# Overview

The host CDC-ECM project is a simple demonstration program based on the MCUXpresso SDK . It demonstrates Ping and UDP echo server, it also join into a multicast group. The application periodically sends the ICMP echo request to a PC and processes the PC reply and always forwarding UDP message on echo port.

# 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 path is:

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

    Note

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

# Getting Started

## Hardware Settings

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

Note

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

## Prepare the example

1. Connect a USB cable between the PC host and the USB port on the target board with these settings:

    - 115200 baud rate
    - 8 data bits
    - No parity
    - One stop bit
    - No flow control

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

3. Download the program to the target board.

4. Power off the target board, then power on again.

Note

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

# Run the example

1. Connect serial port to board and run the example host_cdc_ecm , then plug in USB CDC-ECM device to the board. The log will printed like below:



Figure 1: Host enumerates CDC-ECM device

2. If network link of CDC-ECM device is up, the example host_cdc_ecm will start DHCP service and join into a multicast group using IGMP. The example host_cdc_ecm will always listening on UDP port 7 and echo message to sender, then start Ping. The log will printed like below:



Figure 2: Host running