1   DESCRIPTION

The Caterpillar M5X driver allows the FieldServer to transfer data to and from devices over RS-232 using Caterpillar M5X protocol. The FieldServer can emulate either a Server or Client. The driver is capable of communications with any device that uses the Caterpillar M5X protocol but has been designed primarily for connection to a Caterpillar CCM which is in turn connected to the Caterpillar engines to be monitored/controlled.

The driver provides a limited set of M5X protocol commands and may address a sub-set of the parameters available in each device. The driver provides formal support for 3500 engines and EMCPII devices only. Other devices may be polled using the address of the parameter required as opposed to user friendly parameter names.

1.1   Connection Facts

FieldServer Mode	Nodes	Comments
Client	8	The number of Nodes this driver can connect to as a Client is not limited by the driver. Limitations are imposed by the CCM. Consult Caterpillar/CCM documentation for the current limit. The most recent documentation viewed indicates that a CMM can be connected to a maximum of 3 Marine Engine controllers, with no more than 8 controllers connected at any one time. Note that to date FieldServer has not tested any applications where more than one Node is connected to a CCM.
Server	255	Up to 255 Server Nodes can be emulated on one connection

2   FORMAL DRIVER TYPE

Serial

Client or Server

3   COMPATIBILITY MATRIX

FieldServer Model	Compatible
FS-B35 Series	Yes
ProtoNode/ProtoAir	No
QuickServer FS-QS-10xx	No
QuickServer FS-QS-12xx	Yes
QuickServer FS-QS-20xx	No
QuickServer FS-QS-22xx	Yes

4   CONNECTION INFORMATION

Connection Type: RS-232
Baud Rates: 110 – 115200, standard baud rates only. The default baud rate for CCM module is **9600**.
Data Bits: 7,8
Stop Bits: 1
Parity: None
Multidrop Capability: Yes

5   DEVICES TESTED

Device	Tested (FACTORY, SITE)
Caterpillar CCM Module	Factory

6   CONNECTION NOTES

If having problems trying to establish the caterpillar Node_ID, set the Node_ID to 0 in the configuration. Watch the error screen on reboot-the remote device will usually send a message back with an error stating that it cannot accept a response message from a certain Node_ID. That Node_ID is the relevant Node_ID.

The FieldServer cannot be connected directly to the generator/engine controller but must be connected via the CCM module.

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