



Technical Support Department Technical Bulletin

PCM-4 Installation

General Overview:

The PCM-4 provides four additional discrete MPIO ports to any XP Processor. Every PCM-4 has a unique MAC address and uses **ETHERNET ONLY** for communication. The PCM-4 comes with a 12vdc/1amp power supply and may also be powered using a Class 2 or higher POE router/switch or a POE power injector.

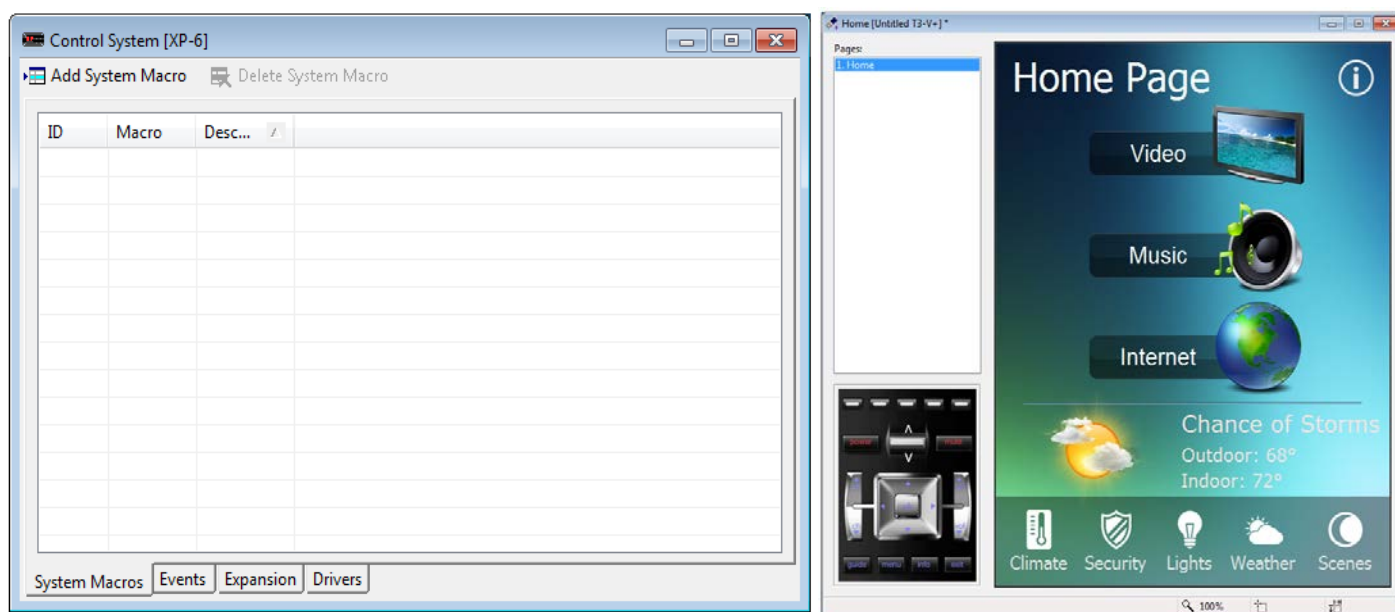


The MPIO ports of the PCM-4 work the same as those in an XP processor. Add-on modules such as the VPS-1 and CM-232 can also be used with the PCM-4.

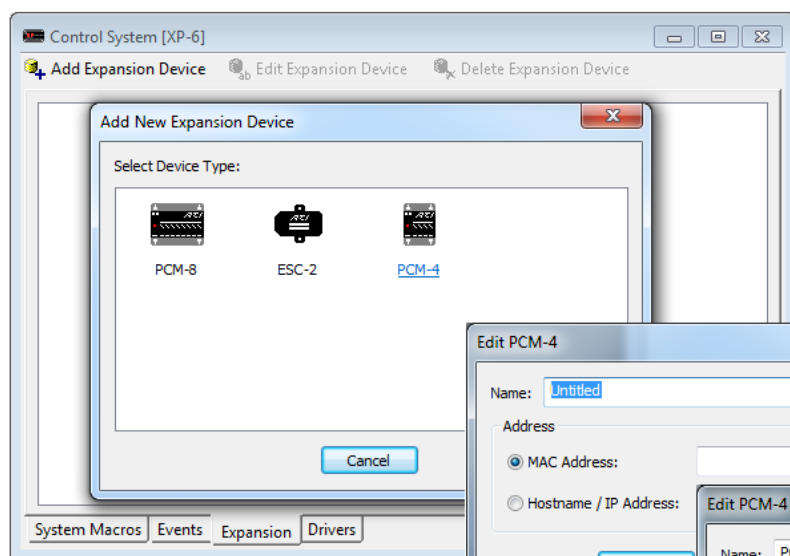
An IR output level adjustment is on top of the PCM-4 above each port allowing the installer to manipulate the strength of signal being output to the devices being controlled by that port.

PCM-8 Programming Procedure:

1. A PCM-4 needs to be added as an expansion device to the XP processor. For the sake of this exercise a XP-6 and T3-V+ remote control will be used as the programming demo.

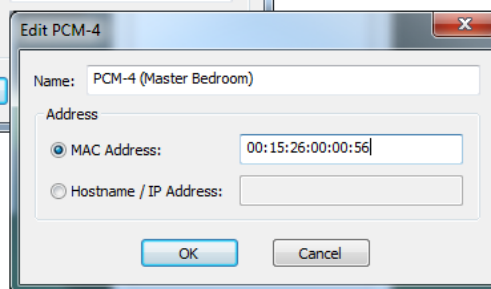


2. Once the XP processor and remote have been added to the file navigate to the “Expansion” tab on the XP processor to add the PCM-4. Select the Add New Expansion Device button, and select the PCM-4. The

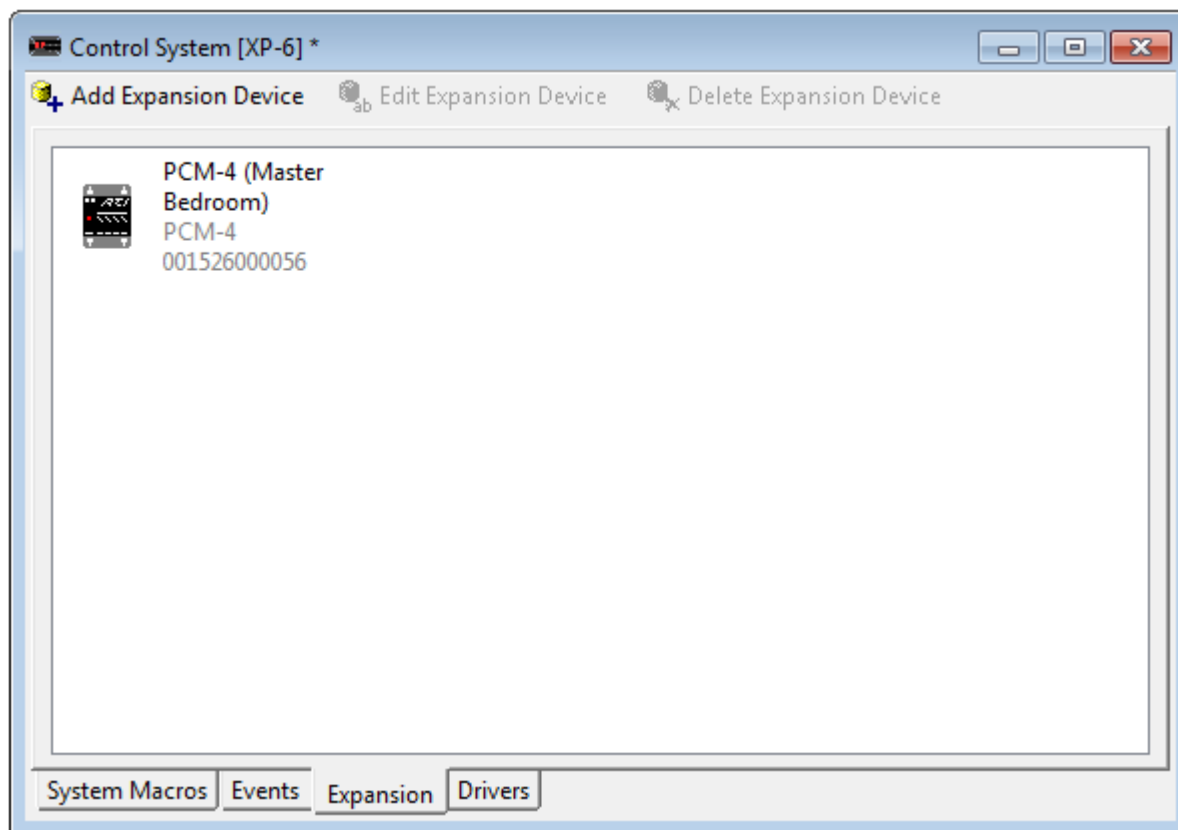


Name field is optional and is for the benefit of the integrator doing the install. If it is left blank it will fill in with “Untitled”. For the sake of this example it is being called PCM-4 (Master Bedroom). For communication there are two options for identifying the PCM-4, either MAC Address (preferred method) or hostname IP Address. It's recommended to use the

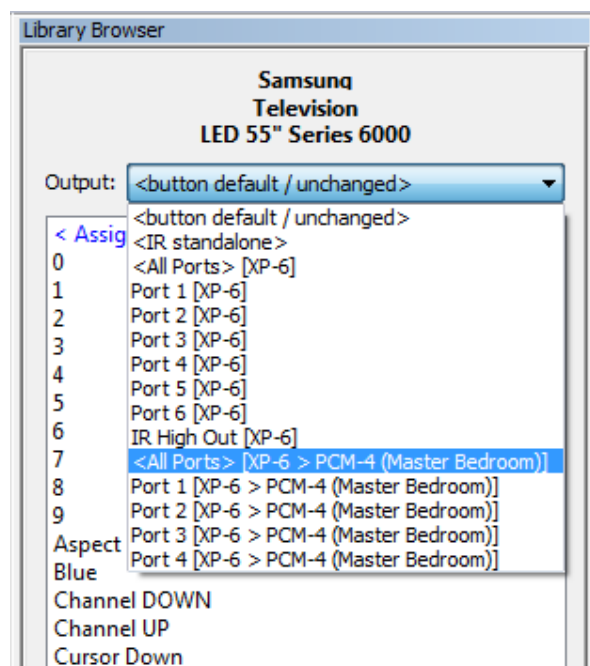
MAC Address which is listed on a sticker on the bottom of the PCM-4.



3. An icon will display in the XP processor expansion tab when the addition is complete.



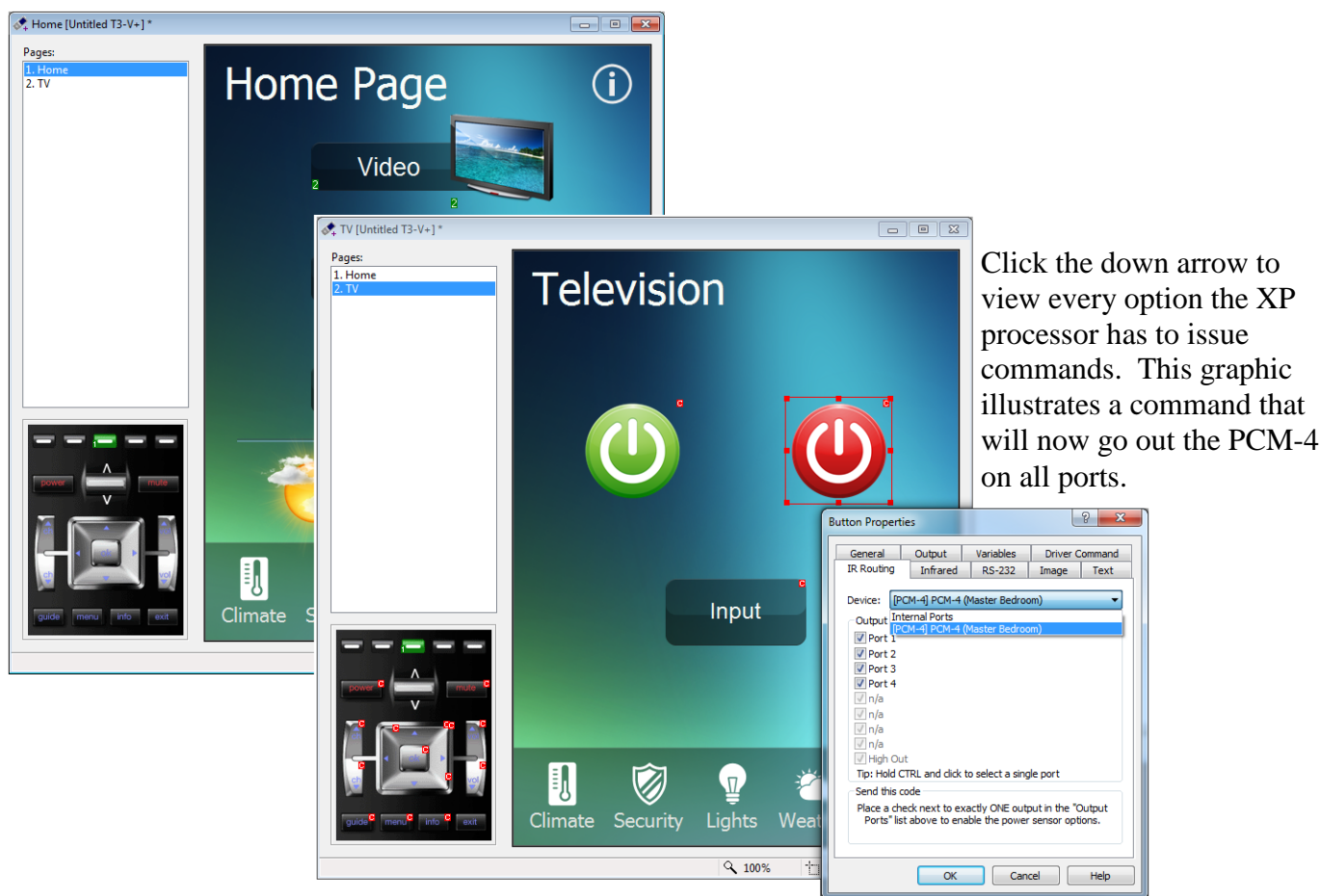
4. Once the PCM-4 has been added as an expansion device the next step is to program the remote to route infrared commands through the PCM-4 to control equipment.



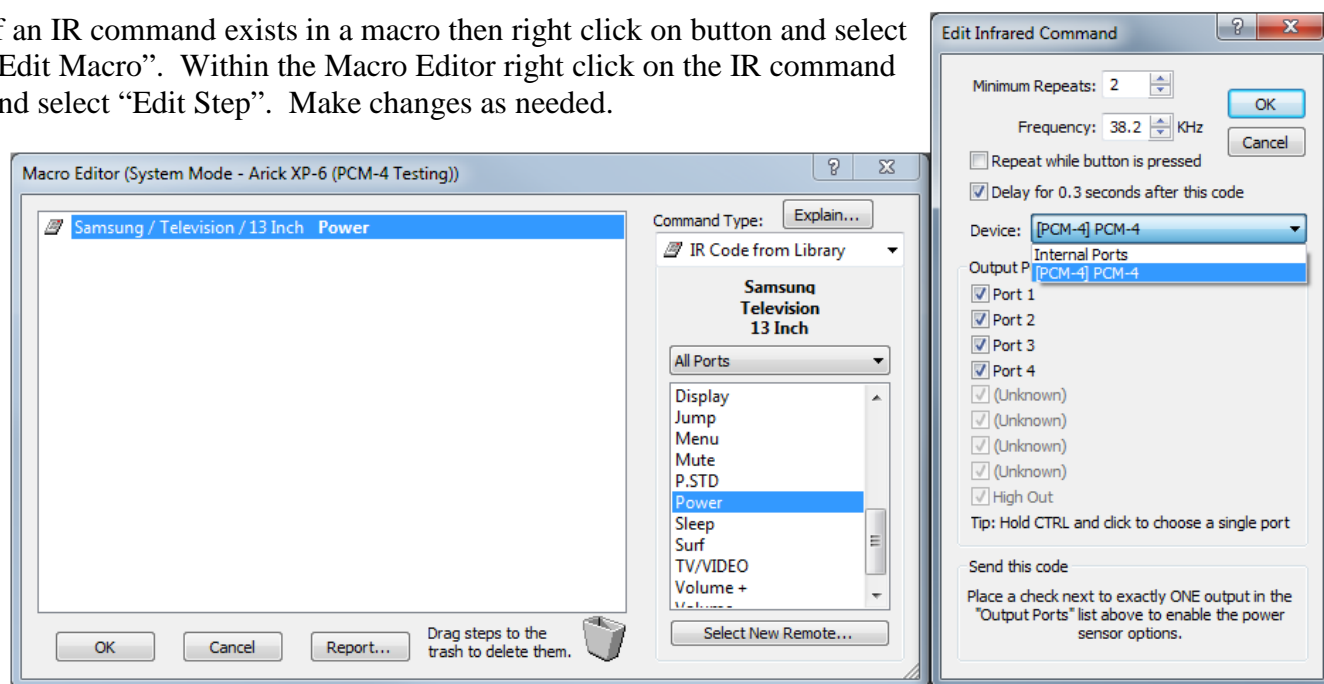
Routing IR through the PCM-4 can take place either before the IR commands are assigned to the buttons or after. If the programmer wants to assign the port before programming is complete; that is done through the “Output” field on the “IR” tab of the Library Browser.

The graphic to the left illustrates how to route through any of the XP processor internal ports or the ports on the PCM-4. Click the down arrow next to the Output field and make the desired selection.

5. If IR commands are already assigned to buttons right click the button and select “Edit Properties”. Navigate to the “IR Routing” tab. The “Device” field will show where the IR commands are to be executed from.

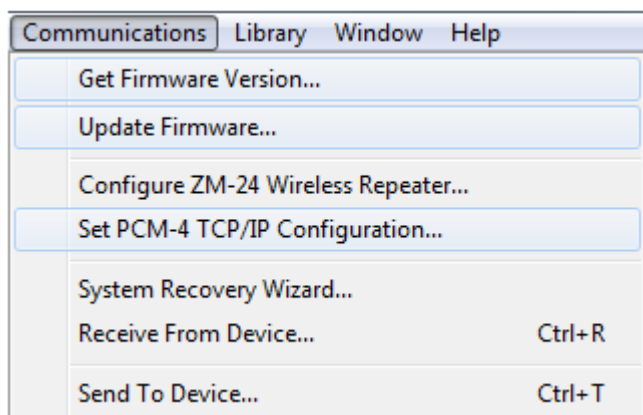


If an IR command exists in a macro then right click on button and select “Edit Macro”. Within the Macro Editor right click on the IR command and select “Edit Step”. Make changes as needed.

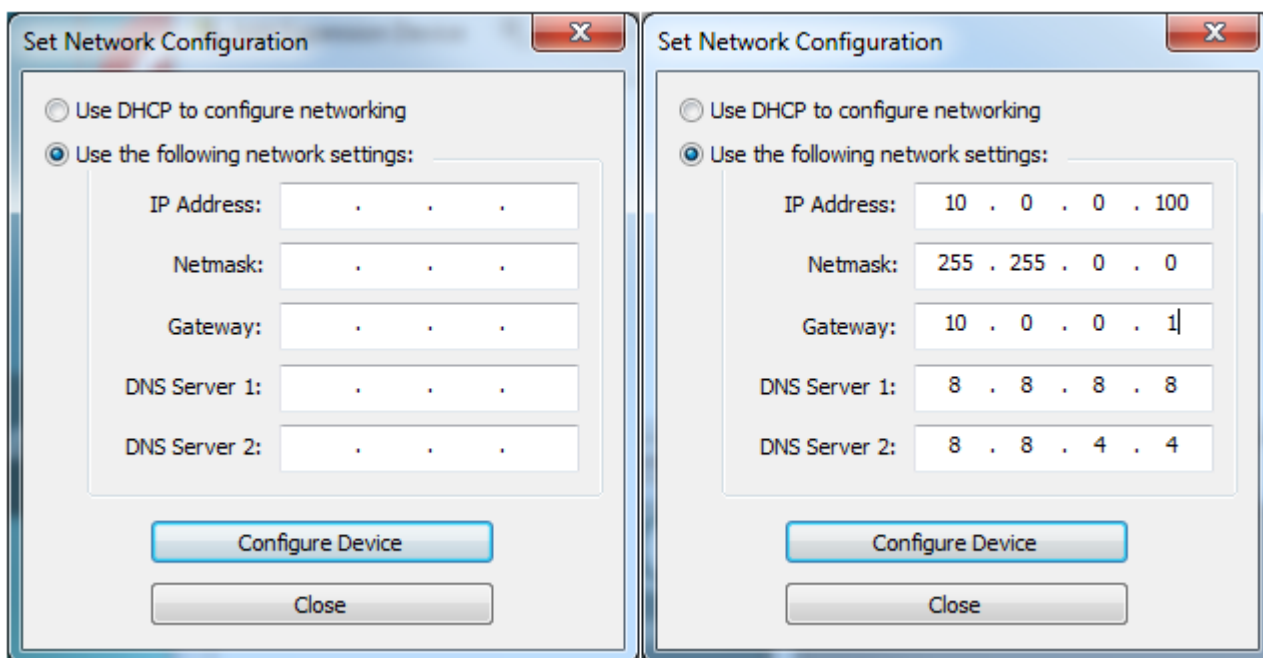


USB, MAC and Network Features:

6. The USB port on the PCM-4 is used for two primary purposes. The first is to determine and adjust the firmware of the PCM-4. This can be accomplished by utilizing the “Communications – Get Firmware” and “Communications – Update Firmware”. The other purpose of the USB port is to set up the PCM-4 network configuration, i.e. set up a static IP address. (Note: It’s not necessary to setup static network information on the PCM-4, as the RTI system will be able to identify the PCM-4 on the network by it’s MAC address.)

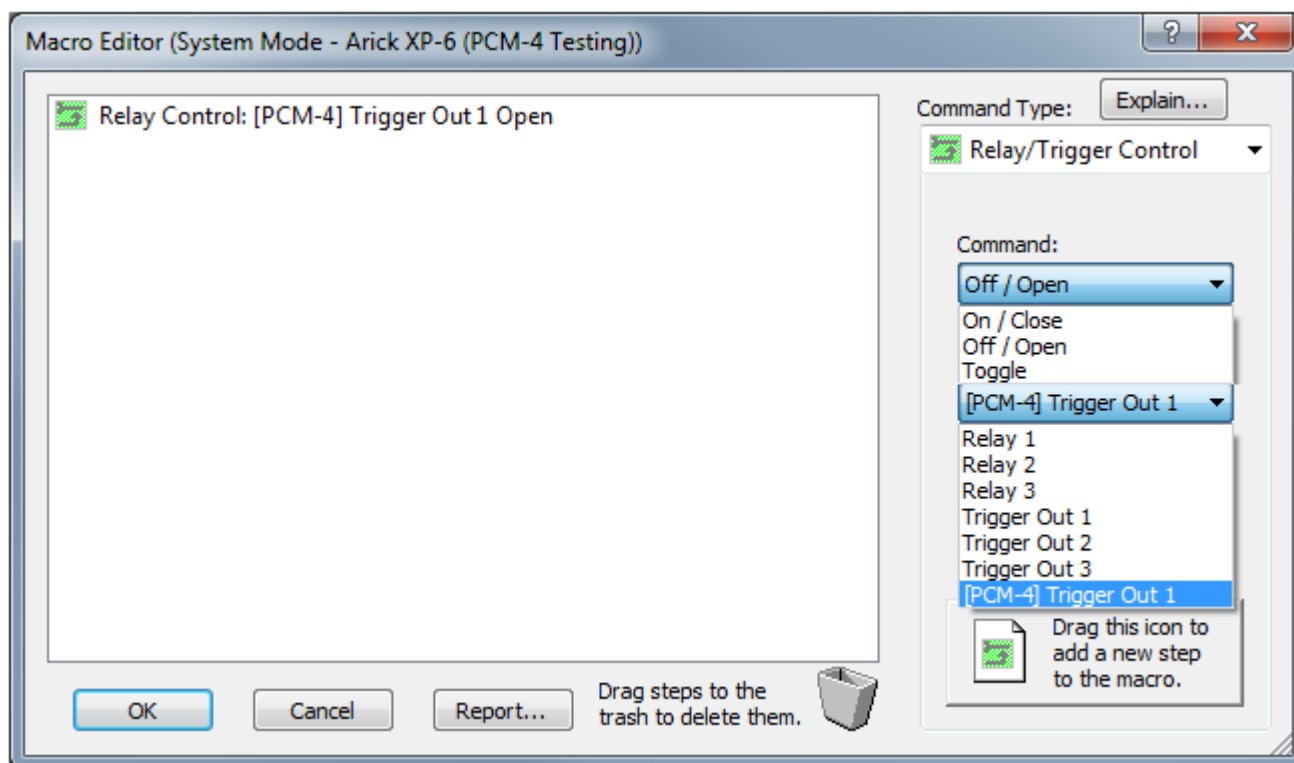


7. In the event setting up a static IP address is required then selecting the “Set PCM-4 TCP/IP Configuration...” option will open the following window. All fields must be filled in with the correct information and it’s up to the programmer to ascertain what that information is. (Note: Using the MAC address for identification on the network is preferred. The network configuration option doesn’t provide any additional features. It’s extra programming time and creates more opportunities for problems to arise. Success with this feature is dependent on the programmer’s network experience.) The illustration below is just an example.



Trigger Out:

8. The trigger output (12VDC 100mA) of the PCM-4 is a 3.5mm mono jack. Control of this feature may be found in the macro editor under the option “Relay/Trigger Control. Select the appropriate “Command” from the dropdown and the appropriate “Port”. It’s important to note that even though the command option is “Off/Open” this is just a voltage trigger not a contact closure.



Note(s):

- When routing IR commands, the commands are only sent through the RTI device referenced in the “Device” field (i.e. XP processor, PCM-4). In the event the same command must be sent through multiple RTI devices then multiple instances of the same command must be programmed, each routed to a different RTI device and port.
 - A common source of confusion is that a command is routed through multiple RTI devices in the same command; this isn’t the case.
- If the PCM-4 Port LED’s continue to blink but don’t execute commands then the PCM-4 has not yet established communication with the XP processor it’s being expanded from. This is normally a firmware issue. Verify that your XP processor is up to date and try again. Also verify that the MAC address is entered correctly. If a static IP address has been assigned try changing the PCM-4 back to DHCP and establish communication via the MAC address.
- Do not connect PCM-4 to a CB-8 or processor expansion port, **USE ETHERNET ONLY**.