

Technical Note



Migrating MVI56-GEC to the Enhanced MVI56E-GEC

Document Code: TN-MVI56E_GEC

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Document Brief

This document describes how to migrate an existing MVI56-GEC ASCII Ethernet ControlLogix module to a new Enhanced MVI56E-GEC module. The document will illustrate the steps involved in converting the current configuration files to configuration compatible with the MVI56E-GEC module.

The MVI56E-GEC module is designed to perform as a drop in replacement for the legacy MVI56-GEC module. As such, no ladder logic changes are required to replace an MVI56-GEC module with an Enhanced MVI56E-GEC module.

The only difference between the MVI56-GEC module and the Enhanced MVI56E-GEC module is that Configuration and Debug on the MVI56E-GEC is done via an Ethernet connection to the module instead of via an RS232 serial port connection that was available on the MVI56-GEC.

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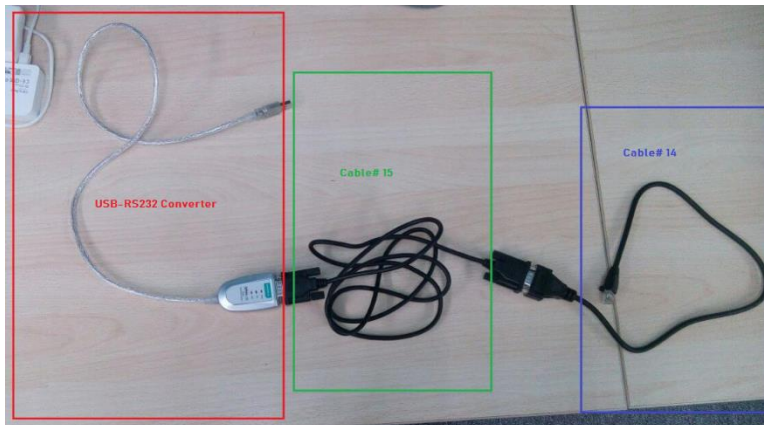
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I. What you will need...

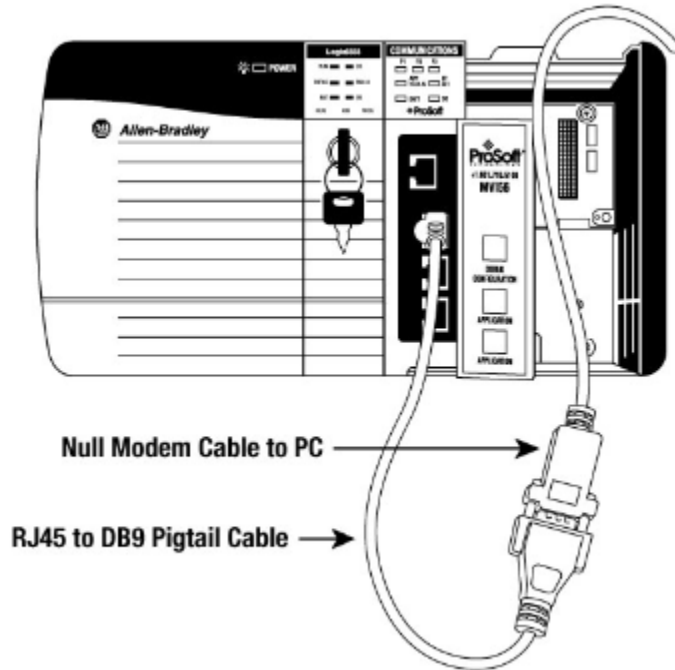
1. A Computer with the following applications installed:
 - a. ProSoft Configuration Builder, version 4.4.24.20 or higher
 - b. RSLogix5000 or Studio 5000, licensed and accompanied by RSLinx
2. MVI56-GEC Configuration file.
 - a. An offline version of the file saved on a PC can be used
 - b. If you need to upload the configuration file from a module you will need a Serial Debug port connecting cable – This is a combination of ProSoft Cable#14, Cable#15 (supplied with MVI56-GEC at time of purchase) and an RS232-USB Conversion cable.



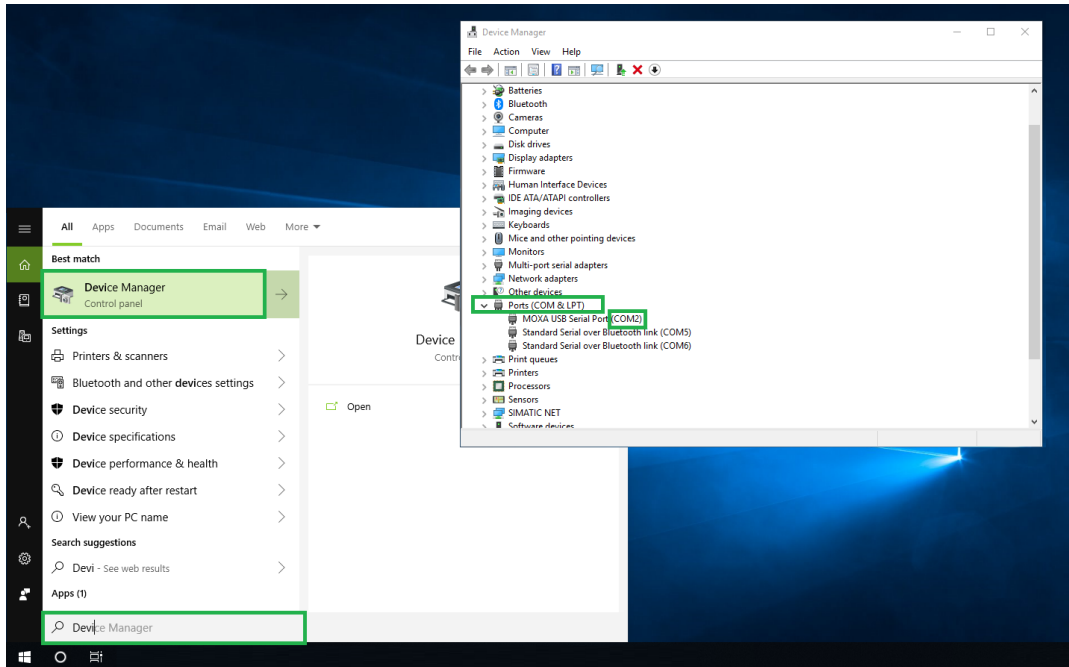
II. Obtain Configuration file for MVI56-GEC module

To convert from the MVI56-GEC module to the MVI56E-GEC module, you will need to open the configuration file in ProSoft Configuration Builder (PCB). If you have the offline configuration file for the MVI56-GEC module, you may move on to the next step, however if you wish to upload the configuration file from a module follow the below described steps.

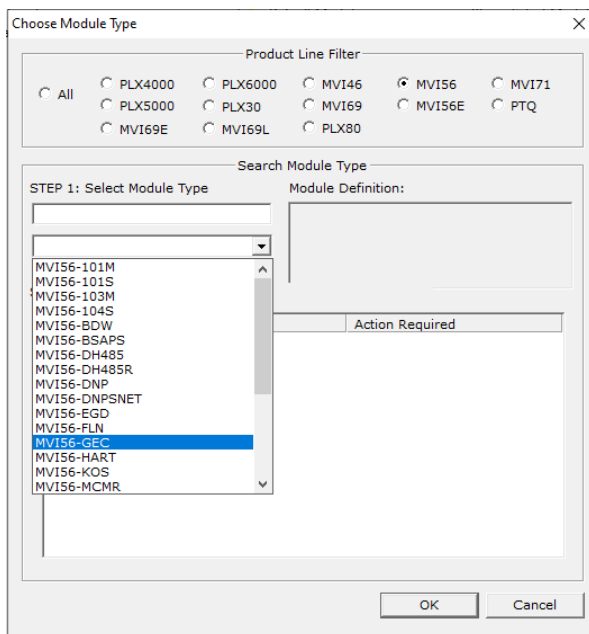
Connect one end of Cable#14 to the Debug Port of the MVI56-GEC module and connect the USB end of the RS232-USB converter to your PC as shown below:



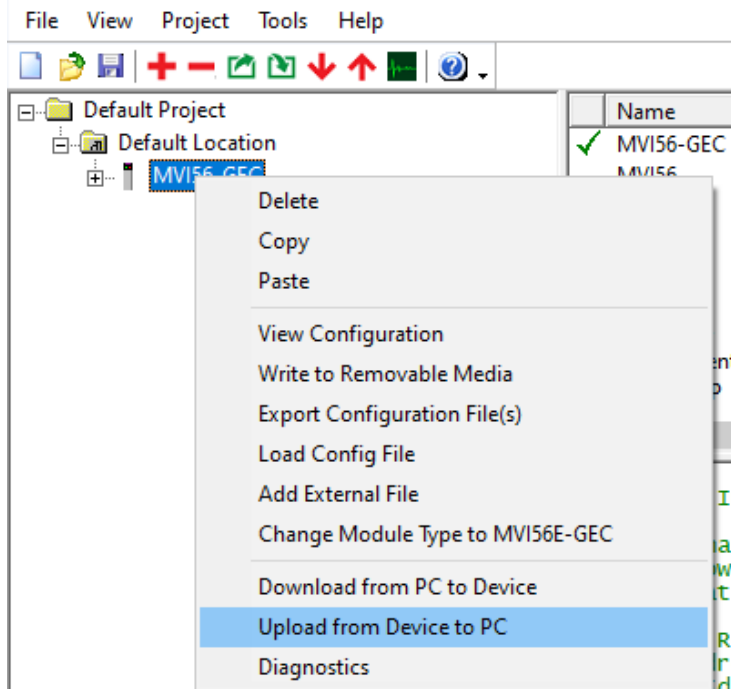
If you need to know what COM port is being used by your PC you can look in the device manager and it will show you the COM port being used, as shown below:



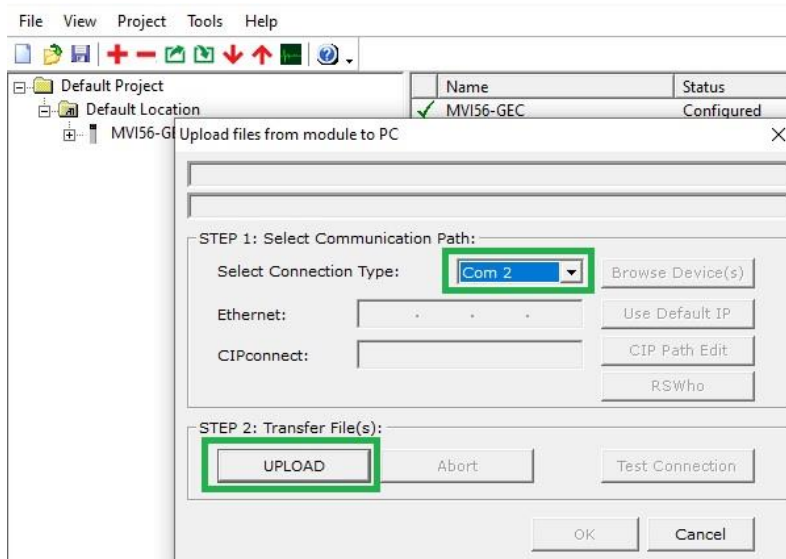
Startup ProSoft Configuration Builder (PCB), select the MVI56-GEC module from the select module tree.



Once you have the module selected, right click the module name and select “Upload from Device to PC” from the pop-up tree.



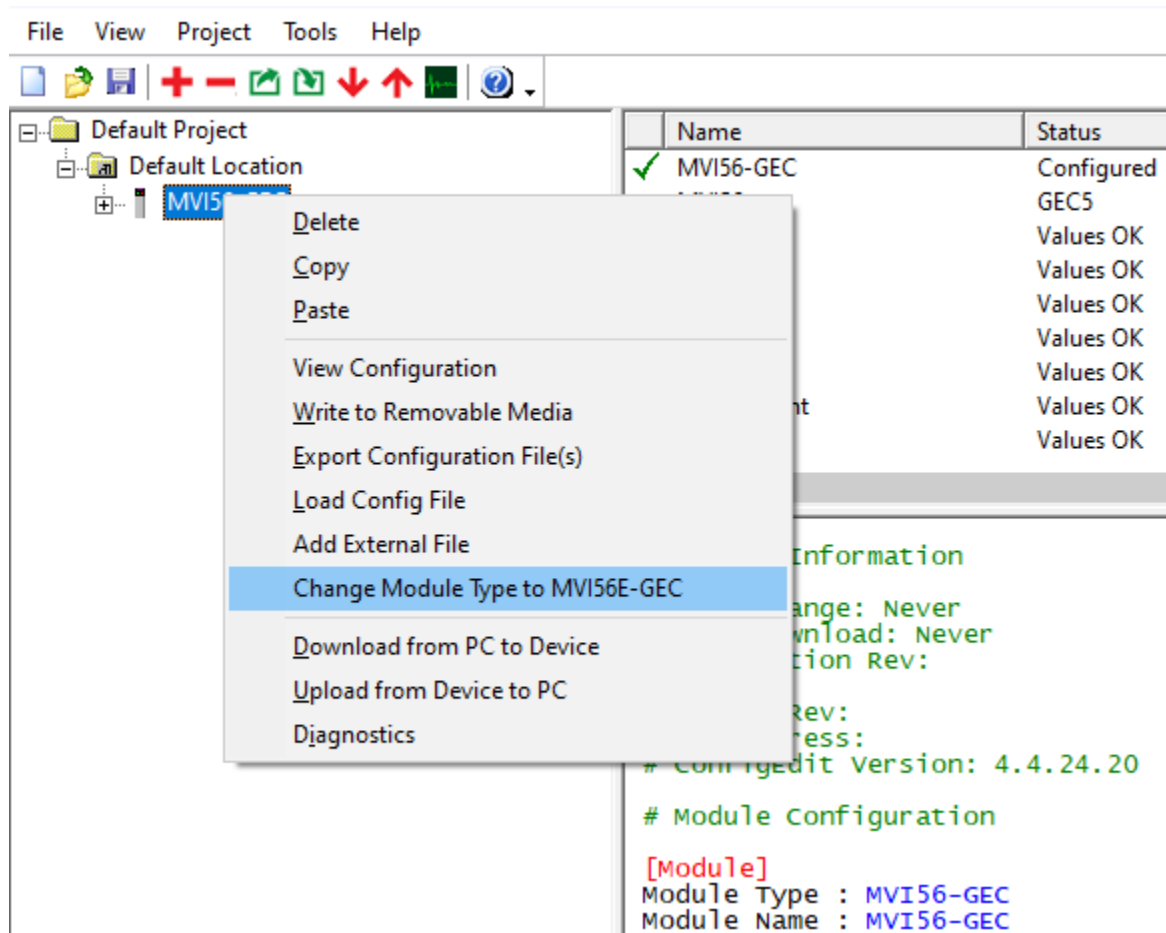
Select “UPLOAD”



This will upload the configuration from the MVI56-GEC module. Now would be a good time to “Save” the PCB file (or .ppf file).

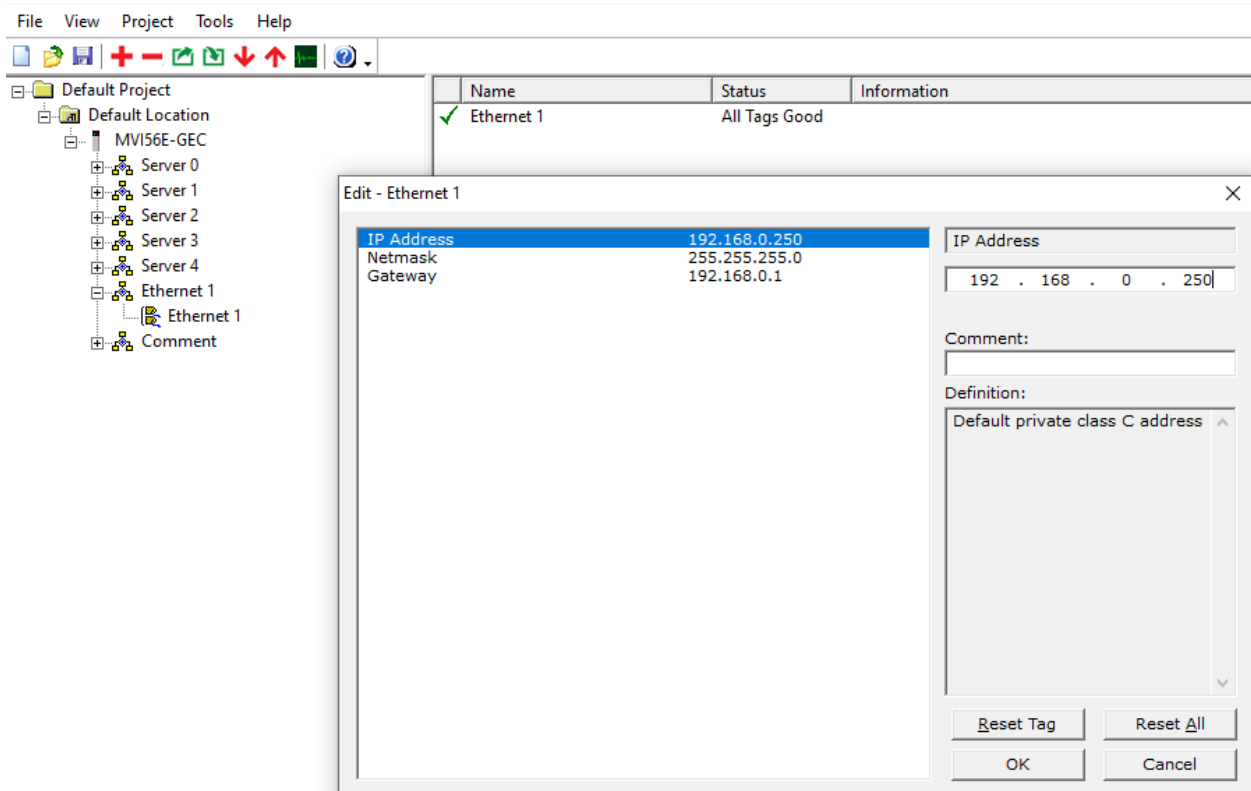
III. Convert MVI56-GEC configuration to MVI56E-GEC

To convert the configuration file from you MVI56-GEC simply open the configuration file in version 4.4.24.20 (or greater) of PCB, select the module and right mouse click. Select “Change Module Type to MVI56E-GEC” as shown below



This will automatically convert the configuration file to the MVI56E-GEC.

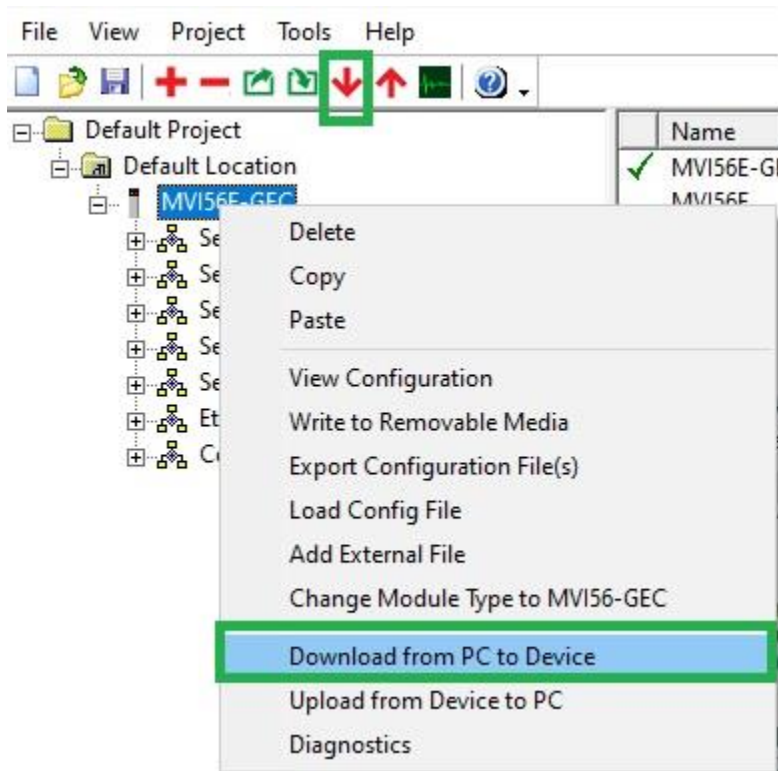
The configuration of the Ethernet port of the MVI56E-GEC module will automatically be converted over from the MVI56-GEC project folder and will now be shown in a new “Ethernet 1” tab as shown below:



The MVI56E-GEC module uses this IP address for downloading of the configuration file and diagnostics as well as communication with Ethernet devices. The default IP address of the module is the 192.168.0.250 as shown above.

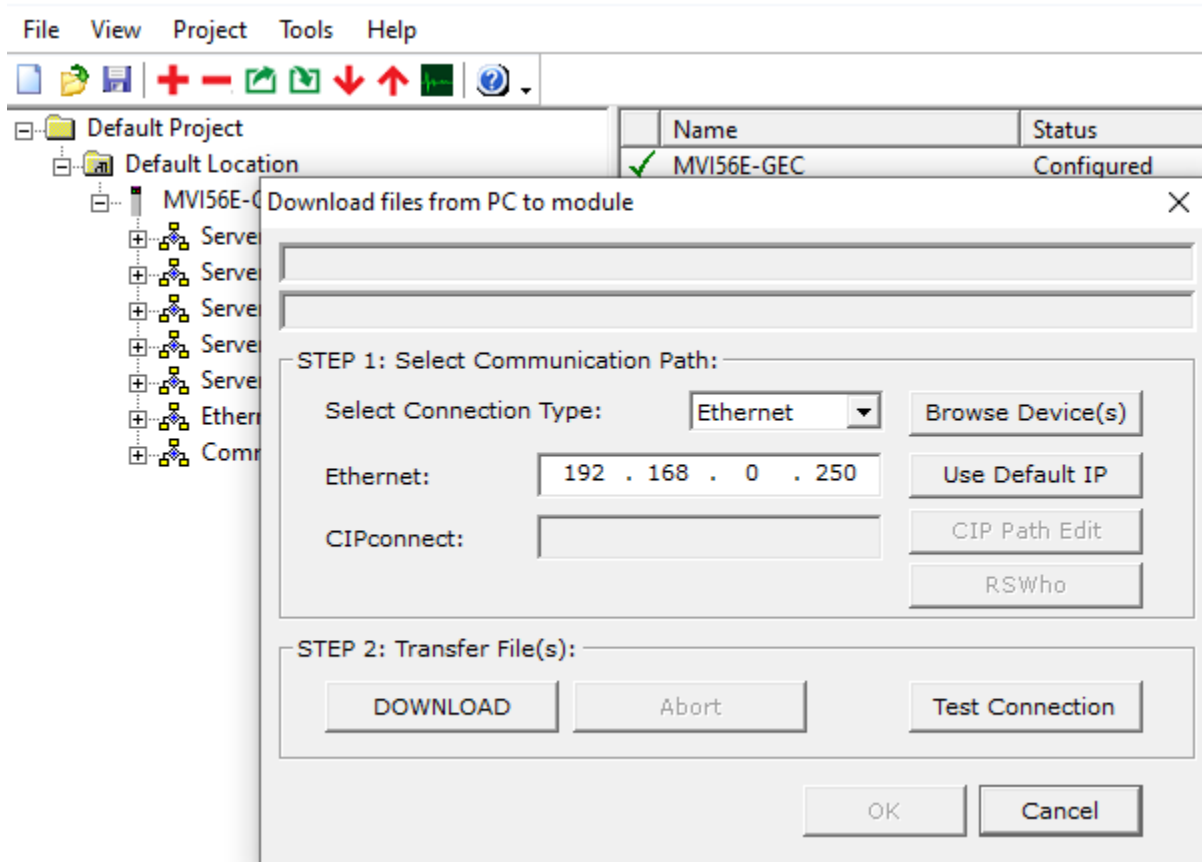
IV. Download Configuration file to MVI56E-GEC module

You can now download the new configuration file to the module. Select the module and right mouse click to bring up the following window:



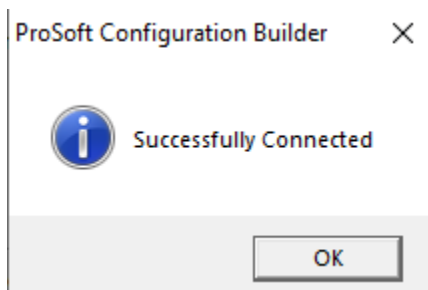
(NOTE: Instead of right mouse click you can also select the download shortcut from the toolbar menu also shown above).

You will see the following window:

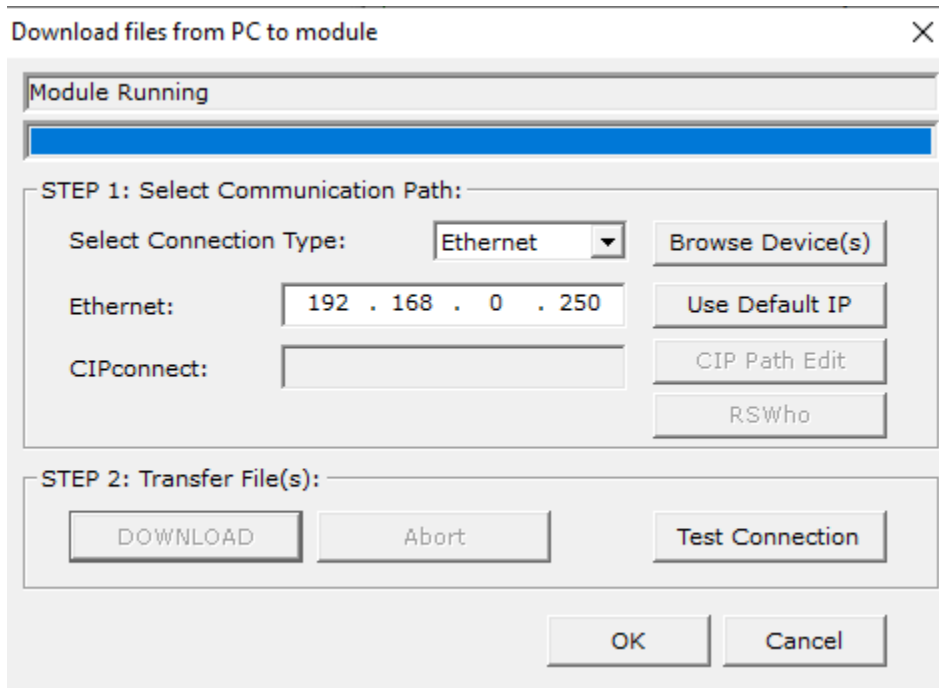


If the module is factory defaults and you are changing the IP address of the module you can select the “Use Default IP” and this will copy the default IP address to the Ethernet settings.

Test Connection will give you the following if you are successfully able to talk to the module:



When successfully connected you can download the file to the module. When complete you will see the following:



Your module has now been configured and the legacy MVI56-GEC has now been converted over to the Enhanced MVI56E-GEC module.

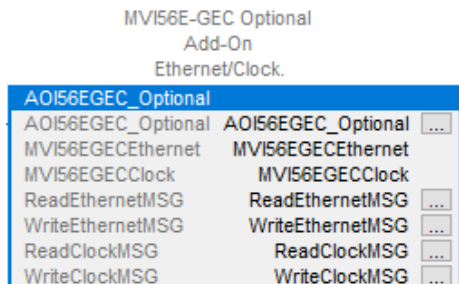
V. RSLogix 5000 or Studio 5000

The MVI56E-GEC module was designed to be backwards compatible with previous MVI56-GEC modules, so no ladder logic changes are required to get the module up and running.

There is however an optional AOI for the MVI56E-GEC module that can be added to an existing ladder routine to provide the following functions:

- 1) Read Ethernet Port Configuration from module to CompactLogix PAC tags
- 2) Write Ethernet Port Configuration from CompactLogix PAC tags to module (very helpful if PC cannot connect to default IP of module and you need to set IP address to match a PC address to download configuration file)
- 3) Write Date/Time
- 4) Read Date/Time

This optional Add-On Instruction can be downloaded from the MVI56E-GEC Downloads section and is included with the “Sample Ladder” download. The optional AOI is shown below:



When importing this rung into a program, you may need to change the “Communication Path” of each of the message instructions to match the slot of the module in your program. This can be done by selecting the MSG tag and going to the Communication tab as shown below:

