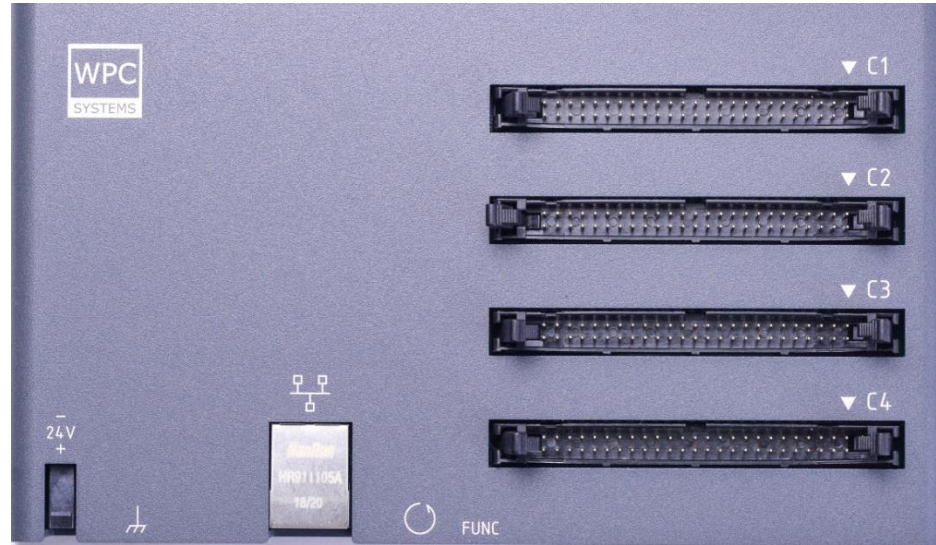# GECO STEM
Ethernet Remote controller

WPC Systems Ltd.

Justin Wu

2020-03-18

Appearance

Slot C1 (24ch 3.3V DIO)

Slot C2 (24ch 3.3V DIO)

Slot C3 (24ch 3.3V DIO)

Slot C4 (24ch 3.3V DIO)

24VDC Power input
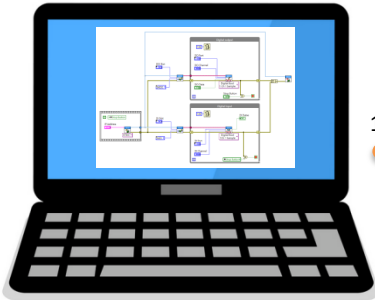
Protective Earth (PE)

LEDs

10/100M Ethernet

Reset button
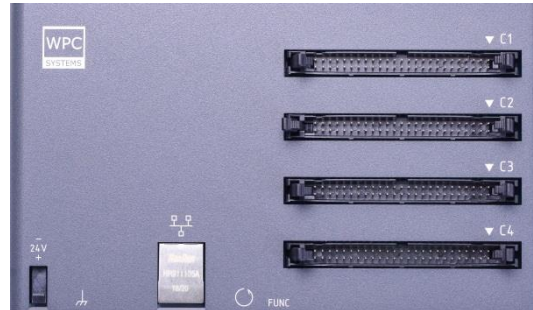
IP reset button (Press > 5sec)
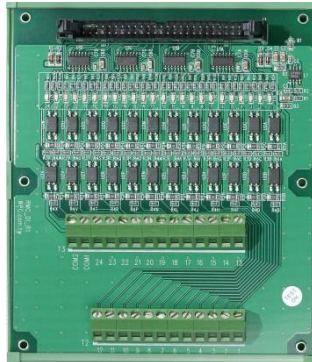
Support modules

Host PC

10/100 Ethernet

GECO STEM controller

WPC-MCX-H-Motion
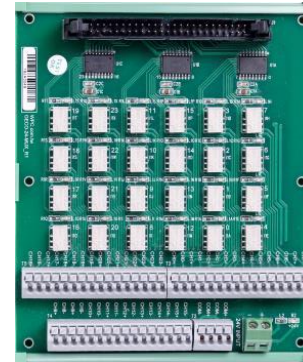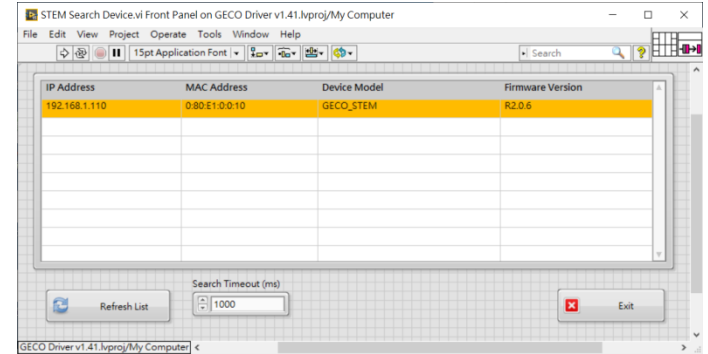
WPC-24-DO

WPC-24-DI

WPC-12-12-DIO

WPC-24-2W-MUX
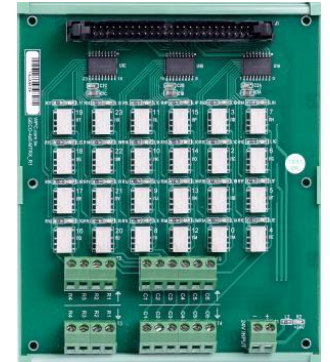
WPC-4x6-MTRX

Driver download
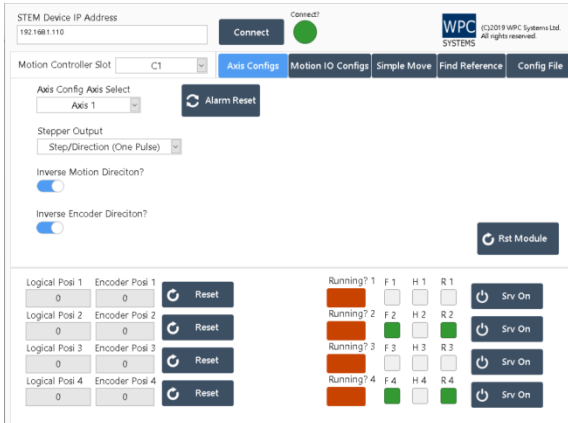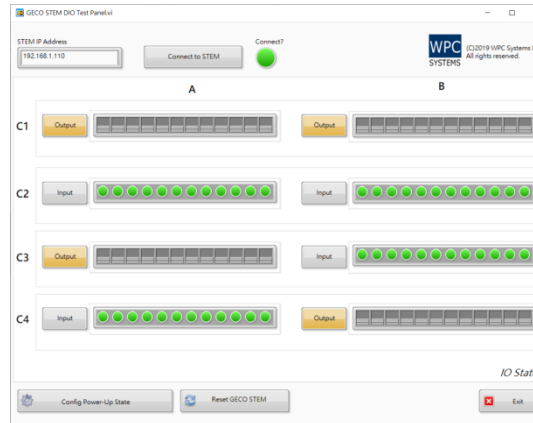
Soft front panel

- Software front panel (SFP)
  - STEM H-motion Test Panel
  - STEM DIO Test Panel
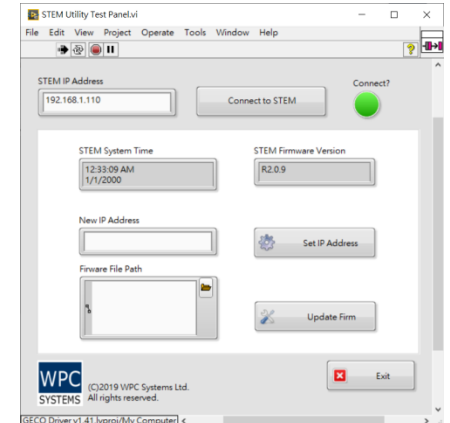 - STEM Utility Test Panel
  - STEM Search Device

STEM Search device

H-motion soft front panel

Digital I/O soft front panel

Utility soft front panel

Connect to GECO STEM (Network adaptor setting)

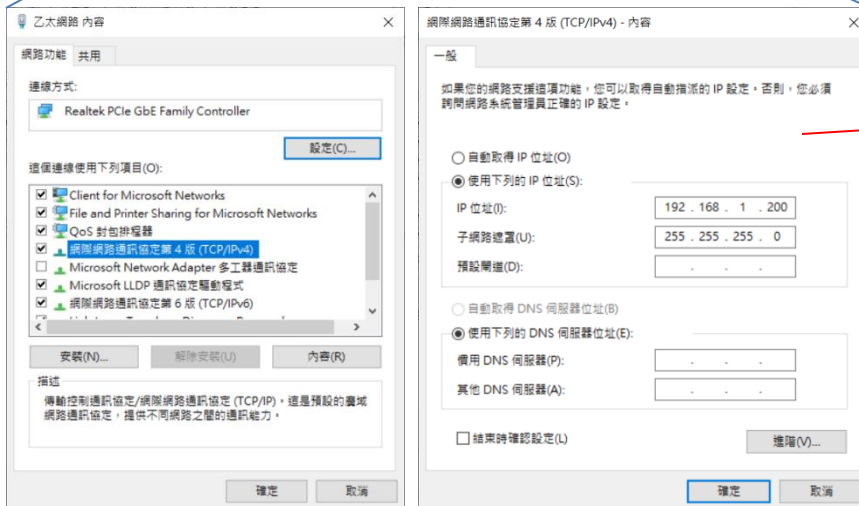# Network adaptor setting (example)

Host PC

GECO STEM controller

10/100 Ethernet

Host IP: 192.168.1.200

Target IP: 192.168.1.110

IP address: 192.168.1.X
Subnet Mask: 255.255.255.0

Avoid IP address:
192.168.1.1 (reserved for router/gateway)
192.168.1.255 (reserved for broadcast)
192.168.1.110 (same as GECO STEM controller)
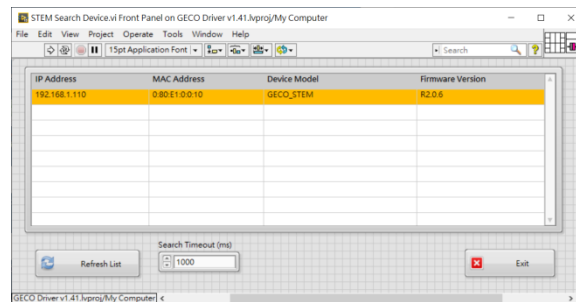
Factory default IP address: 192.168.1.110

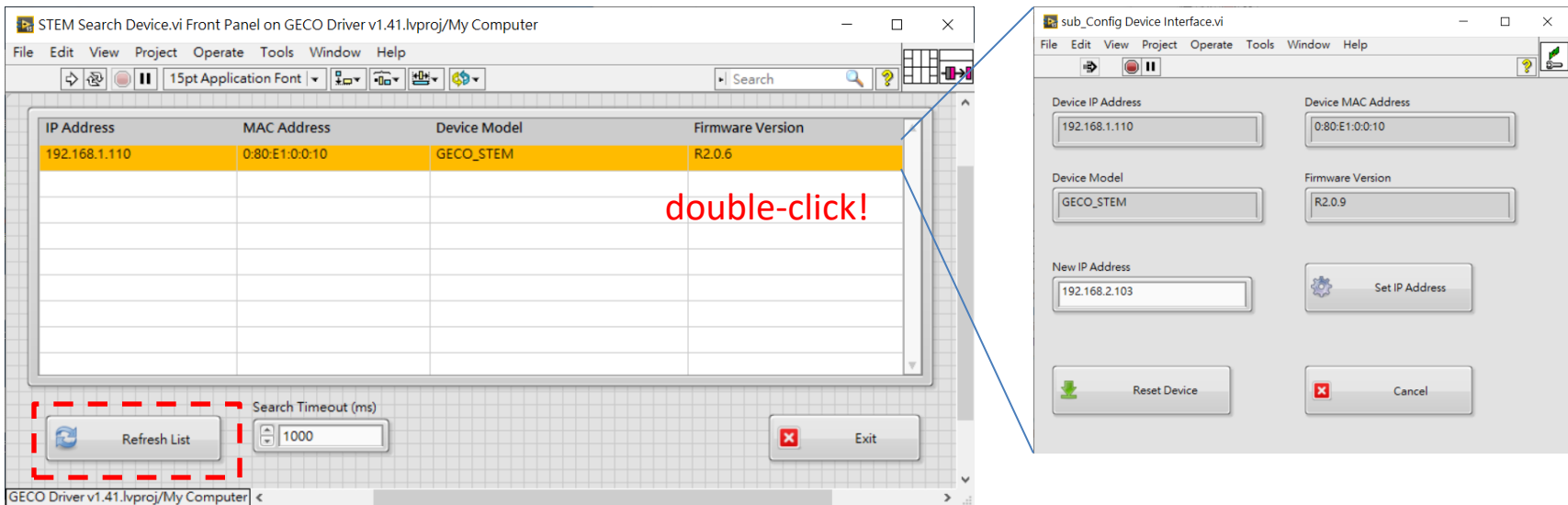# Can't find target / forgot IP address

2. Press the RESET button to restart controller. The New IP address will take effect.

1. Hold the FUNC button down > 5 seconds. The IP address will be set to factory default: 192.168.1.110

Introduction to STEM Search Device

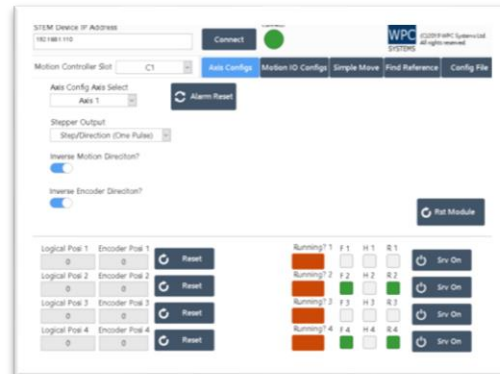# STEM Search Device

double-click!

Even under inconsistent IP setting situation,
users can still change IP address through "STEM Search Device" tool.

Introduction to H-Motion test panel

Panel layout

Connection

Setting

Axes status

Connection

Factory default IP address: 192.168.1.110

1.

2.

3.

H-motion module
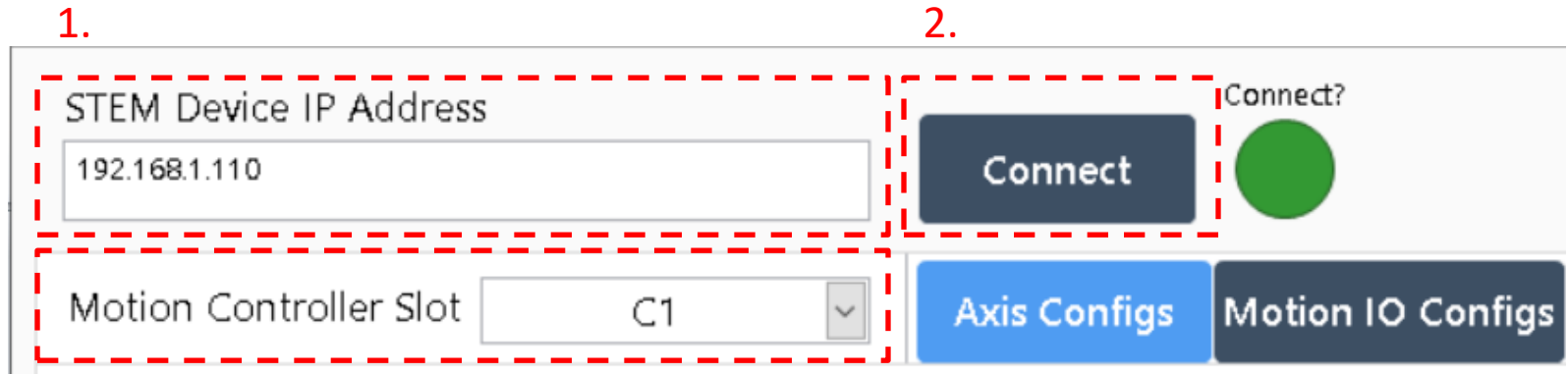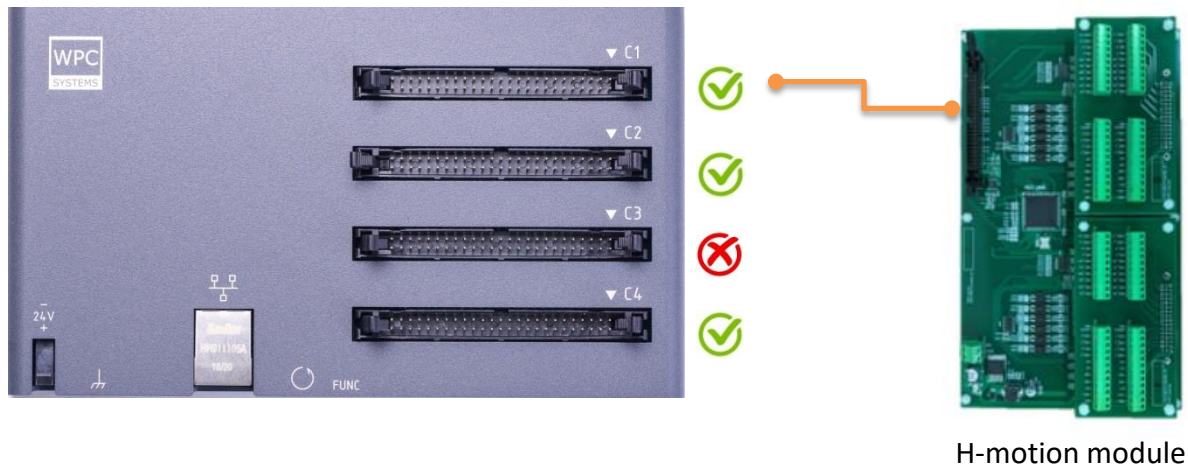
Axes Status

Step output counter   Encoder readout   Axis status   Limit switch Indicators

Position reset   Servo on (Enable Axis)

Axis configuration

Axis basics

Step

Direction   Forward   Reverse

1-pulse mode

Forward

CW

     Forward

CCW

            Reverse

2-pulse mode

Forward

Motion I/O configurations

Simple Move (operation)

Find reference

Configuration file

Introduction to
DIO test panel
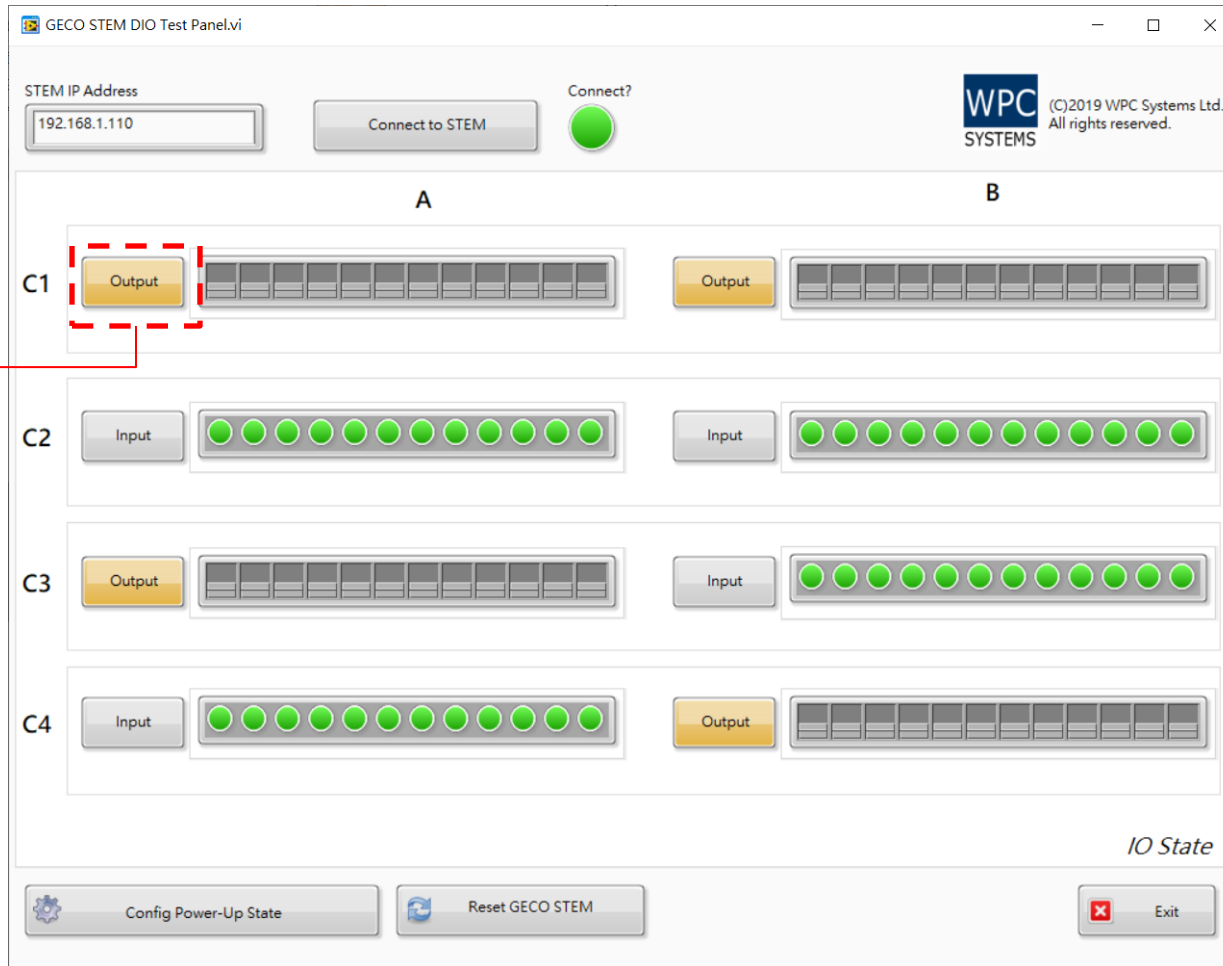
DIO Test Panel layout

Default IP: 192.168.1.110

Press "connect button" first

Manual control

I/O change direction

Power-up state configuration
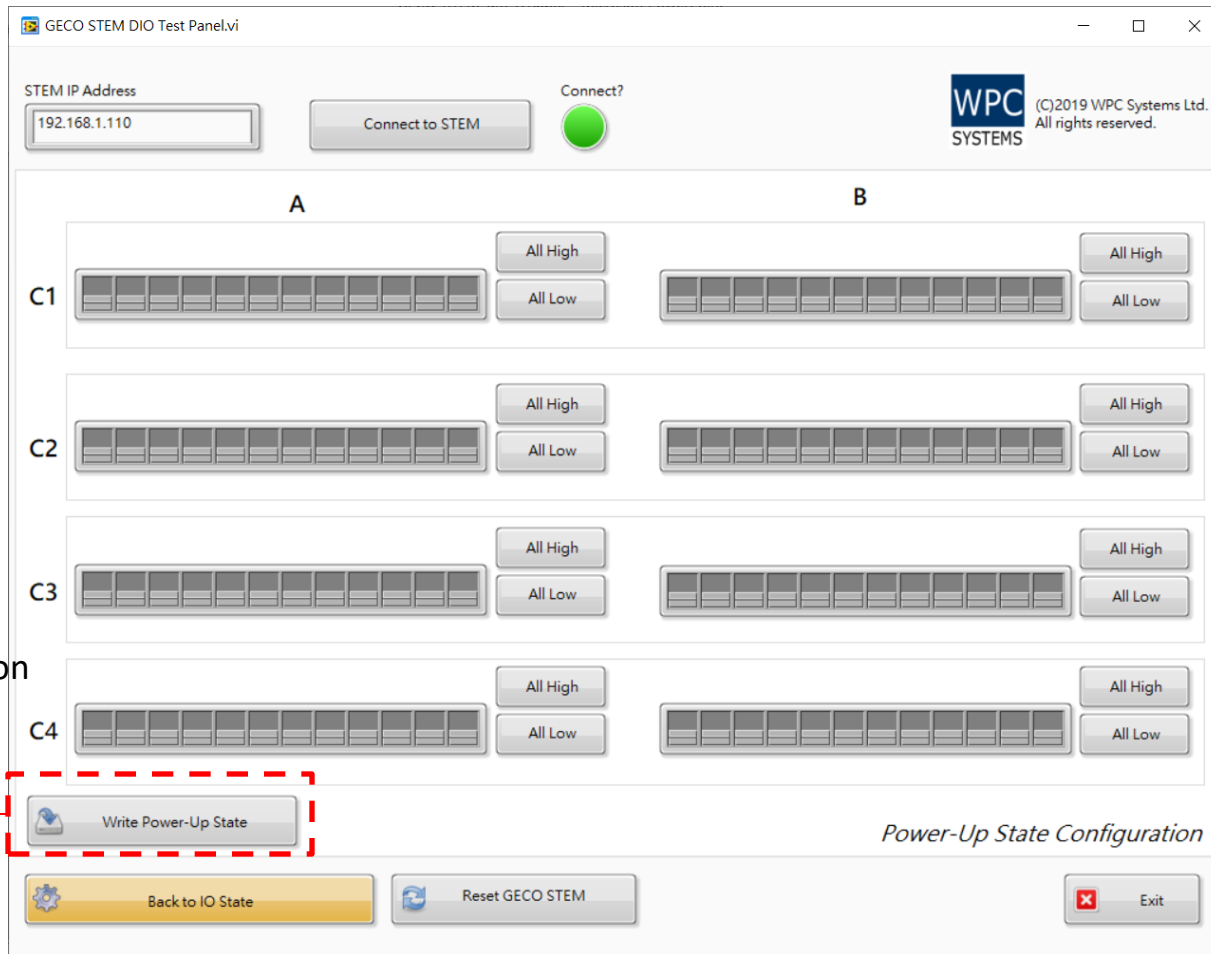
Store configuration

Introduction to Utility test panel

STEM Utility Test Panel
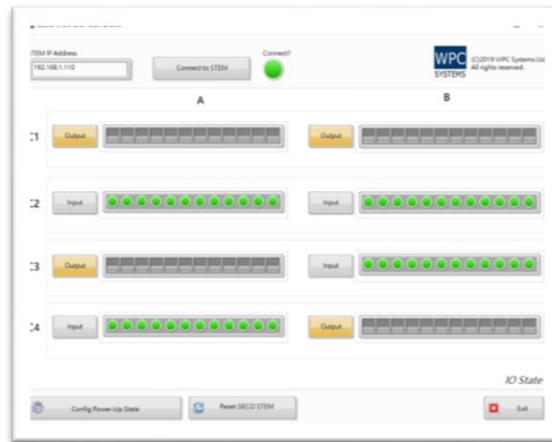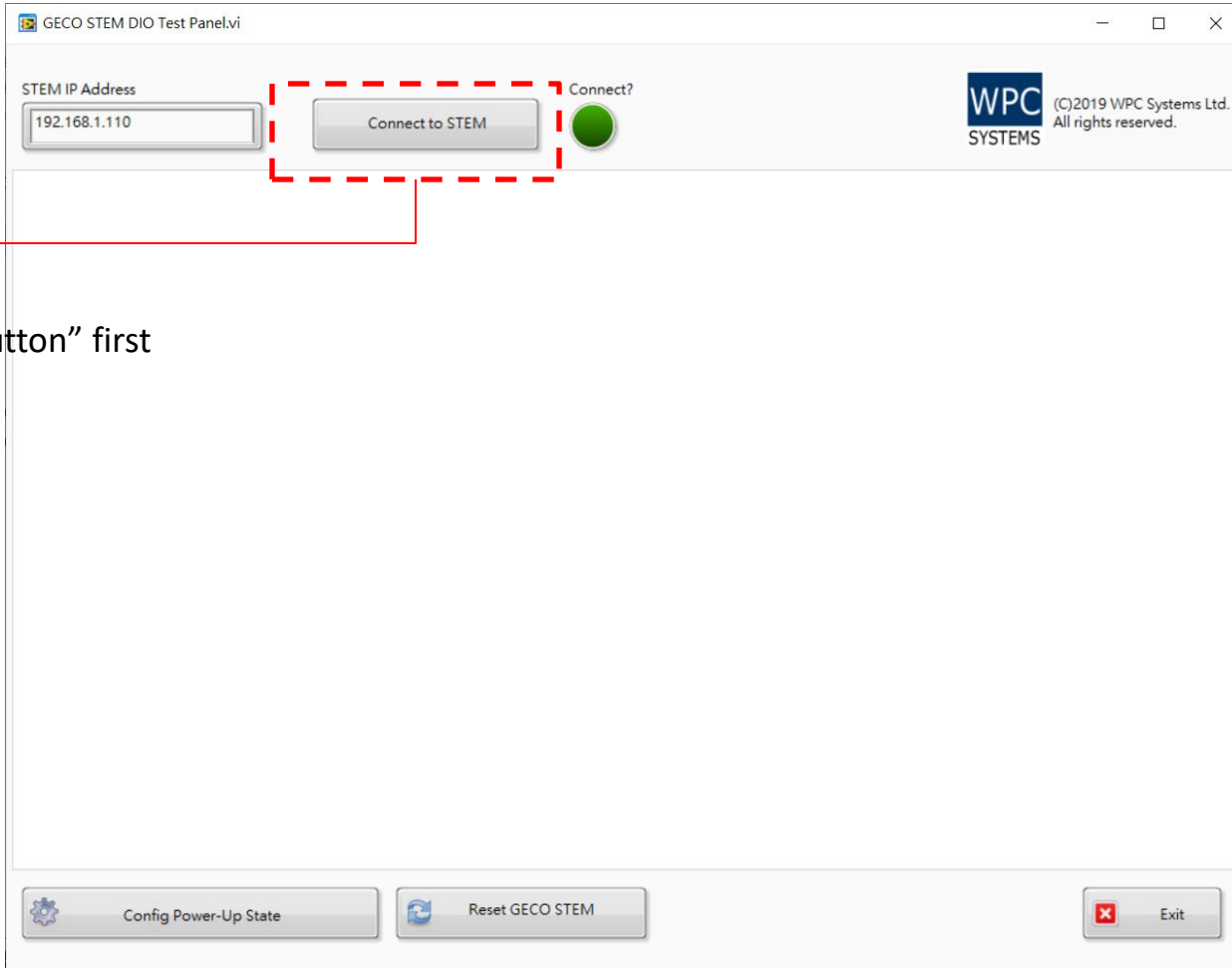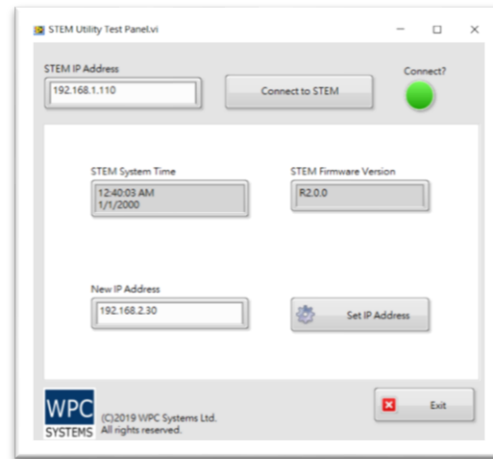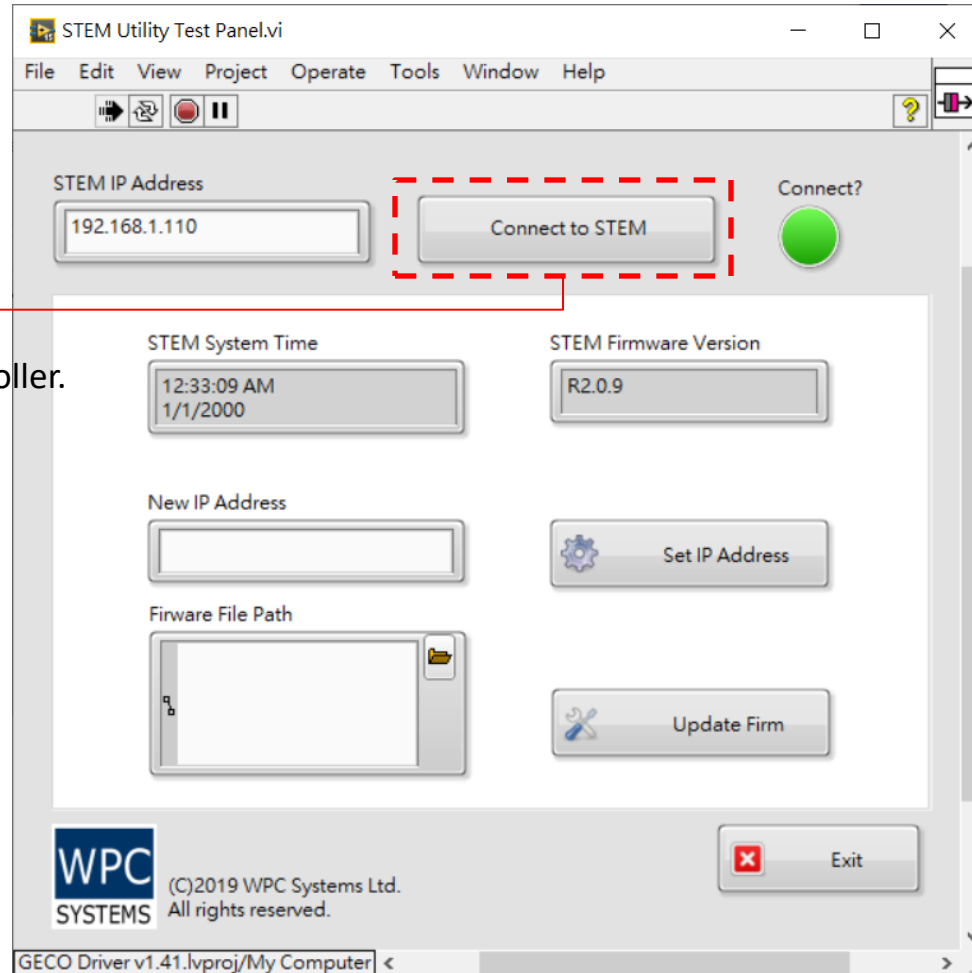
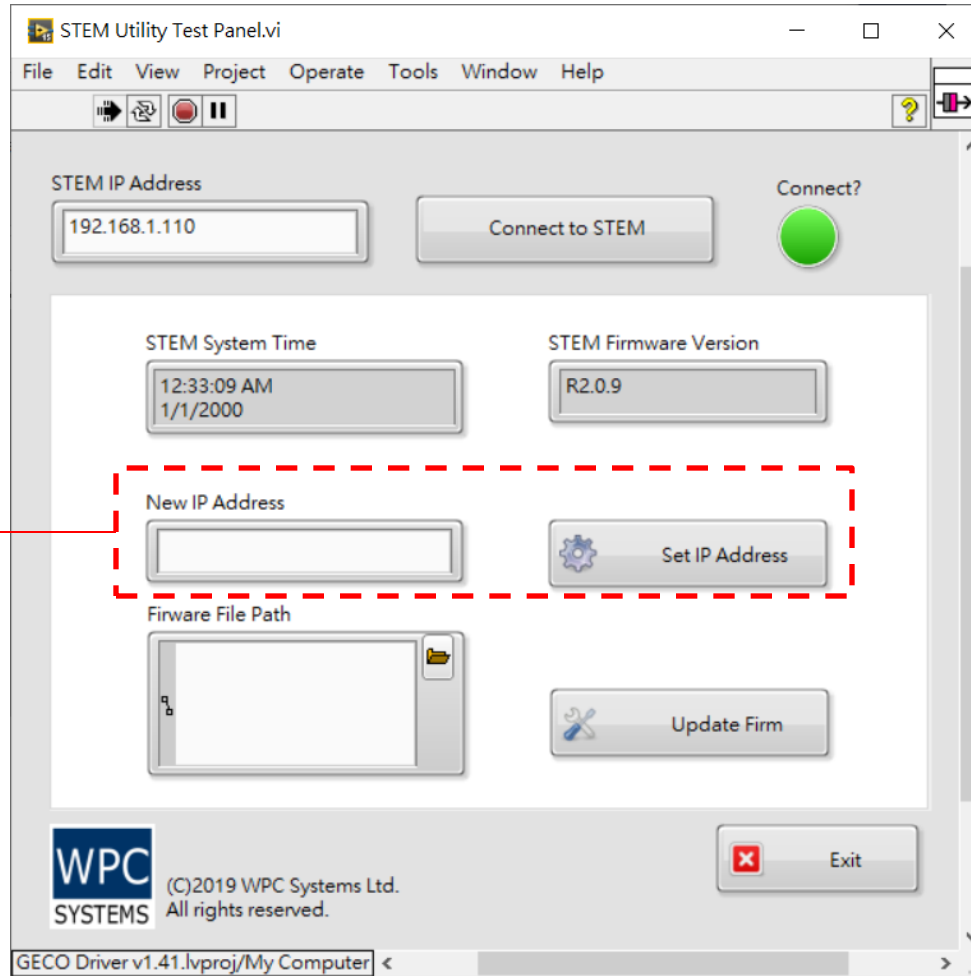# Change IP address

Change IP address

Firmware update
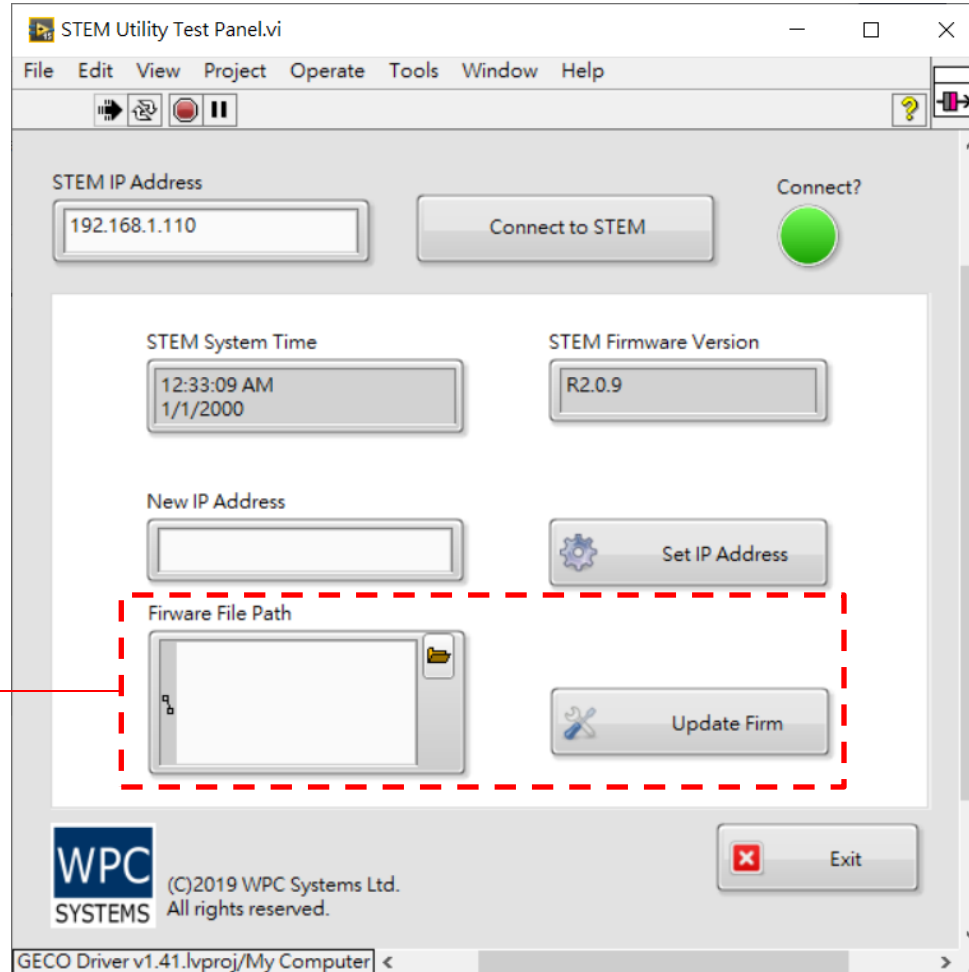
Update firmware

Firmware download

www.wpc.com.tw/255112104622120.html — 110%

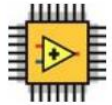## 什麼是 *GECO* 控制器？

Graphical Embedded Controller, GECO，是一個完全可以透過 *LabVIEW* 圖型化程式語言進行：編輯／下載／佈署的控制器。透過乙太網路介面進行下載／通訊的特色，方便使用者快速結合工業物聯網的應用（*Industrial Internet Of Things, IIoT*）。同時具備獨立運作（*Stand-alone*）以及圖型化系統設計（*Graphical System Design, GSD*）的優勢，可簡化複雜的應用、縮短開發時間、降低維護成本。

PC-remote 控制器

GECO STEM 乙太網路控制器

- 4-slot IDC-50P 3.3V DIO
- Support modules: 24ch-24V-DI / 24ch-24V-DO / 12-12ch-24V-DIO / 24ch-5V-TTL
- 24ch-2-wire-Multiplexer / 4x6-Matrix switch
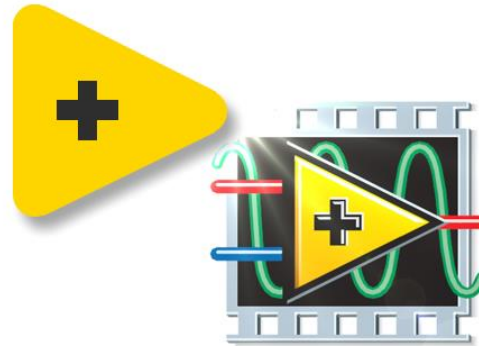- 10/100M Ethernet / TCP command sets
- LabVIEW API

geco_stem_um_r4.pdf
Download File

firmware_r2.0.8.zip
Download File

geco_motion_driver_v1.4.12.zip
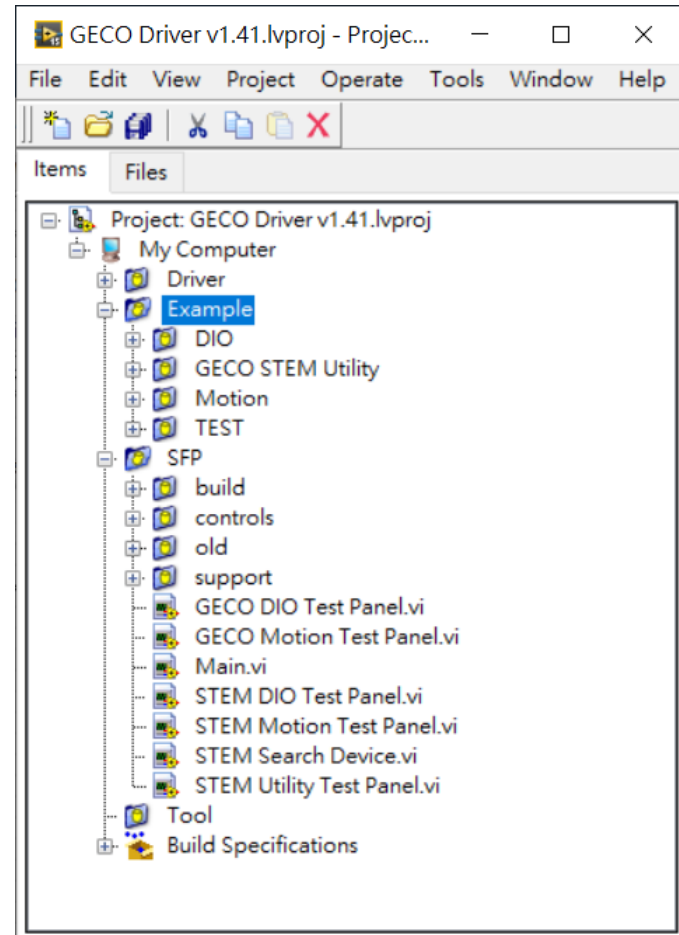**Download File**

geco_stem_testpanel_v1.4.12.zip
Download File
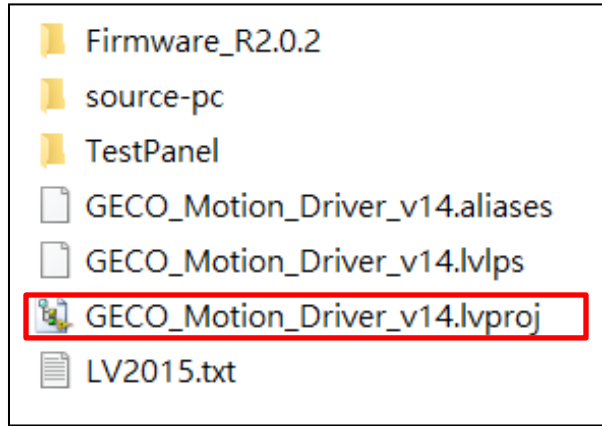
LabVIEW driver API
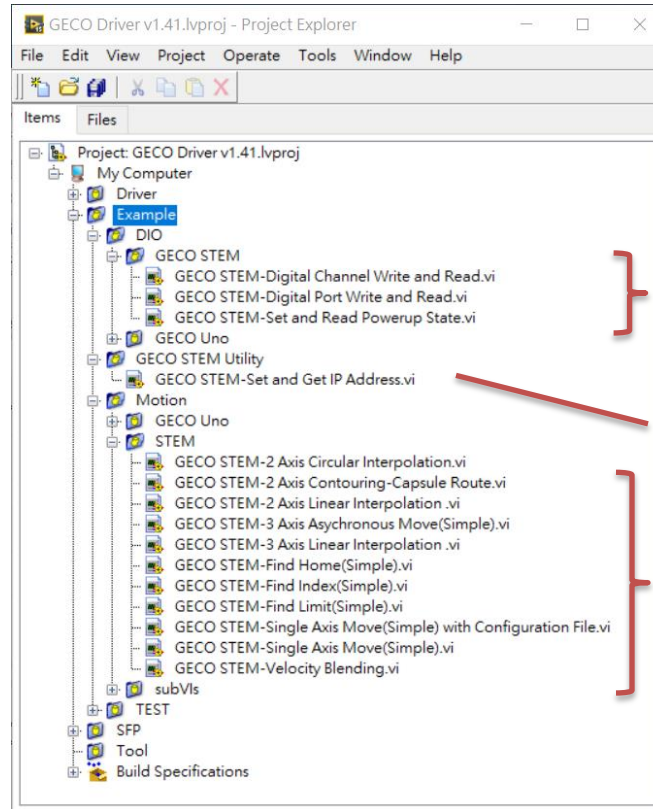
Driver API & Example codes

- Example code
  - Digital Channel Write and Read
  - Digital Port Write and Read
  - Set and read power-up state
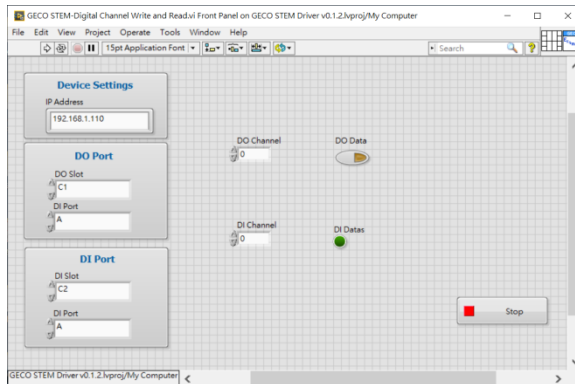- Driver API / Libraries
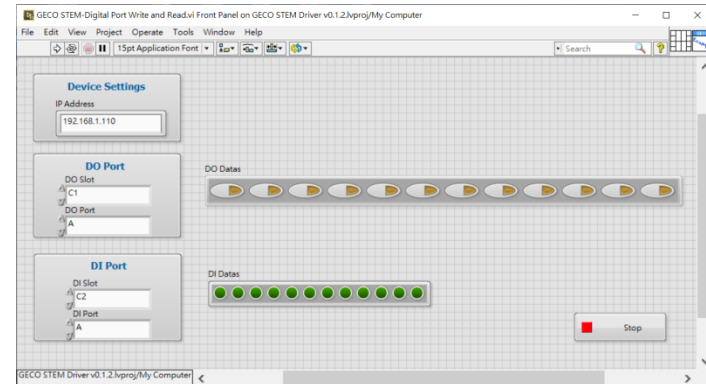 - LabVIEW 2015 and later

Driver API

Geco_motion_driver_V1.4.zip
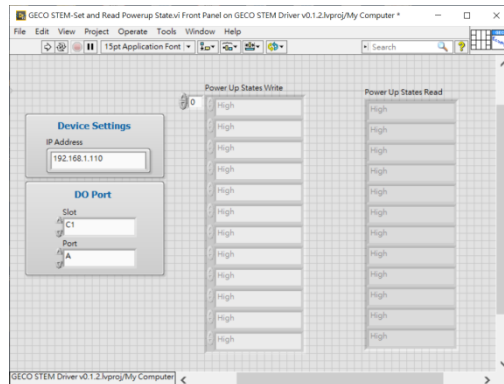Supported LabVIEW version: 2015 or later
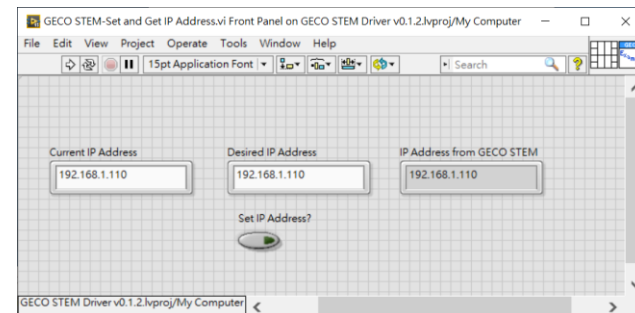
DIO example code

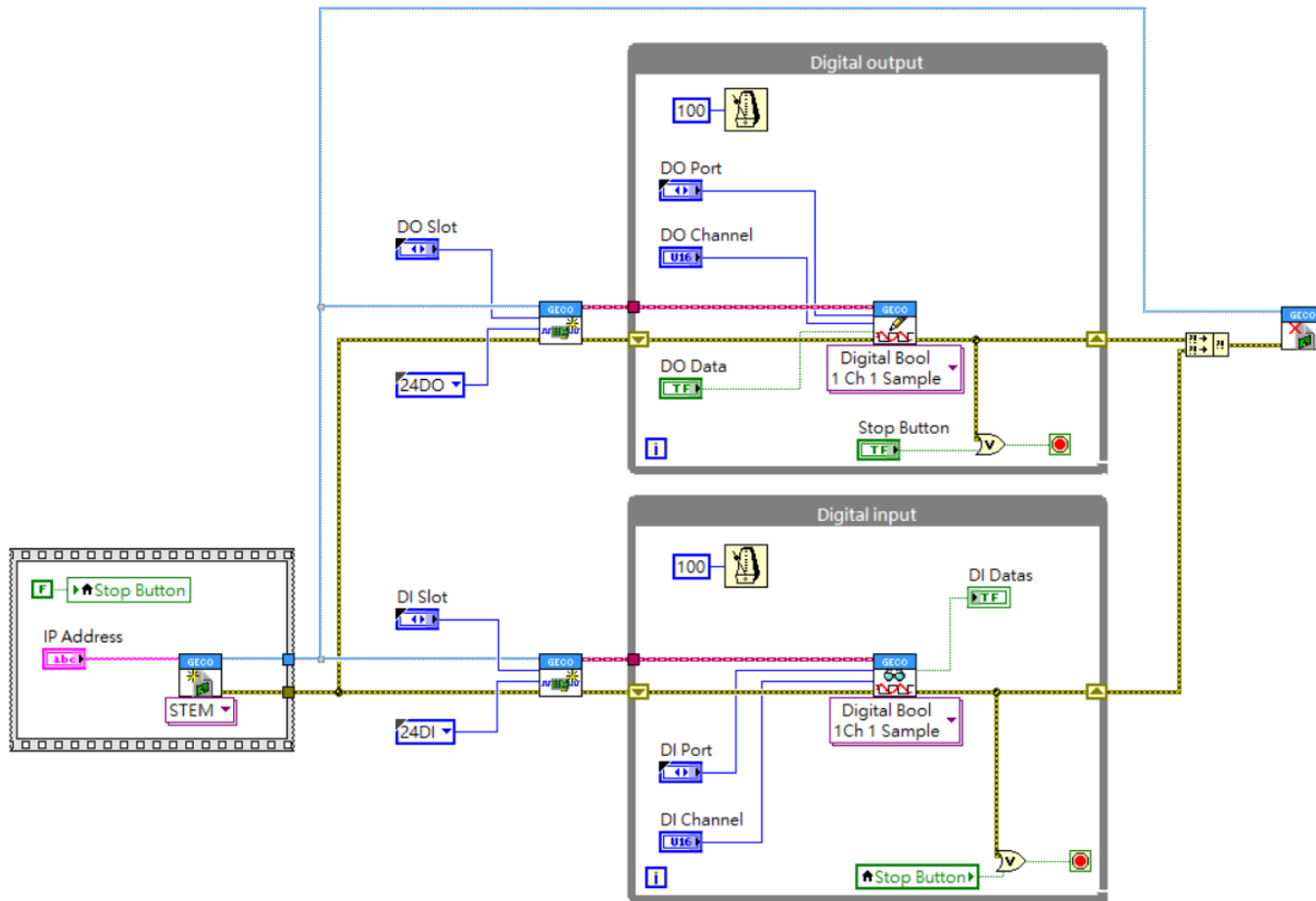Digital channel write and read

Digital port write and read
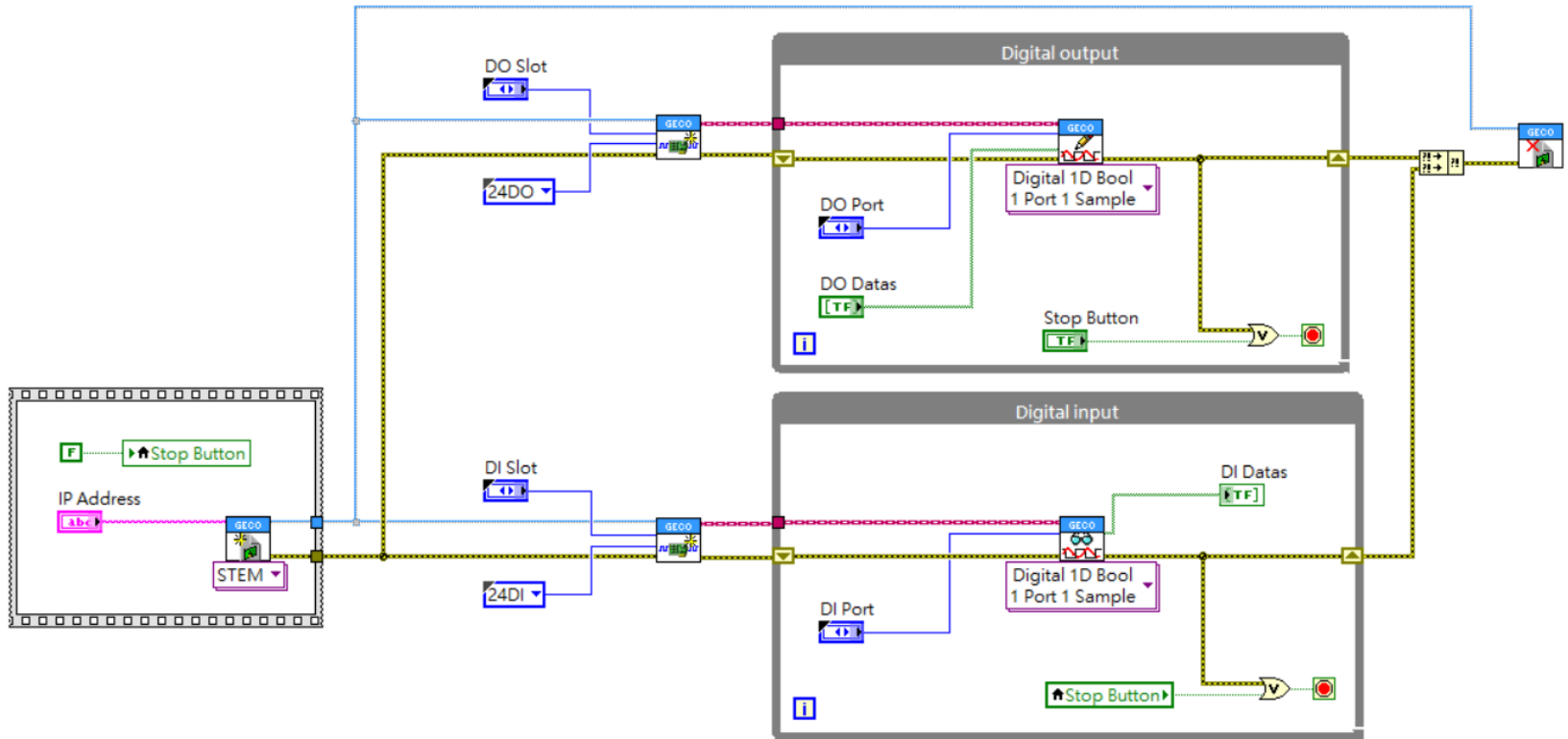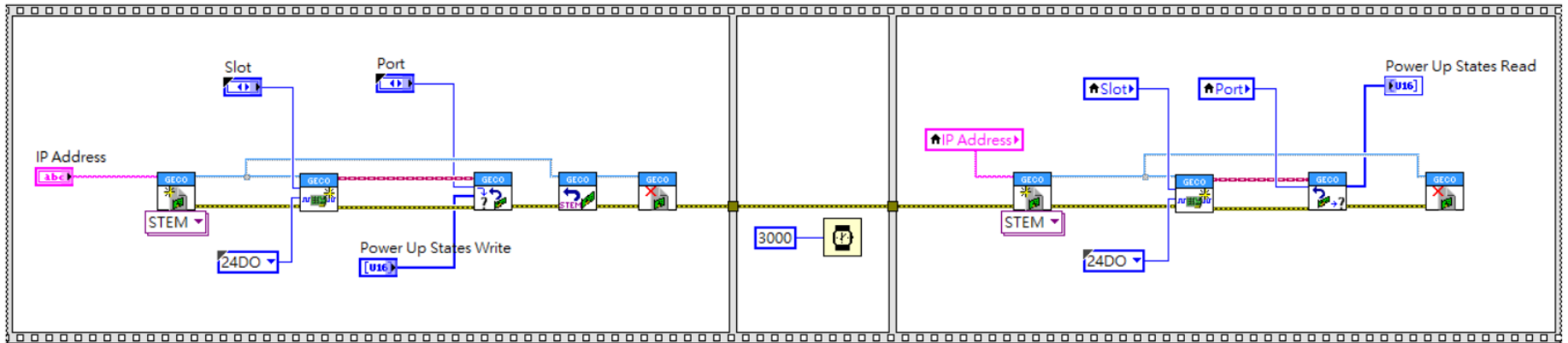

Set and get power-up state

Set and get IP address

Digital channel write and read

Digital port write and read

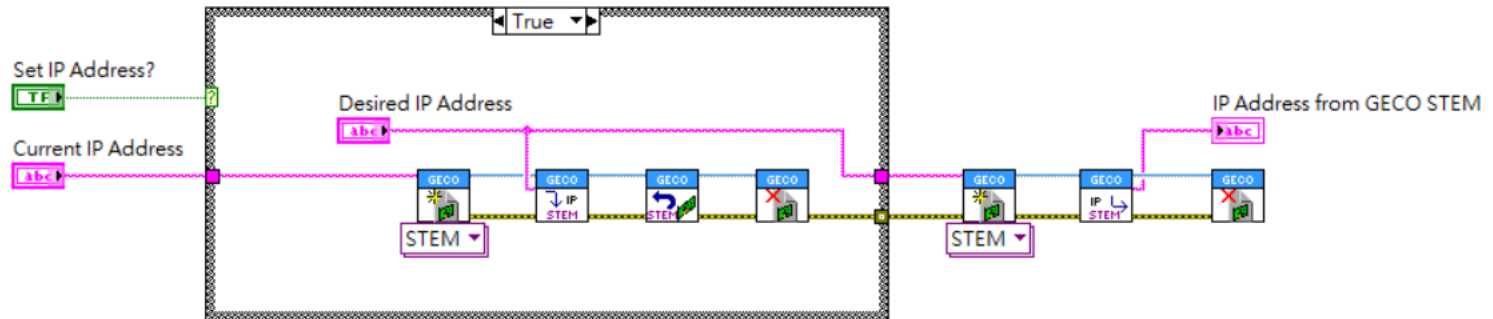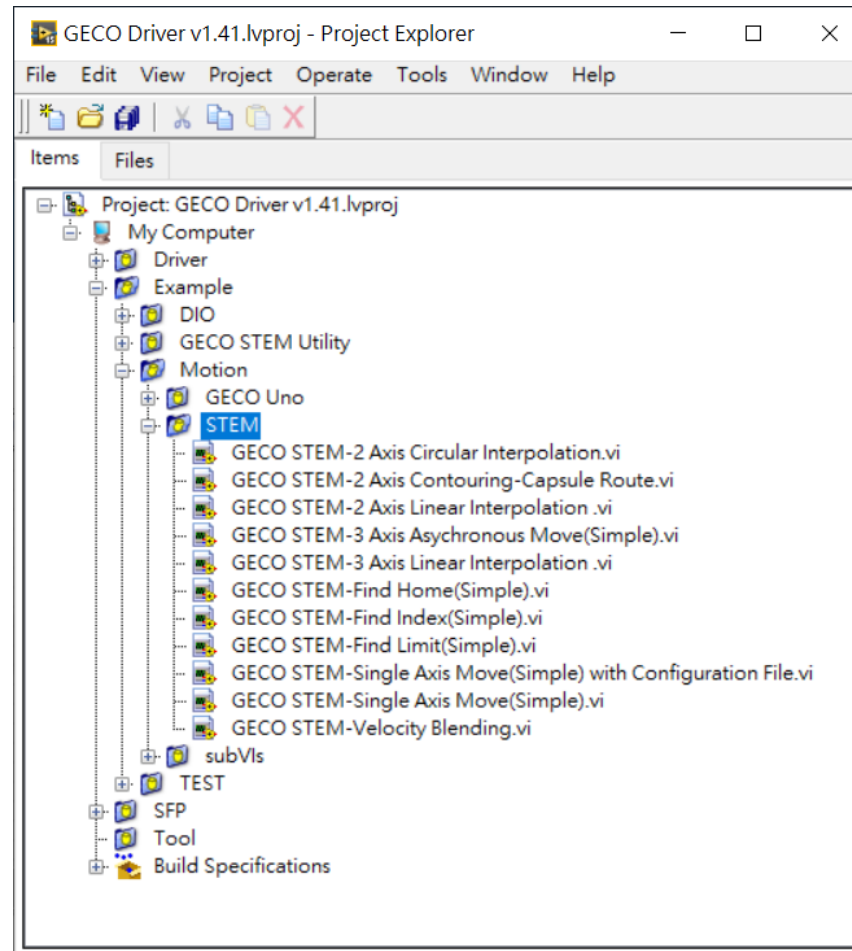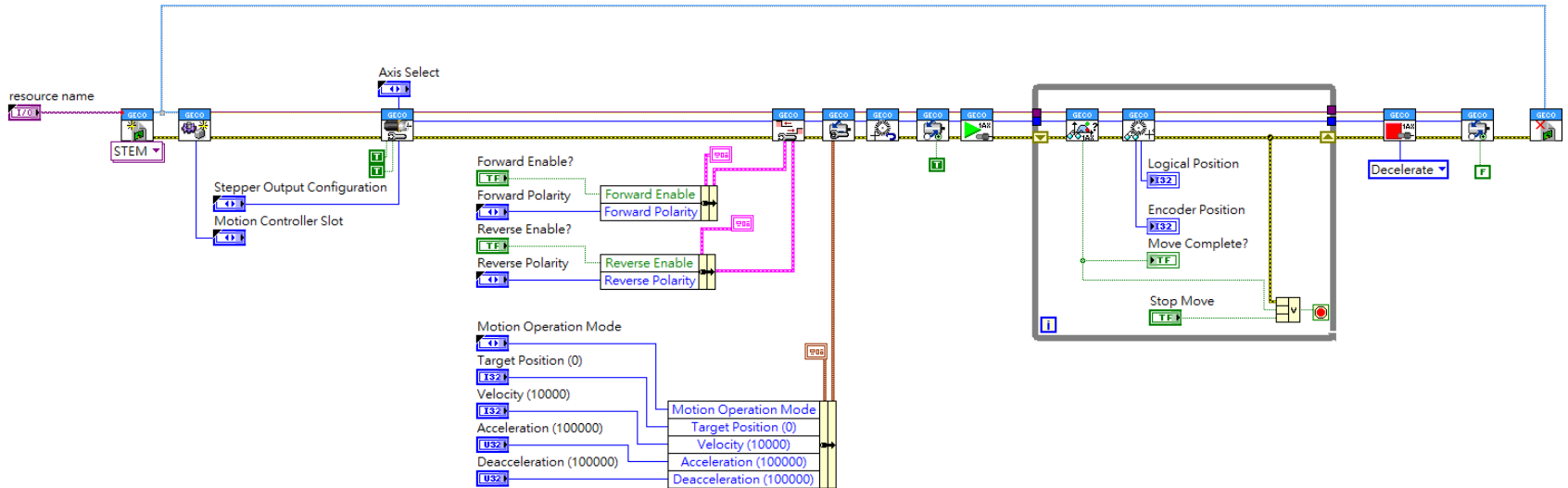# Set and Get power-up state

Set and Get IP address

Motion example code

Single axis move (simple)

Find home (simple)