



FieldServer Graphic User Interface (FS-GUI) Manual

APPLICABILITY & EFFECTIVITY

This manual provides instructions for the following FieldServer products:

	Description
FS-X30 Series	FieldServer
SlotServer	FieldServer
QuickServer	FieldServer

Effective for all systems manufactured after April 2013

Kernel Version:	6.10
Document Revision:	0

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1 OVERVIEW

The FS-GUI is a web-browser based User Interface, and uses a combination of technologies and devices to provide a platform that the user can interact with for the tasks of easily gathering and producing information. FS-GUI allows the user to:

1. Check the status and diagnostics of a FieldServer including such information as network settings, connection info, node information, map descriptors, and error messages
2. Monitor a working FieldServer's internal data and parameters
3. Change or update a FieldServer's internal data and parameters
4. Transfer files to and from a FieldServer
5. Delete files on a FieldServer
6. Change the FieldServer's IP address
7. Restart a FieldServer

The FS-GUI is shipped with every QuickServer, FS-B35XX Series and SlotServer FieldServer Gateway.

Note: For the FS-B20X and FS-B40X series the RUInet software is used for the user interface.

2 GETTING STARTED

2.1 PC Requirements

2.1.1 Hardware

A Computer with web browser that connects over Ethernet on port 80.

2.1.2 Software

The Utilities run under the following web browsers:

- Mozilla Firefox 13.0 and up
- Microsoft Internet Explorer 8¹ & 9
- Google Chrome 19.0 and up
- Opera 11 and up

Note that computer and network firewalls must be opened for Port 80 to allow FS-GUI to function.

¹ Internet Explorer 8 does have some limitations in terms of graphical features. Some effects such as rounded corners and semi-opaque backgrounds are not supported. So although the technical functionality is there, the looks might be slightly degraded on IE8

2.1.3 Utilities

2.1.3.1 Discovery Tool

The Discovery Tool is used to find FieldServers on the network. The Discovery Tool can be found on the flash drive shipped with the FieldServer, or it can be downloaded from the FieldServer website <http://www.fieldserver.com/docs/downloads/Discovery.zip>

After downloading, it will be available as an icon on the desktop.

The Discovery Tool will only find FieldServers existing on the same subnet as the computer.

2.1.3.2 FST_Diag Utility

The FST_Diag Utility connects to a FieldServer, collects information about the FieldServer setup and current processes, downloads the configuration, and zips all information into one file for use by FieldServer Technical Support. The FST_Diag Utility is also capable of capturing serial port communications, which is logged automatically and included in the zipped diagnostic file.

The FST_Diag Utility **cannot** capture a log of Ethernet based message contents. Refer to Enote0063 on the supplied flash drive for information on how to do this.

2.2 Installation and Setup

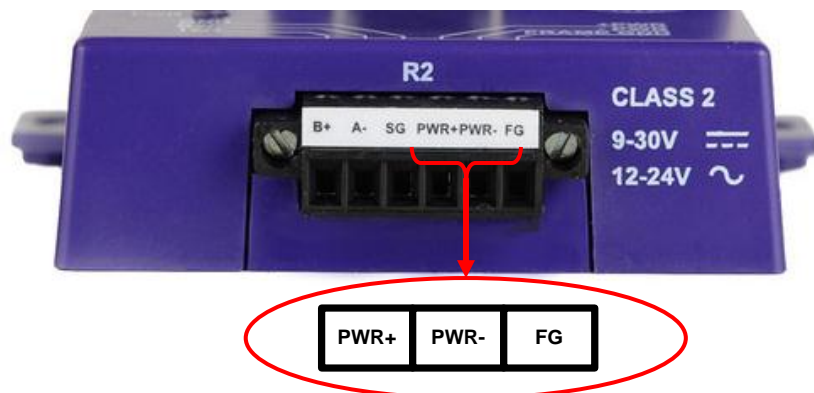
The utilities are loaded on the flash drive shipped with the FieldServer, and can be accessed from the desktop as an icon after they have been installed. The utilities are also available from the FieldServer website in the Support → Downloads section.

The FS-GUI PC and the FieldServer have to be setup with an IP address on the same subnet.

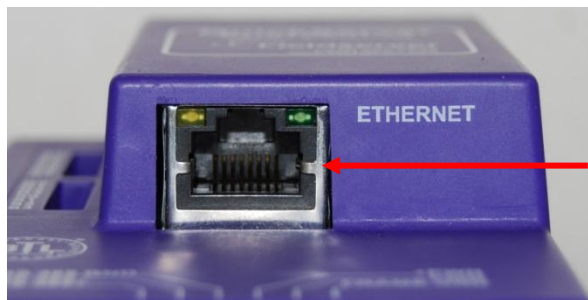
3 CONNECTING TO A FIELDSEVER

3.1 Power up the device

Apply power to the device. Ensure that the power supply used complies with the specifications provided in. Ensure that the cable is grounded using the "Frame GND" terminal. The FieldServer is factory set for 9-30VDC or 12-24VAC.



3.2 Connect the PC to the FieldServer over the Ethernet port.



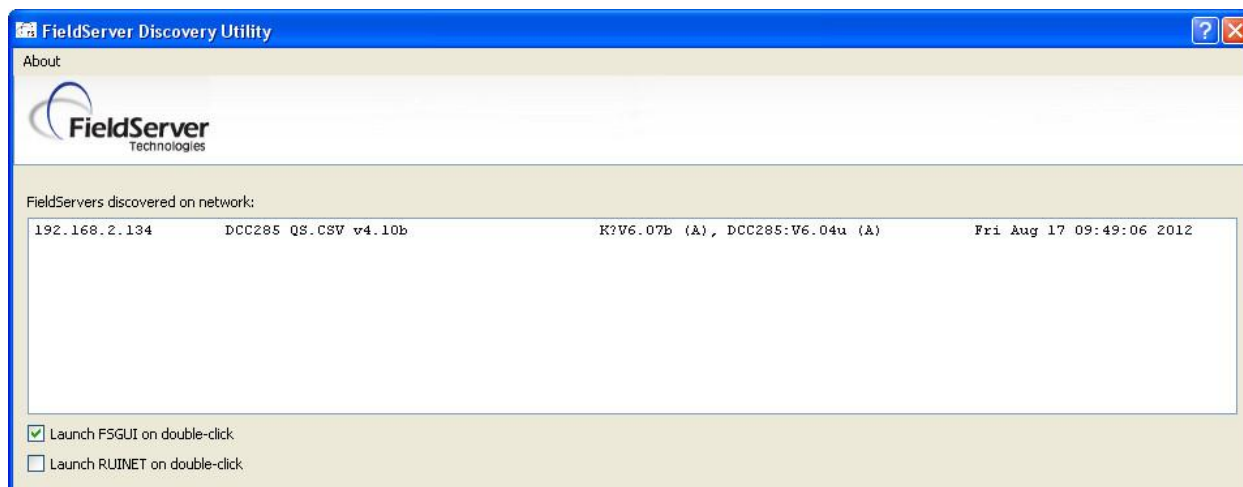
Ethernet Port

- Disable any wireless Ethernet adapters on the PC/Laptop.
- Disable firewall and virus protection software .
- Connect an Ethernet cable between the PC and FieldServer or connect the FieldServer and the PC to the Hub/switch using a straight cat5 cable.
- The Default IP Address of the FieldServer is **192.168.2.X**, Subnet Mask is **255.255.255.0**. If the PC and the FieldServer are on different IP Networks, assign a Static IP Address to the PC on the 192.168.2.X network.

3.3 Use the FieldServer Web GUI to Connect to the FieldServer

3.3.1 Using the Discovery Tool to launch FS-GUI:

- Install the Discovery tool from the USB drive or get it from our website <http://fieldserver.com/techsupport/utility/utility.php>
- Use the Discovery tool to find the FieldServer, and launch the Web GUI from the Discovery tool.



3.3.2 Using the Web Browser to launch FS-GUI:

If the IP address is known, it can be typed directly into the web browser, and FS-GUI will launch.

4 THE NAVIGATION TREE

Configuration update complete. Please restart the system to load the new Configuration. CONTACT US

FieldServer Technologies

Navigation Tree

- DCC285 QS.CSV v4.10b
 - About
 - Setup
 - File Transfer
 - Network Settings
 - Passwords
 - View
 - User Messages

File Transfer

Configuration | Firmware | General

Update
Update the configuration file on the device.
C:\Documents and Settings\... Browse...
Submit

Retrieve
Retrieve the configuration file from the device.
[config.csv](#)

Delete
Delete the device configuration.
Warning: Make sure you have saved a copy of your config.csv file.
Delete Configuration

HELP (F1) | System Restart

4.1 Root

The root of the navigation tree allows the user to check the status of the FieldServer gateway, including the configuration code, version, memory, gateway type and more. Under "Settings" the user has access to important network information. The name of the root is specified in the FieldServer Configuration file under the Title Keyword and is therefore completely user definable

4.2 About

Allows the user to check current firmware of the FieldServer gateway plus version identification of the interface and skin, plus contact information. Skin is either the default FieldServer template or it can be a specific template specified by the owner.

4.3 Setup

4.3.1 File Transfer

There are 3 types of files that can be transferred, namely Configuration Files, Firmware and Miscellaneous (general) files.

4.3.1.1 Configuration Files:

Configuration files have a .csv extension, and are used to configure the FieldServer for its specific application. See the FieldServer Configuration manual for details.

- To Update the configuration file
To update the FieldServer's configuration file, click the browse button and select the configuration file (.csv). Click open, and submit. Wait until the message "Configuration update complete" appears, and click the System Restart button to activate the new configuration file.
- To Retrieve the configuration file
For making changes to the configuration file: Retrieve the file, edit it, save the updated file and update the file (as described in the section above).
- To Delete the configuration file
To temporarily disable the FieldServer's protocol communications, the configuration can be deleted. The FieldServer needs to be restarted to activate the changes.
Warning: This action cannot be undone - make sure you have saved a copy of your configuration file.

4.3.1.2 Firmware Files:

The FieldServer Firmware contains the application program commonly referred to as the DCC or the PCC. This program contains the protocol drivers applicable to the application and the FieldServer Operating System Kernel.

A Firmware update is only required when updated files are received from FieldServer support. Firmware files have a .bin extension

4.3.1.3 General (Other) Files:

Other files that can be updated include the FS-GUI image, and other files described in driver manuals. The procedure for updating these is the same as for configuration files, but the update needs to be made in the "General" update section.


4.3.2 Network Settings

On the Network Settings Page, the Ethernet adaptor settings of the FieldServer can be changed. The N1 and N2 (if supported) adaptor IP address, Netmask, and default Gateway can be changed by entering values in the applicable fields and clicking on the Update IP settings Button.

NOTE: The FieldServer has to be restarted for any changed settings to take effect. Also note that enabling the DHCP client on any adaptor will cause the static IP address settings to be overruled by a DHCP server on the network.

The FieldServer's built-in DHCP server can be enabled to establish easy connection for Support purposes. Set the laptop or computer to automatically obtain an IP address to use this feature. Note that the FieldServer DHCP server periodically checks for other DHCP servers on the network and will disable itself should any other DHCP servers exist on the network. This mode of operation is because the FieldServer DHCP server is strictly for support purposes and does not have all the features of a commercial DHCP server. Setting the default gateway IP address to your network gateway will ensure the FieldServer is reachable on the internet.

Configuration update complete. Please restart the system to load the new Configuration. Contact Us



Navigation Tree

- └─ DCC285 QS.CSV v4.10b
- └─ About
- └─ Setup
 - └─ File Transfer
 - └─ **Network Settings**
 - └─ Passwords
- └─ View
- └─ User Messages

Network Settings

IP Settings

Note
Updated settings only take effect after a System Restart. If the IP Address is changed you will need to direct your browser to the new IP Address after the System Restart.

N1 IP Address	<input type="text" value="192.168.2.134"/>
N1 Netmask	<input type="text" value="255.255.255.0"/>
N1 DHCP Client State	<input type="button" value="ENABLED"/> ▾
N1 DHCP Server State	<input type="button" value="DISABLED"/> ▾
Default Gateway	<input type="text" value="192.168.2.1"/>

4.3.3 Passwords

Access to the FieldServer can be restricted by enabling a password. There are 2 access levels defined by 2 account names: Admin or User.

The Admin account has unrestricted access to the FieldServer

The User account can view any FieldServer information, but cannot make any changes or restart the FieldServer.

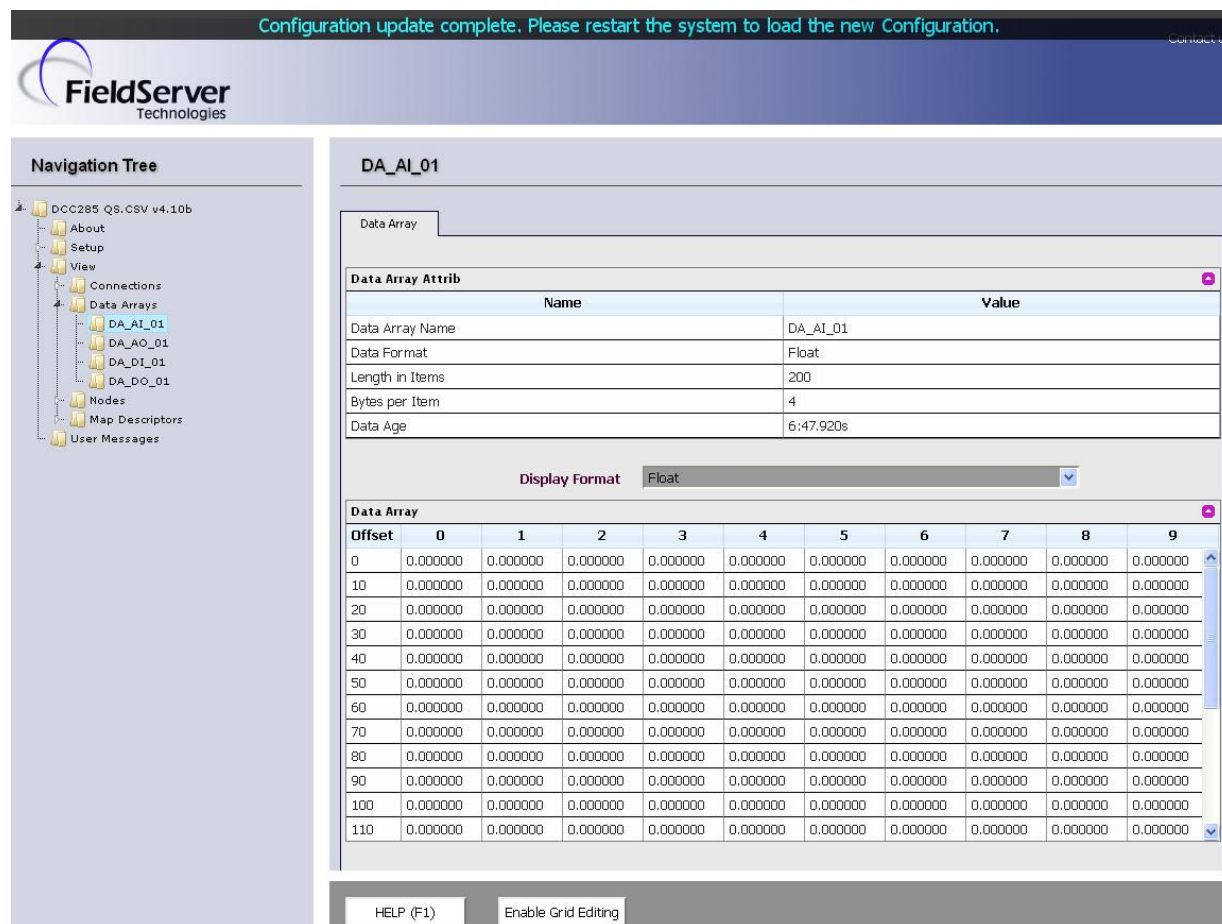
4.4 View

4.4.1 Connections

The Connections screen supplies information on communication between the FieldServer and remote devices. A number of aspect screens are available, including settings, info stats and error stats. The information on these screens cannot be changed, and is for viewing only.

4.4.2 Data Arrays

The Data Arrays screens can be used to view the values in Data Arrays. The values can be changed by clicking on the "Enabled Grid"- button, and changing the value in the data array grid. Note that if values are being written into the Array by a driver, then any modifications made by grid editing will be overridden.



4.4.3 Nodes

On the Nodes screens information about the remote devices on each connection can be viewed. A number of aspect screens are available, including settings, status, info stats and error stats. The information on these screens cannot be changed, and is for viewing only.

4.4.4 Map Descriptors

On the Map Descriptors screens information on each individual Map Descriptor can be viewed. A number of aspect screens are available, including settings, status, info stats and error stats. The information on these screens cannot be changed, and is for viewing only.

4.5 User Messages

The user message screens display FieldServer messages generated by drivers and the operating system. User messages on the “Error”- screen usually indicate some problem with the configuration or communication and should be attended to.

User messages of an informational type will be displayed on the “Info”- screen, and no user action is usually required.

Messages generated by protocol drivers will be displayed on the “Driver”- screen. These messages convey protocol specific information that can be useful for field integration purposes.

Finally the “Combined”- screen contains all messages chronologically from all the above message screens.

Appendix A. USEFUL FEATURES

Appendix A.1. Enhanced Network Security

For enhanced network security, one can disable RuiNet access to a FS-GUI capable FieldServer by use of the RUI_Enable FieldServer parameter. Adding the following to the configuration file will disable RuiNet Access.

```
FieldServer
Title           , RUI_Enable
FieldServer Name , Disabled // Enabled -- is the default if not specified
```

Note: In order to take a FieldServer Diagnostics log, RuiNet access has to be enabled again.

Appendix A.2. Demonstration of Interface

Check out the FieldServer web-browser GUI User Interface by clicking this link for a live demo enabling you to check out each page outlined below. http://12.49.212.118/htm/fsgui.htm#2_OID

You can also view specific pages of the User Interface by clicking on the appropriate highlighted name.

Home - Allows the user to check the status of the FieldServer gateway, including the configuration code, version, memory, gateway type and more. Under "Settings" the user has access to important network information.

About - Allows the user to check current firmware of the FieldServer gateway plus version identification of the interface and skin, plus contact information. Skin is either the default FieldServer template or it can be a specific template specified by the owner.

Setup - Select "File Transfer" to upload files to the FieldServer gateway including configuration files, firmware upgrades and more. Select "Network Settings" to access and modify network connection.

View - Select "Connections" to view activity of devices connected to the FieldServer gateway ports. Select "Data Arrays" to view the Data Arrays setup in the gateway and the user can click on the specific Data Array for detailed information. Select "Nodes" to view the Nodes setup in the gateway and the user can click on the specific node for Node detailed information. On the Nodes details page tabs across the top allow access to settings, status, info stats and error stats. Select "Map Descriptors" to view the Map Descriptors setup in the gateway and clicking on the specific map descriptor will access the Map Descriptors detail page. Again, tabs across the top of the page provide quick access to settings, status, info stats, and error stats.

User Messages - Allows access to error messages, info messages and driver messages

Note that a Help menu is included under "Help" and the "System Restart" button at the bottom of the page is used to restart the FieldServer gateway.