Magic NDI

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Using the NDI SDK

"Magic*NDIsender.dll*" and "Magic*NDIreceiver.dll*" are 64bit Magic plugin modules for sending to and receiving from, by way of a network, applications supporting the NewTek NDI ("Network Device Interface") protocol.

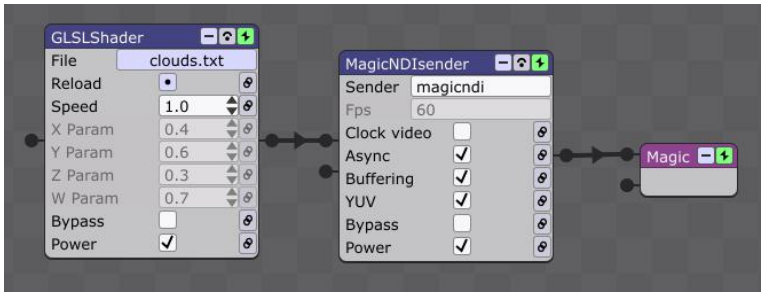
Magic does not have NDI support at the time of writing but may in the future, so these plugins could be useful in the meantime.

The current modules are built with Magic MDK Version 2.3 and have been tested with Magic (Version 2.32).

The files can be copied to wherever the host application will find them. *Magic* allows "additional module folders" to be defined.

MagicNDIsender

When the plugin is first activated, nothing will happen because there is no sender name yet. Type in a name and activate with the Enter key.



The NDI source is now available on the network. You can confirm this with the Newtek Video Monitor application.

Fps

If “Clock Video” is enabled you can specify the frame rate of the NDI sender which is independent of the frame rate for Magic, and whether Vsync is enabled or disabled for the display. Default is 60fps. Other common frame rates are 24 (film), 25 (PAL), 29.97 (NTSC).

Clock video

The output rate is clocked to the fps value.

Async

This option activates an asynchronous sending mode where frames are sent without waiting until the previous one has been processed. The NDI system manages the buffering and synchronisation. This is the fastest sending method, and will over-ride the entered fps.

Importantly, if you specify a sending frame rate without Asynchronous sending mode, Magic itself is clocked at this rate.

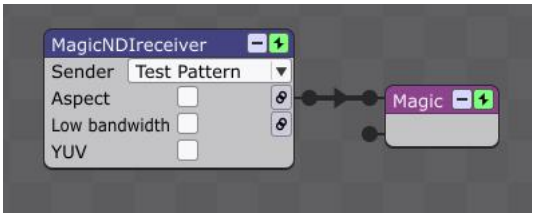
Buffering

This option activates readback buffering from GPU to CPU by way of OpenGL pixel buffers. Data transfer speed is increased at the expense of memory usage. For any problems, disable this option.

YUV

Send YUV or BGRA data (default BGRA).
BGRA is uncompressed and highest quality with alpha.
YUV is a compressed format but is more speed efficient.
The difference is more noticeable at high resolutions.

MagicNDIreceiver



When the plugin is activated, it will detect the first NDI sender running. If there is more than one sender, each can be selected using the “Sender” list control.

It can take a few moments to populate the list or to update after starting a new sender so be patient.

Once a sender is selected, the module will start receiving from it. If the network drops out, the last frame will be displayed and frames will resume when it comes back.

Aspect

"Aspect" allows you to either fill the render window with the received image (off) which is the default, or preserve the aspect ratio (on).

Low bandwidth

This will reduce the resolution of the received sender to preserve bandwidth with high resolution sources. The resolution is determined by the NDI system.

YUV

Set to prefer YUV or BGRA data (default BGRA).
BGRA is uncompressed and highest quality with alpha.
YUV is a compressed format but is more speed efficient.
The difference is more noticeable at high resolutions.

Both plugins are dependent on “Processing.NDI.Lib.x64.dll” for a 64 bit application or “Processing.NDI.Lib.x86.dll” for a 32 bit application. If these files are not located in the folder of the host application, you will be prompted to download and install the NDI runtime.

NDI tools

NDI Tools include a “Test Pattern” sender, a “Video Monitor” to receive from NDI senders and a “Scan Converter” screen capture application, which are most useful for use with the modules as well as several other useful tools.

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