MMAP

Release Notes

Applies to Product Release: 02.00.00.00
Publication Date: Jan 16, 2014

TEXAS INSTRUMENTS

Contents

MMAP version 02.00.00.00

Overview

Module abstracts underlying hardware in Keystone devices which perform the mapping of physical memory to logical 32-bit addresses. Functionalities include:

- Dynamically maps and unmaps physical memory to the logical address space
- Logical address space allocation
- Configuring cacheability of the mapped memory

Module includes:

- Pre-compiled library for DSP (Big and Little) Endian.
- Source code.
- API reference guide
- Unit test

MODULE Dependencies

LLD is dependent on following external components delivered in PDK package:
- CSL

New/Updated Features and Quality

Release 2.0.0.0

- o Added support for ARM to enable mapping physical memory to 32-bit addresses which may be used for DMA.

- o API changes:

    - o Added "keystone_" prefix to all APIs as this component must now coexist with Linux mmap().

    - o Added support for multiple instance of mmap so that one device may perform mappings for another device.

       o   Created OSAL layer to abstract register accesses and dynamic memory allocation. (See mmap_osal.h)

Release 1.0.0.0

       o   Initial release of the module in MCSDK

Resolved Incident Reports (IR)

Table 1 provides information on IR resolutions incorporated into this release.

Table 1   Resolved IRs for this Release

IR Parent/ Child Number	Severity Level	IR Description

Known Issues/Limitations

IR Parent/ Child Number	Severity Level	IR Description

Licensing

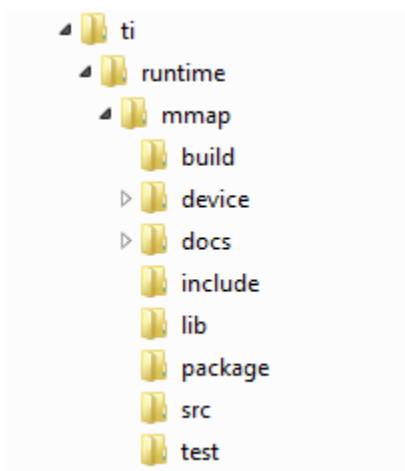Please refer to the software Manifest document for the details.

Delivery Package

There is no separate delivery package. The Module is being delivered as part of MCSDK.

Installation Instructions

The module is currently bundled as part of Platform Development Kit (PDK). Refer installation instruction to the release notes provided for PDK.

Directory structure

The following is the directory structure after the MMAP Module has been installed:

The following table explains each individual directory:

Directory Name	Description

ti/runtime/mmap	The top level directory contains the following:-
	1. *Build environment*
	   Makefile for DSP environment
	2. *XDC Build and Package files*
	   These files (`config.bld`, `package.xdc` etc) are the XDC build files which are used to create the package.
	3. *Exported Driver header file*
	   Header files which are provided by the module and should be used by the application developers for driver customization and usage.

ti/runtime/mmap /build	This directory contains internal XDC build related files which are used to create the module package.
ti/runtime/mmap /device	This directory contains device specific files for the MMAP component.
ti/runtime/mmap /docs	This directory contains the Module's documentation.
ti/runtime/mmap /include	This directory has private MMAP header files. These files should not be used by application developers.
ti/runtime/mmap /lib	The "`lib`" folder has pre-built Big and Little Endian libraries for the module along with their *code/data size information*.
ti/runtime/mmap /package	Internal Module's low level driver package files.
ti/runtime/mmap /src	Source code for the Module low level driver.
ti/runtime/mmap /test	The "`test`" directory has unit test cases which are used by the development team for testing.

Customer Documentation List

Table 2 lists the documents that are accessible through the **/docs** folder on the product installation CD or in the delivery package.

Table 2   **Product Documentation included with this Release**

Document #	Document Title	File Name
1	API documentation (generated by Doxygen)	docs/doxygen/index.html
2	Software Manifest	docs/mmap_SoftwareManifest.pdf