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# Revision History

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<th>REV</th>
<th>DATE</th>
<th>AUTHOR</th>
<th>NOTES</th>
</tr>
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<tbody>
<tr>
<td>0.3</td>
<td>17 Oct 2005</td>
<td>CSST Team</td>
<td>Update for CSST Engineering Release 0.1</td>
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<tr>
<td>1.0</td>
<td>29 Dec 2005</td>
<td>CSST Team</td>
<td>Update for CSST_SDP2430_v1.0 Release</td>
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<tr>
<td>1.1</td>
<td>06 Jan 2006</td>
<td>Shyamala</td>
<td>Update for CSST_SDP2430_v1.0.1 Release</td>
</tr>
<tr>
<td>1.2</td>
<td>13 Mar 2006</td>
<td>Jis</td>
<td>Update for CSST_SDP2430_v1.1 Release</td>
</tr>
<tr>
<td>1.3</td>
<td>18 May 2006</td>
<td>Sireesha</td>
<td>Update for CSST_SDP2430_v1.2</td>
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1. Introduction

Please read this Release Note carefully prior to installation and use of the software.

This document, CSST Release Notes, contains important information about Cellular Systems Software Tools (CSST) CSST_SDP2430_v1.2 release for 2430 SDP platform. Included in this document is information about features and hardware platforms supported in this revision of CSST. Additionally, it contains known issues and issues resolved from previous releases.

Please contact your Texas Instruments (TI) technical representative for additional information and instructions for obtaining the latest release of CSST.

NOTE: Uninstall the old version of CSST before installing the CSST_2430_1.2 because of Installer change.

2. Acronyms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSST</td>
<td>Cellular Systems Software Tools</td>
</tr>
<tr>
<td>OST</td>
<td>OMAP Software Tools</td>
</tr>
<tr>
<td>CCS</td>
<td>Code Composer Studio</td>
</tr>
<tr>
<td>CLI</td>
<td>Command Line Interface</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>IRDA</td>
<td>Infra Red</td>
</tr>
<tr>
<td>LAN</td>
<td>Local Area Network</td>
</tr>
<tr>
<td>LCD</td>
<td>Liquid Crystal Display</td>
</tr>
<tr>
<td>MMC</td>
<td>Multimedia Card</td>
</tr>
<tr>
<td>USB</td>
<td>Universal Serial Bus</td>
</tr>
</tbody>
</table>

3. Requirements

Following are the pre-requisites for installing and using the CSST:

3.1. Host Requirements

The PC host hardware development requirements are:

PC minimum requirements
- 233 MHz or higher Pentium – compatible CPU.
- 40MB of free hard disk space.
- SVGA (800 X 600) display.
- 256 MB RAM
- JTAG Emulator
  - XDS560 PCI card Or Blackhawk XDS560 Emulator.

Operating Systems
- Windows 2000 with Service Pack 1 or higher.
- Windows XP Pro or Home.

Encryption Library:
CSST signing feature requires the following encryption routines: SHA1 and RSA. These are not included in this release. For testing purposes, TI has used encryption libraries from the OpenSSL project (http://www.openssl.org/). OpenSSL version “0.9.7g” was used to test this release of CSST signing feature. (OpenSSL library package can be obtained from the URL: http://www.slproweb.com/products/Win32OpenSSL.html. Once OpenSSL is installed, OpenSSL DLLs will be available under “WINNT\System32\” standard path and user need not copy it to CSST directory. If the mentioned version of OpenSSL is not present in the website, use the recommended latest version given in the site).

3.2. Target Requirements

This CSST release is for SDP2430v2.x, SDP2430 v1.1, SDP2430 v1.0, and SDP2430 v0.3. Most of the testing is done on SDP2430 v2.0 platform.

4. CSST New Features and Supported Platforms

4.1. CSST Feature List

CSST_SDPP2430_v1.2 supports the following additional features:

4.1.1. New features list:

- **Diagnostics module:**
  1. DDR tests running at 166 MHz and ARM 11 at 330 MHz
  2. FS USB enumeration
  3. HS MMC tests running at 48 MHz
  4. HS I2C
  5. OneNAND, Sibley NOR, NAND and Strata NOR memory tests at 166 MHz

- **Download Module:**
  1. OMAP2430 ES2.0 EMU device downloads
  2. Updated PPA for EMU devices

4.1.2. Enhancements

- **Diagnostics module:**
  1. Dynamic Configuration to have backward compatibility
  2. Optimized OneNAND drivers at 166 MHz

- **Host Module:**
  1. GUI Stability increases
  2. Improved user experience for Boot Rom mode downloads

- **Download Module:**
  1. HS USB Downloads/ Image flashing - SW work around

4.1.3. Issues Fixed:

- **Diagnostics module:**
  1. Audio noise issue is fixed with board and SW fix
  2. In IRDA FIR mode, during read test, some data seems to be lost – Fixed
  3. Headset detect function added
Host Module:
1. OMAPS00071782 - CSST: Memory leak in ListCtrlEx.cpp
2. OMAPS00071760 - CSST: Memory leak in tracer.cpp
3. OMAPS00071758 - CSST: Memory leak in CDownload::GetItemText()
4. OMAPS00071743 - CSST: Memory leak in guiView.cpp
5. OMAPS00071578 - CSST: Several GUI functions call "new CXMLParser()", but never free it
6. OMAPS00071908 - CSST: Cservices::mConfigFileName variable is obsolete, and causes memory leak
7. OMAPS00072049 - CSST: Many memory leaks in XMLParser.cpp (several 100KB are leaking)
8. OMAPS00070121 - The lower bottom of the CSST GUI is shown as transparent.
9. OMAPS00072484 - Do not retrieve the complete debug window contents for every new debug message, append lines instead
10. OMAPS00073374 - CSST: Operator 'delete' used wrongly in panel.cpp
11. OMAPS00073373 - CSST: Wrong deallocation in cli_fw.cpp
12. OMAPS00073376 - CSST: Memory leaks in panelarray.cpp
13. OMAPS00070586 - CSST I+G-Sample Release 1.7.0 integration

Download Module:
1. OMAPS00069770 - Erase entire flash on the "erase tab" does not work
2. OMAPS00070138 - The file dnld_host_common.h needs to be removed as it contains duplicates of data in the sap file
3. OMAPS00070272 - Remove "Driver Configuration" on the "Settings" tab in CSST

Signing Module:
1. OMAPS00073690 - Signing module is not generating correct image

Documentation:
1. OMAPS00077591 - CCS config files missing from CSST 1.1 installation

4.2. Supported Platforms
This release of CSST has been validated with the target components on the OMAP 2430 SDP platform and the host components on PC with Windows 2000/XP.

<table>
<thead>
<tr>
<th>CSST Revision</th>
<th>HW Revisions</th>
<th>Device Type</th>
<th>Silicon Revisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSST_SDP2430_v1.2</td>
<td>SDP2430v0.3</td>
<td>GP</td>
<td>OMAP 2430 ES 1.0+M1</td>
</tr>
<tr>
<td>CSST_SDP2430_v1.2</td>
<td>SDP2430v1.0</td>
<td>GP</td>
<td>OMAP 2430 ES 1.0+M1</td>
</tr>
<tr>
<td>CSST_SDP2430_v1.2</td>
<td>SDP2430v1.0</td>
<td>EMU/HS</td>
<td>OMAP 2430 ES 1.0+M1</td>
</tr>
<tr>
<td>CSST_SDP2430_v1.2</td>
<td>SDP2430v1.1</td>
<td>GP</td>
<td>OMAP 2430 ES 1.0+T2 ES1.0</td>
</tr>
<tr>
<td>CSST_SDP2430_v1.2</td>
<td>SDP2430v1.2</td>
<td>EMU</td>
<td>OMAP2430 ES2.0+T2 ES1.0</td>
</tr>
<tr>
<td>CSST_SDP2430_v1.2</td>
<td>SDP2430v2.x</td>
<td>GP</td>
<td>OMAP 2430 ES 2.0+T2 ES1.0</td>
</tr>
</tbody>
</table>

Table 1 Supported Platforms
5. Release Content

5.1. Host executables:

Host executables are available in the directory “<installed directory>\csst\”
- Csst.exe – The CSST GUI executable file
- csstcli.exe – The CSST CLI executable file

5.2. Target executables:

CSST monitor
- csst_2430sdp_monitor.out - Target executable for RAM download for 2430 SDP. File will be available under csst\targets directory. This will work with both 133MHz and 165MHz.
- csst_2430sdp_monitor_NOR_MemoryBoot_EMU.ift - Target executable which can run from NOR flash on EMU and HS devices in memory boot mode. File will be available under csst\targets directory.
- csst_2430sdp_monitor_NOR_MemoryBoot_GP.ift - Target executable which can run from NOR flash on GP devices in memory boot mode. File will be available under csst\targets directory. This will work at 133MHz.
- csst_usb_download.out – Strip down version of the csst_2430sdp_monitor.out. This binary can be downloaded to ISRAM and later can be used to download any image on to Flash (NOR/NAND) or RAM via USB. File will be available under csst\targets directory. This cannot be used on SDP2430v1.1 SDP boards due to the Triton2 silicon limitation.

2nd downloader
- dnld_startup_2430_sdp_ddr_emu.2nd - 2nd file for EMU/HS devices. File will be available under csst\targets directory.
- dnld_startup_2430_sdp_ddr_gp.2nd – 2nd file for GP devices. File will be available under csst\targets directory.

Flash Drivers
- nor_intel_drv.out – NOR Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- nand_samsung_drv.out – 16-bit NAND Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- onenand_samsung_drv.out – OneNand Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- sibley_intel_drv.out – Sibley NOR Flash Drivers for 2430 boards. File is available under csst\drivers directory.
- ram_drv.out – RAM memory driver for 2430 boards. File is available under csst\drivers directory.

5.3. Documents:

The release consists of the following documents:
5.4. Other Files:

OMAP2430sdp_infineon_CCS_3_2.gel - GEL file for OMAP 2430 SDP. File will be available under <installed directory>\csst directory.

6. Test Results

6.1. Host software

CSST SDP2430 v1.2 GUI is tested on PC with Windows 2000/XP Operating System. CSST CLI is not fully tested. Basic testing is done from CSST CLI. Download and flashing support from Non Interactive CLI is tested fully.

6.2. Tested OMAP2430 SDPs

CSST SDP2430 v1,2 is tested on following platforms:

<table>
<thead>
<tr>
<th>No.</th>
<th>OMAP2430 SDP</th>
<th>Revisions</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>OMAP 2430 SDP 2.0</td>
<td>Main Board 750-2031-002</td>
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<tr>
<td></td>
<td></td>
<td>Daughter Board 750-2017-001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Companion Board 750-2013-001</td>
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<tr>
<td></td>
<td></td>
<td>PISMO Board 750-2009-001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enhanced UI Board 750-2038-001</td>
</tr>
<tr>
<td>2</td>
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<td>Main Board 750-2031-002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Daughter Board 750-2017-007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Companion Board 750-2012-001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PISMO Board 750-2009-001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enhanced UI Board 750-2038-001</td>
</tr>
<tr>
<td>3</td>
<td>OMAP 2430 SDP 1.0</td>
<td>Main Board 750-2031-001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Daughter Board 750-2017-002</td>
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<tr>
<td></td>
<td></td>
<td>Companion Board 750-2001-002</td>
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<tr>
<td></td>
<td></td>
<td>PISMO Board 750-2009-001</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UI board 700-0486-002</td>
</tr>
</tbody>
</table>

6.3. Known Issues

Issue #1: CLI is not tested completely and is not completely in sync with the CSST GUI.
Workaround: None

Issue #2: Downloading through USB interface does not work on SDP 1.1. Triton2 silicon limitation.
Workaround: None.

Issue #3: Triton2 BCI test case does not work. Triton2 silicon limitation.
Workaround: None.

Issue #4: FS USB test case cannot be aborted once started.
Workaround: Close the CSST GUI, change back the dip switch to UART and reconnect the UART.

Issue #5: CSST monitor.out does not connected over USB when downloaded using usb_download.out. 
Workaround: None.

Issue #6: Dynamic delay update in DLLA and DLLB not implemented.

Issue #7: MMC is failing with 48MHz on the slot 2 of ES2.0 boards.
NOTE: MMC is working 24MHz on slot 2 and 48MHz on slot 1.

For other known bugs, please refer to bug tracking system.

7.  Previous Releases

**CSST_SDP2430_v1.1 supports the following features:**

1. Support for 2430 SDP v1.1  
2. Serial LCD test case.  
3. FS USB enumeration test case.  
4. Triton2 RTC test case.  
5. Keypad test case using the T2 keypad controller.  
6. T2 power rail configuration for various modules on the SDP 1.1.  
7. Audio test for T2 CODEC.  
8. Non interactive CLI support for downloading files to various flashes and SDRAM.  
9. Dynamic configuration of target based on the SDP Config EEPROM content. This version of CSST supports SDP 1.1, SDP 1.0 and SDP 0.3.  
10. Faster downloads to NOR flash.  
11. Camera and TV test cases displays bigger image.  
12. NAND and NOR test cases accept the chip Select parameters, so that all the combinations can be tested.  
13. Validated the 2430 ES 1.0 HS devices. Tested the RMR support.  
14. Load address and execute address for CSST Monitor out is changed to SDRAM start address (0x80000000). User need not change the default address shown by the GUI while downloading monitor.out to SDRAM.

**CSST_SDP2430_v1.0.1 supports the following features:**

1. Support for Download in Monitor mode via HS USB interface.  
2. New NAND Download Architecture

**CSST_SDP2430_v1.0 supports the following features:**

1. Diagnostics test cases for OMAP2430 SDP 1.0.  
2. Support for Download in Monitor mode and ROM assisted mode in UART mode.  
3. Support for Download in Monitor mode in “HS USB Mode of HS USB”.  
4. Debug and Trace functionality.  
5. Support for NOR and NAND Flashing in ROM assisted mode and Monitor mode through UART and “HS USB mode of HS USB” interfaces.  

**Bug fixes:**

- OMAPS00065245 – Menelaus RTC timer issue
- OMAPS00064725 - CSST Tool has numerous typographical errors (spelling, capitalization, grammar) on the diagnostic UI screen descriptions.
- OMAPS00068339 - Diagnostics and downloading use different assumptions
- OMAPS00064032 - Spelling Error in EEPROM test
- OMAPS00065275 - NOR flash erase test case
- OMAPS00065274 - Flash address parameter for NOR dataline and address line test case
- OMAPS00055128 - Audio test case not working
- OMAPS00067633 - NAND writing issue with CSST 1.0.1 on 2430 v0.3
- OMAPS00062835 - Dock problem
- OMAPS00064791 - CLI Crash
- OMAPS00064822 - Information displayed is not clear.
- OMAPS00068337 - Problem with .bin files & signing.
- OMAPS00064369 - Bug in GUI while adding target
- OMAPS00064371 - Deleting the file in download UI does not work properly
- OMAPS00064375 - Erase entire flash option is not working in the erase tab of UI download
- OMAPS00064378 - The COM selected does not reflect in the combo box
- OMAPS00064790 - Monitor mode not working in CLI
- OMAPS00064813 - Prints not coming
- OMAPS00064821 - Taking Com ports from the windows
- OMAPS00065271 - CSST Host crash while changing the BOOT ROM mode settings
- OMAPS00064376 - Trace prints are not getting logged in the cssttrace file
- OMAPS00064377 - A message box should pop up, when the repositories are getting loaded, so that user cannot do any operations.
- OMAPS00064379 - Saving a setting in GUI, does not reflect back, once the application is closed and opened
- OMAPS00064385 - Proper message indication to the user in the debug UI
- OMAPS00065264 - Issue with CSST file handling
- OMAPS00068333 - Problem with 'save configuration'
- OMAPS00069770 - Erase entire flash on the "erase tab" does not work
- OMAPS00068335 - No error recovery after failing on download
- OMAPS00068331 - After aborting download, CSST cannot download again
- OMAPS00065279 - Security lib version given in release notes is not latest