SYSLIB

Release Notes

Applies to Product Release: 4.00.00.00-Alpha7
Publication Date: October 28, 2014

Document License

Contents

Release Notes

SYSLIB 4.00.00.00-Alpha

1 INTRODUCTION

1.1 Overview

This document provides the release information for the SYSLIB software package. The SYSLIB package includes the following:-

- SYSLIB Release Notes
- SYSLIB User's Guide
- Source code of all SYSLIB components
- Pre-built libraries (both Big and Little Endian) of all SYSLIB components
- API reference guide
- Software Manifest

This is an engineering tested alpha release package. Release notes from previous releases are also available in the release notes archive directory

2 RELEASE OVERVIEW

2.1 Hardware Device Support

The device and platforms tested for this release include:

- TMDXEVM6638lxe

2.2 Components and Tools

The SYSLIB package is verified/tested using the MCSDK 3.1.00.03 package. Please refer to the MCSDK Release notes for a list of all the component information. The following is the list of additional packages which were used to test the release:

1. SNOW3G 1.0.0.2
2. CUIA 1.01.00.03 Custom

3. SA3GPP Enabler 3.0.0.0

The SYSLIB supports only the RT kernel from the MCSDK release. Similarly please use the RT DEVKIT for the development of user space applications.

2.3 Licensing

Please refer to the software manifest

2.4 MCSDK Patches

Please ensure that the following environment variable is defined and saved in the UBOOT environment:-

```
setenv mem_reserve 1536M
```

This will ensure that the kernel reserved the higher order 1.5GB of memory for the DSP. Failure to do so will result in the kernel overwriting DSP memory.

Please refer to the MCSDK patches (`SYSLIB_INSTALL_PATH/ti/mcsdk_patches`) directory and manually apply the following patches:

File Name	Issue	How to patch
libhplib-no-osal_k2h.so.1.0.0	HPLIB bitmap allocator overruns and corrupts allocated memory	TFTP the shared library object onto the EVM into the `/usr/lib` directory.
libqmss_k2h.so.1.0.0	1. Incorrect programming of the QMSS Memory region 2. Accumulator programming race condition	TFTP the shared library object onto the EVM into the `/usr/lib` directory.
ti.drv.qmss.ae66 **ti.drv.qmss.ae66e**	1. Incorrect programming of the QMSS	Copy the files and overwrite the default library files which are present in the `PDK_INSTALL_PATH/ti/drv/qmss/lib/k2h/c66`

	Memory region 2. Accumulator programming race condition	

3 What's new

3.1 New Features

Not applicable

3.2 Bug Fixes

1. Extern "C" missing definitions in Name, DAT and FAPI Tracing
2. Global Resource List and Policy files updated to handle the system timers.
3. DAT Task will relinquish time slice and will not execute forever. This will allow the Idle task to execute.
4. Added API to configure LogSync after Domain_initSyslibServices() is called.
5. Consumer API changes.
    a. Removed Consumer background task from Domain_datClientExecutionTask(). Instead, application needs to create a consumer thread to poll all created consumers. This will give more flexibility for application to handle consumers(such as PM consumer) at polling rate chosen by application.
    b. Removed consumer call back function from Dat_createConsumer()
    c. Removed Dat_consumerAllBuffers() API. In case of exception, application needs to consumer all the buffers if required.
6. Enhanced the Dat_modifyVerbosity() API to handle out of resource condition. Fixed the Null pointer access in JOSH when running of JOSH instance.
7. Changed the Msgcom configuration to handle PM measurements consumer properly. Added example of PM producer and consumer is DAT unit test.
8. Changed the Dat_server to run at 10ms polling rate by default.

4 RELEASE BUILDING

Please install the MCSDK 3.01.00.03 release on a Linux machine. Please setup the following environment variables:-

```
export ARMTOOLS_INSTALL_PATH=~/tools/gcc-linaro-arm-linux-gnueabihf-4.7-2013.03-20130313_linux

export ARAGO_INSTALL_PATH=~/ti/mcsdk_3_01_00_03_devkit_rt/sysroots/cortexa15hf-vfp-neon-3.8-oe-linux-gnueabi

export CGT_INSTALL_PATH=~/ti/cgt_7.4.4

export XDC_INSTALL_PATH=~/ti/xdctools_3_25_06_96

export PDK_INSTALL_PATH=~/ti/pdk_keystone2_3_01_00_03/packages

export SYSLIB_INSTALL_PATH=~/ti/syslib4.x/packages

export SNOW3G_INSTALL_PATH=~/ti/snow3g_1_0_0_2

export UIA_INSTALL_PATH=~/ti/uia_1_03_00_02/packages

export INSTALL_JAMMER_INSTALL_PATH=~/tools/installjammer-1.2.15

export CUIA_INSTALL_PATH=~/tools/cuia_1_01_00_03Custom

export SYSLIB_DEVICE=k2h
```

The environment variables are illustrative and should be modified by the customer as per their install paths.

Once configured please setup the build environment by executing the following script:- `SYSLIB_INSTALL_PATH/scripts/setupenv.sh`. This will setup the build environment and will also sanity check to make sure that all the required environment variables are configured.

Please execute the release script (`SYSLIB_INSTALL_PATH/scripts/release.sh`) as follows:-

```
source ./release.sh 1 0 1
```

The script takes 3 arguments:-

1. Argument1: Build the SYSLIB ARM libraries.
2. Argument2: Build the SYSLIB DSP libraries. [Should always be set to 0]
3. Argument3: Build the SYSLIB LTE Demo

To rebuild the DSP libraries; please execute the following path from the SYSLIB_INSTALL_PATH

```
xdc clean -PR .
xdc -PR .
```

For information on how to build the DSP and ARM unit tests and for execution instructions please refer to the SYSLIB Unit Test documentation.