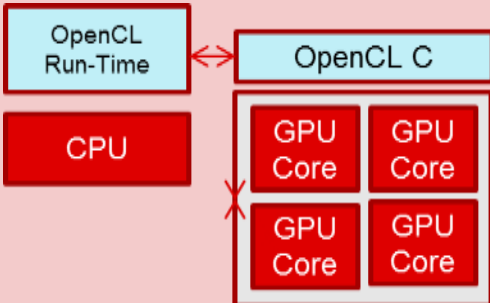
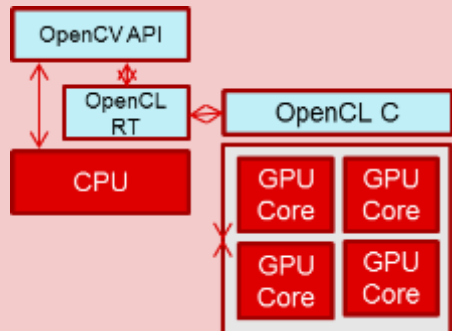
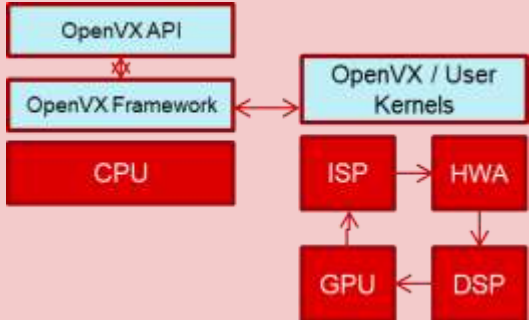


Introduction to OpenVX: Framework comparisons

Open compute frameworks

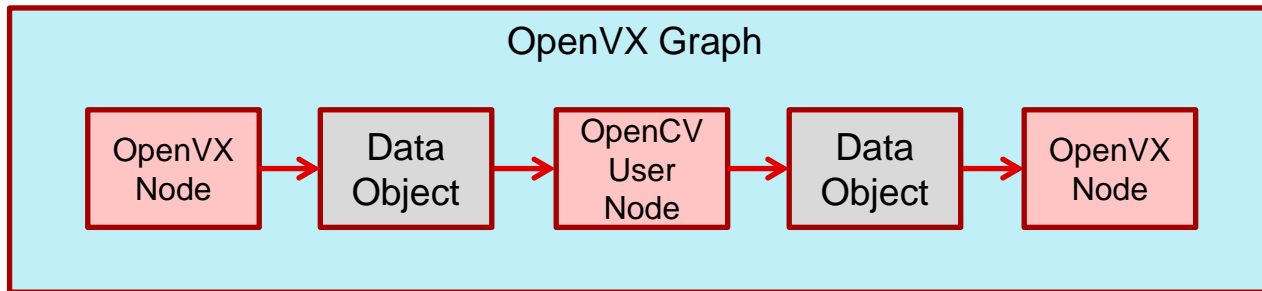
	OpenCL	OpenCV	OpenVX
Maintainer	Khronos Group	Itseez (Intel)	Khronos Group
Version	First : 1.0 (2009) Latest: 2.2 (2019)	First: Alpha (2000) Latest: 4.1.1 (2019)	First: 1.0 (2014) Latest: 1.3 (2019)
License	open, royalty-free specification	BSD License implementation	open, royalty-free specification
Programming Model	(1) Parallel programming Language (OpenCL C) (2) Run-time control framework	(1) 1000+ Computer Vision Function Library	(1) SoC wide graph execution framework (2) 40+ OpenVX Functions Library (3) User Functions
Popular System Configuration	 <p>The diagram shows a CPU connected to an OpenCL Run-Time component, which in turn connects to OpenCL C. OpenCL C is then connected to a GPU consisting of four GPU Cores.</p>	 <p>The diagram shows a CPU connected to an OpenCV API, which connects to OpenCL RT. OpenCL RT connects to OpenCL C, which is then connected to a GPU consisting of four GPU Cores.</p>	 <p>The diagram shows a CPU connected to an OpenVX API, which connects to an OpenVX Framework. The OpenVX Framework connects to OpenVX / User Kernels. The OpenVX / User Kernels are connected to a graph of hardware components: GPU, DSP, HWA, and ISP.</p>

OpenCV and OpenVX interaction

- Option 1: Sharing buffers between OpenCV and OpenVX

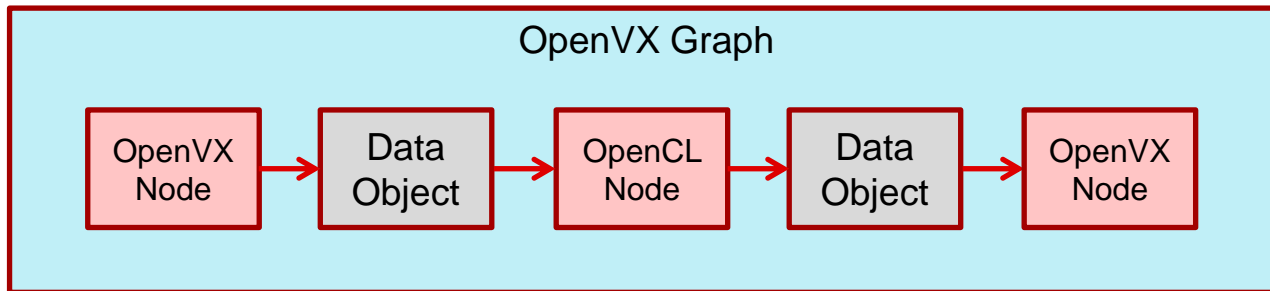


- Option 2: Wrapping OpenCV within an OpenVX user node



OpenCL and OpenVX interaction

- Dedicated node within OpenVX running OpenCL



For more information

- Jacinto 7 Processor SDK Automotive download:
<http://www.ti.com/tool/PROCESSOR-SDK-JACINTO-DRA8X-TDA4X>
- Processor SDK Linux Automotive (PSDKLA) user guide:
[#{PSDKLA_INSTALL_PATH}/docs/linux/index.html](http://www.ti.com/tool/PROCESSOR-SDK-LINUX-AUTOMOTIVE-PSDKLA-USER-GUIDE)
- Processor SDK RTOS Automotive (PSDKRA) user guide:
[#{PSDKRA_INSTALL_PATH}/index.html](http://www.ti.com/tool/PROCESSOR-SDK-RTOS-AUTOMOTIVE-PSDKRA-USER-GUIDE)
- For additional questions, refer to the E2E community forums:
<https://e2e.ti.com/support/processors/f/791>



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