Network Configuration Guide

WSG-101
Building Automation System Gateway

System Overview

The wired network interface for the WSG-101 is a ProtoCessor module from FieldServer Technologies, and is configured separately from other aspects of the WSG-101 gateway. The ProtoCessor module is referred to as a "FieldServer" in the instructions that follow.

Powercast will pre-configure the network interface as requested upon ordering. 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. The Ethernet version has an Ethernet jack directly available through the side of the WSG-101 enclosure, and the Ethernet jack for the RS-485 and FTT-10 versions are available inside the enclosure by removing the enclosure lid.

Note: Use a cross-over cable if connecting the FieldServer directly to a PC.

Default network parameters:
IP address: [192.168.1.24]

For additional information please see:

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 FieldServers is provided. If there is a potential network firewall issue as shown in Figure 1 it is best to directly enter the IP address of the device by selecting option <I> as shown in Figure 2.

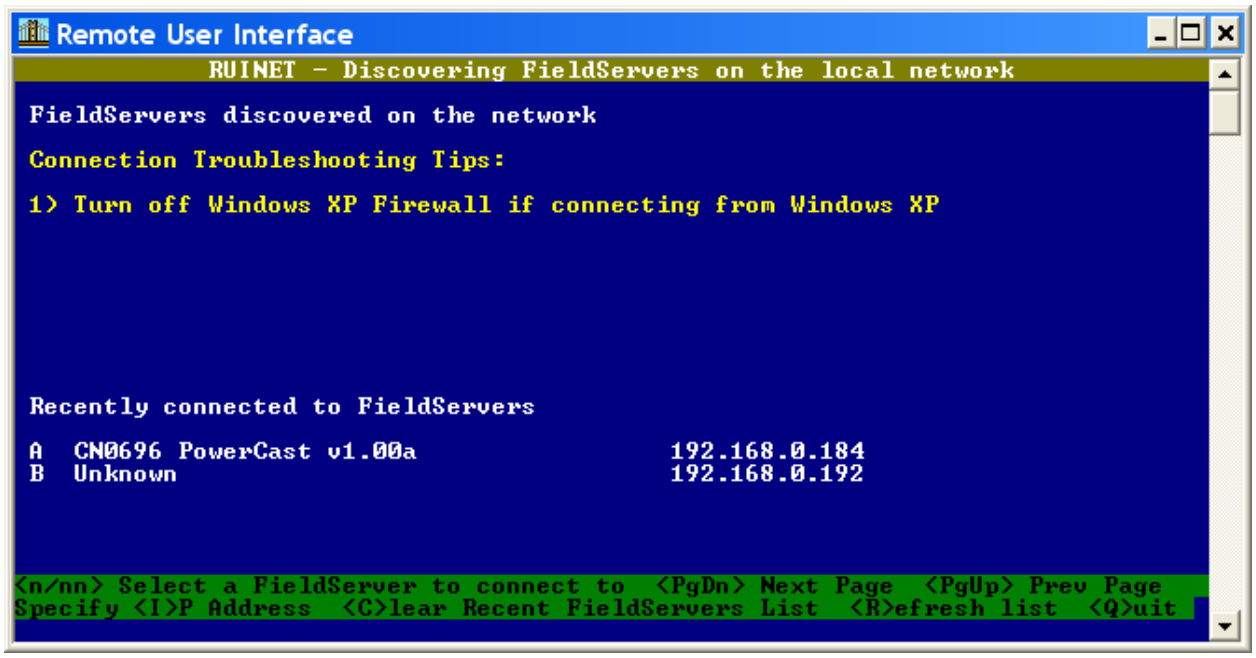

Figure 1 – Start screen showing firewall issue and recently connected FieldServers

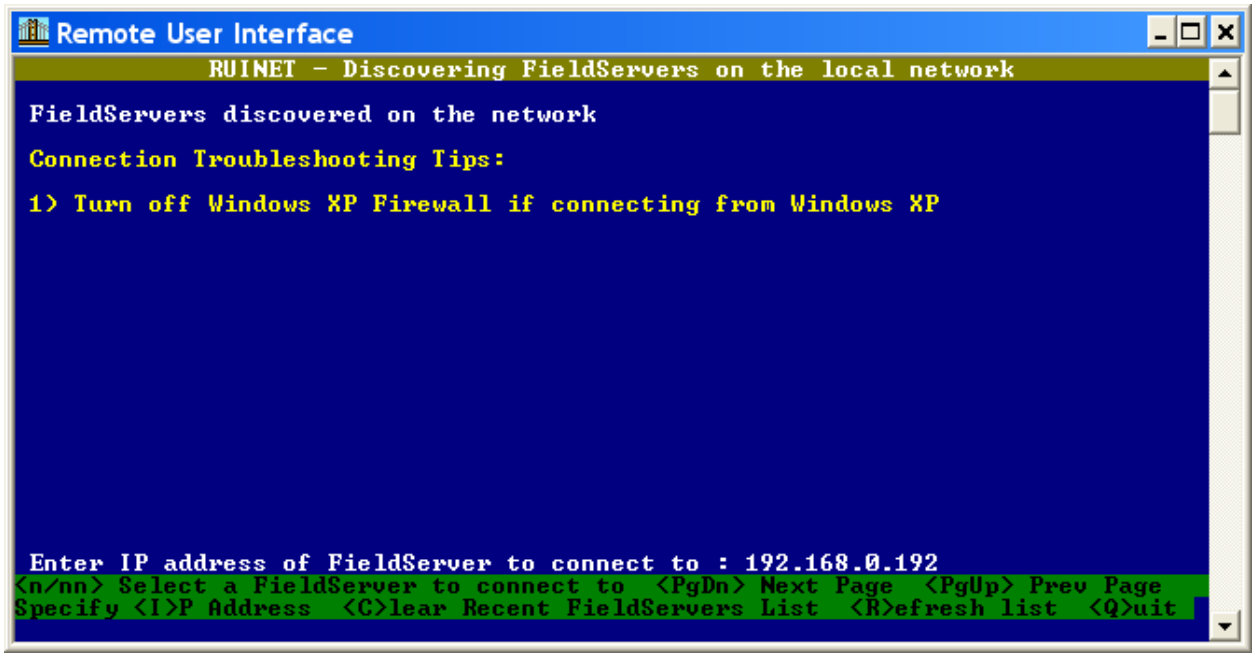

Figure 2 – Manually entering the IP address of the desired FieldServer

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

3 – FieldServer Main Menu

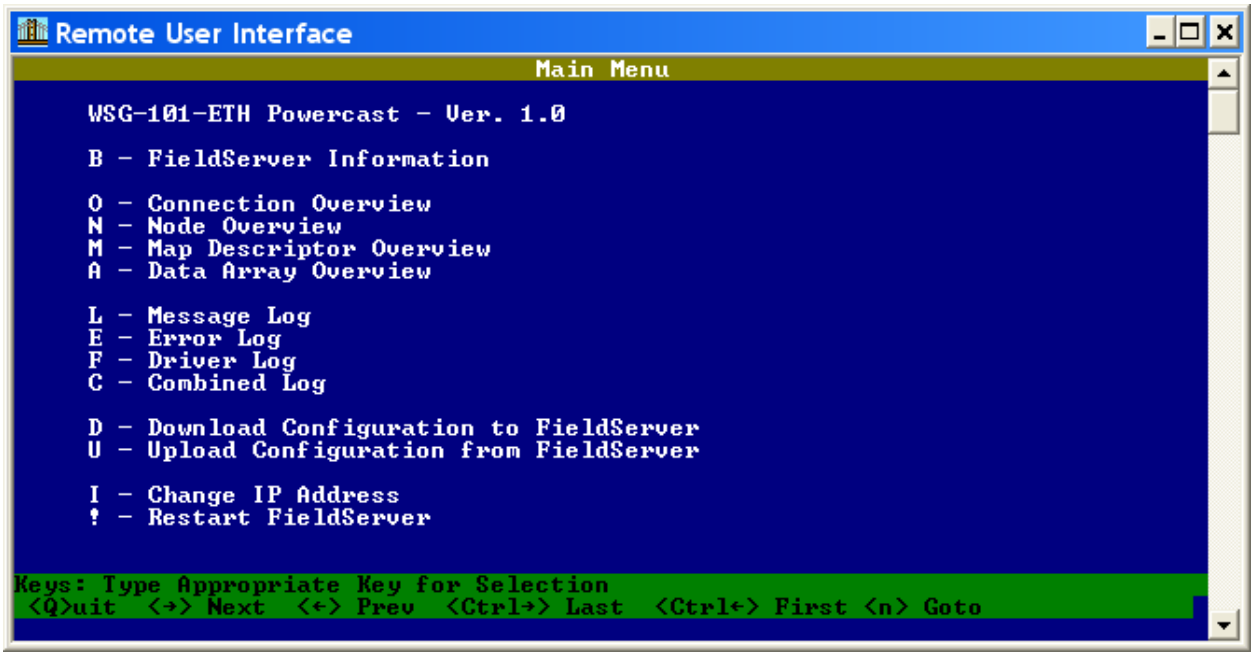

Figure 3 – Main menu of FieldServer options

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

Note - For versions of the WSG-101 that have the RS-485 or LON modules, the Ethernet configuration port is inside the enclosure. Remove the lid to attach the Ethernet cable.

Screens shots for some of the options are provided below.

Option B – FieldServer Information

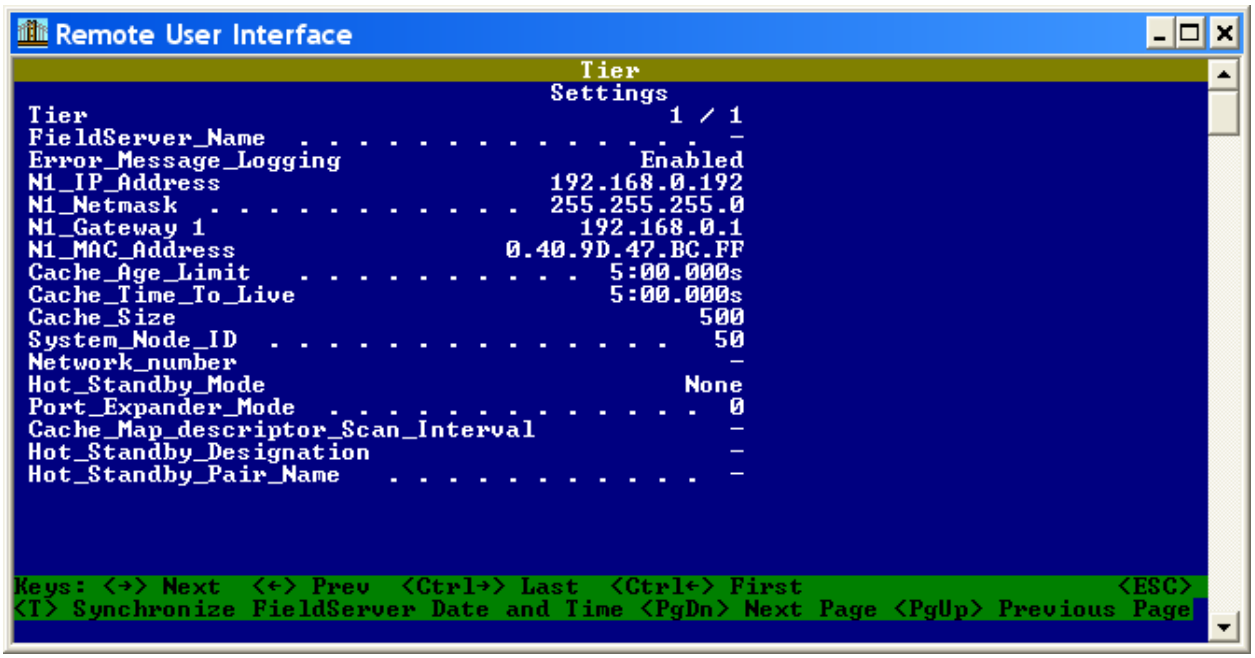

Figure 4 – Option B, FieldServer Information

Option O – Connection Overview

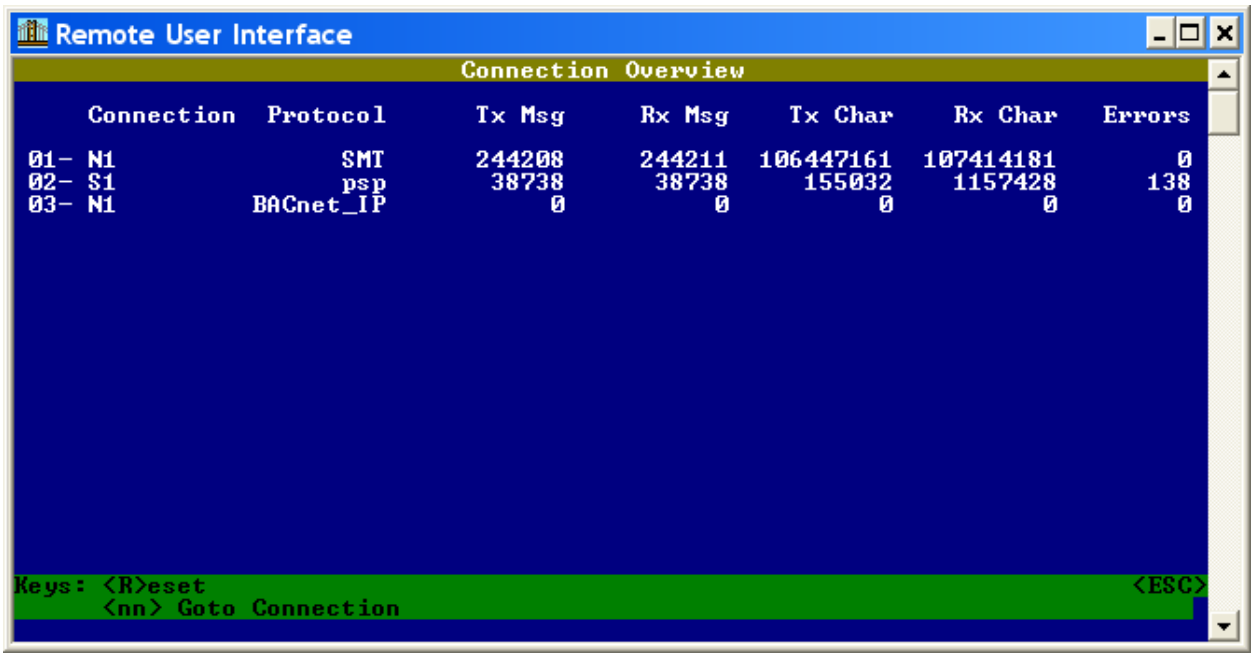

Figure 5 – Option O, Connection Overview

This screen shows the number of packets that are entering and exiting the FieldServer module.

Option A – Data Array Overview

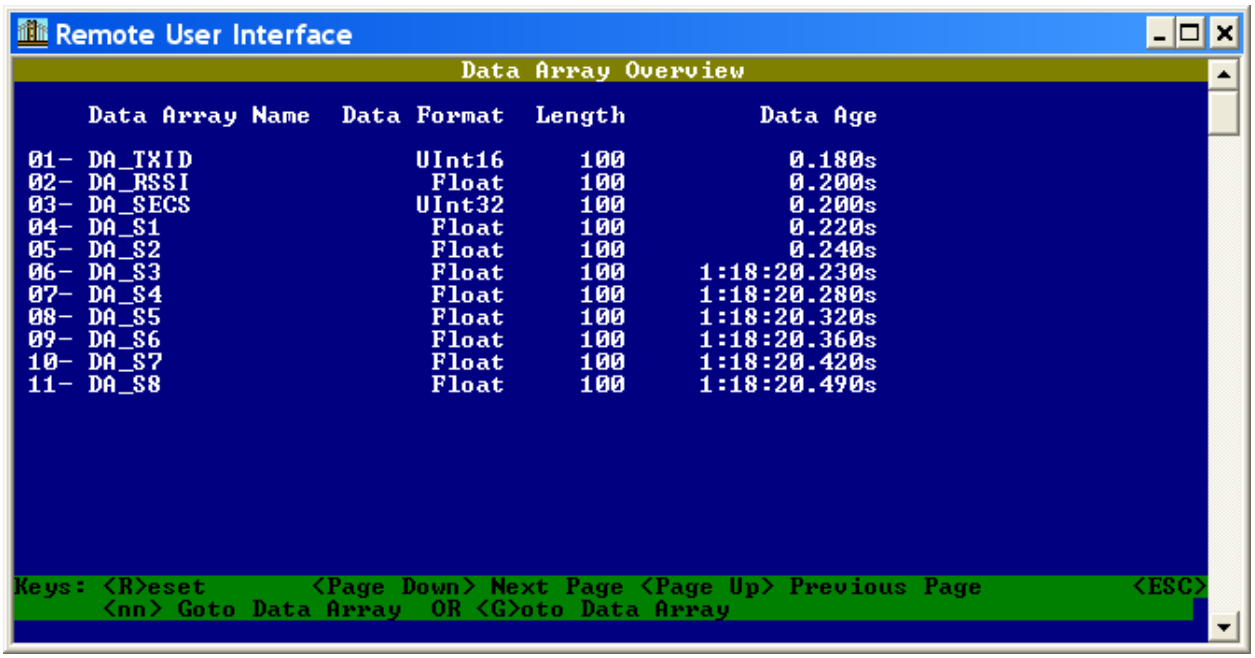

Figure 8 – Option A, Data Array Overview

The data arrays are defined as follows:

TXID = Transmitter ID (identifies the transmitter from which the sensor is receiving power)
PWR or RSSI = Indicator of sensor power source (9 = Batt OK, 0 = Batt LOW, 1-5 = RF Power Strength)
SECS = Time (seconds) since data was last updated
S1 - S8 = Sensor data (not all fields are used with each sensor)

Select the numbers (01-11) provided on the left side of the screen to see the individual data arrays.

Option D – Download Configuration to FieldServer

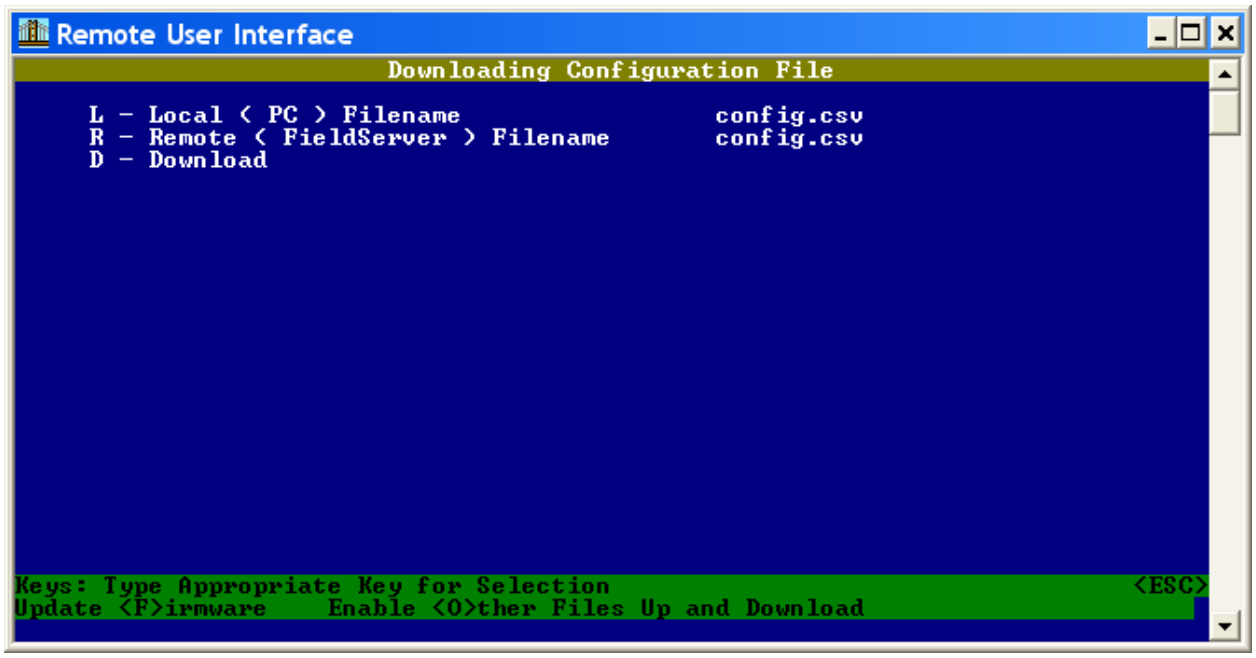

Figure 9 – Option D, Downloading a Configuration file to a FieldServer.

Each FieldServer is configured by "downloading" a Comma-Separated Variable (CSV) text file. The file resides on the FieldServer and can be retrieved (uploaded), modified, and then downloaded back to the FieldServer. The file can be modified in a text editor like Windows Notepad or a spreadsheet like Microsoft Excel

A default configuration file is stored in the "Config" directory for the FieldServer Utilities software when the software is installed.

Example: C:\Program Files\FieldServer Utilities\Config

L – selects the config file on the PC to be downloaded
R – selects the config file on the FieldServer
D – starts the download process (transfers file on PC to FieldServer)
F – allows for updating the firmware (not recommended or supported by Powercast)
O – enables uploading addition files (not recommended or supported by Powercast)

Default configuration files specific to the WSG-101 are located on the Powercast website:
http://www.powercastco.com/resources/

Option U – Upload Configuration from FieldServer

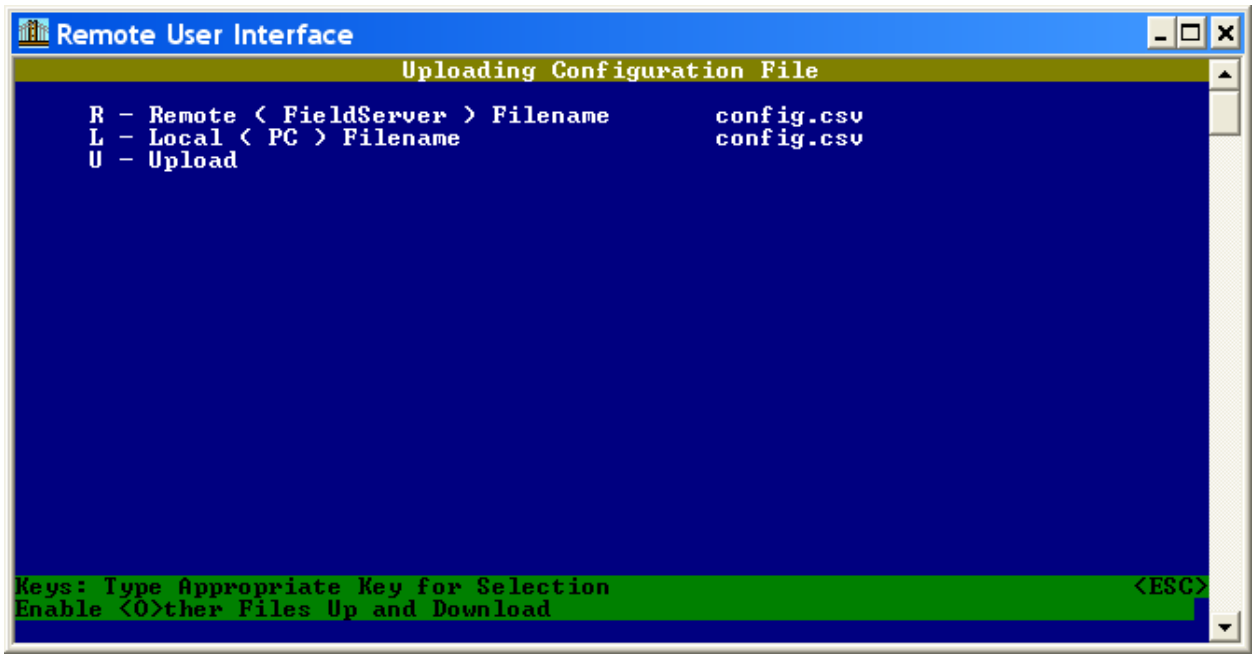

Figure 10 – Option U, Uploading a configuration file from the FieldServer

Each FieldServer is configured by "downloading" a Comma-Separated Variable (CSV) text file. The file resides on the FieldServer and can be retrieved (uploaded), modified, and then downloaded back to the FieldServer. The file can be modified in a text editor like Windows Notepad or a spreadsheet like Microsoft Excel.

R – selects the config file on the FieldServer to be uploaded
L – selects the config file on the PC
U – starts the upload process (transfers file in FieldServer to PC)
O – enables uploading addition files (not recommended or supported by Powercast)

The only time the config file should be edited is to change the network Node_ID (e.g. BACnet ID) of the device. It is recommended that all changes be made using Excel for readability. Be sure to save the file in CSV (Comma Separate Variable) format.

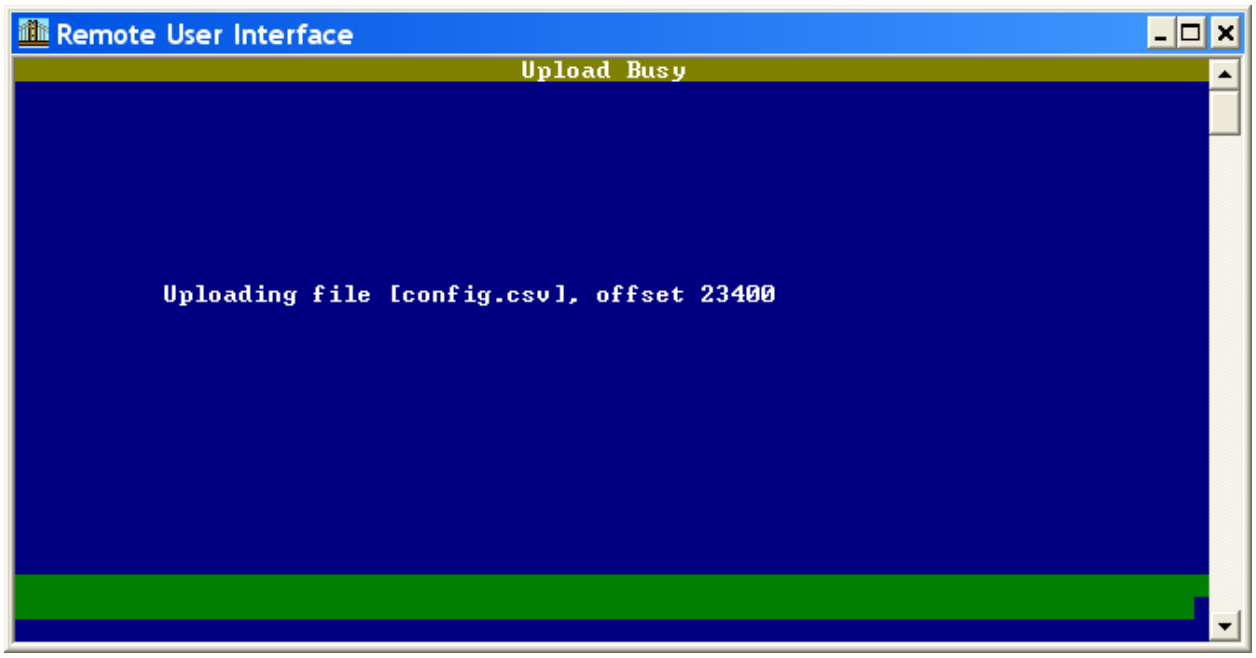

Figure 11 – screen shot showing uploading in progress

When the file transfer to the PC is completed it is possible to edit the file in SlickEdit, Excel, or Notepad as shown in the green message bar in Figure 12.

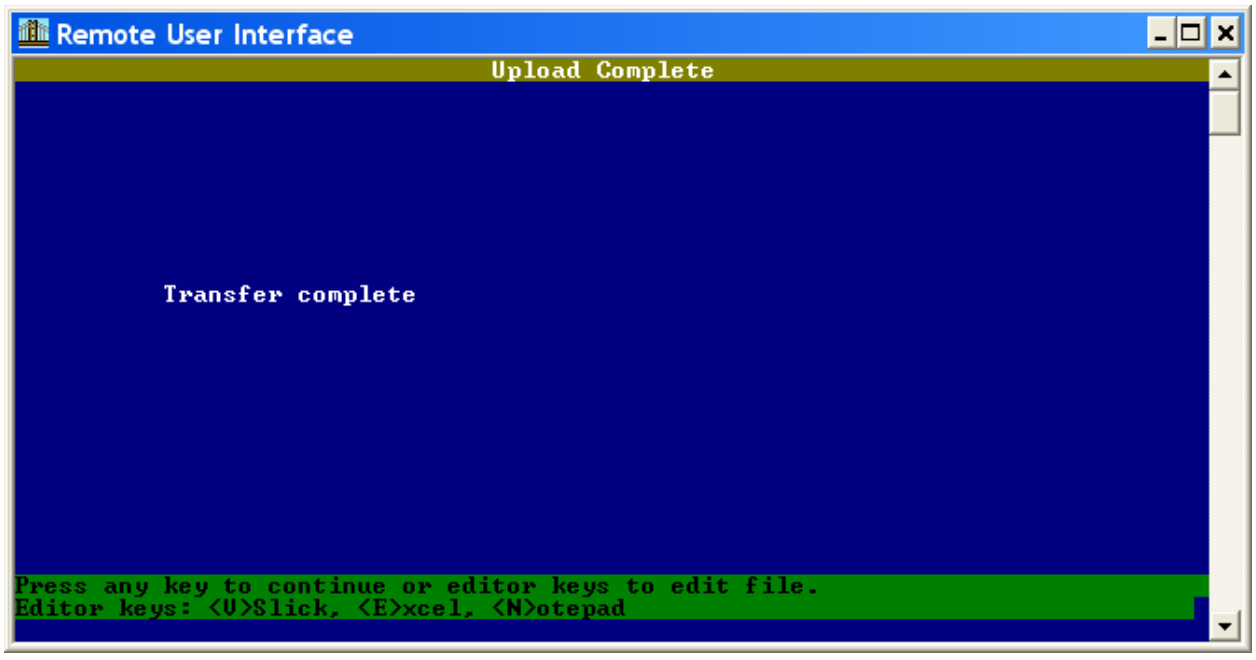

Figure 12 – screen shot showing uploading complete

Option I – Change IP Address

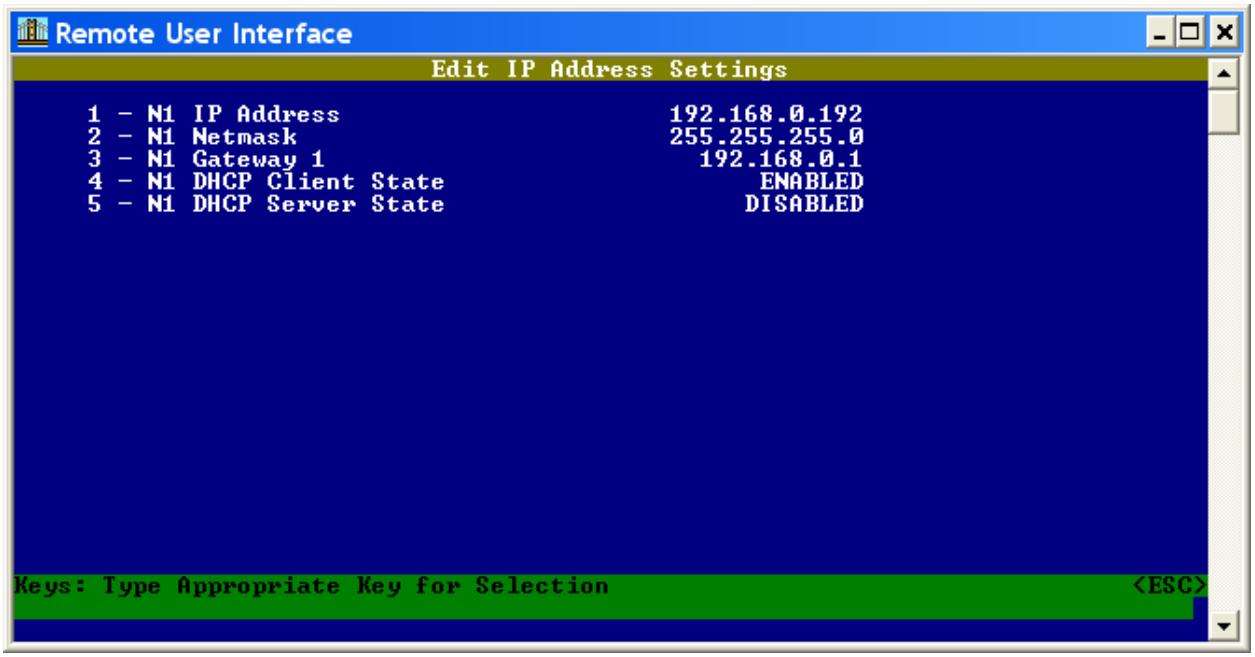

Figure 13 – Option I, Change IP Address

Select this screen option to change the network parameters. Do not enable the device as a DHCP Server.

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

Powercast 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