



REAKTOR 6

WHAT IS NEW



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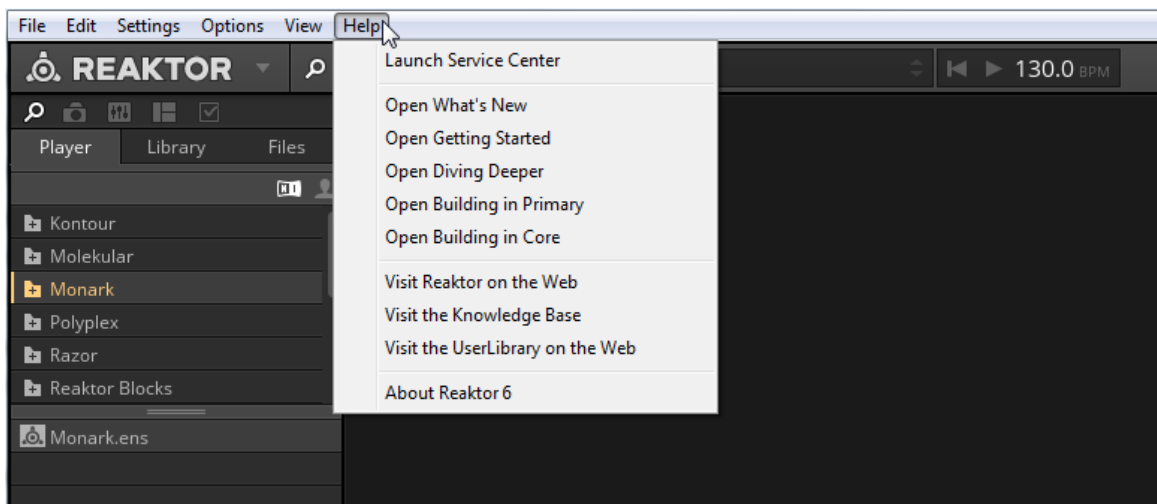
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1 What Is New in REAKTOR 6?

In this document, REAKTOR 5 users can learn about the new features and improvements that have been added to REAKTOR 6, including references to the corresponding section in the REAKTOR 6 documentation. For new REAKTOR users, it is suggested to start with the REAKTOR 6 Getting Started document.

1.1 The REAKTOR 6 Documentation



The REAKTOR documentation is accessible from the *Help* menu

The documentation for REAKTOR 6 is divided into five separate documents, guiding you from loading and playing pre-built Ensembles to building your own Instruments.

- **REAKTOR 6 What Is New** is written for users who are already familiar with previous versions of REAKTOR and only describes the latest features in brief.

- **REAKTOR 6 Getting Started** is for new users. It is the only document needed for users who intend to use REAKTOR for loading and playing pre-built REAKTOR instruments and effects.
- **REAKTOR 6 Diving Deeper** expands on the concepts introduced in the Getting Started document. It provides more detail on subjects like Snapshots (REAKTOR's preset system), and introduces advanced topics like OSC control and combining multiple Instruments in one Ensemble.
- **REAKTOR 6 Building in Primary** shows you how to build your own Instruments in REAKTOR's Primary level. It focuses on a series of tutorials that guide you through building your first synthesizers, effects, and sequencers.
- **REAKTOR 6 Building in Core** describes the Core level of REAKTOR with its low-level building features, which can be used for implementing custom DSP algorithms. It includes reference information about the Core Macro Library, an comprehensive collection of DSP building blocks.

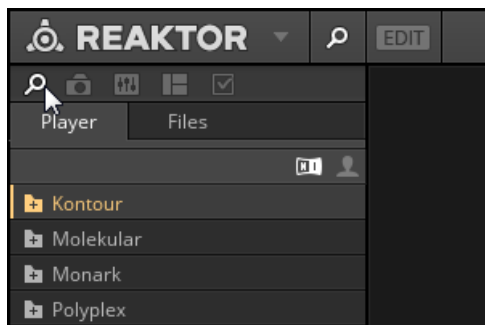
With the exception of the What Is New document, each of the documents listed above builds on the knowledge of the previous documents. While it is not necessary to read all of every document, some of the more advanced documents, like Building in Primary, assume knowledge from the previous documents.

REAKTOR Content Documentation

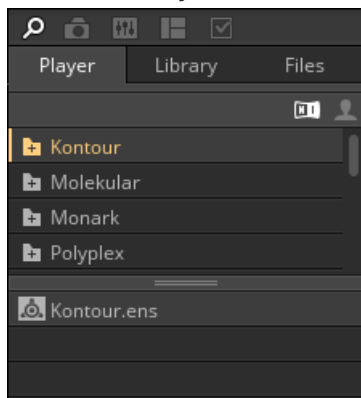
REAKTOR comes with a comprehensive Factory Library, including many pre-built instruments and effects, as well as Blocks, a new modular synthesizer framework that brings the experience of patching an analog modular synthesizer to REAKTOR. The manuals for this content, as well as any REAKTOR-based KOMplete instruments or effects you have installed, can be accessed from the Browser in REAKTOR's Side Pane.

To open the manuals for REAKTOR content:

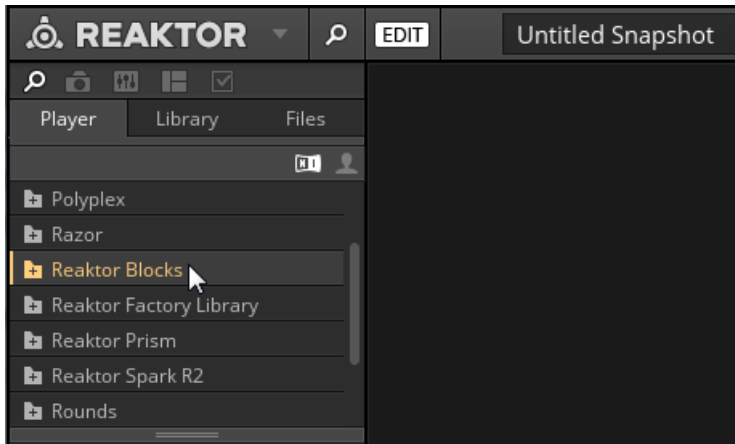
1. Click on the Browser icon in the Side Pane to open the Browser.



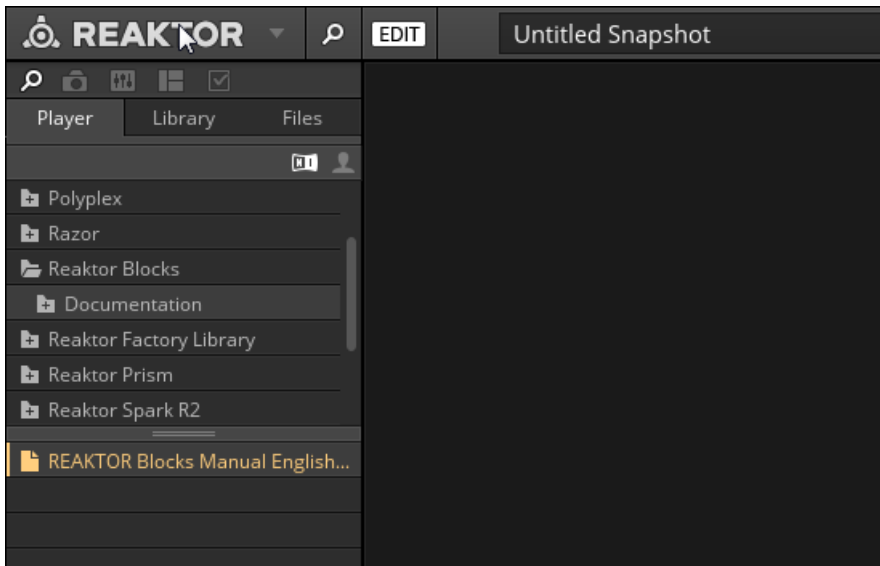
2. Select the Player tab.



3. Double-click on the folder of the content you wish to view the manual for.



4. Select the Documentation subfolder. The manual shows up as a PDF file in the lower section of the Browser.



5. Double-click on the PDF file.
→ The manual will open in your standard PDF reader.

1.2 Manual Conventions

This section introduces you to the signage and text highlighting used in this manual.

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) and paths to locations on your hard disk or other storage devices is printed in *italics*.
 - Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) is printed in **blue**. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
 - Important names and concepts are printed in **bold**.
 - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Enter]").
- Single instructions are introduced by this play button type arrow.
- Results of actions are introduced by this smaller arrow.

An indented, gray paragraph contains additional, contextual information.

Furthermore, this manual uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing these notes let you see what kind of information is to be expected:



The speech bubble icon indicates a useful tip that may often help you to solve a task more efficiently.



The exclamation mark icon highlights important information that is essential for the given context.



The red cross icon warns you of serious issues and potential risks that require your full attention.

2 New Look and Feel

REAKTOR's user interface has been completely reworked with a new look that provides better visibility of all elements. Most controls and options remain in the same place, so the overall layout of REAKTOR 6 will look familiar to REAKTOR 5 users. The following section provides an overview over the most important changes in the user interface.

2.1 Updates to the Side Pane

Updated Properties View

The Properties view has been updated to have a more uniform layout across all objects.

Updated Browser

The File Browser has been updated with a new design similar to the one used in other Native Instruments products.

Controllers and Panelsets Tabs Separated

The Controllers tab is no longer a sub-tab in the Panel Control tab.

2.2 Updates to the Structure View

The Structure View in REAKTOR has undergone a large redesign with many updates that enhance usability and readability:

- New color scheme.
- Wires now change color depending on their signal type.
- Anti-aliased wires.
- New icons for Macros and Core Cells.
- Optimization of the main context menu.

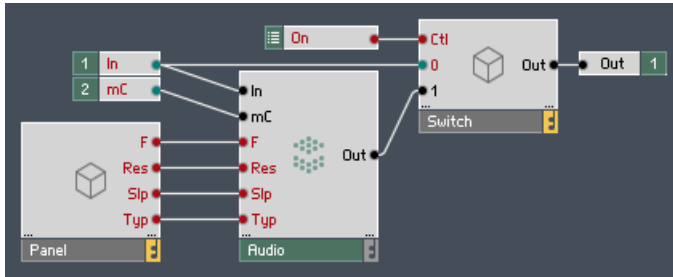
Color Scheme

This screenshot shows the 'Structure Theme' dropdown menu. The menu is open, displaying four options: 'Reaktor 6 Standard' (selected), 'Reaktor 5', 'Dark Grey', and 'White'. A mouse cursor is pointing at the 'White' option. The background of the software interface is dark grey.

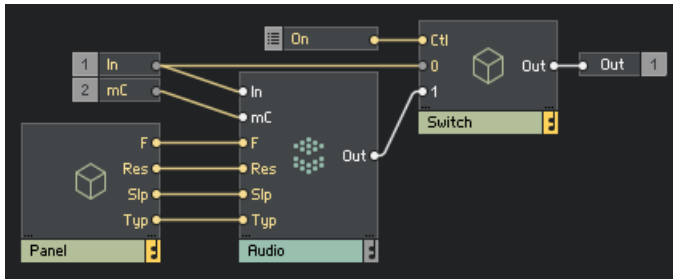
There are four options available:

-
- The screenshot shows a Pure Data patch. At the top, a message box 'On' is connected to a 'Ctl' object. The 'Ctl' object has two outlets, '0' and '1'. Inlet '1' is connected to a 'Switch' object. The 'Switch' object has two outlets: one connected to a 'Panel' object and another connected to an 'Audio' object. The 'Panel' object has several inlets: 'In' (connected to a message box '1'), 'mC' (connected to a message box '2'), 'F' (connected to a message box 'F'), 'Res' (connected to a message box 'Res'), 'Slp' (connected to a message box 'Slp'), and 'Typ' (connected to a message box 'Typ'). The 'Audio' object has an 'In' inlet connected to the 'mC' inlet of the 'Panel' object and an 'mC' inlet connected to the 'mC' inlet of the 'Panel' object. The 'Audio' object also has an 'Out' outlet connected to a message box 'Out 1'.

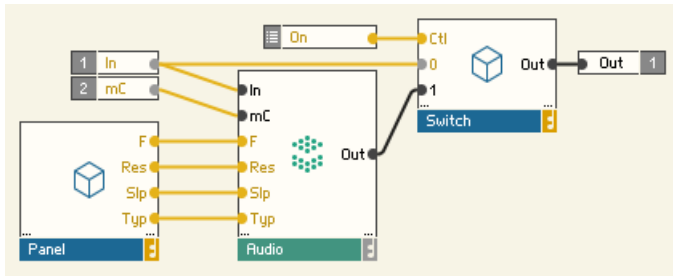
- *Reaktor 5*: The old default color scheme.



- *Dark Grey*: A darker variant of the Standard color scheme.



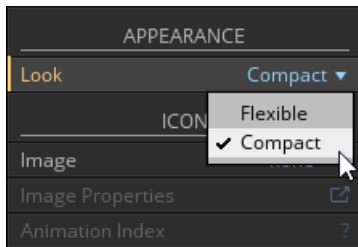
- *White*: A bright color scheme with white Modules and Macros.



The *Reaktor 6 Standard* option is selected by default.

Appearance of Instruments and Macros

Ensembles, Instruments, and Macros now have a new [Look](#) property for their appearance in Structure View.



The Appearance menu in a Macro's Properties.

This property has two options:

- *Compact*: This is the standard look as known from REAKTOR 5.
- *Flexible*: This new look allows for more flexibility in the way the Ensemble, Instrument, or Macro is displayed in the Structure. It lets you give longer names to Ports, and larger icons to Macros and Instruments.



The same Instrument displayed with Look set to Compact (left) and Flexible (right)

3 Updates to Building

3.1 New Macro Libraries

The Macro Libraries for both Primary and Core have both been completely redesigned and rebuilt. In both cases the new libraries have been designed to offer better tools and building blocks for creating your own Instruments.

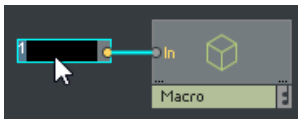
3.2 In-place Editing

It is now possible to edit the names of Modules and Macros from the Structure View, without entering their Properties. This also applies to the value of *Constant* Modules as well as the names of QuickBuses and QuickConstants in Core Cells.

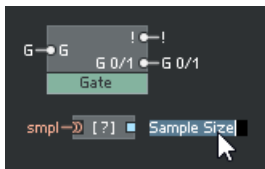
- ▶ Double-click on a Module or Macro's label to rename it from the Structure View.



- ▶ Double-click a *Constant* to edit its value from the Structure View.

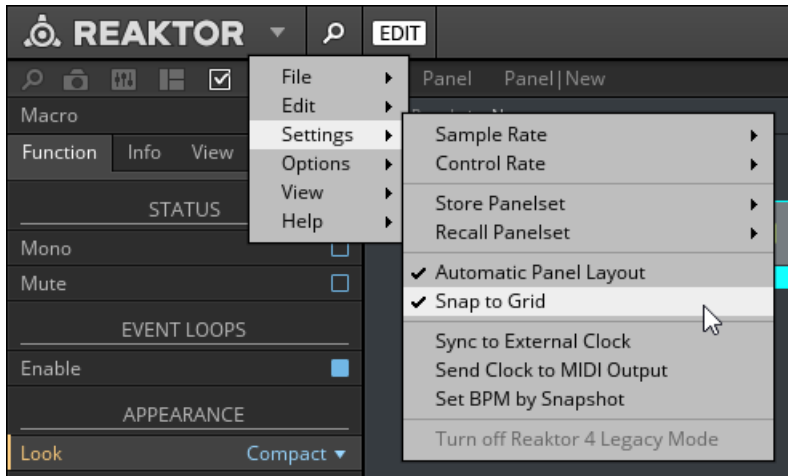


- Double-click a QuickBus or a QuickConstant to rename it from the Structure View.



3.3 Panel Editing

A new option has been created that allows you to bypass the 4 pixel grid when editing the panel of an Instrument or Ensemble. This way, you can move and resize panel elements with 1 pixel accuracy. This option is found in the [Settings](#) menu and is called *Snap to Grid*.



The Snap to Grid option in the Settings menu.

3.4 Table Framework

Table References are a new signal type in REAKTOR 6. They allow flexible and efficient sharing of data in the structure.

A table is a two-dimensional array of data, and Table References allow you to access this data anywhere in the structure. These properties make the Table Framework ideal for working with samples.

Core Cells read tables from a Table Reference like they have always handled tables and arrays. The advantage is that a Table Reference can exist in the Primary level, thus it can be used to share data between Core Cells, and can be stored in a Snapshot.

The Table Framework also makes the following possible:

- Sample information can be sent from the Sample Map to a Core Cell as a Table Reference.
- Drag and drop of samples onto the Instrument/Ensemble Panel.



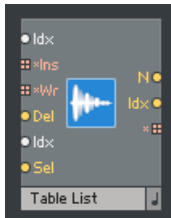
More information on the Table Framework can be found in the Building in Primary document.

3.5 New and Updated Primary Modules

3.5.1 Table Framework: New Modules

The Table Framework has introduced 3 new Modules:

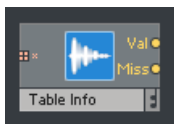
Table List



The Table List Module

This module is the main table manager and lets you maintain the list of currently active tables. It is the only table reference module with Snapshot support.

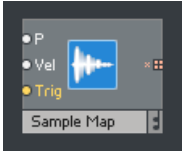
Table Info



The Table Info Module

The *Table Info* Module is used to read out a table's meta-information such as size, number of channels, sample rate, loop points, etc.

Sample Map



The Sample Map Module

This Module is a lot like the *Sampler* Module, but outputs a reference to the sample table, rather than the audio from the sample. In practical terms, this Module allows you to take sample data from the Sample Map and send it into a Core Cell.

3.5.2 Table Framework: Changes to Existing Modules

A number of Modules have been updated to accept the Table Reference signal type:

- Merge
- Order
- Routers (all types)
- Value
- Switch
- To/From Voice

Mouse Area

The *Mouse Area* Module has undergone the most changes with the introduction of the Table Framework.



The Updated Mouse Area Module

It can now accept the dragging and dropping of samples into the Table List. As such it has been given a number of new inputs and outputs for this:

- **Inputs**

- ***Dgl** (Drag Input): Connect a Table Reference here to use the Module as a source for drag and drop.
- **DpA** (Drop Accept): A value of 1 or greater at this input tells the Module to accept Table Reference drops.

- **Outputs**

- **DpO** (Drop Over): Outputs a value of 1 when a Table Reference is dragged over the Mouse Area; outputs a 0 otherwise.
- **DpG** (Drop Gate): Outputs different values depending on the drag and drop state: A value of 2 is sent when a file is dragged over the *Mouse Area*, followed by a 0; a value of 1 is sent when a file is dropped on the *Mouse Area* (if the **DpA** input is set to 1 or higher), followed by a 0.
- ***Dp** (Drop Output): Outputs the Table References that are dragged and dropped on the *Mouse Area*.

3.5.3 Panel Modules

Width and Height Outputs

Several Panel Modules have been updated to include two new outputs that send the value of the Module's Width (W) and Height (H) on the Panel.

These ports have been added to the following Modules:

- Mouse Area
- Poly Display
- Multi Display

Fonts

Both the Text and Multi Text Modules have been updated to include additional font options, including:

- *Font Typeface*: There are nine font types to choose from, illustrated below.



- *Choose Font Color*: Font color can be selected using the same pop-up window used in the Instrument/Ensemble Color Scheme Properties.
- *Font Size (Pixels)*: Sets the font size. This option is disabled for the *Legacy* font.

3.6 New Additions to Core

The following is a very brief overview of the main changes to the Core building language. More detailed information can be found in the REAKTOR 6 Building in Core document.

3.6.1 Unified Core Cell

Core Cells are no longer divided into Audio and Event; there is now only one type of Core Cell. Like the old Audio Core Cell, the new Core Cell can accept both Audio and Event signals as inputs, but the new Core Cell can also output both Audio and Event signals.

3.6.2 Bundles

Bundles are a method of combining multiple wires into one. Wires can be packed into a Bundle and then unpacked into the individual wires later on.



Core Bundles.

3.6.3 Scoped Bus

Scoped Buses allow 'wireless' connections between several structure layers. Scoped Buses can also send Bundles between different parts of the structure.

3.6.4 Sample Rate and Control Rate Clocks

The Sample Rate is no longer treated like a QuickBus, but is instead bundled with its clock as a Standard Distribution Bus.



The Sample Rate Bundle using Scoped Buses.

A Control Rate clock is also included as a Standard Distribution Bus, giving you a separate clock for event signals. However, by default this clock is set to be the same as the Sample Rate, so it needs to be defined.