NDI Changes

NDI 5.0.10.1

Version number update to match public launch of NDI Tools that includes NDI Bridge.

NDI 5.0.10

First version that includes full NDI Bridge. The NDI Bridge executable supports three command line options, the first is "/join" which will start the application in the Join mode. "/local" and "/host" start the application in Local and Host mode respectively.

Support for hardware rendering of the mouse cursor in Screen Capture without "trails" and without any performance overhead.

KVM support for applications has been added to the Advanced SDK.

Support for the latest version of the Adobe CC applications that have been updated.

Reliable UDP sending is likely to use lower CPU usage than previous versions. NDI will take advantage of computer systems with NICs that support hardware accelerated UDP segmentation offload. This can be used to offload much of the CPU burden of high bandwidth UDP sending. Better reliable UDP spreading of sending and receiving across multiple CPU cores.

If you are connected to an NDI discovery server and the network connection is physically lost (i.e. the application or device on one side does not gracefully close the connection), this will now be detected and handled much more quickly than previous versions.

Lower CPU usage in many situations through more efficient use of queues without CPU locking.

The NDI installer on Windows will check whether "Media Foundation" is available on your operating system and notify you if it needs to be installed. There are some local versions of Windows (e.g. Windows 10 Pro N) that might not include this as a default option.

The NDI installer will backup your NDI configuration when it is being installed so that each update to Tools does not wipe out your configuration. When you uninstall NDI Tools completely, the configuration should be completely removed.

Fix on Apple SDKs for cases in which extra data was incorrect in HX2 streams, we now handle this condition gracefully.

Apple SDKs with Free NDI SDK now bring back all of the Apple platforms into a single installer which unfortunately significantly increases the install size. It does mean one SDK covers Mac, iPad, iOS, tvOS however.

Android SDK is available for free for use in mobile applications.

NDI 5.0.9

Launching an NDI application no longer will try to configure the firewall for you unless you have administration privileges. This avoids the potential for the annoying user-access-control dialog to come up each time you launch an NDI application – you are likely still then to see a firewall warning which you will have to click on "Allow" access for, or NDI will not be able to access you network correctly.

The NDI screensaver is now aware of multi-DPI settings when you have multiple monitors on the system with different DPI settings.

The NDI Webcam tool will no longer show an NDI logo when connecting to sources. This makes the tool better for people who are using it in production.

When auto-focus is switched off for a PTZ Monitor in Studio Monitor, we do not resend the previous focus distance which makes the operation "feel better" because the focus stays set on the last value it was seen when auto-focus was used.

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NDI 5.0.8

Very significant changes have been made to RUDP sending to allow for much better network utilization on network with high round-trip time or packet loss. In addition, RUDP support has significant updates with much improved performance on WAN and MTU discovery. Significant improvements on macOS, iOS and Android have been made. Some important notes have been added to the Advanced SDK documentation regarding how to efficiently send compressed frames to the network under poor conditions with the SDK.

NDI SDK documentation has been updated with comments on performance, particularly related to some ARM platforms.

NDI 5.0.7

The NDI redistributable that was included with the SDK was not digitally signed, this has been corrected.

Fix for NDI Screen Capture HX in which a lockup was possible if a device (e.g. blue-tooth keyboard) was removed at almost the same time that an NDI connection was closed.

Fix for a problem with Screen Capture in which we might not send the first frame if the current screen was not changing at the time the NDI connection was made.

A condition was fixed in which Panasonic NDI cameras might not be detected on the network if they had been added after NDI started and had not yet been running for more than a few minutes.

NDI 5.0.6

Change to the RUDP receiver (and somewhat the sender) to have higher performance on multi-core machines that are under load or running many threads. When possible, we now keep a thread in a wake-able state on each CPU core so that upon receiving data we always know that it can be processed if there is any CPU time on the machine.

In Screen Capture it was possible that if a screen was not currently being updated that new NDI connections that occur do not receive a frame. The primary problem occurred when there was more than one connection at a time.

The NDI Launcher application will notify you when there is a newer version available, so you do not always need to track our web site for changes!

The NDI launcher will give you access to the NDI changes list so you can quickly see what has been updated in this version of NDI.

A crash that could occur based on timing when applications connected and disconnected from the "Web Cam input" on Windows has been fixed.

The discovery server allows you to specify a port number using the flag "-port 5959". You can now choose any port you want and in Access Manager or the configuration files you can specify a discovery server address that includes a port number. This allows you for instance to run multiple discovery servers on a single machine that control different sets of NDI sources.

NDI 5.0.5

Using NDI | HX v1 cameras with the Bridge Local mode (our transcoder) could cause video artifacts under certain network conditions due to the potential for compressed frames to be missed. This is now no longer possible.

There was an issue where if a configuration file had a NIC filter set up that specified adapter that did not exist on your machine then we would bind to a NIC that does not exist which would fail but might slow down the creation of connections or other possibly symptoms. We now validate the configuration files against the NICs that are on the machine and check that the IP addresses are truly valid before attempting to bind to them.

SDK sample code that shows how to display the average frame time and jitter in the advanced SDK.

NDI 5.0.4

NDI Remote had an issue with some cameras when moving between the high quality and proxy streams. This has been resolved.

Reliable UDP sending was always asynchronous in all sending, however it still needed to use a single thread per sending destination to ensure that individual connections could not interfere with other ones (which might have stalled). This is no longer the case and RUDP can now send across all destinations with all buffers in flight without needing any additional threads to service the sending.

NDI 5.0.3

Improvement to Windows based Audio and Video drivers that will make them much more robust to applications that are less tolerant of "strange clocking". In general, this makes things far more robust and should result in much better results. A placeholder image is shown when you are not connected to a source so that the application receives video instead of simply receiving no data.

In the NDI Tools on Windows, clicking on the "Balloon help popups" in Screen Capture and Webcam input no longer opens the help, but instead opens the context menu for that tool. This is very convenient and much less annoying! (Help is still available on the context menus).

The Webcam tool on Windows will connect to audio much faster. It was previously a problem that when you started a call (e.g. with Skype, Teams or Zoom) that it took about half a second for the audio to even start which meant that communication was hard. This should no longer happen.

Importantly, if you are using the Webcam plugins with applications like Skype, Teams or Zoom and you are using audio content that is not just speech, it is important to disable noise suppression and echo cancellation. These effects are designed to make speech more audible against background sounds however can also create significant audio artifacts on music or other non-speech content.

Audio support on some much older NDI HX v1 converter devices was not working, this has now been solved.

NDI 5.0.2

NDI discovery server has an optional parameter that allows you to bind it to a single NIC on your machine for improved security.

NDI discovery server displays output that is designed to be read by another application that might want to provide a UI on top of it.

NDI 5.0.1

Example code for showing how to connect to a device (as a receiver) and recover the tally state. This makes the implementation of external tally devices very simple. This uses the *tally_echo* functionality.

New example code included in NDI Advanced SDK.

RUDP is available as a specific connection type setting on macOS, previously "auto" selected it because it is now the default but there should be a specific setting that enables it.

The "preferred NIC" is not a guarantee that a NIC will be used on all protocols since there are some cases where it might not be possible; this is particularly true for the older transfer protocols. We have extended the support for NIC selection to include more modes and increasing both sides of the connection (both sending and receiving).

Bug fix for a case in which connection sharing might not have always worked, particularly when using loop-back on the local machine. This did not actually cause any visible problem but caused NDI to work a little less efficiently than it should have.

Studio Monitor PTZ keyboard shortcuts handled "left" at a slightly different speed from "right". These now match exactly.

Changes to HX drivers on iOS that make them more compliant with app store rules.

Bug fix for crash using NDI Audio Direct with Adobe Audition.

NDI 5.0.0
The first launch of NDI 5 !