Scope

This document describes how to test USB Device MSD example.

Preparation

Host

Personal computer running Windows Xp or Windows 7.

Device

A board, i.e. twrk22f120m, which is running dev_msd_disk_twrk22f120m example.

Libraries dependency

The libraries dependency for various RTOS lists as following,

BM

Library project path:

- *<install_dir>/usb/usb_core/device/lib/bm/<tool_chain>/<soc_name>*
- *<install_dir>/lib/ksdk_platform_lib/<tool_chain>/<platform>*

FreeRTOS

Library project path:

- *<install_dir>/usb/usb_core/ device/lib/freertos/<tool_chain>/<soc_name>*
- *<install_dir>/lib/ksdk_freertos_lib/<tool_chain>/<platform>*

MQX

Library project path:

- *<install_dir>/rtos/mqx/mqx/build/<tool_chain>/mqx_<board>*
- *<install_dir>/rtos/mqx/mqx_stdlib/build/<tool_chain>/mqx_stdlib_<board>*
- *<install_dir>/usb/usb_core/ device/lib/mqx/<tool_chain>/<soc_name>*
- *<install_dir>/lib/ksdk_mqx_lib/<tool_chain>/<platform>*

uCOSii

Library project path:

- *<install_dir>/usb/usb_core/device/ device/lib/ucosii/<tool_chain>/<soc_name>*
- *<install_dir>/lib/ksdk_ucosii_lib/<tool_chain>/<platform>*

uCOSiii

Library project path:

- *<install_dir>/usb/usb_core/ device/lib/ucosiii/<tool_chain>/<soc_name>*
- *<install_dir>/lib/ksdk_ucosiii_lib/<tool_chain>/<platform>*

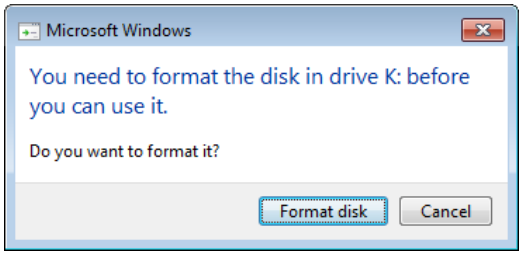
Refer to **Integration of the USB Stack and Kinetis SDK_review.pdf(***<install_dir>/doc***)** on how to build the corresponding libraries.

Steps

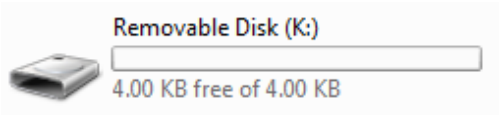
Follow the steps to run the MSD disk demo.

1. Plug-in the msd disk device which is running dev_msd_disk_twrk22f120m example into PC. You will see a USB Mass Storage Device enumerated in Device Manager.

2. If you enable the ram disk function, the windows will prompt you to format the u disk.



   When the format is completed, the computer will display the capacity of 4k removable disk.



3. If you enable the sd disk function, the computer will display the removable disk.

4. Then you can do any operation, just like as a u-disk.

Note:

1. The ram disk and SD disk function can't be enabled in the same time.

2. Mac system default will create .fseventsd ,.Trashes folder and some other files if we format the disk on MAC. The total files size is about 8K. We need increase the RAM size

at least to 32K if USB mass storage example running on MAC. Please change the MACRO TOTAL_LOGICAL_ADDRESS_BLOCKS_NORMAL in disk.h from 48 to 64.