

User Manual

iR Series Firmware Update

This manual walks through the steps to update iR Series firmware.

UM019005E_20200401

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1. Updating iR-ETN Firmware

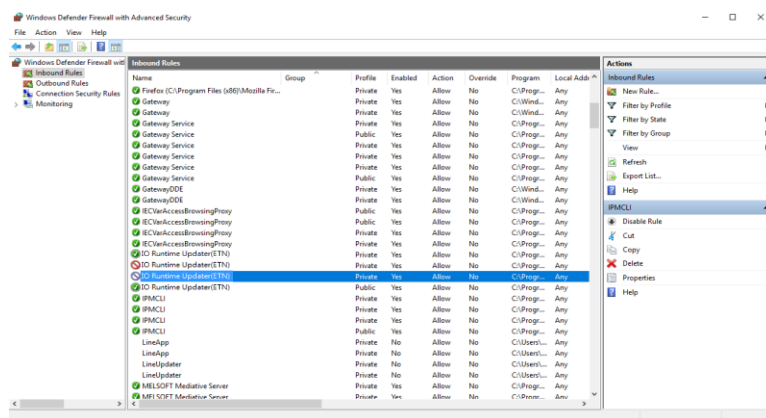
1.1. Software

Update Software: IO Runtime Updater (ETN)

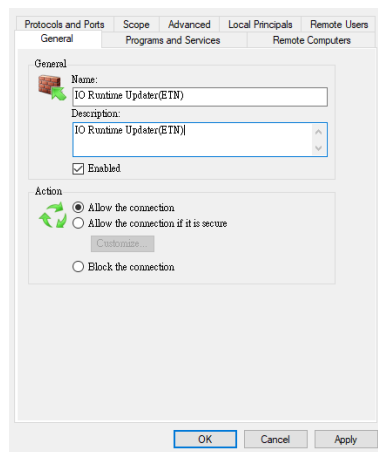
Firmware Settings:

When iR-ETN's IP address cannot be connected using IO Runtime Updater (ETN), please change your firewall settings as shown below.

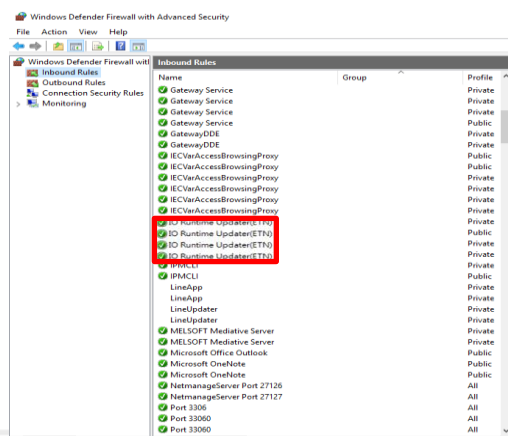
[Windows Defender Firewall]->[Advanced settings]->[Inbound Rules]->[IO Runtime Updater(ETN)]



Step 1. Open Windows® firewall settings.

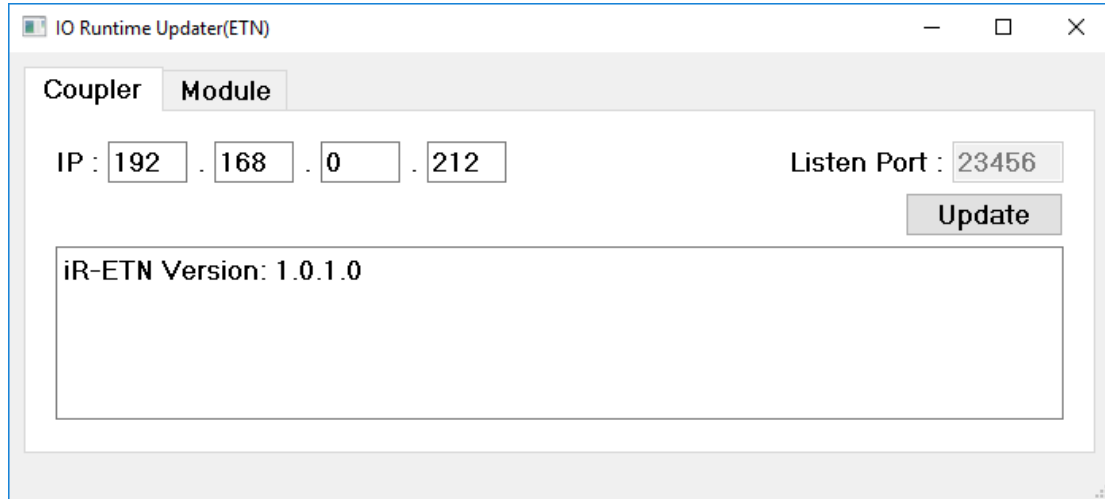


Step 2. Select IO Runtime Updater to allow connection.

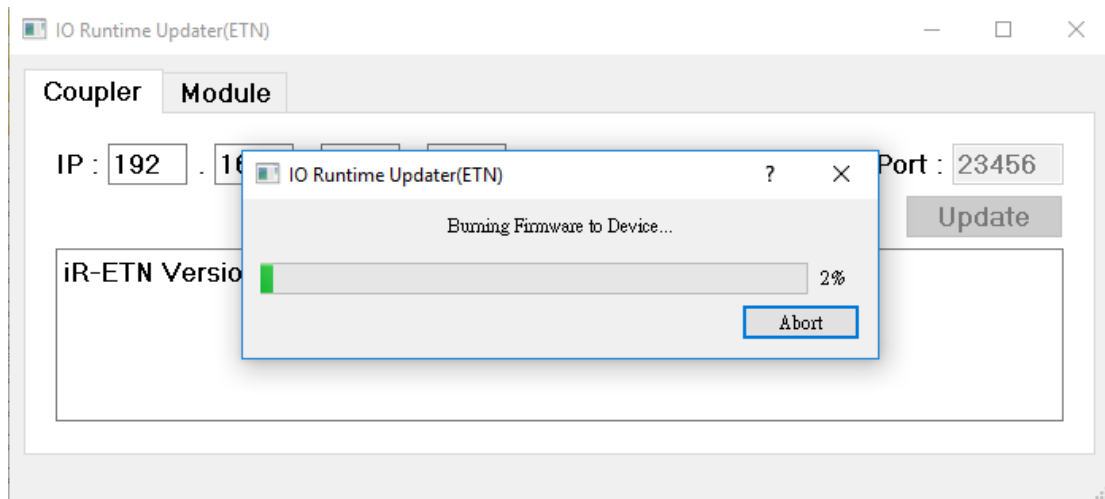


1.2. Updating iR-ETN Firmware

Step 1. Open [Coupler] tab, enter the coupler's IP address, and then click Update button.



Step 2. Wait for the burning process to complete.



1.3. Notes on Updating iR-ETN Firmware

1. Please make sure that no device is communicating with iR-ETN when updating iR-ETN's firmware.

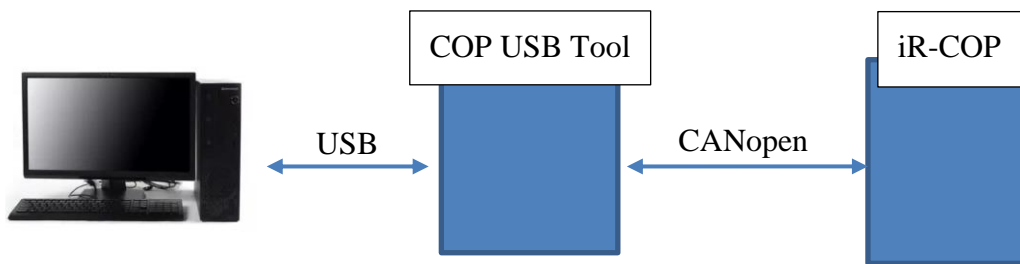
2. Updating iR-COP Firmware

2.1. Software

Update Software: IO Runtime Updater (COP)

2.2. Connection

Connect the micro USB port of COP USB Tool with your PC and CANopen port with iR-COP.

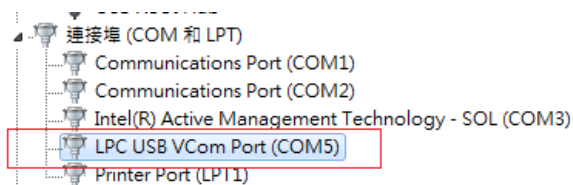


2.3. COP USB Tool

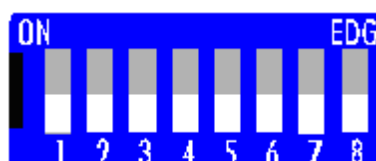


Please use a PC that supports USB2.0 full speed driver.

Installing COP USB Tool driver: Install lpc-linkII-vcom driver and then power on COP USB Tool, the Virtual Com Port generated by the device can be found as shown below.



2.4. DIP Switch Settings



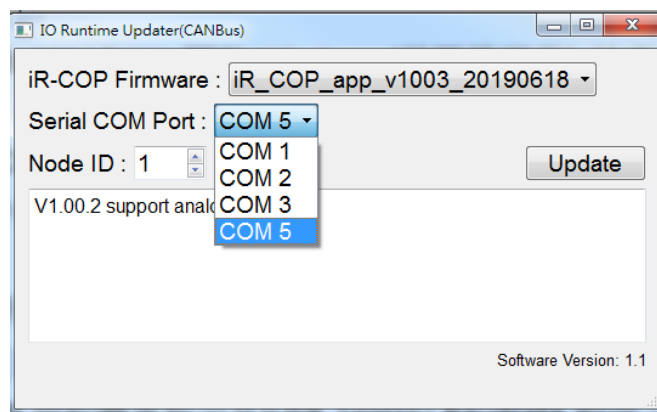
SW1~6: Please use the same baud rate for both iR-COP and COP USB Tool.

SW7 & 8: Please set to ON for COP USB Tool.

2.5. Updating iR-COP Firmware

Step 1. Launch iR-COP firmware update software, select .hex file and then select a Serial COM Port and Node ID. (Please use the same setting as iR-COP).

Step 2. Find USB Tool's COM Port number by opening Device Manager in Windows and find COP USB Tool's COM Port number.



Step 3. Download, update, and then restart your iR-COP.

2.6. Notes on Updating iR-COP Firmware

- 1 Please use the same baud rate for both iR-COP and COP USB Tool.
- 2 When iR-COP's firmware cannot be updated, please set iR-COP's SW8 (terminator) to OFF, and then try updating the firmware again.

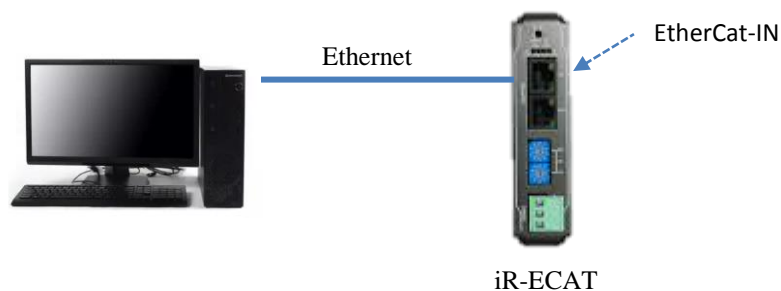
3. Updating iR-ECAT Firmware

3.1. Software

Update Software: IO Runtime Updater (ECAT)

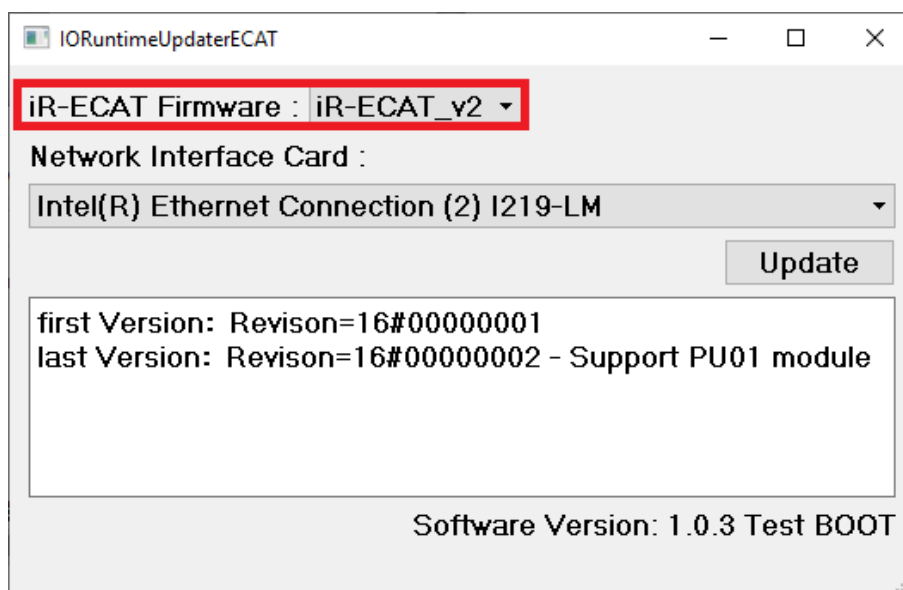
3.2. Connection

Connect PC's Ethernet port with iR-ECAT's EtherCAT-IN.

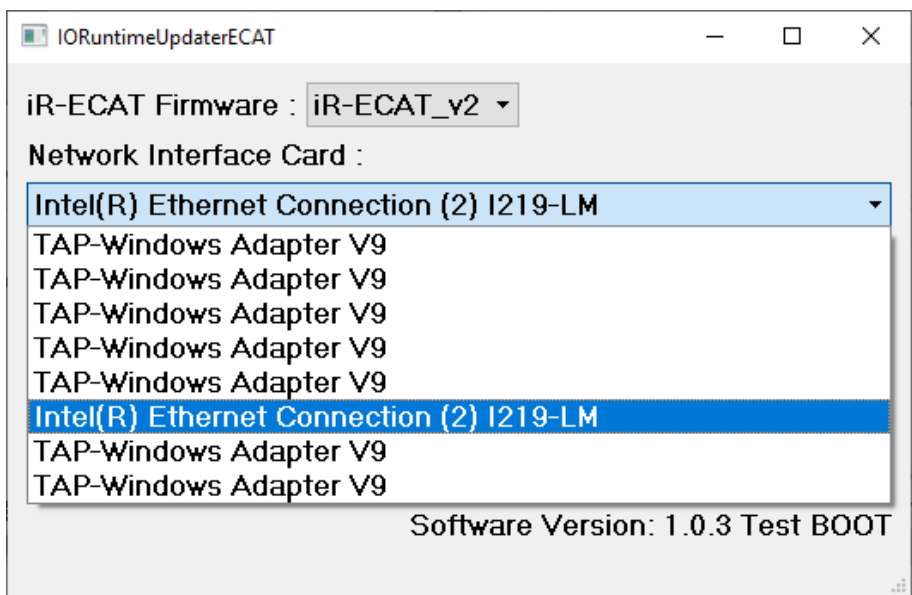


3.3. Updating iR-ECAT Firmware

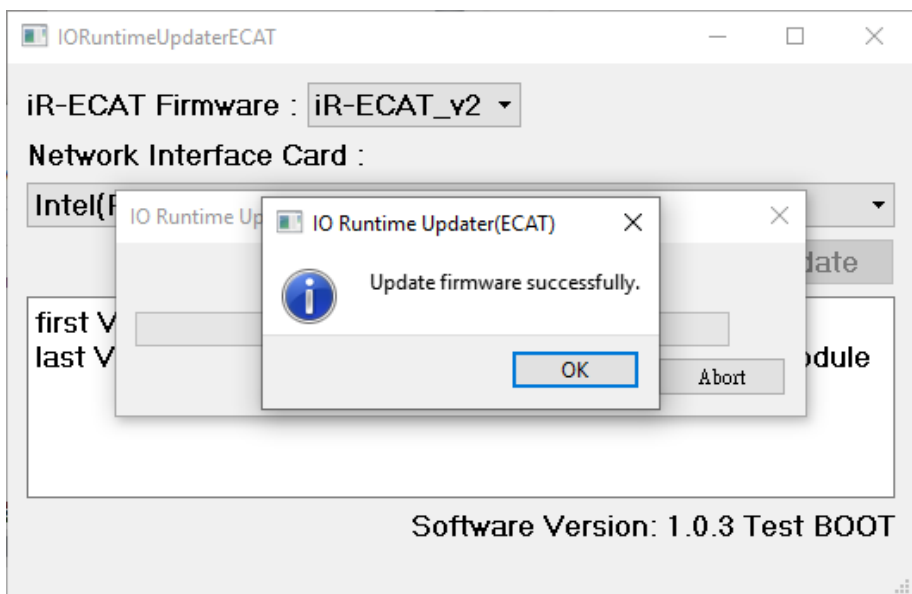
Step 1. Select the iR-ECAT Firmware file.



Step 2. Select PC's Network Interface Card.

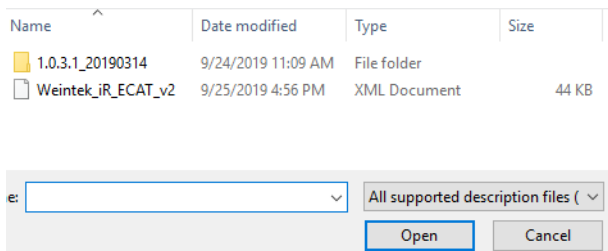


Step 3. Click [Update] and then wait for the process to complete.

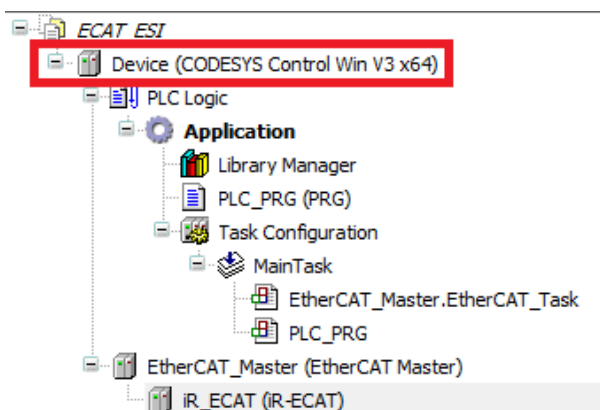


3.4. Updating ESI File using CODESYS

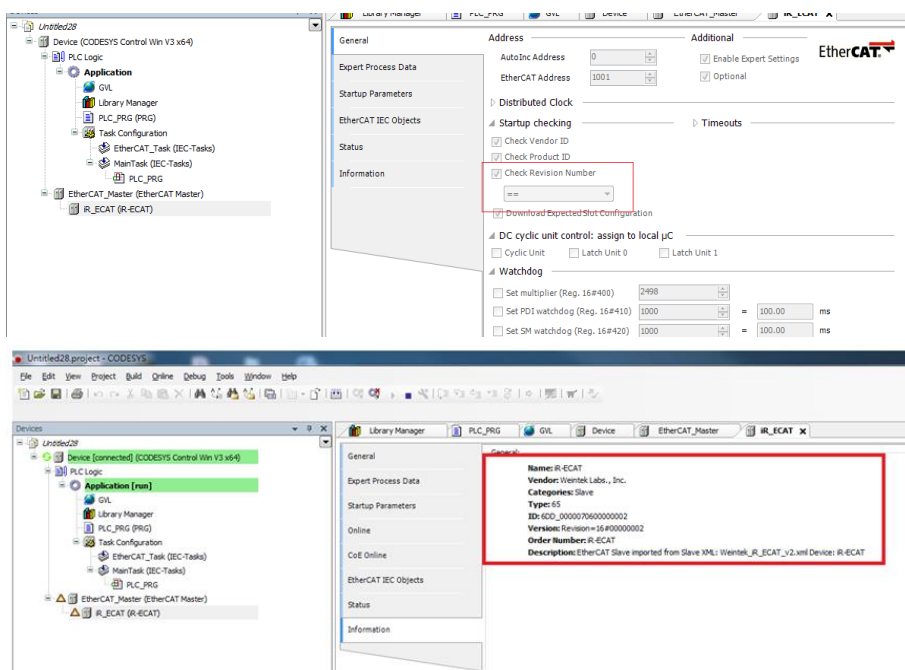
Step 1. Install the ESI description file: [Tools] -> [Device Repository] -> [Install]



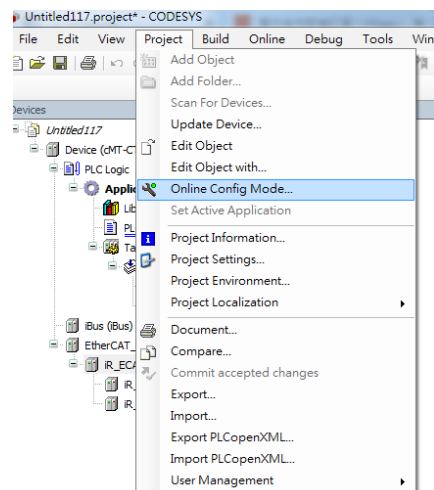
Step 2. Select CODESYS® V3 and then add the iR-ECAT.

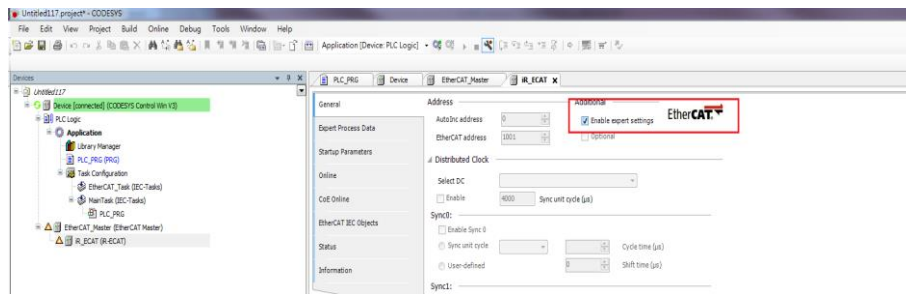


Step 3. Check iR-ECAT's Revision Number.

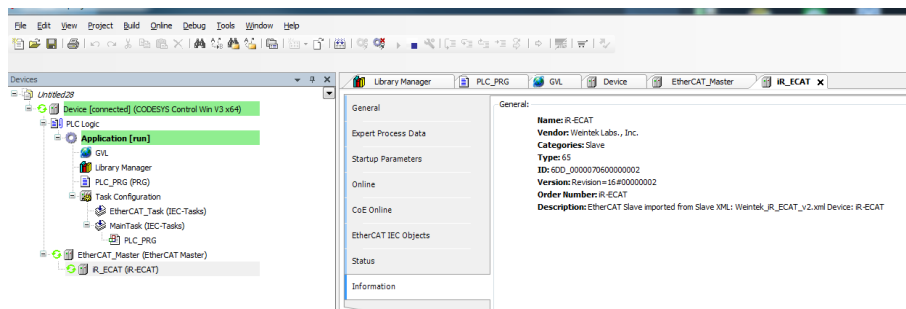
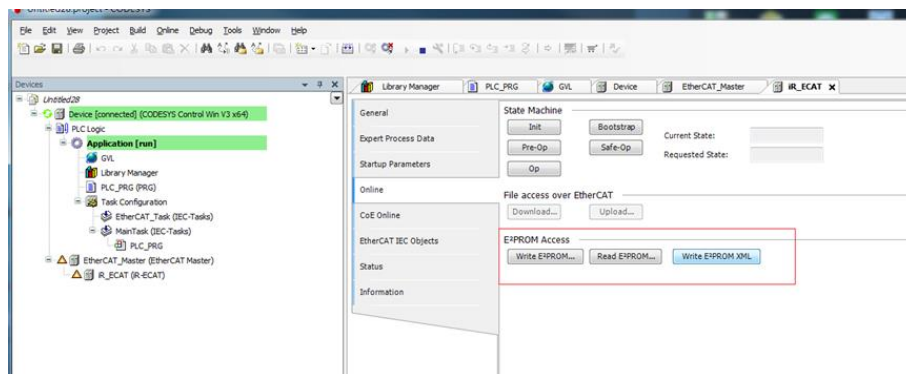


Step 4. Open [CODESYS] -> [Project] -> [Online Config Mode] and select [Enable expert settings].





Step 5. Open [iR-ECAT] -> [Online] -> [Write EEPROM XML] to write the ESI file into EEPROM.



3.5. Notes on Updating iR-ECAT Firmware

1. Please select PC's Ethernet communication port for network.
2. Please update both iR-ECAT's firmware and ESI file. Apart from installing ESI file, please also write the ESI file into iR-ECAT's EEPROM.

4. Updating iR Module Firmware

4.1. Software

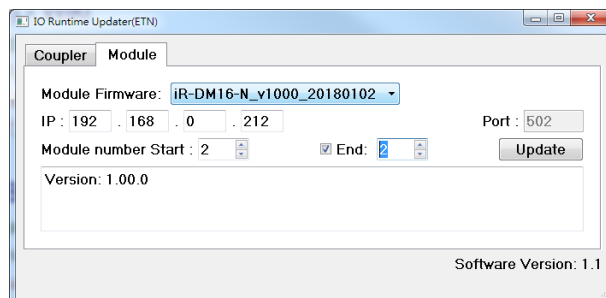
Update Software: IO Runtime Updater (ETN)

Updating a single module:

Select the same module number for both Start and End to update a single module.

e.g. Select 1 for both Start and End to update the 1st module.

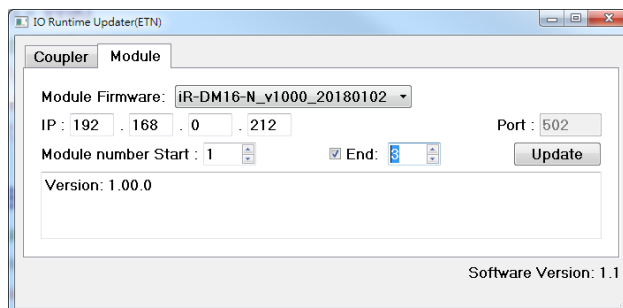
e.g. Select 2 for both Start and End to update the 2nd module.



Updating multiple modules:

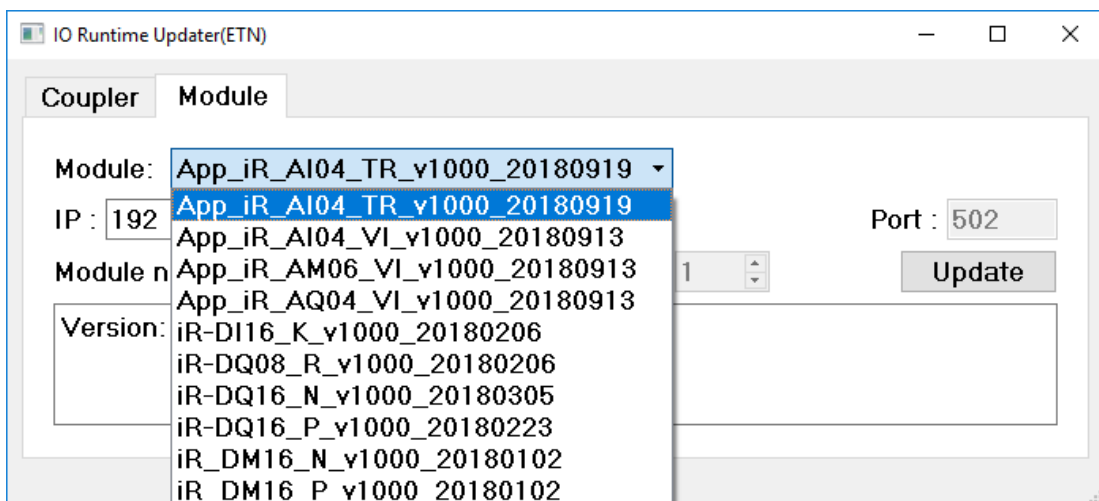
By selecting End checkbox and enter a number greater than the Start number, multiple consecutive modules with the same model name can be updated at a time.

e.g. Select 1 for Start and 3 for End to update the 1st ~3rd iR-DN16-N modules.

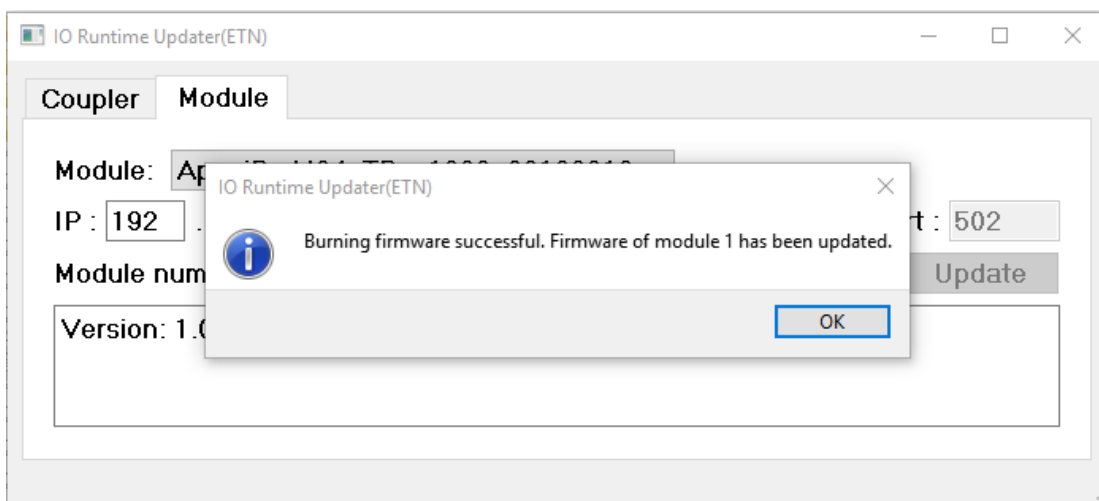
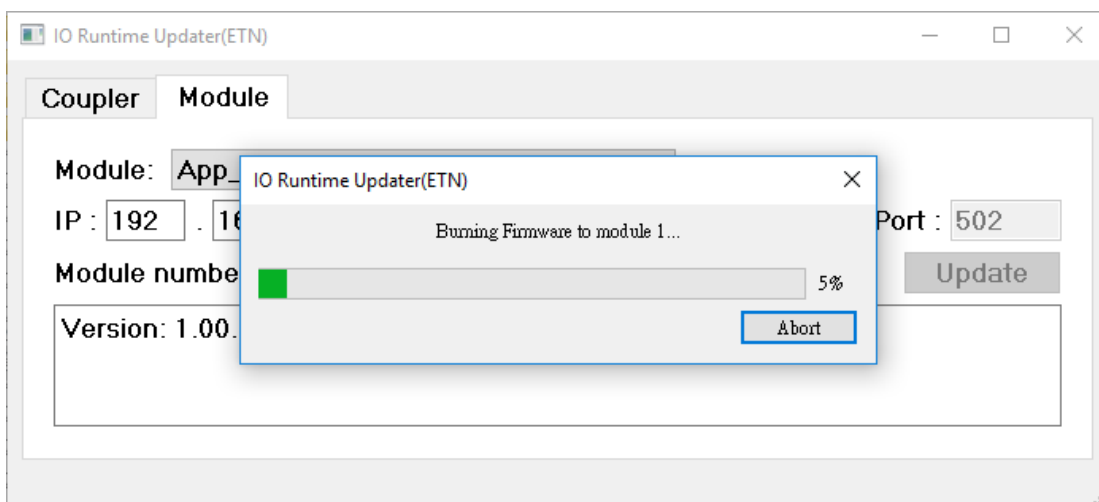


4.2. Updating iR-Module Firmware

Step 1. Open Module tab, select the firmware file, enter the iR-ETN's IP address, select the module number and then click Update button.



Step 2. Wait for the burning process to complete.



4.3. Notes on Updating iR Module Firmware

- 1 Please make sure that the firmware filename matches the module's model

name.

- 2 Only iR-ETN can be used to update iR module's firmware.
- 3 Please make sure that no device is communicating with iR-ETN when updating iR module's firmware.

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