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PREDATOR/PHANTOM ETHERNET/IP CONNECTION SETUP

OVERVIEW

The Panther Predator and Phantom label application systems have the ability to provide input and output signals over an ethernet network via the EtherNet/IP (EIP) protocol. These signals allow a host system to interface with the Panther system(s) and collect information on the machine's current status.

The Panther system(s) can then integrate with the rest of the equipment within the host's program. The EIP interface also allows a host system to transmit signals such as apply, reset and bypass. Currently, the following signals are available:

Input Signals (from Host to Panther)

Product Trigger 1	Reset
Product Trigger 2	Bypass
Height Submit	Carton Height (Word)

Output Signals (from Panther to Host)

Print Engine Power	Panther Fault	Scanner Good Read
Print Engine Error	Cycle Complete	Scanner Bad Read
Ribbon Low	Current Error Code	Bypass Is On
Label Out	Applicator Home	Heartbeat
Online/Data Ready	Low Label	Applicator Cycle Time
Ribbon Out	Print Cycle Time	Label on Tamp and Ready (LOTAR)
RFID Error	Slide Home	

For a full description of these signals please see the *External Host Interfacing Signals* document.

In order to set up your Panther system on your EIP network you will need to download the following EDS file and place this on your local system: WagoAppEtherNetIP_Adaptor

Additionally, you will need to know the IP address of your Panther system(s). The IP address of the Panther system(s) must be configured within the same subnet as your controller in order for the two systems to communicate. Instructions on how to set the Panther IP address are noted in the Predator manual.

The documentation beginning on the next page will walk you through the remainder of the configuration steps within RS Logix.

Best practice for using this Implicit I/O Ethernet/IP communication requires isolating CIP message traffic with a managed switch using IGMP snooping. This is due to the UDP responses to the host that are multicast and get broadcast to all ports. Please refer Section 6 of the ODVA Ethernet/IP Infrastructure Guide for more information.

https://www.odva.org/wp-content/uploads/2020/05/PUB00035R0_Infrastructure_Guide.pdf

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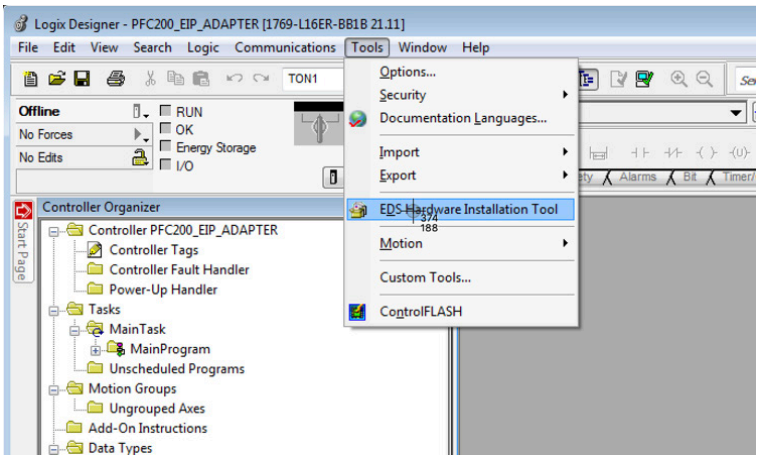
RS LOGIX CONFIGURATION

1. Open your RS Logix program and navigate to the Tools drop down menu in the menu bar and select the EDS Hardware Installation Tool option.



2. Opening the EDS Hardware Installation Tool will bring up the Rockwell Automation EDS Wizard. Select the Next > button to begin the setup process.

NOTE: You may be prompted by your operating system to allow Rockwell Automation to make changes to your computer, click the Yes button.

3. On the next screen, choose Register an EDS File(s) option then click the Next > button.

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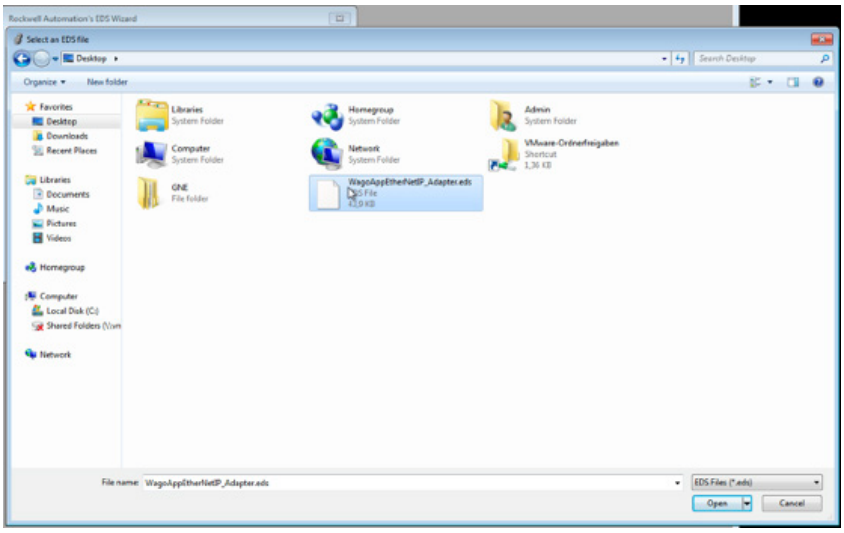
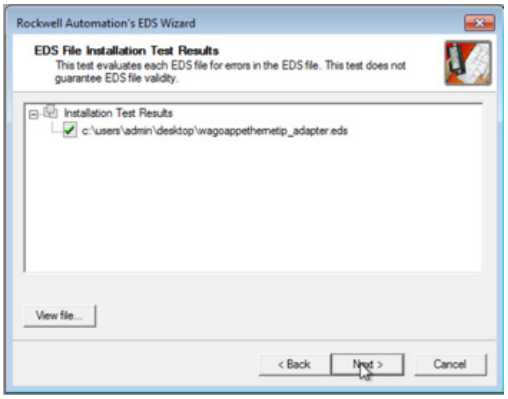
4. From the next screen select the Register a Single File radio button, then click the Browse button. This will open your computer's directory. Select the WagoAppEtherNetIP_Adaptor.eds file you previously downloaded and click the Open button.



5. The file path of the EDS file should now appear in the setup wizard page. Click Next > to continue.



6. The system will perform the installation and, if successful, display the installation results. Click Next > to continue.

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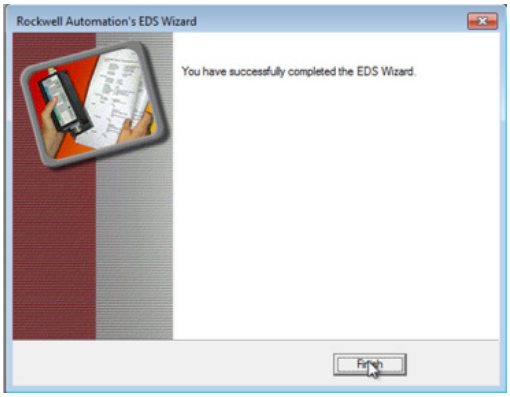
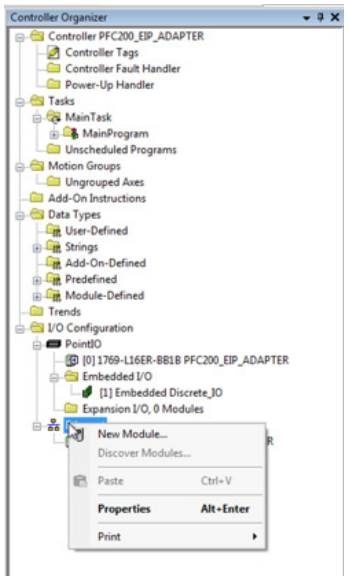
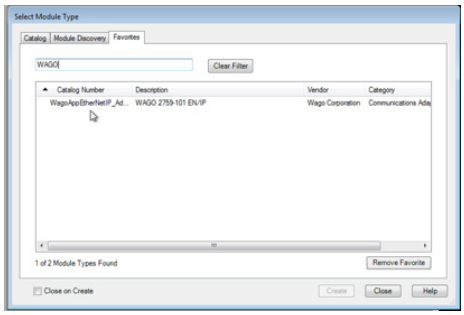
7. There are two additional screens in the setup wizard. One allows you to view the image of the module to be displayed in your program and the other shows a task summary. Click the Next > through both of these pages. On the final page, click the Finish button to complete the installation.



8. From the configuration tree on the left, right mouse click on the Ethernet branch and select New Module ... from the menu.



9. When the Select Module Type window appears, navigate to the Catalog tab, and search "Wago". The EDS file should appear in the results window below the search bar.



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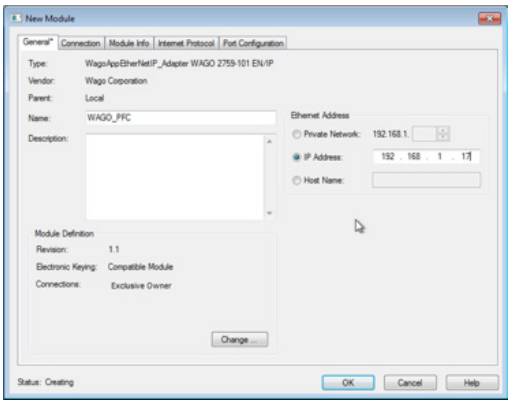
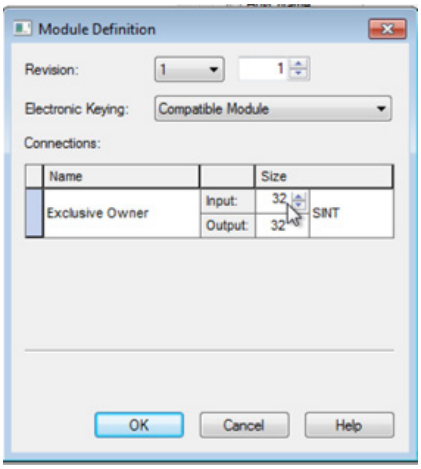
10. Click the item in the window and select the Create button. This will open the new module window.



11. In the Name: field, give the module a descriptive name (i.e. "Panther Line 1"). NOTE: This name will appear in your controller tags window later). Additionally, fill in the IP address with the one that you have set up on your Panther touch screen.

12. Verify the size of the module definition by clicking the Change button. This should default to 32 bytes of input and 32 bytes of output of type SINT.

    NOTE: This is equivalent to 16 words of input and 16 words of output. If this was not the default change both the input and output fields to 16.



    Click OK in the module definition window.

    NOTE: If you changed the size or type, you will see a warning indicating you are changing the module.

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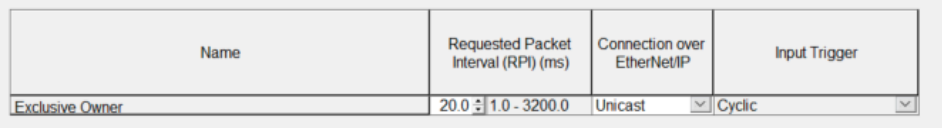
13. Click OK in the New Module window to complete the installation. Select Close in the Select Module Type window. The Panther device has now been installed in your project.

14. The Connection type should be set up as Unicast with a 20ms RPI.



15. You can change the description of the individual bits within the bytes from the Controller Tags menu tree on the left-hand side of the window. Listed below is the data structure for the inputs and outputs:

Inputs (from Panther to Host)

0.0	Print Engine Power
0.1	Print Engine Error
0.2	Ribbon Low
0.3	Label Out
0.4	Online/Data Ready
0.5	Ribbon Out
0.6	RFID Error
0.7	Panther Fault
1.0	Cycle Complete
1.1	Applicator Home
1.2	Low Label
1.3	Label On Tamp And Ready (LOTAR)
1.4	Scanner Good Read
1.5	Scanner Bad Read
1.6	Bypass Is On
1.7	Heartbeat
2.0	Slide Home
2.1-2.15	Reserved
3	Reserved
4	Applicator Cycle Time (Lo Byte)
5	Applicator Cycle Time (Hi Byte)
6	Print Cycle Time (Lo Byte)
7	Print Cycle Time (Hi Byte)
8	Current Error Code (Lo Byte)
9	Current Error Code (Hi Byte)

The following Inputs are only available when an automated servo stand option is purchased:

10.0	Servo Stand Error
10.1	Servo Stand Lower Limit Sensor
10.2	Servo Stand Upper Limit Sensor
10.3	Servo Stand In Home Position
10.4	Servo Stand In Motion
10.5	Servo Stand In Labeling Position
10.6	Servo Stand E-Stop Engaged
10.7	Servo Stand Power
11.0	Servo Stand Heartbeat
11.1-11.7	Servo Stand Reserved for Future Use
12	Last Servo Stand Height Submitted (Lo Byte)
13	Last Servo Stand Height Submitted (Hi Byte)

Outputs (from Host to Panther)

0.0	Trigger 1
0.1	Trigger 2
0.2	Reset
0.3	Bypass
0.4	Reserved
0.5	Product Height Submit
0.6	Reserved
0.7	Reserved
1	Reserved
2	Product Height (Lo Byte)
3	Product Height (Hi Byte)

The following Outputs are only available when an automated servo stand option is purchased:

4.0	Servo Stand Reset
4.1	Servo Stand Bypass
4.2	Servo Stand Height Submit
4.3	Servo Stand Motion Inhibit
4.4-5.7	Servo Stand Reserved for Future Use
6	Servo Stand Height (Lo Byte)
7	Servo Stand Height (Hi Byte)

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