



# Intel<sup>®</sup> SoC FPGA Embedded Development Suite (SoC EDS) Professional Version 20.1 Release Notes

Updated for Intel<sup>®</sup> Quartus<sup>®</sup> Prime Design Suite: **20.1**



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## Intel® SoC FPGA Embedded Development Suite (SoC EDS) Professional Version 20.1 Release Notes

This document provides up-to-date information about the SoC EDS Professional Edition version 20.1 release of the Intel® SoC FPGA Embedded Development Suite (SoC EDS) software.

The SoC EDS Professional Edition targets the Intel Arria® 10, Intel Stratix® 10, and Intel Agilex™ devices and must be used only with FPGA projects created in Intel Quartus® Prime Pro Edition.

For more information, refer to the *Intel SoC FPGA Embedded Development Suite User Guide*.

For earlier versions of these release notes, refer to the *Intel SoC FPGA Embedded Development Suite Archives* section.

### Related Information

- [Intel SoC FPGA Embedded Development Suite Archives](#) on page 4  
Provides a list of user guides for previous versions of the SoC FPGA EDS IP core.
- [Intel SoC FPGA Embedded Development Suite User Guide](#)

## New Features and Enhancements

**Table 1. New Features and Enhancements for SoC EDS Professional Edition version 20.1**

Area	Description
Arm* Development Studio* for Intel SoC FPGA Edition (not part of the SoC EDS package)	Arm DS* for Intel SoC FPGA Edition, which can be downloaded from the Intel website
Hardware Library (HWLib)	<ul style="list-style-type: none"> <li>• Added the ability to use: <ul style="list-style-type: none"> <li>– Linaro* GCC compiler</li> <li>– Standard C library for embedded systems: <code>newlib</code></li> </ul> </li> <li>• Removed Mentor Graphics* CS3 dependency</li> <li>• Added hardware init source</li> </ul>
Python and OpenJDK	<ul style="list-style-type: none"> <li>• All software examples have been updated to use the Linaro toolchain by default</li> <li>• OpenJDK upgraded to match Intel Quartus Prime Pro Edition version 20.1</li> <li>• Host tools scripts upgraded to Python 3.8.1, including a rewrite for some of the secure boot tools</li> </ul>

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## Tool Versions

**Table 2. Intel Quartus Prime Pro Edition Tool Version Updates for SoC EDS Professional Edition version 20.1**

Tools	Version
Arm Development Studio (DS) for Intel SoC FPGA Edition	2020.0
Python	3.8.1, with CVE patches

## Resolved Issues

**Table 3. Resolved Issues**

Area	Description
Intel Stratix 10 Golden Hardware Reference Designs for SoC FPGA Development Kits (GHRD)	The Intel Stratix 10 Golden Hardware Reference Designs for SoC FPGA Development Kits (GHRD) -S2 Makefile error fixed

**Note:** The *Intel SoC FPGA Embedded Development Suite User Guide* will be available at a later date. For preliminary information, refer to the SoC EDS web page on the RocketBoards.org website.

### Related Information

[SoC EDS web page on RocketBoards.org](#)

## Known Issues

### HWLib

- When using Linaro GCC:
  - Ethernet driver is not able to get IP address
  - MMC does not initialize correctly
  - Virtual memory `memcpy` does not copy content correctly
  - `HWLIB Makefile` is updated for better maintainability

## Intel SoC FPGA Embedded Development Suite Archives

Intel Quartus Prime Version	Release Notes (PDF)
19.3	<a href="#">Intel SoC FPGA Embedded Development Suite (SoC EDS) Professional Version 19.3 Release Notes</a> These release notes cover Intel Quartus Prime version 19.3.
19.1	<a href="#">Intel SoC FPGA Embedded Development Suite Release Notes (19.1)</a> These release notes cover Intel Quartus Prime versions 18.1 through 19.1.
18.1	<a href="#">Intel SoC FPGA Embedded Development Suite Release Notes (18.1)</a> These release notes cover Intel Quartus Prime versions 18.0 through 18.1.
18.0	<a href="#">Intel SoC FPGA Embedded Development Suite Release Notes (18.0)</a> These release notes cover Intel Quartus Prime versions 17.0 through 18.0.



## Revision History for Intel SoC FPGA Embedded Development Suite (SoC EDS) Release Notes

Document Version	Changes
2020.04.24	Added new features and bug fixes for the Intel Quartus Prime 20.1 software release of the SoC EDS Professional Edition release.
2019.09.30	Added new features and bug fixes for the Intel Quartus Prime 19.3 software release of the SoC EDS Professional Edition release.
2019.04.10	<ul style="list-style-type: none"> <li>Added information about installing Cygwin for Microsoft* Windows* users.</li> <li>Created the Intel SoC FPGA Embedded Development Suite Archives" section to contain all of the previous versions of these release notes.</li> <li>Removed the Intel Quartus Prime 18.0 version from these release notes and added them to the "Intel SoC FPGA Embedded Development Suite Archives" section.</li> </ul>
2018.09.24	<ul style="list-style-type: none"> <li>Updated the Arm Development Studio 5* (DS-5*) for Intel SoC FPGA Edition version.</li> <li>Added "Enhancements" and "Issues Resolved" for these areas in :                             <ul style="list-style-type: none"> <li>Golden Hardware Reference Designs for SoC FPGA Development Kits (GHRD)</li> <li>Arm DS-5 for Intel SoC FPGA Edition</li> <li>Bootloader Generator and Bootloader</li> </ul> </li> </ul>
2018.05.07	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 18.0 release of the SoC FPGA EDS software - Standard and Pro editions.
2017.12.05	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 17.1 release of the SoC FPGA EDS software - Standard and Pro editions.
2017.05.08	Release Notes divided into a Pro and Standard section.
2016.11.07	Added clarity to the early IO release feature.
2016.05.09	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 16.0 release updates
2016.01.22	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 15.1.1 release updates
2015.11.02	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 15.1 release updates
2015.06.05	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 15.0.1 release updates
2015.05.01	Added new features, bug fixes, enhancements, and known issues during the Intel Quartus Prime 15.0 release updates