

Xilinx Runtime (XRT) Release Notes

UG1451 (v2020.1 PU1) August 20, 2020



Revision History

The following table shows the revision history for this document.

Section	Revision Summary
08/20/2020 Version 2020.1 PU1	
<ul style="list-style-type: none"> • Support for RHEL/CentOS • Support for Ubuntu • Support for PetaLinux 	Added new topics describing OS support.
Supported Software Component Versions	Updated with 2020.1 PU1 values.
New Features	Updated with new content.
Resolved Issues	Updated with new content.
Known Issues	Updated with new issue and updated link for the Answer Record.
References	Updated with new referential documents.
06/03/2020 Version 2020.1	
Initial release.	N/A

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About Xilinx Runtime (XRT)

Xilinx[®] Runtime library facilitates communication between your application code (running on an embedded Arm[®] or x86 Host) and the accelerators deployed on the reconfigurable portion of PCIe[®]-based Xilinx accelerator cards, Zynq[®] UltraScale+[™] MPSoC-based embedded platforms, or ACAPs.

XRT is an open source project. Its source code is hosted at <https://github.com/Xilinx/xrt>, and its documentation is located at <https://xilinx.github.io/XRT/>.

Using XRT with the Vitis[™] unified software platform is documented in [Vitis Accelerated Software Development Flow Documentation](#) in the Application Acceleration Development flow of the *Vitis Unified Software Platform Documentation* (UG1416).

XRT Operating System Support

Support for RHEL/CentOS

Table 1: x86_64 Architecture

OS Version	Kernel Version
7.4	3.10.0-693
7.5	3.10.0-862
7.6	3.10.0-957
7.7	3.10.0-1062
7.8	3.10.0-1127
8.1	4.18.0-147

Note: The Kernel-headers package is required by XRT during installation. CentOS only provides kernel-headers packages for some releases, so XRT can only support the CentOS OS versions that provide kernel-headers packages.

Support for Ubuntu

Table 2: x86_64 Architecture

OS Version	Kernel Version
16.04.5 LTS	4.4.0-179
16.04.6 LTS	16.04.6: 4.4.0-186-generic
18.04.1 LTS	4.15.0-101-generic
18.04.2 LTS	4.15.0-45-generic
18.04.4 LTS ¹	4.15.0-76-generic

Notes:

- By default, Ubuntu 18.04.4 Desktop enables HWE, but the server version does not. For version details, refer to the [Ubuntu website](#).

Note: Ubuntu Hardware Enhancement (HWE) is not supported because it changes the Linux kernel version to 5.x (also not supported).



WARNING! Ubuntu [Live Patch Service](#) might apply kernel patches automatically. However, XRT is not tested against live patches. To prevent incompatibility issues, disable kernel auto-upgrade.

Support for PetaLinux

Table 3: aarch64, cortexa9 Architecture

OS Version	Kernel Version
2020.1	5.4

Supported Software Component Versions

Component	Version
Release Name	2020.1_PU1
XRT Build Version	2.7.766
XRT Git Hash	19bc791a7d9b54ecc23644649c3ea2c2ea31821c
XRT GitHub Tag	202010.2.7.766

What's New

New Features

This version of Xilinx[®] Runtime (XRT) includes the following.

Support for new operating system versions

- **RHEL/CentOS:** Versions 7.7, 7.8, 8.1
 - **Ubuntu:** Version 18.04.4 LTS
-

Major Changes

This release includes the following major changes.

Python Support Update

xbutil validate now uses Python3 for certain tests. XRT dependency on Python2, PyOpenCL and NumPy has been removed. Ensure that the Python3 package for your Linux distribution can be installed by the package manager.

Known Issues

For up-to-date information about known issues, refer to [Xilinx Answer Record #75485](#).

Additional Resources and Legal Notices

Xilinx Resources

For support resources such as Answers, Documentation, Downloads, and Forums, see [Xilinx Support](#).

References

The following documents provide useful, supplemental material.

- [Xilinx XRT Portal](#)
 - [XRT source code on GitHub](#)
 - [XRT Documentation](#)
 - *Vitis Unified Software Platform Documentation (UG1416)*
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