

SDSoC Development Environment Release Notes

UG1185 (v2015.2.1) September 30, 2015

Feature Summary

For licensing and installation information, refer to the document *SDSoC Environment User Guide: Getting Started*, (UG1028). For a hands-on introduction to the SDSoC[™] environment refer to the Tutorial Labs in the document *SDSoC Environment User Guide: Getting Started*, (UG1028), (prebuilt labs are found in the <*sdsoc_install_root*>/docs/labs directory). For additional reference and tutorial information, refer to *SDSoC Environment User Guide*, (UG1027). All user guides can be found on the web http://www.xilinx.com/products/design-tools/software-zone/sdsoc.html#docstraining.

Release Summary

- Integrated installer including SDSoC 2015.2.1 and the Vivado Design Suite 2015.2 (System Edition with Vivado® HLS) for Zynq® family devices
 - o Complete installation environment containing tools, data files, and patches for supported targets
 - o Web-based installer option
- Windows 64-bit support
 - o Windows 7, 7 SP1 (64-bit), English
- Linux 64-bit host support
 - Red Hat Enterprise Workstation 6.4-6.6 and 7.0 (64-bit)
 - o Ubuntu Linux 14.04 LTS (64-bit) separate xsltproc install no longer required
- Target OS support
 - Linux (kernel 3.19, Xilinx branch Xilinx-v2015.2.02), 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)
 - SDSoC Environment User Guide: Getting Started, (UG1028), Tutorial Labs 1-5 Includes updated content for AXI Performance Monitor usages.
 - SDSoC Environment User Guide: Platforms and Libraries, (UG1146) Updated sample platform tutorials.



[©] Copyright 2015 Xilinx, Inc. Xilinx, the Xilinx logo, Artix, ISE, Kintex, Spartan, Virtex, Vivado, Zynq, and other designated brands included herein are trademarks of Xilinx in the United States and other countries. All other trademarks are the property of their respective owners.

EXILINX.

- SDSoC Eclipse UI with project creation, implementation and debug
 - o Debugger updated to connect to target using xsdb
 - o Usability updates, for example the build flags unsaved files in the source editor
 - o Critical warnings when timing is not highlighted and includes additional information
 - Highlighted error messages
 - Online SDSoC help
- Flow enhancements
 - Additional error checking for Vivado HLS functions with arguments using #pragma HLS PARTITION
 - o Incremental builds supported in performance estimation flows
 - Vivado implementation step uses opt_design -directive Default
- Platform updates
 - o OSD platform included with full release support
- Enhanced platform deployment support
 - New tutorial for simple LED platform for standalone BSP
 - Updated step by step tutorials for platform creation updated in UG1146
 - o Improved error checking for hardware platform XML files
 - o 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
 - o Improved stability and ease of use, including improved error checking
 - o Source code with multi-line macros supported on Windows
 - For standard platforms Linux boot enables clocks used by ILA IP cores used for hardware debugging
 - Enhanced error messaging when hardware function latency cannot be determined or is not specified
 - Assign AXIMM ports with the same bus name to the same system port
 - o Stub file issue corrected for INOUT argument passed by reference
 - o Updated platform qualification checklist
- Advanced User features
 - New -impl-tcl command-line option for sdscc/sds++ -impl-tcl to override default Vivado synthesis and implementation commands



Additional Licensing Requirements and constraints

The SDSoC samples/platforms/zc702_hdmi platform requires licenses for the following Xilinx IP cores, available as part of the SDSoC license.

- LogiCORE, Chroma Resampler
- LogiCORE, Video Timing Controller
- LogiCORE, Test Pattern Generator
- LogiCORE, YCrCb to RGB Color-Space Converter

This video platform includes evaluation licenses for IP from Xilinx partners. You must obtain a full license to use any of these IP in a product. For more information refer to <u>Zynq-7000 All Programmable SoC: ZC702</u> <u>Evaluation Kit and Video Imaging Kit (v5.0) (UG926)</u>.

Known Issues

See Answer Record 65472.

Revision History

The following table shows the revision history for this document:

Date	Version	Revisions
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.



Notice of Disclaimer

The information disclosed to you hereunder (the "Materials") is provided solely for the selection and use of Xilinx products. To the maximum extent permitted by applicable law: (1) Materials are made available "AS IS" and with all faults, Xilinx hereby DISCLAIMS ALL WARRANTIES AND CONDITIONS, EXPRESS, IMPLIED, OR STATUTORY, INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT, OR FITNESS FOR ANY PARTICULAR PURPOSE; and (2) Xilinx shall not be liable (whether in contract or tort, including negligence, or under any other theory of liability) for any loss or damage of any kind or nature related to, arising under, or in connection with, the Materials (including your use of the Materials), including for any direct, indirect, special, incidental, or consequential loss or damage (including loss of data, profits, goodwill, or any type of loss or damage suffered as a result of any action brought by a third party) even if such damage or loss was reasonably foreseeable or Xilinx had been advised of the possibility of the same. Xilinx assumes no obligation to correct any errors contained in the Materials or to notify you of updates to the Materials or to product specifications. You may not reproduce, modify, distribute, or publicly display the Materials without prior written consent. Certain products are subject to the terms and conditions of Xilinx's limited warranty, please refer to Xilinx's Terms of Sale which can be viewed at www.xilinx.com/legal.htm#tos; IP cores may be subject to warranty and support terms contained in a license issued to you by Xilinx. Xilinx products are not designed or intended to be fail-safe or for use in any application requiring fail-safe performance; you assume sole risk and liability for use of Xilinx products in such critical applications, please refer to Xilinx's Terms of Sale which can be viewed at www.xilinx.com/legal.htm#tos.