



Clara Holoscan SDK Release Notes

Release: 0.1

Document History

Version	Date	Authors	Description of Change
0.1	Nov 5, 2021	AG, IS, PG	Initial version

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About This Release

The NVIDIA® Clara Holoscan SDK 0.1 release supports development on the platforms listed below.

Note: *This release is intended for use with the listed platforms only. NVIDIA does not provide support for this release on products other than those listed below.*

Platform and Release Information

Description	Supported Version
Supported NVIDIA® Tegra® Linux Driver Package (L4T)	NVIDIA® JetPack™ 4.5.1 – R32.5
Supported Jetson Platforms	Clara Holoscan Developer Kit Jetson AGX Xavier
Supported x86 Platforms	Ubuntu 18.04
Supported Software for Clara Holoscan Developer Kit with NVIDIA® RTX6000	NVIDIA® Driver 460.73.01 CUDA 11.1 TensorRT 7.2.2 DeepStream 6.0 EA Rivermax SDK 1.8.21 AJA NTV2 SDK 16.1 and GStreamer Plugin

Package	Supported Version and Platform
Clara Holoscan DeepStream Sample	<code>clara-holoscan-deepstream-sample_1.4.0-0_arm64.deb</code> for Jetson Nano or Jetson AGX Xavier or Clara Holoscan Developer Kit

	<code>clara-holoscan-deepstream-sample_1.4.0-0_amd64.deb</code> for x86 Ubuntu 18.04 with NVIDIA® T4 or Quadro RTX™
Clara Holoscan Tools	<code>clara-holoscan-tools_1.3.0-0_arm64.deb</code> for Jetson AGX Xavier or Clara Holoscan Developer Kit
DeepStream Video Source	<code>clara-holoscan-gstnvvideotestsrc_1.1.0-0_arm64.deb</code> for Jetson AGX Xavier or Clara Holoscan Developer Kit <code>clara-holoscan-gstnvvideotestsrc_1.1.0-0_amd64.deb</code> for x86 Ubuntu 18.04 with T4 or Quadro RTX
Latency Measurement Tool	<code>clara-holoscan-latency-tool_1.0.0.tgz</code> for Clara Holoscan Developer Kit

To install Clara Holoscan SDK onto a Clara Holoscan Developer Kit, use NVIDIA SDK Manager. Detailed instructions on how to use SDK Manager are available [here](#). Ensure you have the latest version of SDK Manager installed on the host system.

Your account needs to be approved for the [Clara Holoscan SDK Early Access program](#) to be able to install Clara Holoscan SDK with SDK Manager.

Further information on versions, prerequisites, installation, and usage can be found in the Clara Holoscan SDK User Guide.

Release Support

This release will be supported until 4 weeks after the release of the next version of this software package and all its components. If a component has been removed from a release package, the support will be extended by 3 months after the next release of the complete software package. After that time no further support will be given for such a component.

If further support beyond what is specified above for a specific version is required for updated or removed software components, a written approval must be requested from NVIDIA. No guarantee is given that NVIDIA will approve such a request. In all other cases, the above timelines apply until further notice or otherwise specified.

This support definition applies retroactively to previous software releases.

Purpose of the Release

The Clara Holoscan SDK provides a development framework for medical imaging applications using the Clara Holoscan Developer Kit.

- The following components are included with the Clara Holoscan SDK:
- RTX6000 Driver Install Tool for Clara Holoscan Developer Kit
- DeepStream 6.0 EA
- DeepStream and Endoscopy Sample Applications
- DeepStream GPU Video Source Plugin
- Video Pipeline Latency Measurement Tool for Clara Holoscan Developer Kit

The following additional components are supported by the Clara Holoscan SDK and can be installed either directly using NVIDIA SDK Manager during the initial installation or by following instructions provided in the Clara Holoscan SDK User Guide:

- Rivermax SDK and Drivers with GPUDirect Support
- AJA NTV2 SDK and Drivers with GPUDirect Support for AJA Video Systems Devices

Known Issues

This section provides details about issues discovered during development and QA but not resolved in this release.

Issue	Description
200698736	Replaying a paused video using the <code>DeepstreamJetsonAGXSample</code> app causes the pipeline to reset, and object detection stops working on the Clara Holoscan Developer Kit in dGPU mode. Restarting the sample app helps to reset the pipeline.
200698728	Playing video three to four times in one session using the <code>DeepstreamJetsonAGXSample</code> app with HDMI input and a USB camera module crashes the sample app on the Clara Holoscan Developer Kit in iGPU mode. Restarting the sample app helps to reset the pipeline.
3239973	Closing the <code>DeepstreamJetsonAGXSample</code> app while using camera sensors with the CSI connector on Jetson AGX causes a segmentation fault, and camera nodes get stuck in unusable state. To restart the <code>nvargus-demon</code> , use the following: <pre>sudo systemctl restart nvargus-daemon</pre>
3423304	Camera modules with CSI connectors are not currently working on the Clara Holoscan Developer Kit.
200734182	Switching between two different scopes more than two times crashes the <code>EndoscopyJetsonAGXSample</code> app.
3324601	The Triton container uses the version 7.2.1 TensorRT library, but in some cases, this is not compatible with the version 7.2.2 library installed by the host. To resolve this, update to the <code>21.05.1-v1-py3</code> Triton container with the version 7.2.2 TensorRT libraries.
200767662	Starting CSI camera sensors with GStreamer sometimes causes red/black screen. To restart the <code>nvargus-demon</code> , use the following: <pre>sudo systemctl restart nvargus-daemon</pre>
3417047	Repeatedly playing and pausing the video in the <code>DeepstreamJetsonAGXSample</code> app leads to a crash.

200655673	Streaming from the <code>DeepstreamJetsonAGXSample</code> sample uses a low bitrate h.264 encoding that may lead to undesirable compression artifacts.
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