Using wireshark to capture packets between a Niles GXR2 and an ICS Controller

These notes are undergoing construction. Updates will be provided daily.

The problem with Niles equipment is that it is proprietary (well, somewhat proprietary.) It contains a 12 port built-in switch with a standard Ethernet configuration for the send and receive pairs (pins 1 and 2 for send, controller-side, and pins 3 and 6 receive.) Unfortunately, the other four pins (4, 5, 7, and 8) are not standard. Pins 4 and 5 are used for Infrared signals and pins 7 and 8 have 12VDC on them. Therefore, it could be a problem if a standard network connection was made between one of the GRR2 controller ports and, say, a laptop. Because I wanted to look at the network traffic between the GXR2 and a controller, I decided to try bridging the connection to see what would happen. The rules for the bridge were simple: it had to provide a straight-through connection from the GXR2 to the controller for all eight wires. It had to provide the capability to separately patch either the send or receive pair to a laptop or other device running wireshark. This is my initial prototype.