Overview

This Host MSD example can suport ufi and scsi U-disk device.
The application will print the attached device information when U-disk device is attached. The application will execute some ufi commands to test attached deivce.

System Requirement

Hardware requirements

- J-Link ARM
- P&E Micro Multi-link universal
- Mini/micro USB cable
- USB A to micro AB cable
- Hardware (tower/base board, ...) for specific device
- Personal Computer(PC)

Software requirements

- The project path is:
  <SDK_Install>/boards/<board>/usb/usb_host_msd_command/<RTOS>/<toolchain>.

> **Note**
>
> The RTOS is BM or FreeRTOS.

Getting Started

Hardware Settings

- The Jumper settings:
  JP12 connected .

Prepare the example

1. Download the program to the target board.
2. Power off the target board. And then power on again.
3. Connect devices to the board.

> **Note**
>
> For detailed instructions, see the appropriate board User's Guide.

Run the example

1. Connect board uart to PC and open the COM port in a terminal tool.
2. Plug in hub or U-disk device to the board, the attach information print out in the terminal.
3. The test information print in the terminal, "success" print when one command succeed, "fail" print

when one command fail. The test will finish when there is command fail or all the tests are done. The follow picture is an example for attaching one U-disk device.

```
host init done
mass storage device attached:pid=0x5567vid=0x781 address=1
set interface fail
........................test start....................
get max logical units....success, logical units: 0
test unit ready....success, unit status: 0
request sense....success
inquiry...success
read capacity...success, last logical block:15633407 block length:512
read(10)...success
write(10)...success
........................test done....................
```

4. If you want to test throughput, you should set MSD_THROUGHPUT_TEST_ENABLE as (1) in file host_msd_command.h. Then an additional 64K ram is required to test the throughput, the macro is unsupported for the board that doesn't have the enouth ram.

The follow picture is an throughput test example for attaching one U-disk device.

```
mass storage device attached:pid=0x5567vid=0x781 address=1
........................test start....................
get max logical units....success, logical units: 0
test unit ready....success, unit status: 0
request sense....success
inquiry...success
read capacity...success, last logical block:15633407 block length:512
read(10)...success
write(10)...success
throughput test:
    write 51200KB data the speed is 5688 KB/s
    read 51200KB data the speed is 25600 KB/s
    write 51200KB data the speed is 3657 KB/s
    read 51200KB data the speed is 25600 KB/s
........................test done....................
```

Note

Throughput test only support TWR_K65F180M.