Overview

The USB MTP application is a simple demonstration program based on the MCUXpresso SDK. It is enumerated as a portable device. Users can read and write the storage in the portable device.

System Requirement

Hardware requirements

- Mini/micro USB cable

- USB A to micro AB cable

- Hardware (Tower module/base board, and so on) for a specific device

- Personal Computer (PC)

Software requirements

- The project files for lite version example are in:

  <MCUXpresso_SDK_Install>/boards/<board>/usb_examples/usb_device_mtp_lite/<rtos>/<toolchain>.

  For non-lite version example, the path is:

  <MCUXpresso_SDK_Install>/boards/<board>/usb_examples/usb_device_mtp/<rtos>/<toolchain>.

  Note

  > The <rtos> is Bare Metal or FreeRTOS OS.

Getting Started

Hardware Settings

Note

> Set the hardware jumpers (Tower system/base module) to default settings.

Prepare the example

1. Download the program to the target board.

2. Connect the target board to the external power source (the example is self-powered).

3. Power off the target board. And then power on again.

4. Connect a USB cable between the PC and the USB device port of the board.

Note

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

Run the example

1. Plug in the device, which is running the usb_device_mtp example, into the PC. A Portable Device is enumerated in the Device Manager.

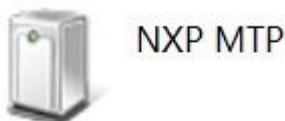2. The computer will display the portable device.

Figure 1: Portable Device

3. Double click the portable device icon, and the computer will display the storage capacity in the portable device.

Figure 2: Storage

Note

- The USB_DEVICE_MTP_TRANSFER_BUFF_SIZE macro limits the device identification and data transfer speed. The larger the buffer size is, the faster the data transfer speed is. The buffer size should be a multiple of 512 with the smallest value being 1024.

- The USB_DEVICE_MTP_DIR_INSTANCE macro limits the maximum directory depth that can be created. The larger the value, the deeper the directory can be created.