

NU-TECH HELP ADDENDUM

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NU-Tech Help	2.0	

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WHAT'S NEW IN NU-TECH 2.1.0

- New Xml format for configurations
- NUTS rename feature
- Software buffer management (ASIO)
- Basic MIDI support
- VST support
- “Easy-connect” Pin
- Pin DataType propagation
- Shared memory support
- Refresh NUTS Tree-View

New XML format for Configurations

Configurations (network of NUTSs) are now saved in a new format using an XML description. The file contains all the environment information, a detailed description of each NUTS and the network connections. When a new Configuration is saved, a short text description can be added to the file.

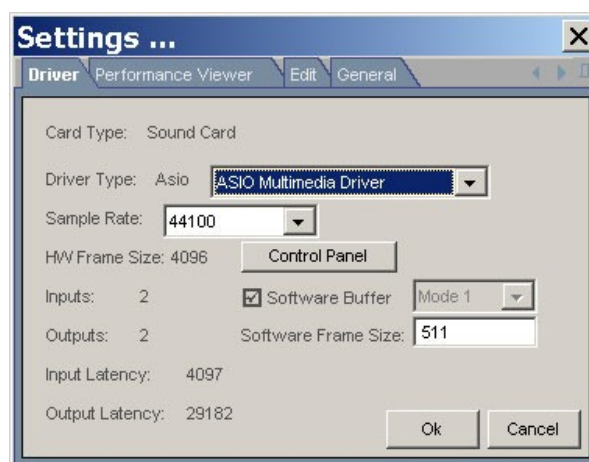
NUTS Rename Feature

Each NUTS on the board can be renamed by right-clicking on the NUTS and selecting “*Rename NUTS*” from the contextual menu. The new name will be maintained when saving a Configuration.

Software Buffer Management

This feature is available in ASIO mode only.

In *Settings* window (ToolBar->Settings) under “*Driver*” tab is now available a check box named “***Software Buffer***”. By activating this feature the user can insert an arbitrary value in “*Software Frame Size*” edit box. This feature is very useful in case the developer should need a buffer dimension not natively provided by the soundcard driver. The new input/output latency values will be showed.

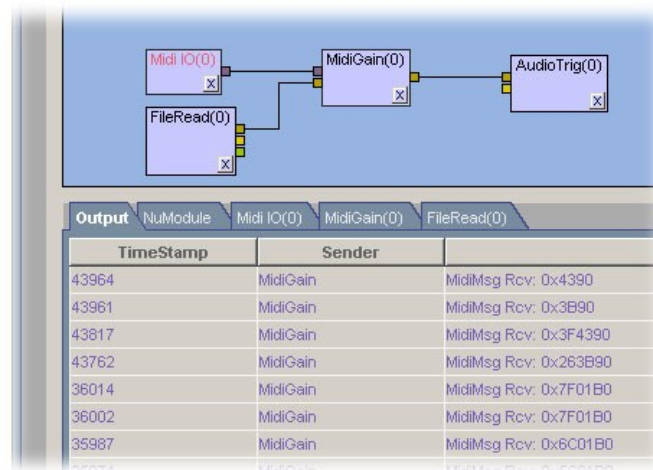


Basic Midi Support (Beta)

This feature is available in **Trigger** mode only.

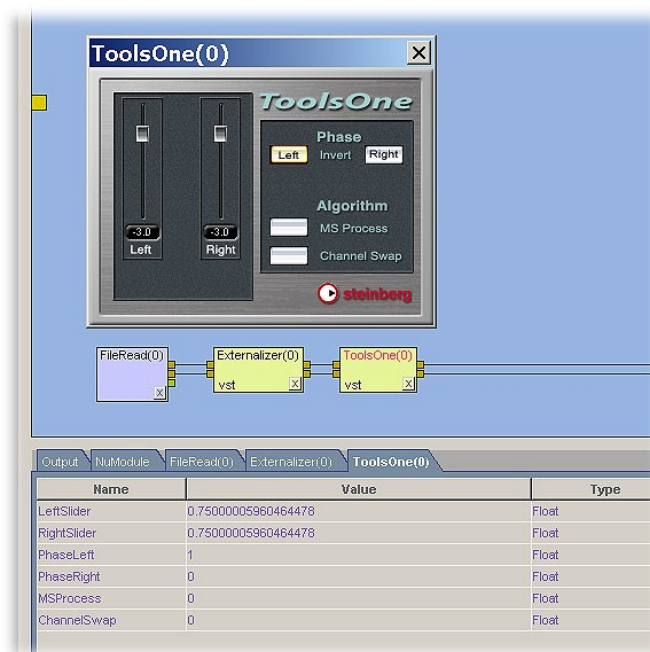
The Midi support is provided through a “Midi IO” NUTS able to detect Midi devices connected to the PC. The messages arriving from the device are listed in the *Output* tab and made available through the output pin, following the standard Midi format.

A simple application of such interface is represented by the “MidiGain” NUTS where the messages arriving from the “Midi IO” (first Midi channel), are associated to a gain control.



VST SUPPORT

On the lateral multitab pane a “VST Tree” has been added. When NU-Tech is launched, all VST plugins found in the registry are loaded and shown in the tree-view. They can be added on the board together with NUTSs and freely connected each other to form a network. They will appear

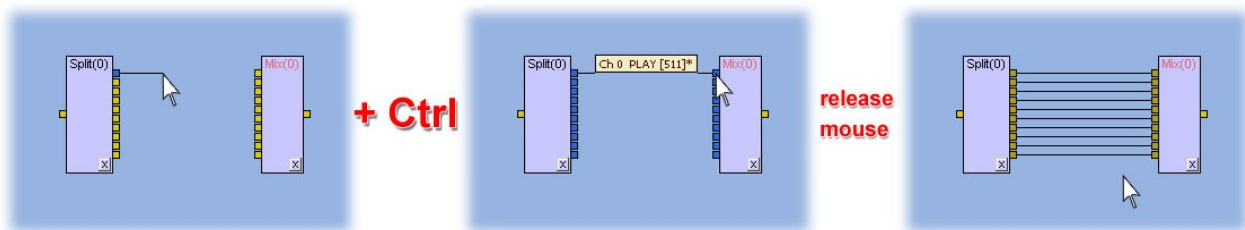


as yellow NUTSs. If a graphical interface exists, it will be accessible as usual by double-clicking on the VST plugin on the Board. The RTW window (Real Time Watch) will add a new tab with all the parameters exposed by the plugin. Changes in RTW parameters will be reflected on the plugin GUI.

“Easy-connect” Pin

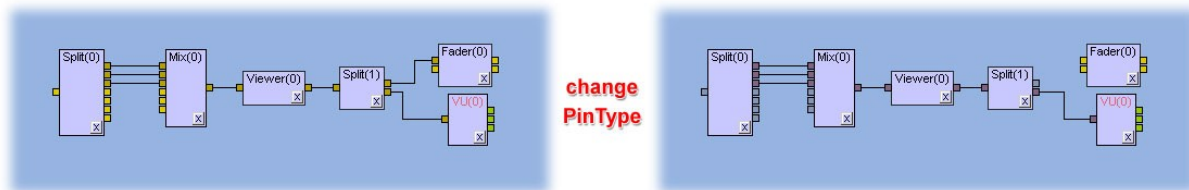
When a considerable number of pins has to be connected, try the following to shorten the operation:

- left click on the pin
- keep pressed Ctrl button on the keyboard
- drag the link on the destination pin
- release the mouse button



Pin Type Propagation

When trying to connect two pins of different type (data format, data precision or data length), NU-Tech dispatches a message attempting to adjust the PinType of all the connected NUTSs in the chain. In order to successfully complete the conversion, each NUTS should contain the code to handle such a message (see SDK Addendum ver. 1.0).



Shared Memory support

All the NUTSs on the Board can get access (register) to a common memory area in order to share data or information. A suitable mechanism has been arranged in order to notify each registered NUTSs of the Shared Memory modifications (See SDK Addendum ver. 1.0 for details).

Refresh NUTSs TreeView

A “Refresh List” command has been added to the contextual menu in the NUTSs TreeView.

BUGS FIXED

- Shortcuts Ctrl+L, Ctrl+B, Ctrl+W now working correctly
- Connection pin with Undo/Redo feature

NUTS FIXES AND MODIFICATIONS

- FileRead: “adjust bits” feature, added pin for “End of file” notification
- Gain: added dB scale in RTWatch
- NUWriter: some GUI details (FFT autoupdate, load/save file) and optimizations
- NUReader: GUI fixes and upgrades
- FFT viewer: visualization range saved with configuration settings