IDEAL Wireless Sensor System

Network Configuration Guide

System Overview
The wired network interface for the IDEAL Wireless Sensor BAS Gateway(WSG) is a ProtoCessor module from FieldServer Technologies, and is configured separately from other aspects of the gateway. The ProtoCessor module is referred to as a "FieldServer" in the instructions that follow.

IDEAL will pre-configure the network interface as it is ordered. In the event network parameters need to be modified use the following instructions.

The gateway has three types of wired network interfaces: Ethernet, RS-485, and FTT-10. These physical interfaces support a range of network protocols depending on the particular interface. All changes to the wired network parameters are performed through an Ethernet interface.

NOTE: The Ethernet version has an Ethernet jack directly available through the side of the Wireless Gateway enclosure. The Ethernet jack for the RS-485 and FTT-10 versions are available inside the enclosure by removing the enclosure lid.

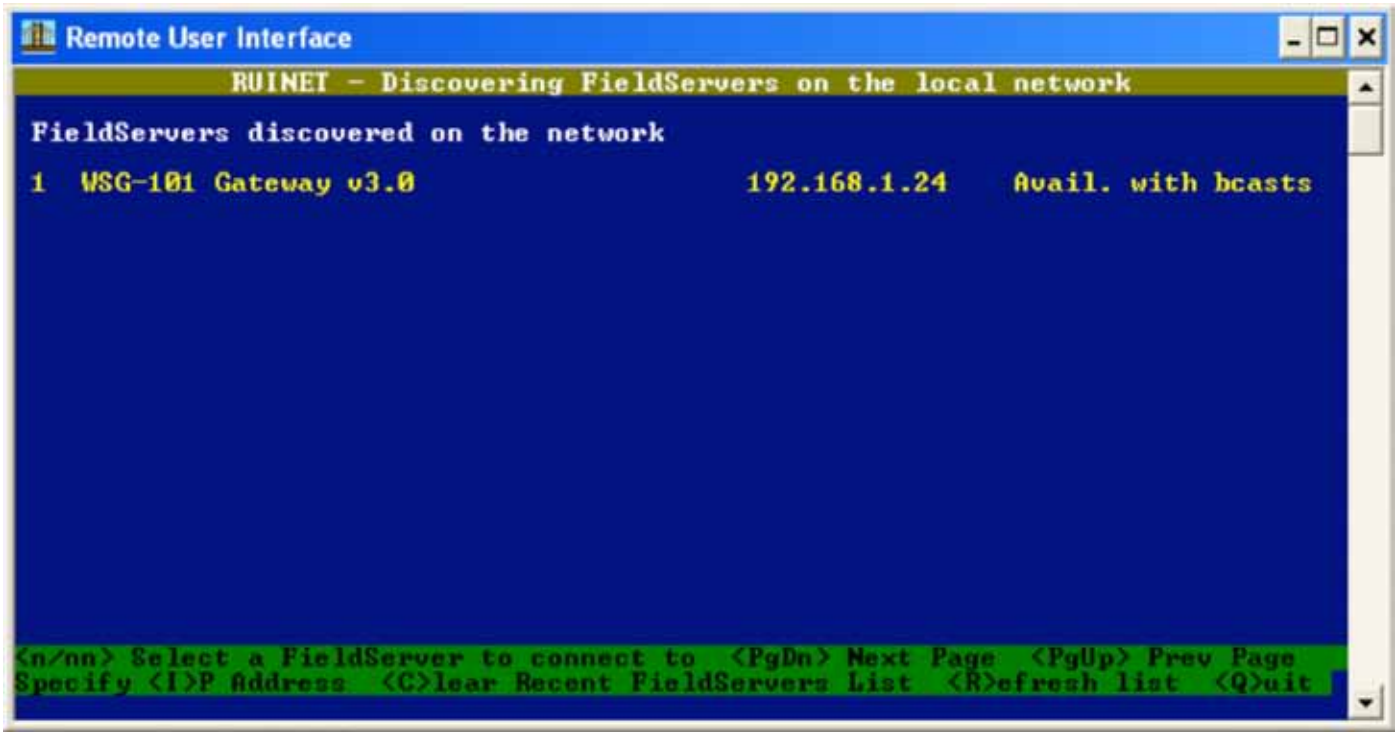
1. Install Remote User Interface software
The first step to configuring parameters is to install the Remote User Interface software utility (RUInet). Download the utility software ZIP file and install.

Web page with link to install file
http://www.protocessor.com/tech-support/utilities-and-design-documents.php

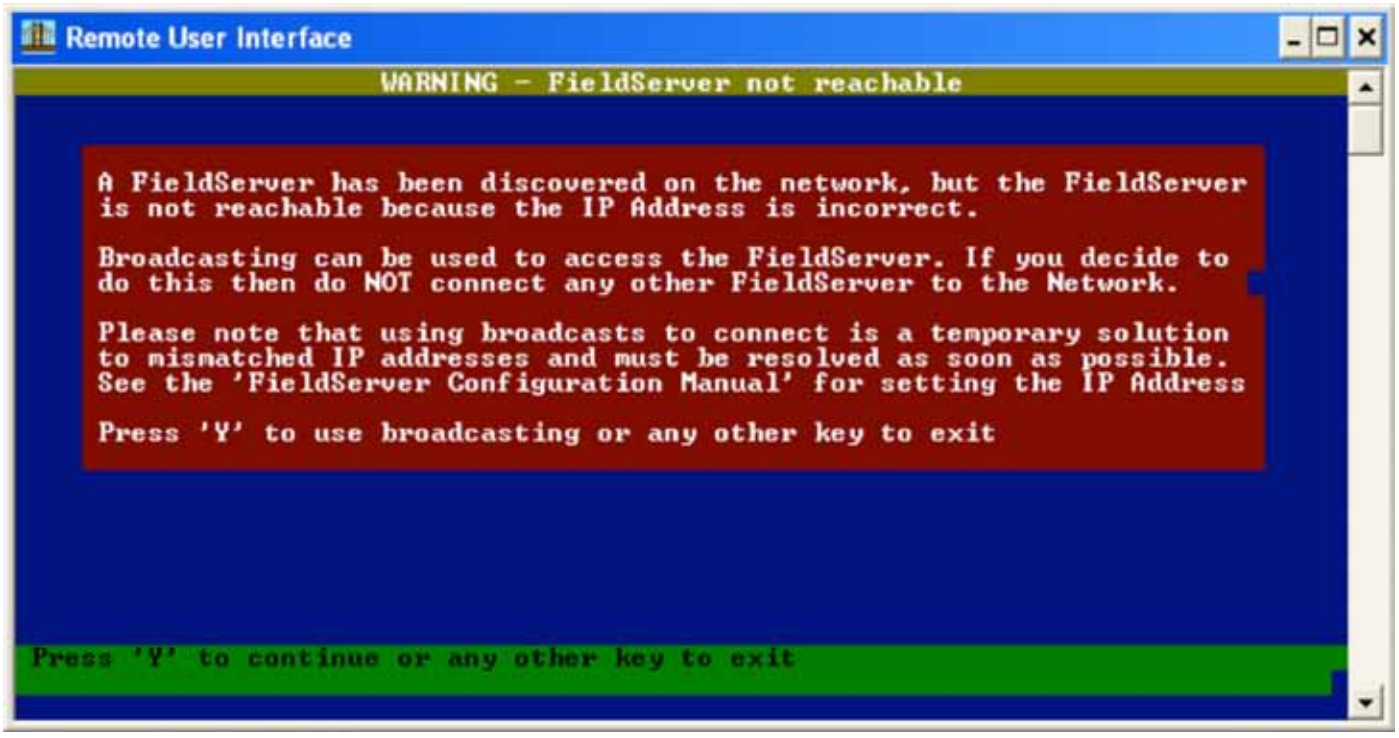
Direct link to install file
http://www.fieldserver.com/docs/downloads/Install.zip

Remote User Interface (RUInet) User Manual
http://www.fieldserver.com/docs/pdf/Utility_Manual_RuiNet.pdf

2. Selecting a FieldServer
After installing and starting RUInet, a screen similar to the one below is shown. If there are no firewall issues then a list of available and recently connected (not shown) FieldServers is provided. If there is a potential network firewall issue it is best to directly enter the IP address of the device by selecting option <I>.



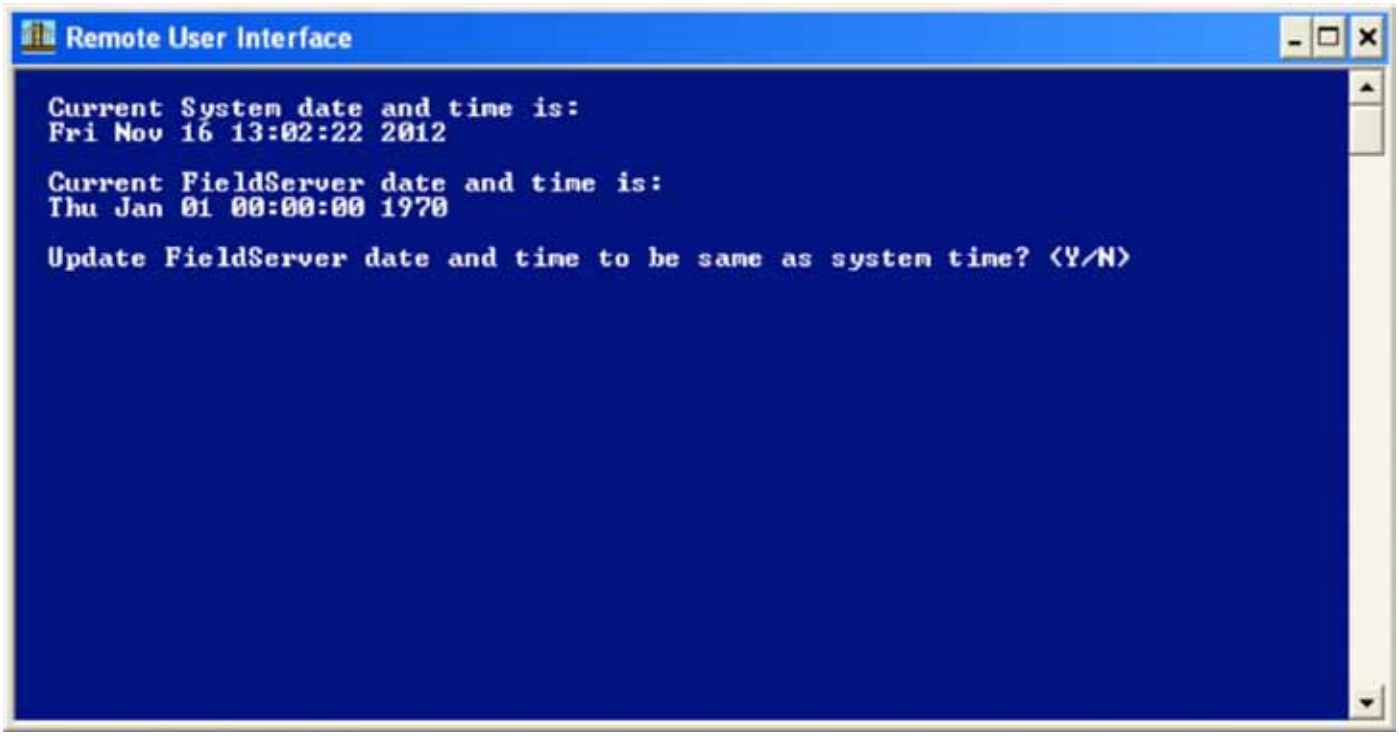
Initiallly, a FieldServer device's IP address is 192.168.1.24. If the host network does not match this default setting, an RS-485 or FTT-10 model will be allow communication through RUInet using broadcasts, as seen in Figure 2.



This is not preferable, but allows the user to change the IP of FieldServer device to match the host network.

An Ethernet only model will not work unless the settings of the host PC or network match the default values of the FieldServer. Note: Use a cross-over cable if connecting directly to a PC.

Once the settings match between the Fieldserver and a host, or broadcasts are used, the option will be given to set the date and time. This information is not stored through a power cycle of the device.



3 – FieldServer Main Menu

After connecting to the desired FieldServer, the following main menu is provided as shown in Figure 3.

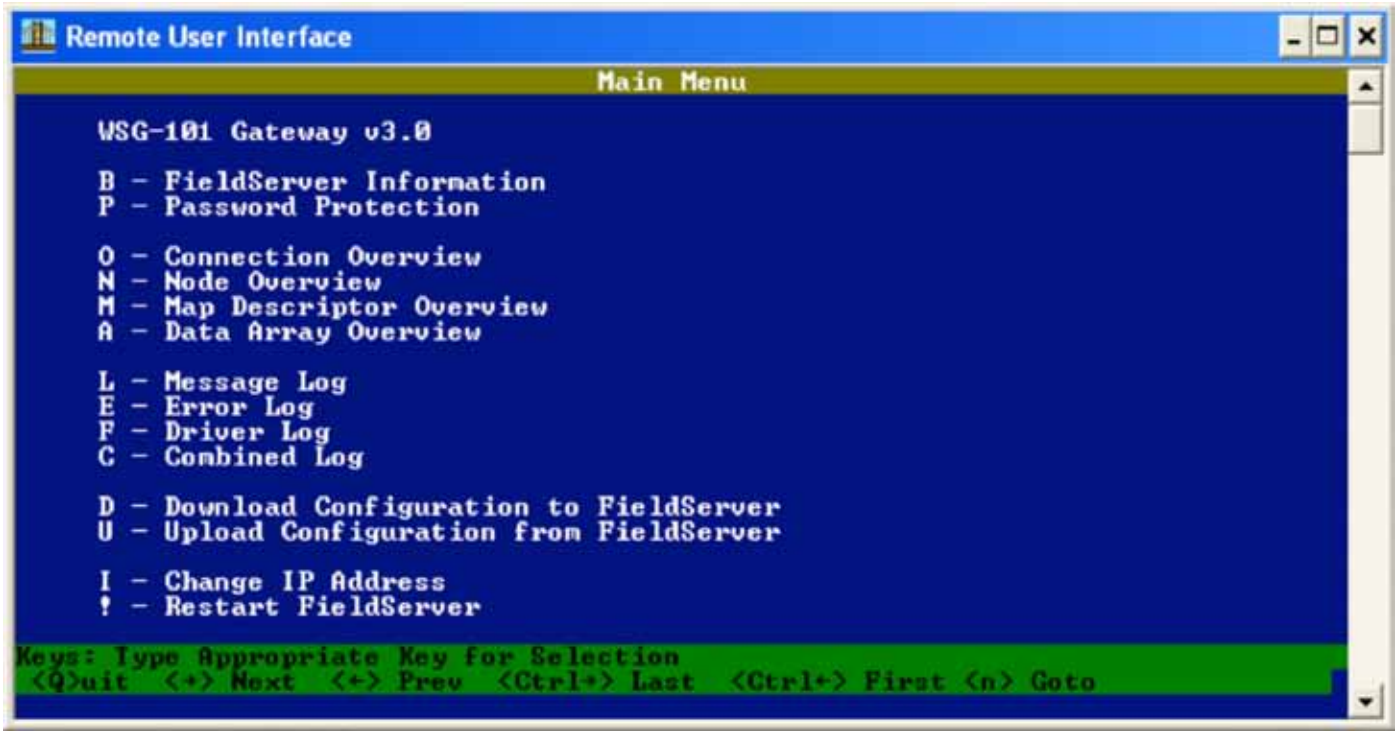


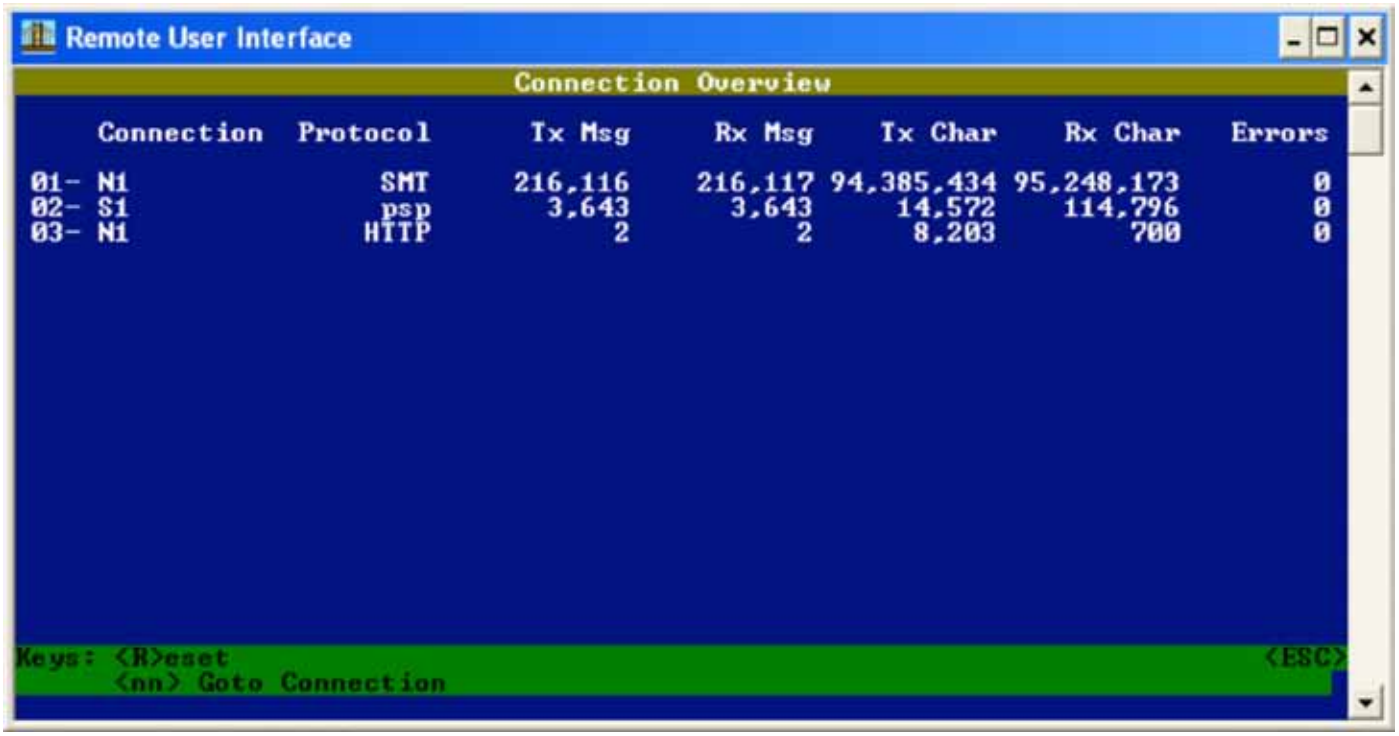
Figure 3

Most of the descriptions on the screen are self-explanatory, for additional details on any of these commands please download the following manual:

Remote User Interface (RIUnet) Manual
http://www.fieldserver.com/docs/pdf/Utility_Manual_RuiNet.pdf

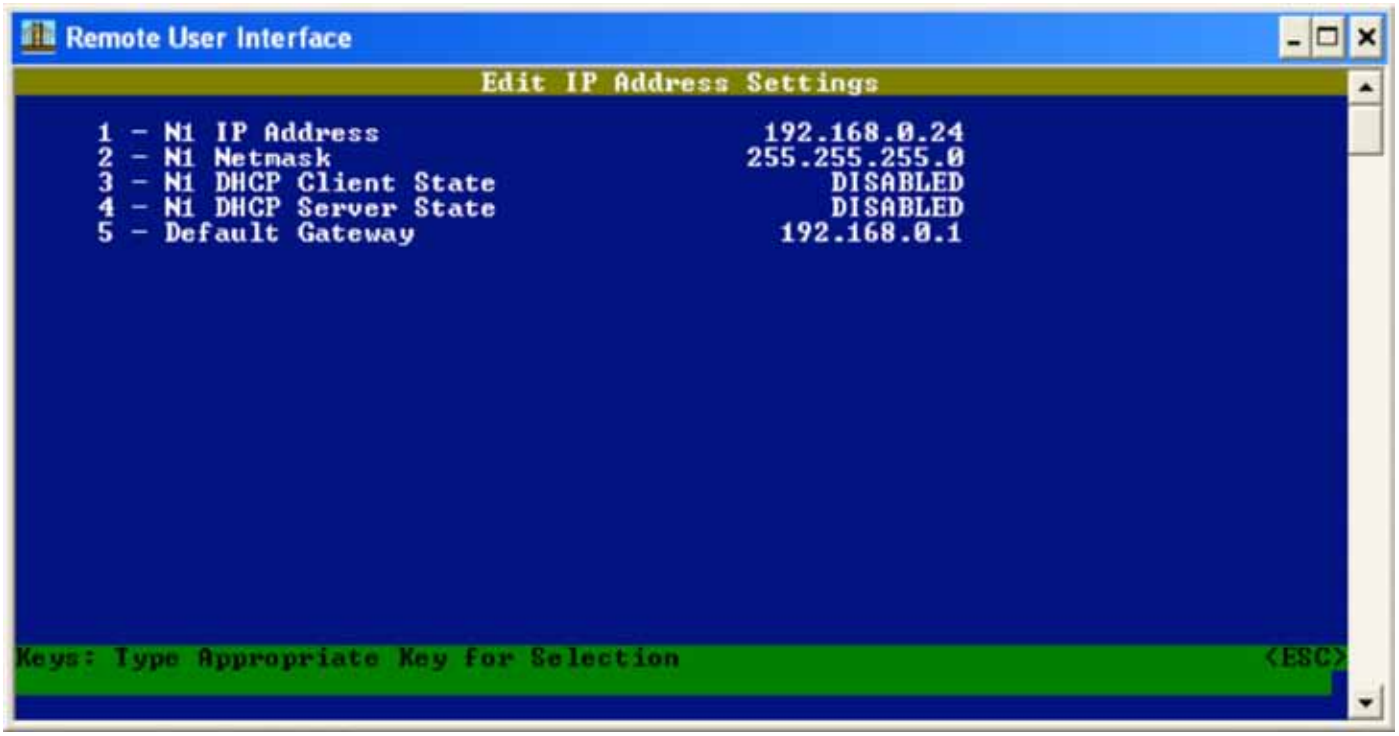
Screens shots for the useful options pertaining to the Wireless Sensor Gateway are provided below.

O - Connection Overview



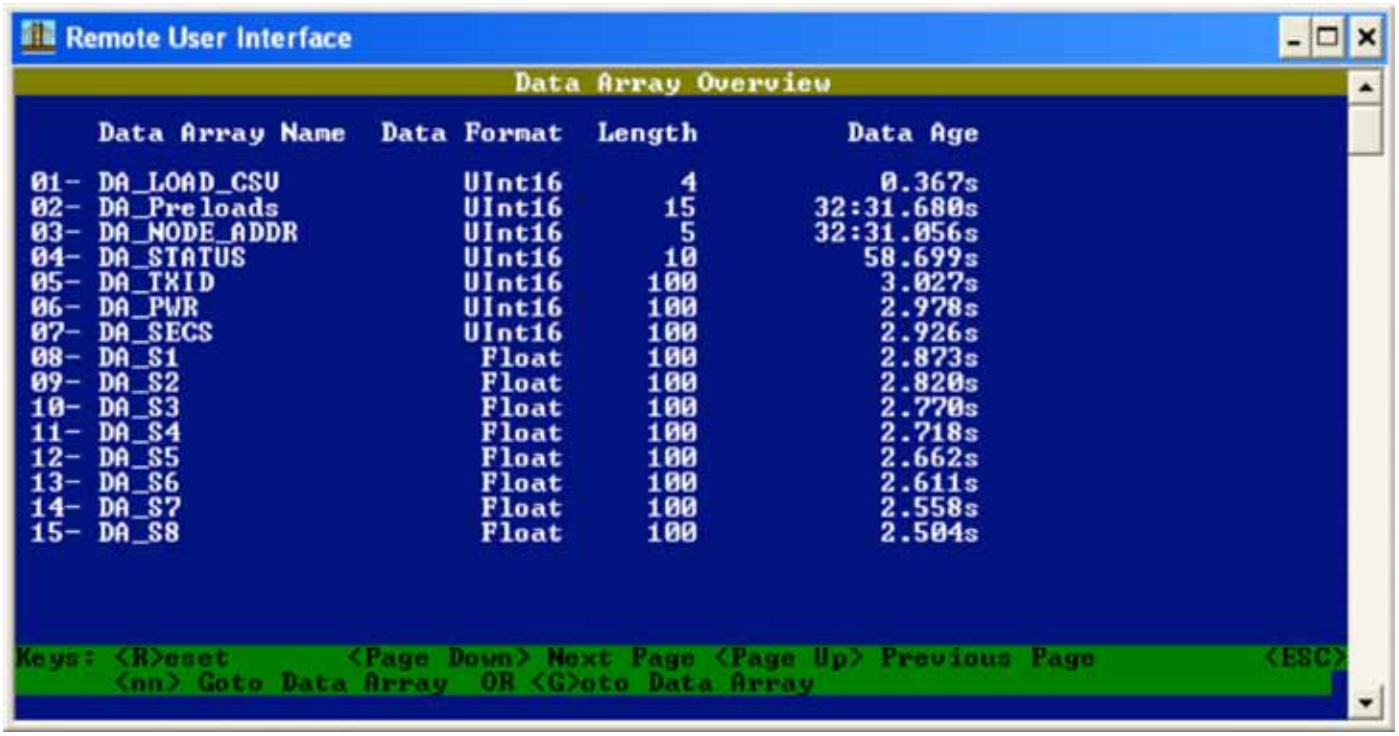
This screen is useful for verifying error-free connectivity across the desired protocol. In the screen above, the FieldServer is being used as an XML/HTTP server for the internal data arrays.

I – IP Address



This option is used to change the IP address of the FieldServer. The FieldServer in the screen above has had it's IP address changed to match the host network.

A – Data Arrays



This screen shows all the data arrays available on the FieldServer. The WSG writes data into the following arrays:

DA_STATUS	Configuration parameters from WSG
DA_PWR	Battery voltage or RSSI of RF (9 = Batt OK, 0 = Batt LOW, 1-5 = RF Power Strength)
DA_SECS	Time (seconds) since data was last updated
DA_S1-8	Sensor data (not all fields are used with each sensor)
DA_TXID	Transmitter ID (only used on RF powered sensors)

4 – Advanced Functions and Documentation

For advanced functions, configurations, and information not provided in this manual, please see the following site for additional instruction manuals.

http://www.protocessor.com/tech-support/data-sheets-and-instruction-manuals.php

5 – Technical Support

IDEAL can assist with technical support for the FieldServer ProtoCessor network module. FieldServer technical support can also be contacted directly from Monday through Friday 8:00 A.M. to 5:00 P.M. Pacific Time.
Phone: 408-964-4444 or 888-509-1970 x141
Email: support@protocessor.com

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