Instrument for which the corresponding Snapshot List should be displayed? There are two ways:

- You can select the Instrument for which the Snapshots are displayed in the Snapshot List from the Select Instrument drop-down menu.
- Another option is to activate the Linked button. If this button is activated, the Snapshot List is linked to the Panel View. This means that if you select an Instrument in Panel View, its Snapshot List is automatically displayed in the Snapshot tab. If the Linked button is not active, you must use the Select Instrument drop-down menu explained above to manually choose which Instrument's Snapshots are displayed in the Snapshot List.

► To select the Ensemble Snapshot List with the Linked button activated, click an empty area of the Panel View where there is no Instrument Panel.

Making a Control Immune to Snapshot Recall

When you select a Snapshot, the Panel controls and MIDI controllers jump to their positions as stored in the Snapshot. In some cases you might not want this to happen. For example, you might create a sequencer with a BPM (tempo) knob whose settings you want to be independent of the Snapshot. To prevent a Panel control or MIDI controller from jumping to the position designated by the Snapshot, follow these instructions:

1. Double-click on the desired control like a knob, fader, list, or button.
2. This should have opened up the control's Properties View. Now click on the Function button:

3. Engage the Snap Isolate checkbox in the Snapshots area of the control's Function page:

Control IDs

Every REAKTOR Panel control has a unique ID number, as displayed in the ID for Files edit field in the control's Function page. This ID number is called the Control ID, and it is shown in the corresponding Edit field (see below).

The ID for Files edit field holds the value by which a Snapshot identifies the Panel control.

REAKTOR lets you change these Control IDs. Before you do so, you have to be aware of a few dangers that are tied to this. Snapshots assign specific (control) values to specific Control IDs. For example, Snapshot 1 might assign the value “0.5” to a knob with the Control ID “112” and the value “0.75” to a fader with the Control ID “222”, and so on. If you change the knob and fader Control IDs, it will change the values that Snapshot 1 assigns to these controls. Thus you can break Snapshots which you have worked on so arduously.

Do not change the Control ID Numbers unless you really have to. Be aware that changing Control ID Numbers breaks the Snapshots which were used for these controls.

2.4.2 Adding and Removing Snapshots

The basic operations that you can do with the Snapshot List are to add, overwrite, and remove Snapshots. This section describes which buttons you need to press for the different Snapshot List operations. Before pressing these buttons, though, you need to make sure that you are working with the Snapshot List of the intended Instrument. You can see which Instrument is selected with the Select Instrument drop-down menu. Also, you need to click the Append, Store, and Insert buttons *twice* for these operations to be finalized. The first click lights up the button and places a blinking cursor in the appended, stored, or inserted Snapshot slot, giving you the opportunity to type a name for it. The second click dims the button and saves the appended, overwritten, or inserted Snapshot.

The Select Instrument drop-down menu

> Remember to click *twice*! If you forget the second click, you might end up doing something very different from what you intended.

Appending Snapshots

If you want save the current Instrument settings as a new Snapshot to the first empty slot in the corresponding Snapshot List, then use the Append button in the Snapshot List Operations area. If the current Snapshot Bank is full, pressing the Append button causes the Snapshot to be saved to the first empty slot in the next Snapshot Bank. If there are no more empty Snapshot Slots, pressing the Append button causes nothing to happen. This would be the case when you have used up all 16 Snapshot Banks, each filled with 128 Snapshots.

The Append button

Inserting Snapshots

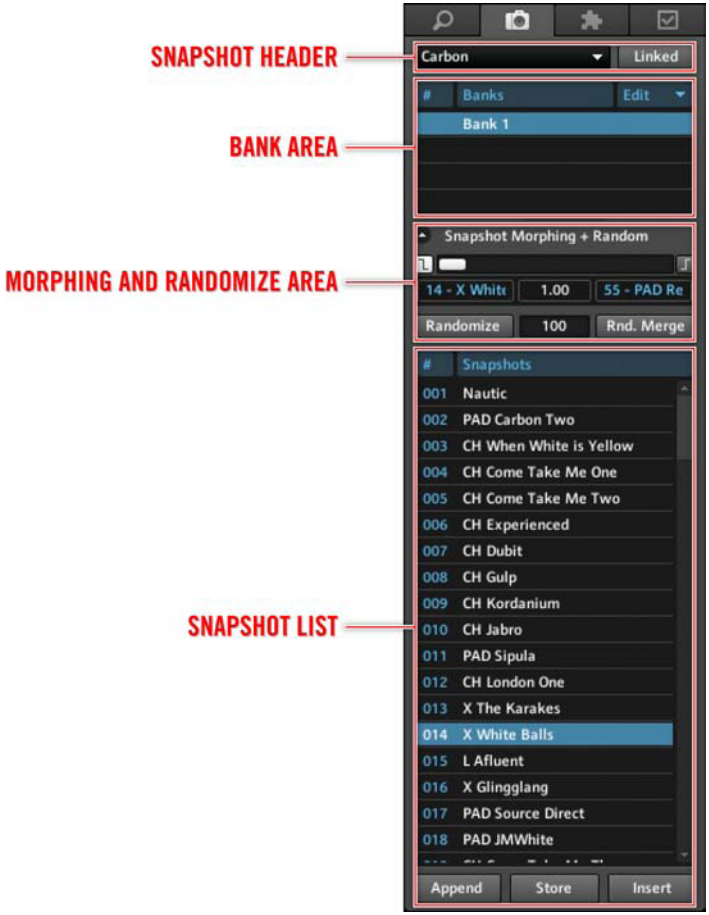
You can also save the current Instrument settings as a new Snapshot that is inserted into the Snapshot List directly after the selected Snapshot. To do this, press the Insert button in the Snapshot List Operations area. Note that this can cause Snapshots to move from the current Bank to the next Bank.

The Insert button

Overwriting Snapshots

To replace the selected Snapshot with the current Instrument settings, use the Store button. Note that when you overwrite a Snapshot in this way, you lose its original settings.

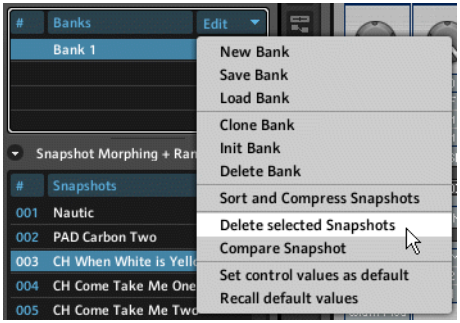
The Store button



The different areas of the Snapshot tab

Deleting Snapshots

If you want to delete one or more Snapshots from the Snapshot List, select the Snapshots and either press the Del key on your computer keyboard or choose the *Delete selected Snapshots* menu entry from the Edit Bank drop-down menu, as shown in the figure below.. Note that deleting Snapshots creates empty slots in the Snapshot List; you can use the *Sort and Compress Snapshots* entry from the Edit Bank drop-down menu to remove these gaps (see subsection ↑2.4.7, Snapshot Banks).



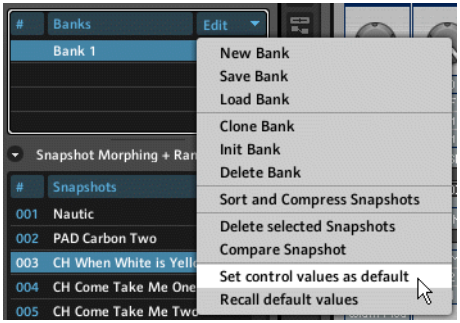
The Delete selected Snapshots menu entry.

Setting Instrument Settings to Default Values

You can change the settings of all Instrument controls (which do not have the Snap Isolate checkbox engaged, see section ↑2.4.1, Recalling Snapshots) to their default values. The Default value for a control is set with the Default edit field in the corresponding Module's Function page. You set the Instrument controls to their Default values by choosing the *Recall default values* menu entry (see figure below) from the Edit Bank drop-down menu. This changes the selected Snapshot's settings, but does not save the changed Snapshot. To do this, you must subsequently press the Store button.

The Store button

► Use the Set control values as default and Recall default values menu entries to set and recall default settings.



Setting Control Values as Default

You can acquire the current settings of all of the Instrument's controls as the Default values to be used when the state of a control is to be reset. This is also the case when applying the *Recall default values* menu entry discussed above.

2.4.3 Renaming and Copying Snapshots

Since there are no explicit “rename” and “copy” operations in the Snapshot tab, these two common tasks will be explained in this section.

Renaming Snapshots

There are two ways to rename an existing Snapshot in the Snapshot List:

- Double-click on the Snapshot and type the desired name. Then press the Enter key on your keyboard to save the renamed Snapshot.
- Alternatively, select the Snapshot and click on the Store button. Next you must type in the desired name and then click on the Store button once more to save the renamed Snapshot.

Copying Snapshots

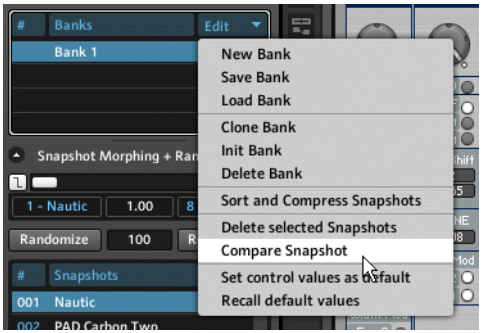
As with renaming, there are two ways to copy Snapshots within the Snapshot List of an Instrument:

- For the first way select the Snapshot, then click on the Append button. Next rename the appended Snapshot if desired, and the click on the Append button a second time to save the appended Snapshot. Note that this copies that Snapshot to the first empty slot in the Snapshot List.

- You can also first select the Snapshot, then click on the Insert button. Following that, rename the inserted Snapshot if desired, and then click on the Insert button once more to save the inserted Snapshot. Note that this copies the Snapshot to a new slot below the originally selected slot in the Snapshot List.

2.4.4 Comparing Snapshots

REAKTOR makes sound design easy for you by letting you compare a Snapshot with a modified version of the same Snapshot or with another, completely different Snapshot. This section describes how to do these two tasks. The basic idea behind the "Compare" feature is simple. The modified (or different) Snapshot is stored in the "compare buffer", and the *Compare Snapshot* menu entry is used to toggle between the original Snapshot and the modified (or different) Snapshot.



The Compare Snapshot menu entry in the Edit Bank drop-down menu

Comparing an Original Snapshot with a Modified Version

To compare a Snapshot with a modified version of the same Snapshot, follow these instructions:

1. Make sure you have an Instrument open.
2. Open the Snapshot tab.
3. Select a Snapshot in the Snapshot List.
4. Make sure there is no checkmark in fron of the *Compare Snapshot* menu entry in the Edit Bank drop-down menu.
5. Modify the settings of the Instrument controls as desired.
6. Use the *Compare Snapshot* menu entry in the Edit Bank drop-down menu to toggle between the original and modified Snapshot versions.
7. If you want to make further modifications, repeat instruction steps 5-6.

Comparing Two Different Snapshots

To compare two different Snapshots in the Snapshot List of an Instrument, follow these instructions:

1. Make sure you have an Instrument open with at least two Snapshots.
2. Open the Snapshot tab.
3. Select a Snapshot in the Snapshot List.
4. Next, select another Snapshot in the Snapshot List. The first Snapshot is now stored in the "compare buffer".
5. Now you can use the Compare Snapshot menu entry in the Edit Bank drop-down menu (shown in the figure above) to toggle between the two Snapshots.

If you are modifying a Snapshot and accidentally select a different Snapshot, you can recover your modifications by clicking on the Compare button right away (before you make any changes to the new Snapshot).

2.4.5 Morphing between Snapshots

Not only can you compare two Snapshots, but you can even morph between them, that is, change an Instrument's Panel control settings gradually (over a time interval of [0 … 60] seconds) from their values in one Snapshot to their values in another Snapshot. The Snapshot Morph area (see below), holds the controls for morphing between Snapshots.

The Snapshot Morph area in the Snapshot tab lets you morph between two Snapshots in the Snapshot List.

To morph between two Snapshots, follow these instructions:

1. Make sure you have an Instrument open with at least two Snapshots.
2. Open the Snapshot tab with the desired Snapshot List. If the Snapshot Morph area depicted in the figure above is not open, press the arrow button next to the text "Snapshot Morphing and Random", shown below.

3. Set your desired morphing time in seconds (a value in the interval [0…60]) in the Morph Time edit field. This value determines how long it will take the controls to morph (move) from their current settings to their new settings.

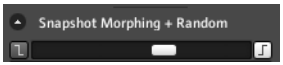
4. Next click on the Select A button to activate it (the text will change to "Select…").

5. Then select the first of the two Snapshots (Snapshot A) between which you want to morph from the Snapshot List.

6. Now click the Select B button to activate it (it is the button that lies symmetrically to the Select A button to the right).
7. Select the second of the two Snapshots (Snapshot B) from the Snapshot List.
8. Gradual, incremental change between two Snapshots is the basis of morphing. Because button and switch settings cannot be changed gradually, REAKTOR does not let you morph them. Therefore, before you begin to morph, you must decide whether to use the button and switch settings from Snapshot A or Snapshot B. To use the button and switch states from Snapshot A, press the State A button to the left of the Morph slider (see below). The button should light up. Alternatively, to use the button and switch states from Snapshot B, press the State B button to the right of the Morph slider (in this case this button should light up).

9. Now you are ready to morph between the two Snapshots. Move the horizontal Morph slider (see figure below) to a new position. When the slider is set fully to the left, the Instrument control settings (except perhaps the button states) correspond purely to Snapshot A. Similarly, when the slider is set fully to the right, the control settings correspond to Snapshot B. A slider setting right in the middle corresponds to an arithmetic average between the control settings of the two Snapshots, that is, 50 % of Snapshot A and 50 % of Snapshot B. Other slider settings have analogous results. After moving the Morph slider to a new

position, the Instrument's controls will move from their current settings to the settings specified by the new Morph slider position in a time interval of the number of seconds specified in the Morph Time edit field (see figure below).



Once you have configured the morph settings you can use the Morph slider to morph between two Snapshots.

Morphing a Snapshot of a "parent" Instrument morphs the controls of "child" Instrument as well, but only if the Snap Isolate checkbox in the respective "child" Instrument's Function page is disengaged (see section ↑2.4.8, Defining Snapshot Behavior for Instruments for more information on this).

Shorter Morph Time values decrease the delay between changing the Morph slider position and having the Panel controls complete their morphs. Longer Morph Time values increase this delay.

Making a Control Immune to Morphing

You can specify which Panel controls should not be affected by “morph” operations. To make a control immune to Snapshot morphing, follow these instructions:

1. Double-click on the desired control like a knob, fader, list, or button.
2. This should have opened up the control's Properties View. Now click on the Function button.
   

3. Engage the Mrph./Rnd Isolate checkbox in the Snapshots area of the control's Function page. Now the Morph slider will have no effect on that control.
   

To see how to assign a MIDI controller to the Morph function, please refer to the Application Reference.

2.4.6 Randomizing Snapshots

Probably the fastest way to create a new Snapshot is by using the Randomize or Random Merge buttons. The Snapshot Randomize area in the Snapshot tab (see figure below) holds the controls with which you can quickly create a new Snapshot with varying degrees of random deviation from the current Snapshot.

The Snapshot Randomize area in the Snapshot tab lets you create new Snapshots with varying degrees of random deviaton from the current Snapshot.

Randomizing Snapshots

If you want to randomize all of the selected Instrument's Panel controls (except those with the Random Isolate checkbox engaged, see below) follow these instructions:

1. Make sure you have an Instrument open.
2. Open the Snapshot tab and if the Snapshot Randomize area depicted above is not open, press the arrow button next to the text "Snapshot Morphing and Random", shown below.

3. First, decide what maximum amount of random deviation from the Instrument's current Panel controls you would like. Then enter the corresponding value into the Random Amount edit field. The Random Amount edit field accepts values in the range [0 … 100]. “0” corresponds to 0 % and “100” corresponds to 100 % of the control's range. If we say the value in the Random Amount field is “R” then pressing the Randomize button can change the control's current setting up to ± R % of the control's range. For example, if a knob with a range [-1 … 1] is set to its middle point “0” and the Random Amount edit field is set to “25” (meaning 25 %), then clicking on the Randomize button can change

the knob's value to anywhere from -0.5 to 0.5, that is, (0 ± 0.25 * 2). Note that a control can never be randomized to a value beyond its range:

4. After having entered the desired value into the Random Amount edit field, click on the Randomize button:

Random Merging of Two Snapshots

You can also use two existing Snapshots as seeds and randomly merge these two "parent" Snapshots to create a "child" Snapshot. The resulting "child" Snapshot is a random combination of the two "parent" Snapshots with the amount of randomness being set with the Random Amount edit field. To use this feature, you need to follow these instructions:

1. Make sure you have an Instrument open with at least two Snapshots.

2. Open the Snapshot tab and if the Snapshot Randomize area depicted above is not open, press the arrow button next to the text "Snapshot Morphing and Random", shown below.

3. You need to choose the first "parent" Snapshot. For that, click on the Select A button to activate it (its text should change to "Select...").
4. Then select the first of the two "parent" Snapshots (Snapshot A) from the Snapshot List.
5. Now click the Select B button to activate it (its text should change to "Select...").
6. Select the second of the two "parent" Snapshots (Snapshot B) from the Snapshot List.

7. To decide, what value you want to enter into the Random Amount edit field, consider the behavior of the "Random Merge" feature. The "Random Merge" operation is taken for each Instrument Panel control separately. Let's look at one control and let the value in the Random Amount edit field be denoted by the letter "R" (it is a value in the range [0 … 100]). For an R = 0, pressing the Random Merge button results in the control receiving a new value that is exactly between the two values corresponding to the "parent" Snapshots. For R = 100, pressing the Random Merge button results in the control receiving either the value of "parent" Snapshot A or "parent" Snapshot B. In general, if R > 0, then pressing the Random Merge button causes the control randomly to be assigned to one of the two parents and the value "R" decides how much the new value of the control deviates from the perfect merge (arithmetic mean) of the two "parent" Snapshots in the direction of the assigned "parent" Snapshot. As mentioned above, for R = 100, the deviation is complete, that is, the new control value is that of the assigned "parent" Snapshot. Enter the value corresponding to the desired randomness into the Random Amount edit field.

8. Last, press the Random Merge button.

Making a Control Immune to Randomization

You can specify which Panel controls should not be affected by "randomize" operations. To make a control immune to randomization, follow these instructions:

1. Double-click on the desired control like a knob, fader, list, or button.
2. This should have opened up the control's Properties View. Now click on the Function button.

3. Engage the Mrph./Rnd Isolate checkbox in the Snapshots area of the control's Function page. Now the Randomize button will have no effect on that control. You can use this technique in conjunction with the Random Amount value to limit the amount of randomization an Instrument's controls receive.

The Mrph./Rnd Isolate checkbox

2.4.7 Snapshot Banks

Each and every Snapshot in REAKTOR belongs to a Snapshot Bank. You can save your Snapshots on your hard drive or any other medium and even share your Snapshots by saving the Snapshots Bank to which those Snapshots belong to. In this section you will learn all about Snapshot Banks in REAKTOR.

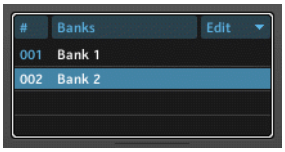
Saving, Loading, and Creating Snapshot Banks

This subsection will discuss the basic operations tied to Snapshot Banks.

Selecting Snapshot Banks

Some Instruments already come with several Snapshot Banks. To see which banks have already been loaded and to select a new bank, follow these instructions:

1. First, open an Instrument that has several Snapshot Banks already loaded. Space Drone is a good example of one, you can find it in the factory library in under New Additions > Sound Generators.
2. Open the Snapshot tab and look at the Snapshot Banks area shown in the figure below.



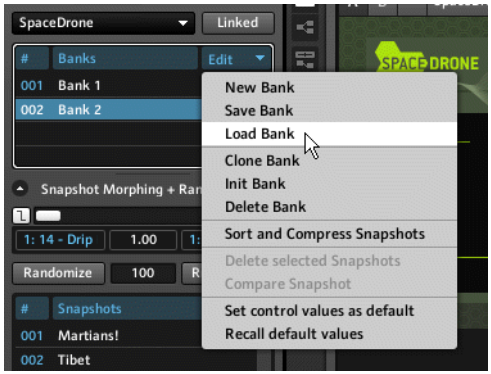
3. As you can see in the figure above, two banks have been loaded. Click on Bank 2 to load the second Snapshot Bank into the Snapshot List.

Saving and Loading Snapshot Banks

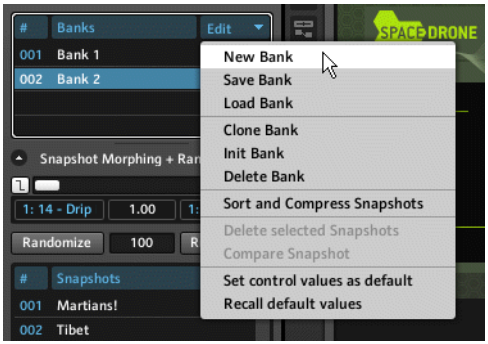
To save a Snapshot Bank, follow these steps:

1. Make sure you have an Instrument open.
2. Open the Snapshot tab and look at the Snapshot Banks area shown in the figure below.

3. To save the selected Snapshot Bank (see above), click on the Edit Bank drop-down menu and choose the *Save Bank* menu entry. This will open a dialog box to choose where you want to save the Snapshot Bank file. The Snapshot Bank file is saved as an *.ssf file.
4. To load a new Snapshot Bank into REAKTOR, choose the *Load Bank* menu entry from the Edit Bank drop-down menu, as shown in the figure below. This will open a dialog box to browse for the *.ssf Snapshot Bank file you wish to load.



5. After clicking on “OK” in the dialog box, the Snapshots contained in the Snapshot file you just loaded are appended to the current Snapshot List. If the list is full, then a new Snapshot Bank is created and the remaining Snapshots from the Snapshot file are loaded into that new Bank.
6. Usually one creates a new Bank right away before loading the Snapshots that are in a file into the Bank. This way the Snapshots in different Banks and Snapshot files don't get mixed up. To create a new Bank, click on the Edit Bank drop-down menu and choose the New Bank menu entry. This creates a new Snapshot Bank consisting of empty slots. You can now either start creating and saving your own Snapshots with the Instrument (see section ↑2.4.2, Adding and Removing Snapshots) or load the Snapshots from a Snapshot Bank file into the Bank as shown in steps 4 and 5.



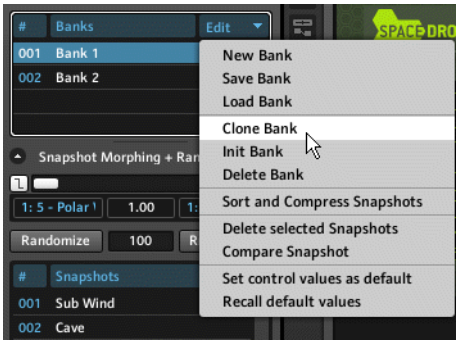
To create a new Snapshot Bank, select the New Bank menu entry from the Edit Bank drop-down menu.

Cloning and Deleting Banks

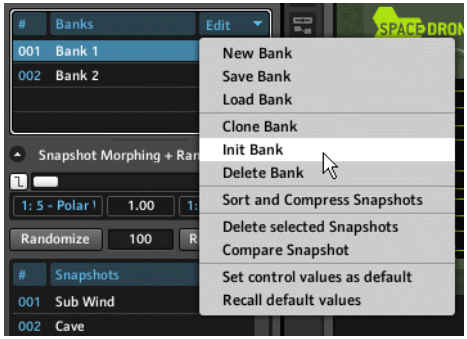
This subsection describes how to clone (duplicate), init (clear all Snapshots), and delete Snapshot Banks.

Cloning Banks can be useful in many cases. Maybe you want to duplicate a factory Snapshot Bank to create your own modifications to the Snapshots or perhaps you want to use the duplicate Bank to pick out only Snapshots that have a certain flavor to them. This is how you clone a Bank:

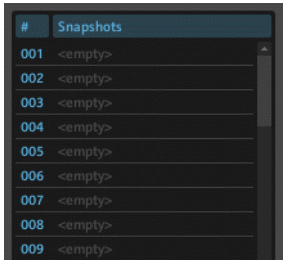
1. Make sure you have an Instrument open.
2. Open the Snapshot tab and click on the Edit Bank drop-down menu.
3. Click on the *Clone Bank* menu entry (see below). A new Snapshot Bank will be created with its Snapshot List identical to the Bank that you cloned.



4. To clear all Snapshots from the currently selected Bank and replace them with empty slots, you need to click the *Init Bank* menu entry (see below).



5. This results in an empty Snapshot Bank (see figure below). And if you want to delete a Snapshot Bank completely, choose the *Delete Bank* menu entry from the Edit Bank drop-down menu. Note that you cannot delete a Snapshot Bank if it's the only one left for that Instrument.



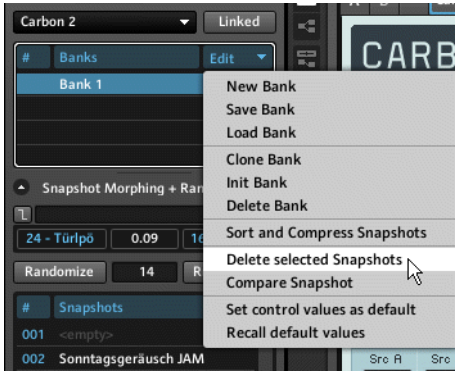
If you delete a Bank by mistake, don't panic! Simply use REAKTOR's *Undo Delete Snap Bank* menu entry in the *Edit* application menu to restore it.

Renumbering and Renaming Banks

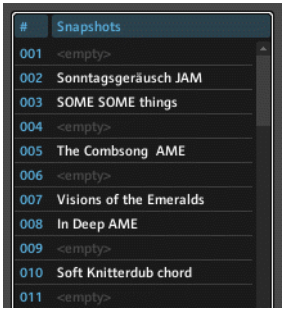
Let's say you want to take a factory Snapshot Bank, remove the Snapshots you don't like, and rename the new Bank. In this subsection you will first learn how to get rid of the gaps in the Bank that result from deleting Snapshots by using the "Renumber Bank" feature. Then you will see how to rename your Bank. Perform the following steps:

1. Make sure you have an Instrument open.

2. Now open the Snapshot tab and clone a Bank so that you don't lose the Snapshots you are about to delete in the cloned Bank (see subsection ↑2.4.7, Snapshot Banks on how to clone Banks).
3. Next, delete some Snapshots from the cloned Snapshot Bank by selecting the Snapshot Entry and then choosing the *Delete Snapshot* menu entry from the *Edit Bank* drop-down menu. You can also use the [Del] key on your computer keyboard. The resulting Snapshot List should look something like the one shown below.



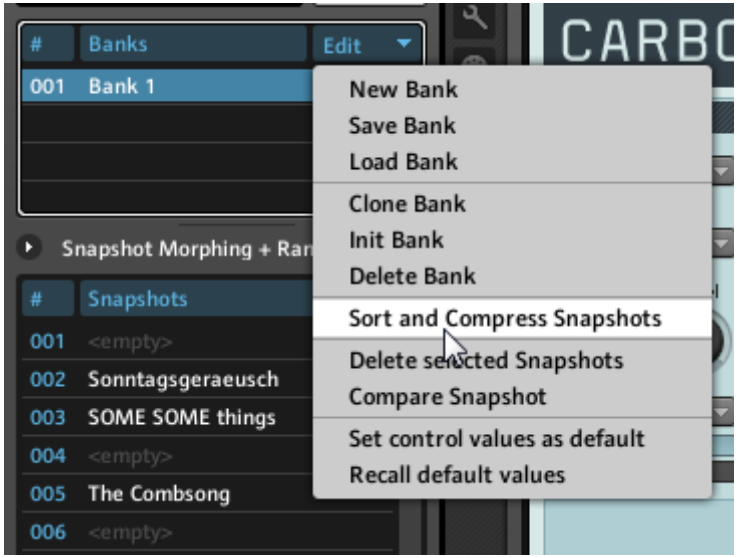
→ Deleted Snapshots are replaced by Snapshot entries labeled <empty>:



Resorting the Snapshot List

Now resort the Snapshot List by shifting the Snapshots upwards so that there are no empty slots between individual Snapshots:

1. Click on the Edit Bank drop-down menu and select the *Sort and Compress Snapshots* menu entry (see figure below).

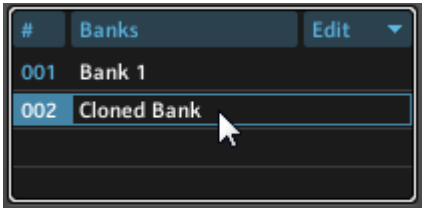


2. The resulting Snapshot List should now look similar to the one shown below.

After selecting the Sort and Compress Snapshots menu entry from the Edit Bank drop-down menu all empty slots in the Snapshots List are removed.

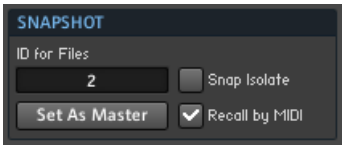
Renaming a New Snapshot List

► To rename the Bank that is your new Snapshot List, type the new name into the Bank Name edit field, as shown below.



2.4.8 Defining Snapshot Behavior for Instruments

In Ensembles consisting of several Instruments, Snapshots of one Instrument often go together with particular Snapshots of another Instrument. Junatik is an example of such an Ensemble: it consists of a synthesizer Instrument and a delay effect Instrument. Therefore it is often desirable to recall or save the Snapshots for several Instruments simultaneously. You can also specify other specifics regarding Snapshot behavior of Instruments. This section discusses all things connected to an Instrument's behavior regarding Snapshots. The picture below shows the Snapshot area of an Instrument's Function Tab where the properties of its Snapshot behavior are set.



An Instrument's Snapshot behavior is determined by the settings in the Snapshot area of the Instrument's Function page.

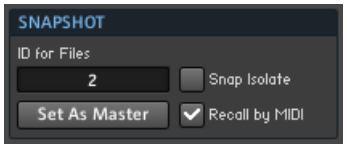
Instruments Hierarchy

Any Instrument that contains another Instrument is called a "parent" Instrument. For example, an Ensemble (top-level Instrument) that contains another Instrument is a "parent" Instrument. A "child" Instrument is an Instrument that is contained within another ("parent") Instrument. It is important to understand this hierarchy in order to properly control the Snapshot Behavior.

The Snap Isolate Property

By default, Snapshots are stored and recalled by the "parent" Instrument (usually the Ensemble). This means that you can store and recall Snapshots for multiple "child" Instruments at the same time using the "parent" Snapshot. Sometimes this is just what you want. Other times, you might want to store and recall Snapshots independently of the "parent" Instrument. This is done using the Snap Isolate property, as shown by the instruction steps below.

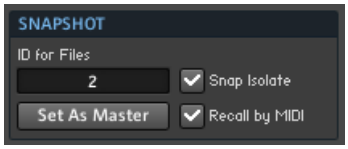
1. Open or create an Ensemble containing two Instruments, each with its own populated Snapshot List.
2. Go to the Function page of both "child" Instruments and make sure that the Snap Isolate checkbox is disengaged, as shown in the figure below. This means that Snapshot recall, store, and morph operations done on the Ensemble will effect the "child" Instruments. Let's see what this means.



3. First change the state of the controls of the "child" Instruments by recalling some other Instrument Snapshots.
4. Now, store a new Snapshot for the Ensemble ("parent" Instrument). Please refer to section ↑2.4.2, Adding and Removing Snapshots if you don't know how to do this. Take note of which Instrument Snapshots are loaded during the storing process.
5. Again, change the state of the controls of the "child" Instruments by recalling some other Instrument Snapshots.
6. Next, recall the Ensemble Snapshot you stored last. Notice how the "child" Instruments automatically recalled the Snapshots that were loaded at the time when you saved the "parent" Snapshot.
7. What happens if we modify Instrument Snapshots and then store the Ensemble Snapshot? To see this, load some Instrument Snapshots and modify the Panel controls. Note that an asterisk appears in the Snapshot drop-down menu in the Instrument header when a Snapshot has been modified. This is shown in the figure below.

8. Append another Ensemble ("parent" Instrument) Snapshot.
9. Modify the Instrument controls

10. Recall the Ensemble Snapshot you just saved. Notice how not only the Instrument Snapshots were recalled, but also the modifications that you did to the Instrument controls. Because the Instrument controls have been modified from their Snapshot values by the Ensemble Snapshot, the asterisk again appears in the Instrument header, as shown above.
11. Now, let's see what happens if the Snap Isolate checkbox is engaged. Go to the Function pages of the "child" Instruments and engage the Snap Isolate checkbox, as shown in the figure below.



12. Now append yet another Ensemble Snapshot.
13. Now change the state of the controls of the "child" Instruments by recalling some other Instrument Snapshots.
14. Next, recall the Ensemble Snapshot you just stored. Notice how the Instrument's controls or the Instrument Snapshots remain unchanged upon the Ensemble Snapshot recall. This is exactly what the effect of engaging the Snap Isolate checkbox is.

In summary, when you recall the Snapshot of a “parent” Instrument, the Snapshots of all "child" Instruments which have the Snap Isolate checkbox in their Function page disengaged, will also be recalled. Similarly, saving a new Snapshot for the “parent” Instrument saves the Snapshots of its "child" Instruments which have the Snap Isolate checkbox disengaged. Note that recalling a "parent" Instrument Snapshot not only recalls the "child" Instrument's Snapshot that was loaded at the time of storing the "parent" Snapshot, but also sets the "child" Instrument's controls to the state in which the "parent" Snapshot was stored.

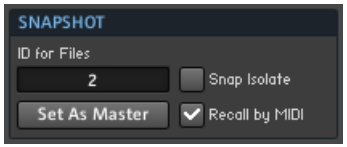
Generally you can have an Ensemble containing both Snap Isolated and non-Snap Isolated "child" Instruments.

The "parent" Instrument must not necessarily be the Ensemble. It can be any Instrument that contains another Instrument. If a non-Snap Isolated Instrument contains another non-Snap Isolated Instrument, then changing the Ensemble Snapshot will affect the "child" Instruments all the way down to the lowest level of the Instrument hierarchy.

The Snapshot Master

The Snapshot Master feature is particularly relevant when running REAKTOR as a plug-in. When this feature is activated for an Instrument or Ensemble, the Snapshots List of that Instrument is forwarded to the host. It also appears in the Snapshot menu in the Main Toolbar. However, since most hosts can handle only one Snapshots List, this feature can be enabled for only one Instrument (or the Ensemble). This is done using the Set As Master button, as shown by the instruction steps below.

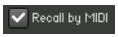
1. Make sure you have an Ensemble with two active Instruments open.
2. First you need to choose which Instrument is the Snapshot Master for your Ensemble. By default, the Snapshot Master is the Ensemble. To set an Instrument to be the Snapshot Master Instrument, go to the Function page of the Instrument Properties, as shown below.



3. Then engage the Set As Master button. When the Set As Master button is engaged, the Instrument's Snapshots are available in the host program and appear in the Snapshot menu in the Main Toolbar. Note that an icon appears in the Snapshot drop-down menu in the Instrument header to show it is now the Snapshot Master.

Recalling Snapshots by MIDI

Each Snapshot Bank can hold 128 Snapshots. This number is not arbitrary; it has been chosen to provide optimal compatibility when recalling Snapshots via MIDI Program Change messages. To enable the Recall by MIDI option, engage the Recall by MIDI checkbox in the Instrument's Function page.



The Recall by MIDI checkbox

When the Recall by MIDI checkbox has been engaged, an incoming MIDI Program Change message with the value “N” (where “N” is an integer in the range [0…127]) will recall the Snapshot with the number “N + 1” (if that Snapshot exists). Thus a Program Change message of “0” will recall Snapshot “1”, a message of “1” will recall Snapshot “2”, and so on. This

way you can quickly and easily recall Snapshots from your MIDI device by issuing MIDI Program Change messages for the desired Snapshot number. If the “parent” Instrument also has this feature enabled and is on the same MIDI channel as another “child” Instrument, then the “parent” Instrument's Snapshot will take precedence. Please refer to subsection 13.2.1 in the Application Reference to learn how to change the incoming MIDI channel number for an Instrument.

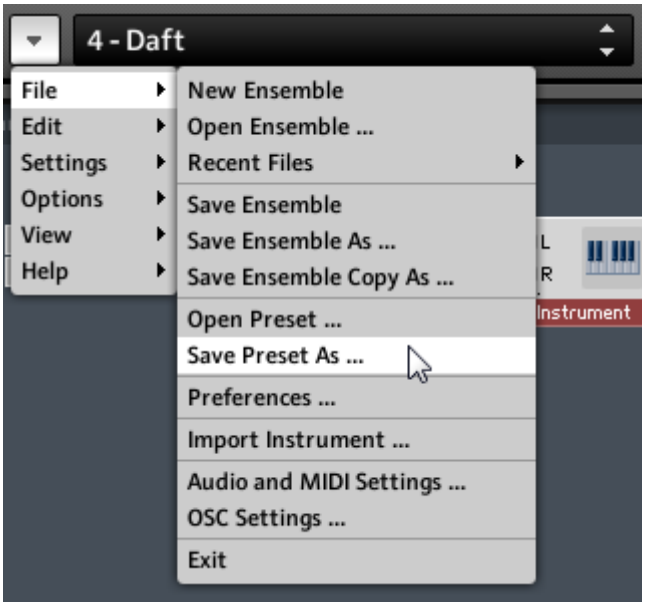
2.4.9 Opening and Saving Presets

REAKTOR 5.6.2 allows you to quickly save and recall the complete state of an existing Ensemble using the new Preset file. The extension of the REAKTOR Preset file is *.nrkt.

Saving a Preset File

To save a Preset file, follow these instructions:

1. Open the Ensemble for which you wish to save a Preset.
2. If your Ensemble contains "child" Instruments for which you wish the Preset file to save the control settings, make sure that the Snap Isolate checkbox in the respective Instrument's Function page is disengaged (see section ↑2.4.8, Defining Snapshot Behavior for Instruments for more information on this).
3. Press the Menu button and choose the *File > Save Preset As...* menu entry (shown in the figure below).



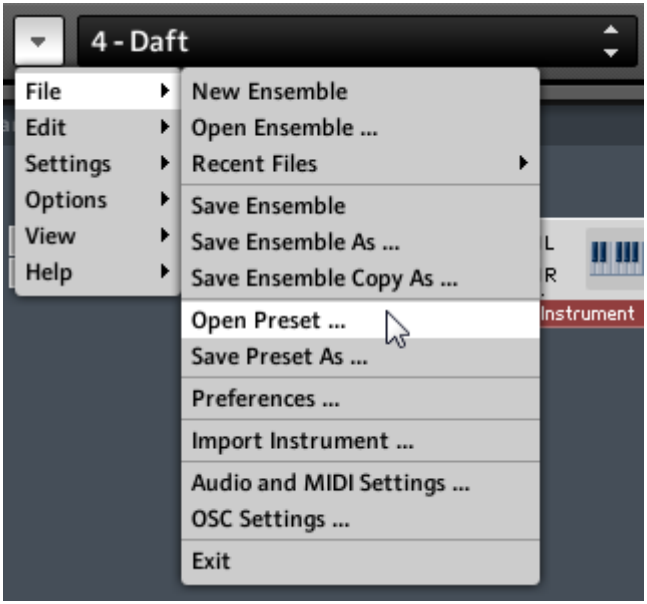
Use the File > Save Preset As... menu entry to save a Preset file.

> Note that the Preset file does not contain the Ensemble itself. It merely stores the Ensemble location. Therefore, if you modify the Ensemble or change the Ensemble's location you will not be able to recall the Preset!

Loading a Preset File

To load a Preset file, follow these instructions:

- Press the Menu button and choose the *File > Open Preset* menu entry (shown in the figure below).



Use the File > Open Preset menu entry to load a Preset file.

Note that the Preset file does not contain the Ensemble itself. It merely stores the Ensemble location. Therefore, if you modify the Ensemble or change the Ensemble's location you will not be able to recall the Preset!

If you are already familiar with the REAKTOR 5.5 Snapshot behavior and are just interested in the changes, you may use the cross-reference link to proceed on to section ↑2.4.8, Defining Snapshot Behavior for Instruments.

3 Keyboard Shortcuts

3.1 Changed Keyboard Shortcuts

In REAKTOR 5.6.2, the following keyboard shortcuts have changed:

- Toggle Edit mode: [F1]
- Toggle Horizontal Split Pane: [F2]
- Toggle Vertical Split Pane: [F3]
- Toggle Properties View: [F4]

3.2 New keyboard Shortcuts

In REAKTOR 5.7, the following keyboard shortcuts have been added:

- Close a Pane or Screenset: [Ctrl] + [F4] ([Cmd] + [W] on Mac)
- Create a new Screenset: [Ctrl] + [T] ([Cmd] + [T] on Mac)
- Switch to next Screenset: [Ctrl] + [Tab]
- Switch to previous Screenset: [Ctrl] + [Shift] + [Tab]
- Select Screenset: [Ctrl] + [Alt] + [1…8] ([Ctrl] + [Cmd] + [1…8] on Mac)
- Enable/Disable Wire Debugging: [Ctrl] + [B] ([Cmd] + [B] on Mac)

In REAKTOR 5.6.2, the following keyboard shortcuts have been added:

- Scrolling of the Structure: [Alt] + Drag
- Navigate the the previous Structure: [Alt] +[B]
- Show the contents of a Macro in the other Split Pane: [Alt] + double-click Macro
- Open the Searchbox: [Enter]/[Return] or [Ctrl] +[F] in Windows ([Cmd] +[F] in Mac OS X)
- Navigate to the parent folder in the Browser's folder tree: Left Arrow

- Delete Objects and Wires: [Backspace] or [Delete]
- Duplicate Objects: [Ctrl] + drag Object ([Alt] + drag on Mac OS X)
- Copy Objects to the other Split Pane: [Ctrl] + drag ([Alt] + drag on OS X)
- Breadcrumb Navigation, down: [Alt] + [Right]
- Breadcrumb Navigation, up: [Alt] + [Left]

3.3 Keyboard Shortcut Overview

APPLICATION	Action	Mac OS X	Windows
	Show module search box	[Enter], [Cmd] + [F]	[Enter], [Ctrl]+ [F]
	Preset change (when an instrument is selected)	[Up], [Down]	[Up], [Down]
	View Info	[Cmd] + [I]	[Ctrl]+ [I]
	Show Help	[Cmd] + [Shift] + [?]	
	Toggle MIDI Learn	[Cmd] + [M]	[Ctrl]+ [M]
	Toggle Audio	[Cmd] + [R]	[Ctrl]+ [R]
	Start Clock	[Space]	[Space]
	Reset Clock	[Cmd] + [Space]	[Ctrl]+ [Space]
	Preferences	[Cmd] + [,]	[Ctrl]+ [,]
	Quit	[Cmd] + [Q]	[ALT]+ [F]4

FILE	Action	Mac OS X	Windows
	New	[Cmd] + [N]	[Ctrl]+ [N]
	Open…	[Cmd] + [O]	[Ctrl]+ [O]
	Save	[Cmd] + [S]	[Ctrl]+ [S]
	Save As…	[Cmd] + [Shift] + [S]	[Ctrl]+ [Shift] + [S]

EDIT	Action	Mac OS X	Windows
	Undo	[Cmd] + [Z]	[Ctrl]+ [Z]
	Redo	[Cmd] + [Y]	[Ctrl]+ [Y]
	Select All	[Cmd] + [A]	[Ctrl]+ [A]
	Marquee Select	Click and drag around a group	Click and drag around a group
	Add To or Remove From Selection	[Cmd] + Click	[Ctrl]+ Click
	Cut	[Cmd] + [X]	[Ctrl]+ [X]
	Copy	[Cmd] + [C]	[Ctrl]+ [C]
	Paste	[Cmd] + [V]	[Ctrl]+ [V]
	Duplicate	[Cmd] + [D]	[Ctrl]+ [D]
	Duplicate (In Structure)	[Alt]+ drag Module	[Alt]+ drag Module
	Delete	[Delete]	[Backspace]/[Delete]

SNAPSHOT	Action	Mac OS X	Windows
	Next Master Snapshot	[Cmd] + [Down]	[Ctrl]+ [Down]
	Prior Master Snapshot	[Cmd] + [Up]	[Ctrl]+ [Up]

PANEL	Action	Mac OS X	Windows
	Toggle Panel Edit	[Cmd] + [P]	[Ctrl]+ [P]
	Save Panelset 1…8	[Cmd] + [Shift] + [1…8]	[Ctrl]+ [Shift] + [1…8]
	Recall Panelset 1…8	[Cmd] + [1…8]	[Ctrl]+ [1…8]

VIEW	Action	Mac OS X	Windows
	Append Screenset	[Cmd] + [T]	[Ctrl] + [T]
	Recall Screenset 1…8	[Ctrl] + [Cmd] + [1…8]	[Ctrl] + [Alt] + [1…8]
	Next Screenset	[Ctrl] + [Tab]	[Ctrl] + [Tab]
	Previous Screenset	[Ctrl] + [Shift] + [Tab]	[Ctrl] + [Shift] + [Tab]
	Edit Mode	[F1]	[F1]
	Forward in Bread Crumbs (Structure View)	[Alt]+ [Right]	[Alt]+ [Right]
	Backward in Bread Crumbs (Structure View)	[Alt]+ [Left]	[Alt]+ [Left]
	Toggle Horizontal View Button	[F2]	[F2]
	Toggle Vertical View Button	[F3]	[F3]
	Switch Between Horizontal and Vertial View (Structure View)	[Ctrl]+ [H]	[Ctrl]+ [H]
	Close Pane / Screenset	[Cmd] + [W]	[Ctrl] + [F4]
	Scroll	[Alt]+ drag background	[Alt]+ drag background
	Toggle Properties	[F4]	[F4]
	Toggle Browser	[F5]	[F5]
	Toggle Snapshots	[F6]	[F6]
	Toggle Panelsets	[F7]	[F7]
	Toggle Sample Map Editor	[F9]	[F9]
	Toggle Input & Recorder Bar	[F10]	[F10]
	Full Screen Mode	[F11]	[F11]
	Show Structure in Other Pane	[Alt]+ Double-click	[Alt]+ Double-click
	Back / Previous structure	[Alt]+ [B]	[Alt]+ [B]

DEBUG STRUCTURE	Action	Mac OS X	Windows
	Enable Wire Debugging	[Cmd] + [B]	[Ctrl] + [B]
	Measure CPU Usage	[Cmd] + [U]	[Ctrl] + [U]
	Toggle relative/absolute CPU usage (when measure cpu usage is on)	[Ctrl] + Click in primary structure background	[Ctrl] + Click primary structure background
	Show Module Sorting	[Cmd] + [Alt]+ [A]	[Ctrl]+ [Alt]+ [A]
	Show Event Init Order	[Cmd] + [Alt]+ [E]	[Ctrl]+ [Alt]+ [E]