

### 1 DESCRIPTION

The Cheetah Protocol driver allows the FieldServer to transfer data to and from devices over either RS-232 or RS-485 using the Cheetah device protocols (Legacy Cheetah Classic, Cheetah Xi and Cheetah MIM).

The driver supports messages sent from the Cybercat panel. Specifically, the driver supports message 1.02 which reports panel, zone and device states.

The FieldServer can emulate either a Server or Client but it should be noted that it can only process unsolicited messages from the Cheetah devices. Thus, it does not provide an active Client driver. It is best to consider this driver as a consumer only driver with the data being produced by a Cheetah controller.

#### 1.1 Connection Facts

FieldServer Mode	Nodes	Comments
Client	1	Only one node per port.

### 2 FORMAL DRIVER TYPE

Fieldbus

Passive Client

### 3 COMPATIBILITY MATRIX

FieldServer Model	Compatible with this driver
FS-x30	Yes
SlotServer	No
ProtoNode	No
QuickServer FS-QS-10xx	No
QuickServer FS-QS-12xx	Yes
ProtoCessor FPC-ED2	Yes
ProtoCessor FPC-ED4	Yes

### 4 CONNECTION INFORMATION

Connection type: RS-232 or RS-485 (Two wire, Half-Duplex)  
 Baud Rates: 9600 (vendor limitation)  
 Data Bits: 8 (vendor limitation)  
 Stop Bits: 1 (vendor limitation)  
 Parity: None  
 Multidrop Capability: No

### 5 DEVICES TESTED

Device	Tested (FACTORY, SITE)
Cybercat Panel	Factory
Cheetah Panels	Site
Fike Multi-Interface Module (MIM)	Site
Fike Cheetah Xi	Site
CyberCat	Site

### 6 COMMUNICATIONS FUNCTIONS - SUPPORTED FUNCTIONS AT A GLANCE:

#### 6.1 Data Types Supported

The driver does not transfer typed data.

#### 6.2 Passive Client Operations supported

FieldServer as a Passive Client
Graphics command (also known as command 6.0)
Command #1.0: send panel status - cheetah/evax
Command #1.2: send panel status - cyber-cat
Networked panel events (MIM):
System & Device Troubles
Device Alarms
Vesda Events
Device General, Supervisory and Process Events
Classic Cheetah Events from Gateway

#### 6.3 Write (Control) Operations supported

FieldServer as a Passive Client
Acknowledgements are supported in a limited way.

### 6.4 Unsupported Functions and Data Types

The following list is a partial list of unsupported functions.

Function	Reason
Command #2.1: send history event - cyber cat	FieldServer is a data transfer device, and as such, programming messages are not required
Command #3.1: panel switch command - reset	
Command #3.2: panel switch command - acknowledge	
Command #3.3: panel switch command - silence	
Command #3.4: panel switch command - walktest	
Command #3.5: panel switch command - drill	
Command #3.16: panel switch command - process state deactivated in zone <d0>	
Command #3.17: panel switch command - process state activated in zone <d0>	
Command #3.33: panel switch command - turn off peripheral transmissions	
Command #3.34: panel switch command - restart peripheral transmissions	
Command #3.60: panel switch command - enable/disable ir communications	
Command #3.61: panel switch command - fan restart	
Command #7.4: panel requests status update from peripheral device	
Command #7.5: peripheral device response to command #7.4	

### 6.5 Functions Described

All three supported commands report zone and device states for multiple loops. Some panel status information is provided in the message and stored by the driver. Details are available in the manual.

## 7 FIRMWARE LIMITATIONS & CAPABILITIES

### 7.1 Fike Cheetah Panel

The following limitations to older firmware have been identified. FieldServer is unable to correlate this change with a particular Fike firmware version number at the current time.

Messages 1.1 and 6.0 (graphics update msg) are sent by older panels. Only message 6.0 contains information that can be used by the driver to reflect zone and device states. The 6.0 message is sent infrequently (typically 1 in 60 messages) and this results in a zone/device state update every few minutes.

#### 7.1.1 Message 6.0 limitations

- Can only report data for 127 zones. Data is limited to Alarm, Trouble, Pre-Discharge and Released states
- Can only report data for 127 devices on loops 1-4. Data is limited to Alarm, Trouble states.
- Message 1.1 - Older firmware
- No useful information about zones or devices.

#### 7.1.2 Message 1.1 - Newer Firmware

- Supports zones 1-240. For zones the following states are reported: Abort, Trouble, Supervisory, Disabled, Pre-alarm, Alarm, Pre-Discharge, Released, Processed.
- Supports devices 1-127 on loops 1-4. For devices the following states are reported: Alarm, Pre-Alarm and Trouble

### 7.2 Fike XI Panel

The XI panels send messages which contain zone and device data. The message is known by Fike as a '1.2' message.

The message reports if a device is normal, alarm, trouble or in a pre-discharge state. 256 Devices on loops 1-4 are reported. 255 Zones report Process, Trouble, Supervisory, Disable, Pre-Alarm, Alarm states.