CodeWarrior Development Studio for Power Architecture Processors v10.5, Service Pack 1

by: Freescale Semiconductor, Inc.

1. Revision History

The following modifications to this release note have been made relative to the note provided with the CodeWarrior Development Studio for Power Architecture Processors v10.5, Service Pack 1 installation:

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 21, 2015</td>
<td>Initial version</td>
</tr>
<tr>
<td>Aug 24, 2015</td>
<td>Multiple corrections</td>
</tr>
</tbody>
</table>

Please always retrieve the latest version of this document from here.

2. About this release

2.1. Version information

This release note provides important information for users of CodeWarrior Development Studio for Power Architecture. You are encouraged to read this document to become familiar with this release’s supported targets, new fixes, errata with workarounds, and other useful information.

2.2. Download information

© Freescale Semiconductor, Inc., 2015. All rights reserved.
About this release

CodeWarrior for Power Architecture Service Packs are cumulative.

Although all service packs receive distinct incremental numbers (e.g. Service Pack 1, Service Pack 2, etc.), Service Pack n is actually incorporating all features available in Service Pack n-1. The packaging is abstracted, users being required to install a single service pack, named *Cumulative Service Pack*.

For instance, installing SP 2 on top of a product which already has SP 1 installed will add to the product the NPIs published in SP 2. Installing SP 2 directly on top of a base release (e.g. CW v10.4) will add to the product the NPIs published in SP 1 and SP 2, since the SP 2 is a cumulative service pack containing NPIs from SP 1 too.

The recommended method to install CodeWarrior for Power Architecture Service Packs is through built-in Eclipse updater facility. A detailed step-by-step procedure for installing a Service Pack on top of the base product can be found here.

**NOTE:** Installation of a Service Pack requires a working installation of the base product CodeWarrior for Power Architecture v10.5.0 and administrative privileges for either Windows or Linux host operating systems.

The content of the service pack is available also as separate archives that need to be installed manually on top of v10.5 releases (Windows and Linux). The archives are available on Freescale’s web site in section Updates and Patches and on Compass extranet.

### CodeWarrior for Power Architecture v10.5, Service Pack 1

<table>
<thead>
<tr>
<th>Freescale Web Site</th>
<th>SP archive (Windows hosted)</th>
<th>SP archive (Linux hosted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compass Extranet</td>
<td>SP archive (Windows hosted)</td>
<td>SP archive (Linux hosted)</td>
</tr>
</tbody>
</table>

#### 2.3. v10.5 SP1 Installation Instructions

An extra step is required starting with this particular service pack. Please make sure you uncheck ‘Contact all update sites during install to find required software’ before starting the installation (as shown in screenshot below).
If for some reason the SP was installed without unchecking this option, users are likely to experience malfunctions with software analysis features on Linux hosts. In that case the workaround is to run manually the following script (CodeWarrior has to be closed when doing this):

cd [CW_Folder]/eclipse
./updatecwenv.sh
3. Release Contents

This section describes the NPIs added in Service Pack 1, relative to v10.5 product release.

3.1. New Devices and Boards Supported

<table>
<thead>
<tr>
<th>Device Name</th>
<th>Device Revision</th>
<th>Bare Metal Debug</th>
<th>Linux Debug</th>
<th>Software Analysis</th>
<th>Service Pack</th>
<th>CodeWarrior Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1023 (RDB-PC rev D)</td>
<td>1.0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>SP1</td>
<td>10.5</td>
</tr>
<tr>
<td>T1013 (RDB-PC rev D)</td>
<td>1.0</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>SP1</td>
<td>10.5</td>
</tr>
<tr>
<td>BSC9132 (QDS rev H)</td>
<td>1.1</td>
<td>Yes</td>
<td>No</td>
<td>NA</td>
<td>SP1</td>
<td>10.5</td>
</tr>
</tbody>
</table>

Note:
- Linux Debug refers to Linux Kernel, Module, and Application Debug capabilities.

3.2. Detailed Device Support

This section details all of the device support that is added by installing this service pack.

T1013 RDB-PC

Debug in RAM
Debug in ROM (NOR)

BOARD: T1013 RDB-PC, Board revD, 0x03; CPLD ver: 0x05, boot from NOR vBank0
CPU: Version: 1.0, (0x854d0010), Core: e5500, Version: 2.1, (0x80241021)
Single Source Clock Configuration
SPEED: CPU: 1200 MHz, CCB: 400 MHz, DDR: 1600 MHz, IFC:100 MHz
FLASH DEVICES:
  NOR: S29GL01GP
  NAND: S34MS04G2-IFC
  SPI: S25FL512S

QorIQ T1023 Reference Design Board Reference Manual, Rev. 0, 07/2015
QorIQ T1024 Reference Manual Supports T1024, T1023, T1014, T1013, Rev B, 07/2014
e5500 Core Reference Manual, e5500RM Rev. 4 03/2013
Fixed Issues

T1023 RDB-PC

Debug in RAM
Debug in ROM (NOR)

BOARD: T1023 RDB-PC, Board revD, 0x03; CPLD ver: 0x05, boot from NORi vBank0
CPU: Version: 1.0, (0x85490010), Core: e5500, Version: 2.1, (0x80241021)
Single Source Clock Configuration
SPEED: CPU: 1200 MHz, CCB: 400 MHz, DDR: 1600 MHz, IFC:100 MHz
FLASH DEVICES:
   NOR: S29GL01GP
   NAND: S34MS04G2-IFC
   SPI: S25FL512S
QorIQ T1023 Reference Design Board Reference Manual, Rev. 0, 07/2015
QorIQ T1024 Reference Manual Supports T1024, T1023, T1014, T1013, Rev B, 07/2014
e5500 Core Reference Manual, e5500RM Rev. 4 03/2013
Linux: SDK 1.8 + T1023 v1.2 patch tarball is available on http://sun.ap.freescale.net/b dps/T1023-
RevC/Linux-SDK-for-T1023-v1.2.tar.gz

BSC9132 QDS

Debug in RAM
Debug in ROM (NOR)

BOARD: BSC9132 QDS, Board revH, 0x03; CPLD ver: 0x05, boot from NAND vBank0
CPU: Version: 1.1, (0x86180011), Core: e500v2, Version: 5.2, (0x80211152)
Single Source Clock Configuration
SPEED: CPU: 1200 MHz, CCB: 600 MHz, DDR: 1330 MHz, IFC:150 MHz
FLASH DEVICES:
   NOR: S29GL01GP
   NAND: K9F1F08U0C-IFC
   SPI: S25FL128P
BSC9132 QorIQ Qonverge Multicore Baseband Processor Reference Manual (Rev G, 05/2013)
PSC9132QDS_Switches_Junpers_HGS.pdf
e500v2 Core Reference Manual (e500v2RM 6/2004 Rev. A)

4. Fixed Issues

The following defects present in previous product errata have been addressed by this Service Pack release.

<table>
<thead>
<tr>
<th>Debugger/CCS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR00365158</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Software Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CodeWarrior Development Studio for Power Architecture Processors v10.5, Service Pack 1</td>
</tr>
</tbody>
</table>
### Known Issues and Limitations

<table>
<thead>
<tr>
<th>SA-269</th>
<th>[PA10.5.0][Ubuntu 15.04 64b][B4860][Aurora] No trace was collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA-244</td>
<td>[10.5.0] Trace buffer is not configured in overwrite mode</td>
</tr>
<tr>
<td>SA-273</td>
<td>[PA10.5.0] CW crash when debug after an Unable to open raw file error</td>
</tr>
<tr>
<td>SA-268</td>
<td>[PA10.5.0][Ubuntu 15.04 64b][Multicore Trace] CW crash when click on Software Analysis-&gt;Critical Code</td>
</tr>
<tr>
<td>SA-307</td>
<td>[PA 10.5.0] [Multicore trace] [Overwrite] Could not collect multicore trace with overwrite trace collection mode</td>
</tr>
<tr>
<td>SA-272</td>
<td>[PA10.5.0] No trace was collected when hit breakpoint</td>
</tr>
<tr>
<td>SA-304</td>
<td>[PA 10.5.0] [Program Trace] Trace is full of warning messages when using overwrite trace collection mode</td>
</tr>
<tr>
<td>SA-331</td>
<td>[PA10.5.0 + SP130][Linux] Error when select launch config if trace enabled</td>
</tr>
<tr>
<td>SA-255</td>
<td>[SA PA 10.5.0] [Performance viewer] [Windows] [Linux] Source file mapping does not work for saved result</td>
</tr>
</tbody>
</table>

### 5. Known Issues and Limitations

The following issues and limitations are specific to the support provided in this Service Pack release:

- USB TAPs and Ethernet TAPs were discontinued in support by Freescale in 2012. They have been fully replaced by CodeWarrior TAP (with connection over USB and/or Ethernet). For existing SoCs and boards where this support is already available it will continue to be available. For all future SoCs only CodeWarrior TAP (CWTAP) will be supported, replacing USB and Ethernet TAPs.

### Debugger/CCS

<table>
<thead>
<tr>
<th>ENGR00364687</th>
<th>[CW PA][SP1][T1023 RDB rev D] Sometimes RCW override fails.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workaround:</td>
<td>Launch debug session for a second time.</td>
</tr>
</tbody>
</table>
Information in this document is provided solely to enable system and software implementers to use Freescale Semiconductor products. There are no express or implied copyright licenses granted hereunder to design or fabricate any integrated circuits or integrated circuits based on the information in this document.

Freescale reserves the right to make changes without further notice to any products herein. Freescale makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does Freescale assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters that may be provided in Freescale data sheets and/or specifications can and do vary in different applications, and actual performance may vary over time. All operating parameters, including “typicals,” must be validated for each customer application by customer’s technical experts. Freescale does not convey any license under its patent rights nor the rights of others. Freescale sells products pursuant to standard terms and conditions of sale, which can be found at the following address: freescale.com/SalesTermsandConditions.

Freescale, the Freescale logo, Processor Expert, QorIQ are trademarks of Freescale Semiconductor, Inc., Reg. U.S. Pat. & Tm. Off. All other product or service names are the property of their respective owners.

© 2015 Freescale Semiconductor, Inc.