



Driver Version:	1.00
Document Revision:	2

FieldServer Driver - Serial FS8700-109 ProtoCessor Complex Protocol – PCP

Description

The PCP Serial Protocol is designed to achieve the following:

- Read a Customer Device's Database of data objects
- Determine if the database has changed
- Allow data transfer (read and write) between the Driver and the customer Device

This driver utilizes these protocol capabilities to achieve the following

- Read a customer device database
- Auto create a client configuration to read the values/states of the data objects discovered
- Auto create a BACnet Server side connection, node and objects to make the customer device available to upstream BACnet clients.

The driver can also be used in a simple mode to poll for specific data from a customer device. To achieve this, the data objects in the customer device must be known in advance.

The protocol is node-less. This means that messages do not contain source/destination node addresses and hence it would not be possible to differentiate messages from multiple devices on the same connection. Thus only one node may be defined per connection.

The driver provides both client and server emulation. The server side of the driver is intended to support FieldServer's Quality Assurance program and is not intended to provide complete emulation of a PCP Server. Thus the server side is not fully documented. At a customer's request the server side functionality can be documented and enhanced. If you are interested in this functionality, then please contact FieldServer's sales group.

The protocol specification document is available from FST. Please request the document named: PS002 - PCP Driver Spec (FS-8700-109)

Max Nodes Supported

FieldServer Mode	Nodes	Comments
Client	1	1 Node per serial port
Server	1	1 Node per serial port



Protocol Driver



A Sierra Monitor Company

Formal Driver Type

Serial
Client and Server

Compatibility Matrix

FieldServer Model	Compatible with this driver
FS-x2010	Yes
FS-x2011	Yes
FS-x40	Yes
FS-x30	Yes

Connection Information

Connection type: EIA232 or EIA485 (Two wire, Half-Duplex)
110; 300; 600; 1200; 2400; 4800; **9600**; 19200; 28800;
Baud Rates: 38400; 57600; 115200 Baud
Default for Processor is **38400**.
Data Bits: 7,8
Stop Bits: 1,2
Parity: Odd, Even, None
Multidrop Capability No

Devices tested

Device	Tested (FACTORY, SITE)
WattMaster Test device	SITE

Connection Notes

This driver is intended for use with a ProtoCessor which has been previously integrated into a customer's controller. No additional hardware is required.



Communications functions - Supported functions at a glance:

Request the document named: PS002 - PCP Driver Spec (FS-8700-109) for further information.

Read Operations supported

FieldServer / Processor as a Client	
Poll Object Class Count	Read how many classes customer device has.
Poll Object Class Configuration	Read Class Name and Type
Poll Object Class Property	Read Class Property Name, Type...
Poll Object Instance Count	Read number of instances of specified class
Poll Object Instance Info	Read Instance name and other attributes
Configuration Valid / Changed	Response indicates if database has changed
Read Property Value / State	Property, Class and Instance #'s are specified.
Read all Property Values for a given instance of a class	Single command reads all.

Unsupported Functions and Data Types

Function	Reason
Programming messages	FieldServer is a data transfer device, and as such, programming messages are not required

