

SDSoC 2015.4 Release Notes

For licensing and installation information, refer to the document *An Introduction to the SDSoC Environment*, (UG1028) <sdsoc_install_root>/docs/ug1028-intro-to-sdsoc.pdf. The Tutorial Labs in UG1028 provide a hands-on introduction to the SDSoC Environment. Additional reference and tutorial information is contained in *SDSoC Environment User Guide*, (UG1027).

Release Summary

2015.4 (Dec 14, 2015)

- Integrated installer including SDSoC 2015.4 and the Vivado Design Suite 2015.4 (System Edition with Vivado® HLS) for Zynq® family devices
 - Complete installation environment containing tools, data files, and patches for supported targets
 - Web-based installer option
- Windows 64-bit support
 - Windows 7, 7 Professional (64-bit), English
- Linux 64-bit host support
 - Red Hat Enterprise Workstation 6.5-6.6 and 7.0-7.1 (64-bit)
 - Ubuntu Linux 14.04.2 LTS (64-bit)
- Target OS support
 - Linux (kernel 3.19, Xilinx branch Xilinx-v2015.2.03), bare-metal and FreeRTOS 8.2.1
 - Example PetaLinux BSP for ZC702 platform with documentation in *SDSoC Environment User Guide: Platforms and Libraries* (UG1146)
- Updated documentation, including tutorial labs and a platform and libraries methodology guide
 - *SDSoC Environment User Guide*, (UG1027), HTML version in Eclipse and <sds_install_root>/docs/ug1027-user-guide.pdf. Includes updated content on system optimization and pragmas.
 - *SDSoC Environment User Guide: An Introduction to the SDSoC Environment*, (UG1028), Tutorial Labs 1-5 in Eclipse and <sds_install_root>/docs/ug1028-intro-to-sdsoc.pdf.
 - *SDSoC Environment User Guide: Platforms and Libraries*, (UG1146), HTML version in Eclipse and <sds_install_root>/docs/ug1146-sdsoc-platforms-and-libraries.pdf. New SDSoC Vivado Tcl APIs for platform hardware description. Documentation for delivering sample applications with platform. Updated example platforms to support direct I/O.

- SDSoC Eclipse UI with project creation, implementation and debug
 - Debugger updated to connect to target using xsdb
 - Improved incremental compilation
 - Usability updates
 - Build process detects unsaved files in the source editor
 - Critical warnings when timing is not highlighted and includes additional information
 - Highlighted error messages
 - Online SDSoC help
- Compiler enhancements
 - Support for arrays of struct, class types
- Flow enhancements
 - Improved incremental build support in performance estimation flows
- Platform updates
 - The `zc702_hdmi` platform has been superseded by the `zc702_base_trd` platform, which is available as a separate download on www.xilinx.com/sdsoc
- Enhanced platform deployment support
 - New Vivado Tcl APIs to specify platform hardware description
 - Updated step-by-step tutorials for platform creation in UG1146
 - New tutorial for simple LED platform using standalone BSP
 - Improved error checking for hardware platform XML files
 - Support to specify content to add to SD card images generated for users
 - Support for standalone BSP configuration file (MSS) and standalone BSP software repository
- New and updated sample applications
- Bug fixes and infrastructure updates
 - Improved stability and ease of use, including improved error checking
 - Source code with multi-line macros supported on Windows
 - Enhanced error messaging when hardware function latency cannot be determined or is not specified
- Advanced User features
 - New Beta feature: hardware/software event tracing, with preliminary documentation, <sds_install_root>/docs/SDSoC_Trace2015.4.pdf.

Known Issues (to be addressed in future releases)

1. SDSoC Event Tracing is a Beta feature in this release.
2. On Linux hosts, the SDSoC IDE Welcome screen does not display all information (refer to Help Contents).
3. On RHEL Linux, connecting to a serial port from the Terminal View will crash SDSoC IDE. To work around the issue, use the SDK Terminal view or a separate terminal program to connect to your board.
4. If you cancel a build in the SDSoC IDE, you must delete the build target directory for the current build configuration (e.g., SDDebug, SDRelease, SDEstimate) before rebuilding. Otherwise the behavior of the build is indeterminate.
5. If you encounter an "error copying" message on a Windows host, the SDSoC install directory or your workspace has a pathname that causes file pathnames generated by SDSoC to exceed the Windows limit of 260 characters. To mitigate this issue, you can choose short names for the install and workspace directories, e.g., "C:\i" or "C:\w".
6. In the SDEstimate flow, do not use variables named `clock_start` and `clock_end` in a function marked for acceleration or the performance root function, otherwise a conflict occurs with variables created for the SDEstimate flow.
7. Standalone applications cannot write the filesystem on an SD card due to a bug in the `f_write()` function in `xilffs`.

Revision History

The following table shows the revision history for this document:

Date	Version	Revisions
12/14/2015	2015.4	Updated entire text for current release.
09/30/2015	2015.2.1	Updated entire text for current release.
07/26/2015	2015.2	Fixed minor formatting error. No content changes.
07/20/2015	2015.2	Initial Xilinx release.

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