

DSP/BIOS™ LINK

LNK 111 REL

Version 1.64

NOV 13, 2009

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1 Introduction

DSP/BIOS™ LINK is foundation software for the inter-processor communication across the GPP-DSP boundary. It provides a generic API that abstracts the characteristics of the physical link connecting GPP and DSP from the applications. It eliminates the need for customers to develop such link from scratch and allows them to focus more on application development¹.

As the name suggests, DSP/BIOS operating system is expected to be running on the DSP with all of these platforms.

The platforms in this release are:

- DRX45X
- DRA44x
- DM6437 connected to DRA44x over VLYNQ interface
- DRX416
- DM6446 with WinCE
- OMAP3530 with WinCE
- TNETV107XGEM with WinCE

Additionally, support for the following platforms is available in the release:

- OMAP3530 EVM
- OMAP2530 EVM
- DM6446 (Davinci)
- DM6467 (Davinci HD)
- DM6467T
- DA8XX
- OMAPL1XX
- Linux PC + DM6437 over PCI
- Linux PC + DM648 over PCI
- DM357
- Multi-DSP configuration: Linux PC + two DM6437 over PCI
- OMAPL138
- DA850

1.1 TextConventions



This bullet indicates important information.
Please read such text carefully.



This bullet indicates additional information.

¹ Applications differentiate the products. The application developers would prefer to focus on the application rather than the IPC mechanism.

2 Out-of-BoxContents

This release of DSP/BIOS™ LINK contains the following:

1. Installer package for DSP/BIOS™ LINK containing:
 - TAR.GZ file containing the DSP/BIOS™ LINK installation package.
 - Scripts, tools etc., to use on the debug and development host machines.
2. Release Notes (this document) providing an overview of this release.
3. Installation Guide, Platform Guide, User Guide, Programmer's Guide and other technical documents.

Complete list of the documents is available in the User Guide.

3 MinimumSystemRequirements

3.1 Hardware

Depending on the target platform configuration, DSP/BIOS™ Link sources can be compiled on a PC running either Microsoft Windows or Red Hat Linux.

3.1.1 Development/DebugHostMachine

Please refer to installation guide for the relevant platform.

3.2 Software

3.2.1 GenericSoftwareRequirement

- PERL Installation
- TeraTerm (or any other terminal emulation program)
- One of GNU make version 3.81, 3.81beta1, 3.90 or 3.92.

 *On hosts where the above mentioned make versions are not available, DSPLINK users can use gmake (from TI XDC tools) to build DSPLink.*

 *To build DSPLink using gmake (from TI XDC tools) run gmake as below:*

`<Absolute path of gmake from TI xdc tools>$ gmake -s [debug|release].`

For example,

1) `/opt/xdc/<xdctools install path>/gmake -s debug`

2) `/opt/ti-tools/<bios install path>/xdctools/gmake -s debug`

 *GNU make 3.81 version can be downloaded and installed from <http://ftp.gnu.org/pub/gnu/make/make-3.81.tar.gz>*

 *The software listed above is not part of the DSP/BIOS™ LINK release. For all the TI products, please contact your TI representative.*

 *ActivePerl - a distribution of PERL from Active State - can be obtained from the URL <http://www.activestate.com/Products/ActivePerl/>*

3.2.2 PlatformSpecificSoftwareRequirement

3.2.2.1 ForWorkingwithDRA44x

- eBinder version ver 1.7 rev0 with valid licenses.
- JTAGJet emulator driver available from Signum Systems
- J1_BSP_v1.6.0beta.zip : Board Support Package(BSP)
- pre-drx40x-psp-rel0.1.0: TI PSP release.
- PrF2_ver1.3rev1.zip : PrFILE2 (including RAM disk driver) : "Board Support Package" and consists of board dependent modules.
BGX_95V_100_000.zip : Patch for PrFILE2.

3.2.2.2 ForWorkingwithDRX416

- eBinder version ver 1.7 with valid licenses.
- JTAGJet emulator driver available from Signum Systems
- eSOL Board Support Package(BSP)

- DSP/BIOS patch for J2 (TI internal).
- TI PSP release REL_DRX40X_PSP_0.6.0.zip (TI internal) supporting eSOL release for DRX41x.
- TI EDMA release EDMA3_LLD_setupwin32_1_05_00_01.exe
- PrF2_ver1.3rev1.zip: PrFILE2 (including RAM disk driver): "Board Support Package" and consists of board dependent modules.
- BGX_95V_100_000.zip: Patch for PrFILE2.
BGX_963_100_000.zip.

3.2.2.3 *ForWorkingwithDRX45X*

- For Standalone DSP/BIOS™ 5.33.05
 - CCS 3.3 IDE
 - DSP CG Tools version v6.0.14 or greater
- PROS Kernel release (REL_DRX45X_03.00.00.03.01.zip)
 - Toolchain (MS470 C/C++ CODE GENERATION TOOLS Release 4.1.4)

3.2.2.4 *ForWorkingwithDM6446*

- DSP/BIOS™ version can be 5.32.04 or 6.20.00.13.2 (one of the below)
- For Standalone DSP/BIOS™ 5.32.04.
 - DSP CG Tools version v6.0.18 or greater
 - CCS 3.3 IDE for debugging purposes.
- For Standalone DSP/BIOS™ bios 6.20.00.13.2.
- XDC release version xdc 3.15.00.13
- CCS 3.3.38.2 for debugging purposes.
- DSP CG tools version v6.1.5.
- Windows CE release
- Visual Studio 2005 with Platform Builder R2.
- With Davinci BSP for WinCE 6.0.

3.2.2.5 *ForworkingwithOMAP3530*

- Standalone DSP/BIOS™ 5.32.04.
- DSP CG Tools version v6.0.18 or greater
- CCS 3.3 IDE
- Windows CE release
- Visual Studio 2005 with Platform Builder R2.
- With OMAP3530 BSP v 6.11 for WinCE 6.0.

3.2.2.6 *ForworkingwithTNETV10*

- Standalone DSP/BIOS™ 5.41.00.06
- DSP CG Tools version v6.0.18 or greater
- CCS 3.3 IDE
- Windows CE release
- Visual Studio 2005 with Platform Builder R2.
- With TNETV10 BSP for WinCE 6.0.

This release will not work with versions of DSP/BIOS earlier than that specified in the dependencies.

4 FunctionalitySupported

4.1 Features

4.1.1 GenericFeatures

4.1.1.1 *Supportformultipleplatforms*

DSPLink supports multiple platforms in specific configurations as mentioned in this document. The standard features of DSP/BIOS™ LINK are supported with this release. For additional information, please refer to the User Guide and Programmer's Guide documents.

4.1.1.2 *Multi-processandmulti-applicationsupport*

Multiple applications or processes can directly call DSP/BIOS LINK PROC APIs to setup, control the DSP and destroy the DSPLink driver. They do not need to coordinate between themselves at run-time to access the DSPLink driver. The only thing they need to ensure is:

1. The same DSP executable is used by all applications simultaneously using DSPLink
2. The same dynamic configuration is used by all applications simultaneously using DSPLink

4.1.1.3 *SupportformultipleDSPsconnectedtoGPP instar-topology*

DSPLink supports multiple DSPs connected to the master GPP processor in a star-topology. With this feature, it is possible to connect multiple DSPs to the GPP in the system, over heterogeneous physical links. Example reference ports have also be included for multi-DSP configurations:

- Linux PC connected to two DM6437 devices over PCI
- DRA44x connected to external DM6437 over VLYNQ

The DSPLink static build configuration supports choosing the desired device and build configuration. The static build configuration supports command-line based usage to enable scripting.

4.1.2 PROCmodule

4.1.2.1 *DSPboot-load*

This release supports boot-loading the DSP from the ARM. This includes:

- Initializing the DSP & making it available for access from the GPP.
- On OMAP platforms: Configuring the DSP MMU to allow straight-through access for specified memory regions.
- Loading code on the DSP. Multiple types of loaders can be used for this. DSPLink provides a few standard loaders as part of the release package. Additional loaders can be added and plugged into DSPLink.
- Starting execution from the run address specified in the executable.
- Reading from or writing to DSP memory.

- Stopping DSP execution.
- DSP/BIOS LINK for the OMAP platforms does not perform any power management of the DSP. This is expected to be done by u-boot or other power-management utilities.

If PROC-only scalability configuration build is used, DSPLink does not perform driver handshake and interrupts initialization. Due to this, DSPLink can be used in PROC-only configuration to load and start a non-DSPLink DSP executable, i.e. a DSP executable that has no DSPLink content or shared memory usage within it.

Support for multiple boot modes

DSPLink supports three different types of DSP boot modes:

- DSPLINK_BOOT_MODE: Default
 - GPP boots first
 - Uses DSPLink to load the DSP
 - Uses DSPLink to start the DSP running
 - DSPLINK_NOLOAD_MODE: External DSP load
 - GPP boots first
 - Application/GPP boot-loader pre-loads the DSP
 - Uses DSPLink to optionally power up the DSP
 - Uses DSPLink to start the DSP running
 - DSPLINK_NOBOOT_MODE: External DSP start. This supports two scenarios
 - GPP-based load
 - GPP boots first
 - Application/GPP boot-loader pre-loads the DSP
 - Application/GPP boot-loader starts the DSP running
 - Uses DSPLink only for IPC with the DSP
- OR
- DSP-based load
 - DSP boots first, starts running an application
 - GPP comes up later and sets up DSPLink, which initializes shared memory
 - DSPLink is not used to load or start the DSP
 - Uses DSPLink only for IPC with the DSP

For complete details on the boot modes along with information on configuration and application usage, please refer to the Programmer's Guide document.

4.1.2.2 Dynamic configuration

DSP/BIOS™ LINK can be dynamically configured with parameters specific to the system configuration. This can be decided by the system integrator. Usage of a new dynamic configuration does not require re-build of DSPLink libraries.

4.1.3 Inter-processor communication modules

4.1.3.1 POOL

The POOL component supports configuring and using shared memory buffers across processors. This includes

- Configuring the shared memory region through open & close calls.
- Allocating and freeing buffers from the shared memory region.
- Translating address of a buffer allocated to different address spaces (e.g. GPP to DSP)
- Synchronizing contents of memory as seen by the different CPU cores (Not applicable for the OMAP3530 platform)

4.1.3.2 NOTIFY

The NOTIFY component allows applications to register for notification of events occurring on the remote processor and send event notification to the remote processor.

It uses the physical interrupt present between the processors and provides the facility of multiple prioritized events over the same physical interrupt.

4.1.3.3 MPCS

The MPCS component allows applications to achieve mutually exclusive access to shared data structures through a multi-processor critical section (MPCS) between GPP and DSP.

4.1.3.4 MPLIST

The MPLIST component provides a doubly-linked circular linked list based transport mechanism between GPP and DSP.

It provides APIs for pushing and popping buffers from the list, traversing the list, inserting and removing elements and other services. The list is shared between the two processors.

4.1.3.5 CHNL

The CHNL component provides issue-reclaim based data streaming. It is based on the SIO module in DSP/BIOS™.

4.1.3.6 MSGQ

The MSGQ component provides queue based messaging. It is an acronym for 'message queue'.

This component is responsible for exchanging short messages of variable length between the GPP and DSP clients. It is based on the MSGQ module in DSP/BIOS™.

The messages are sent and received through message queues.

This component is based on the MSGQ module in DSP/BIOS™.

4.1.3.7 RINGIO

The RingIO component provides circular ring buffer based data streaming. Each ring buffer can be operated on by a single reader and single writer.

4.2 Feature enhancements from previous release 1.63

4.2.1 Move to Linux GIT for DM6467

DSPLink has moved from Montavista Linux releases to GIT releases for Linux for DM6467.

4.2.2 Added support for DM6467T

This release adds support for DM6467T as same device as DM6467. The same ARM/DSP binary executable will be run on both DM6467 and DM6467T. Even though the memory map, clock rate may be different, no new platform configuration is exposed to the user. The user does not see a platform called DM6467T but updates the DM6467 configuration for DM6467T. A single binary is generated for both devices in the same device directory. User will not have side-by-side libraries/binaries generated for the two devices for both ARM & DSP. This implies that DSPLink will not be able to provide different default memory maps for the two devices.

4.2.3 Updated RTSC packaging

The DSPLink configuration script updates the file `$(DSPLINK)/[gpp|dsp]/Global.xdc` with the scalability information such as runtime OS, platform and device information, scalability configuration chosen.

- DSPLink no longer ships a default Global.xdc in for the `$(DSPLINK)/gpp` or `$(DSPLINK)/dsp` packages.
- DSPLink no longer ships a default package folder in for the `$(DSPLINK)/gpp` or `$(DSPLINK)/dsp` packages.

This is done because the shipped default might not match the configuration chosen by the user. The consumer of the DSPLink RTSC packages must

- Run the DSPLink configuration script to create a configuration specific Global.xdc
- Run XDC to generate the XDC package

```

$ cd $(DSPLINK)/dsp
$ $(XDC_INSTALL_DIR)/xdc clean
$ $(XDC_INSTALL_DIR)/xdc .interfaces
$ cd $(DSPLINK)/gpp
$ $(XDC_INSTALL_DIR)/xdc clean
$ $(XDC_INSTALL_DIR)/xdc .interfaces

```

4.2.4 Added WinCE support for OMAP3530, DM6446, TNE TV107X

This release adds support for WinCE for the following platforms

- OMAP3530
- DM6446
- TNETV107X

4.2.5 Added Linux support for TNETV107X

DSPLink has added support for Montavista Linux for TNETV107X.

4.2.6 ToolchainupgradeforOMAP3530

The tool chain version has been upgraded to arm 2009q1-203.

4.2.7 SupportforruntimeconfigurationofDSPclockrateforOMAP3530,DM6467andDM6467T

DSP BIOS/LINK supports runtime configuration of DSP clk. When user selects default setting for CPU frequency, CPU clock rate is got from the Linux LSP for OMAP3530 , DM6467 and DM6467T platforms.

The value of -1 in the LINKCFG_dspObject in the field which specifies DSP Frequency (in KHz) indicates that the value should be got from Linux LSP.

If there is a mismatch in the value specified in the configuration and the value obtained from the LSP, the user value is ignored and the correct value obtained from the Linux LSP is set for the clock rate.

4.2.8 Parameterization of TSK mode

DSP/BIOS Link supports the task mode where the application can be configured for the TSK or SWI mode for the existing SWI functions of ZCPYMQT and ZCPYDATA. If MPCS protection is TSK-base, then DSPLink MSGQ and CHNL drivers will use tasks on DSP-side.

In TSK based systems, application writer can set the task priority and the task stack size for ZCPYMQT task. This can be done by updating

- Argument 1 for Task priority
- Argument 2 FOR Task stack size

The default values i.e. 0 for Argument 1 and Argument 2 indicate the default internal configured values for Task priority and Task stack size will be used.

```

STATIC LINKCFG_Mqt  LINKCFG_mqtObjects [] =
{
    "ZCPYMQT",          /* NAME           : Name of the Message Queue
Transport */
    ...
    ...
    ...
    12,                /* ARGUMENT1     : First MQT-specific
argument */
    0x2048              /* ARGUMENT2     : Second MQT-specific
argument */
}

```

In TSK based systems, application writer can set the task priority for the statically created ZCPYDATA task.

This can be done by updating

- Argument 1 for Task priority

The default values i.e. 0 for Argument 1 indicate the default internally configured values for Task priority will be used.

```

STATIC LINKCFG_DataDrv  LINKCFG_dataTable_00 [] =
{
    {
        "ZCPYDATA",          /* NAME           : Name of the data driver */

```

```
...
...
...
14 ,          /* ARGUMENT1      : First data driver specific
argument */
0x0          /* ARGUMENT2      : Second data driver
specific argument */
}
} ;
```

4.2.9 Link1.6xreleasesdonotenforceARM-DSPversioncheck

DSP/BIOS Link release enforced a version check mandating the version string to be same on ARM and DSP. From this release onwards, the version check has been truncated to the first three characters i.e. "1.6" only. This is to allow DSP binaries to be used from one DSP/BIOS Link maintenance release to another without mandating a re-build.

4.3 GenericDefectfixesfrompreviousrelease1.63

None

4.4 Platform-specific defect fixes

4.4.1 DM6446 specific

None.

4.4.2 DA8xx/OMAPL1XX specific

None.

4.4.3 OMAP2530 specific

None.

4.4.4 OMAP3530 specific

None.

4.4.5 DM6437 specific

None.

4.4.6 DM648 specific

None.

4.4.7 DM357

None.

4.4.8 DM6467T

None.

4.5 OperatingSystemspecificdefectfixes

4.5.1 PrOS-specific

None.

4.6 Upgrade and compatibility information

DSPLink 1.64 is API and binary compatible with DSPLink 1.63. Other changes that are relevant to applications are listed below.

4.6.1 Move to GIT for DM6467

DSPLink has moved to GIT PSP release for Linux for DM6467.

4.6.2 Updated RTSC packaging

The DSPLink configuration script updates the file `$DSPLINK/[gpp|dsp]/Global.xdc` with the scalability information such as runtime OS, platform and device information, scalability configuration chosen.

- DSPLink no longer ships a default `Global.xdc` in for the `$DSPLINK/gpp` or `$DSPLINK/dsp` packages.
- DSPLink no longer ships a default package folder in for the `$DSPLINK/gpp` or `$DSPLINK/dsp` packages.

This is done because the shipped default might not match the configuration chosen by the user. The consumer of the DSPLink RTSC packages must

- Run the DSPLink configuration script to create a configuration specific `Global.xdc`
- Run XDC to generate the XDC package

```
$ cd $(DSPLINK)/dsp
$ $(XDC_INSTALL_DIR)/xdc clean
$ $(XDC_INSTALL_DIR)/xdc .interfaces
$ cd $(DSPLINK)/gpp
$ $(XDC_INSTALL_DIR)/xdc clean
$ $(XDC_INSTALL_DIR)/xdc .interfaces
```

4.6.3 Added WinCE support for OMAP3530, DM6446, TNE TV107X

This release adds support for WinCE for the following platforms

- OMAP3530
- DM6446
- TNETV107X

4.6.4 Toolchain upgrade for OMAP3530

The tool chain version has been upgraded to arm 2009q1-203.

4.6.5 Parameterization of TSK mode

DSP/BIOS Link supports the task mode where the application can be configured for the TSK or SWI mode for the existing SWI functions of ZCPYMQT and ZCPYDATA. If MPCS protection is TSK-base, then DSPLink MSGQ and CHNL drivers will use tasks on DSP-side.

In TSK based systems, application writer can set the task priority and the task stack size for ZCPYMQT task. This can be done by updating

- Argument 1 for Task priority
- Argument 2 FOR Task stack size

The default values i.e. 0 for Argument 1 and Argument 2 indicate the default internal configured values for Task priority and Task stack size will be used.

```

STATIC LINKCFG_Mqt LINKCFG_mqtObjects [] =
{
    "ZCPYMQT",          /* NAME           : Name of the Message Queue
Transport */
    ...
    ...
    12,                /* ARGUMENT1     : First MQT-specific
argument */
    0x2048             /* ARGUMENT2     : Second MQT-specific
argument */
}

```

In TSK based systems, application writer can set the task priority for the statically created ZCPYDATA task.

This can be done by updating

- Argument 1 for Task priority

The default values i.e. 0 for Argument 1 indicate the default internally configured values for Task priority will be used.

```

STATIC LINKCFG_DataDrv LINKCFG_dataTable_00 [] =
{
    {
        "ZCPYDATA",    /* NAME           : Name of the data driver */
        ...
        ...
        14,            /* ARGUMENT1     : First data driver specific
argument */
        0x0            /* ARGUMENT2     : Second data driver
specific argument */
    }
} ;

```

5 ValidationStatus

This Product release has been validated for basic sanity using sample applications using the following configurations:

Sr. No	Platform	GPP-side			DSP-side	
		OS distribution	Tool-chain	Base port	Tool-chain	DSP/BIOS
1	DRA4xx	eSOL PrKernel v4 ver3.1 rev5	RVCT toolchain 2.2	pre-drx40xpsp- 0.4.0	CGTOOLS v6.0.8 with CCS3.3	5.32.04
2	DRX41x	eSOL PrKernel v4 ver3.1 rev5	RVCT toolchain 2.2	REL_DRX40X_P SP_0.6.0	CGTOOLS v6.0.8 with CCS3.3	5.32.04 with DRX41x patch
3	DRA4xx + DM6437 over VLYNQ	eSOL PrKernel v4 ver3.1 rev5	RVCT toolchain 2.2	pre- drx40xpsp- 0.4.0	CGTOOLS v6.0.8 with CCS3.3	5.32.04

This Product release has been validated using test bench for complete sanity using the following configurations:

Sr. No	Platform	GPP-side			DSP-side	
		OS distribution	Tool-chain	Base port	Tool-chain	DSP/BIOS
1	DM6446	Davinci BSP for WinCE 6.0	Visual Studio 2005 with Platform Builder R2	Davinci BSP for WinCE 6.0	CGTOOLS v6.1.5	5.32.04
2	TNETV1 0	TNETV10 BSP for WinCE 6.0	TNETV10 BSP for WinCE 6.0	TNETV10 BSP for WinCE 6.0	TNETV10 BSP for WinCE 6.0	5.32.04

Distribution files for Uclibc tool-chains are provided for OMAP2530, OMAP3530, DM6467, DM6467T and OMAPL138.

6 Known Issues

6.1 Generic

Identifier	Headline
SDOCM00035970	DSPLINK does not build correctly in CYGWIN environment

Description :

DSPLink make system does not build DSP-side sample applications correctly in CYGWIN environment. However, DSPLink libraries on DSP-side and GPP-side build can be completed successfully in CYGWIN environment.

Workaround:

Remove CYGWIN from the path on MSDOS prompt and build DSP-side sample applications using gmake.

Identifier	Headline
SDOCM00056316	Intermittent crashes are seen when running DSPLink sample applications on Montavista Linux based devices

Description :

On devices running Montavista Linux on the ARM (DM6446, DM6467, DM357, DA8xx, OMAP-L1xx), intermittent crashes are seen when running the sample applications. Crash is not seen on devices where GIT kernel is used (OMAP3530, OMAP2530, DM6437, DM648).

Observation:

The crash appears to happen when interrupts are sent very frequently to the ARM from the DSP.

Workaround:

None.

6.2 Platform Specific Issues

6.2.1 DM6446

Identifier	Headline
SDOCM00056114	CE appln fails if user calls the sequence: 1) eng = Engine_open("myEng",.); 2) Engine_close(eng); 3) eng = Engine_open("myEng

Description :

An application will fail if it tries to do the following:

```
eng = Engine_open("myEngine", ...);
Engine_close(eng);
eng = Engine_open("myEngine", ...);
```

As far as DSPLink is concerned, this boils down to:

```

Engine_open:
    LAD_startupDsp() =====switch-to-LAD-process=====>
PROC_setup(); PROC_attach(); etc.
    PROC_attach()
Engine_close:
    LAD_releaseDsp() =====switch-to-LAD-process=====>
PROC_destroy();
    
```

Workaround:

None.

6.2.2 DM6467

Identifier	Headline
DSPLN00000734	<PROC> DSP-side configuration mismatch/failure is thrown if a test is run infinite number of times

Description :

<PROC> DSP-side configuration mismatch/failure is thrown if a test is run infinite number of times

Workaround:

Power cycle the EVM and re-try.

6.2.3 DM648

None.

6.2.4 DM6437

Identifier	Headline
SDOCM00044596	<sample> scale sample hangs in SWI mode on both debug and release modes.

Description :

Observation :

scale sample hangs only in SWI mode on both debug and release modes.

Same sample works fine on TSK mode.

Workaround:

None.

6.2.5 OMAP2530

Identifier	Headline
SDOCM00035953	OMAP2530: First run of any application times out in PROC_start.

Description :

The first run of any DSPLink application times out in PROC_start. The subsequent application runs without re-booting the board in between work correctly.

Workaround:

The GPP sources have been updated to reset and release the DSP twice as a workaround to ensure that DSP starts correctly in the first run. This workaround is present in the DSPLink release.

6.2.6 DM357

None.

6.2.7 OMAPL1XX
6.2.7.1 OMAPL1XX

DIO and SIO create calls are not supported in DSPLink SWI Mode for DSP_BootMode_NoBoot boot mode because of a DSP/BIOS restriction in calling these API's before main. Sample applications i.e. loop, scale with SWI's will not work in DSP_BootMode_NoBoot mode. DSPLink supports SWI based sample applications in the other boot modes DSP_BootMode_Boot_NoPwr, DSP_BootMode_Boot_Pwr, DSP_BootMode_NoLoad_NoPwr, DSP_BootMode_NoLoad_Pwr

6.2.7.2 Defects

Identifier	Headline
DOCM00051547	<Samples> Loop sample stops execution in-between on swi release mode.

Description :
Observation :

Loop sample stops execution in-between on swi release mode on both DA8xx and OMAPL1xx platforms.

The sample works fine on swi debug mode.

The sample won't hang, after ctrl+c able to run other samples without rebooting EVM.

Workaround:

None.

6.2.8 DA8XX/DA850/OMAPL138

DIO and SIO create calls are not supported in DSPLink SWI Mode for DSP_BootMode_NoBoot boot mode because of a DSP/BIOS restriction in calling these API's before main. Sample applications i.e. loop, scale with SWI's will not work in DSP_BootMode_NoBoot mode. DSPLink supports SWI based sample applications in the other boot modes DSP_BootMode_Boot_NoPwr, DSP_BootMode_Boot_Pwr, DSP_BootMode_NoLoad_NoPwr, DSP_BootMode_NoLoad_Pwr

6.3 OperatingSystemspecificIssues

6.3.1 PrOS

None.

6.3.2 WinCE

Known issues in the DM6446 Debug package of WinCE BSP prevent us from using Debug build on DM6446.

6.3.3 DSP/BIOS

Identifier	Headline
CQ17490	BIOS/XDC conf tool breaks DSP build, if the DSPLink installation directory contains `.` Character.

Description :

DSP Side build system generates all files in the build folder instead of sample directories. This would cause error if the DSPLink installation directory has `.` Character. For example, if the installation path is

/home/user/dsplink.160/

then DSP Side build will break.

Workaround:

Install DSPLink without a `.` In the path.

7 Guidelines and Limitations

None.

8 TechnicalSupport

8.1 SupportforDSP/BIOS™LINK

8.1.1 TIExternalwiki

A significant amount of information about DSPLink including FAQs and troubleshooting guides are present and the TI external wiki. These can be used as a first-level source of information for DSPLink:

<http://www.tiexpressdsp.com>

8.1.2 SupportforTIproducts

Procedure to report problems/issues for TI products is available at the TI support page:

External forums at: <http://community.ti.com>

Or: <http://support.ti.com>