1   DESCRIPTION

The QuickStart Serial driver allows the FieldServer to record data from Edwards System Technology QS1-2/4-8 and QSC Fire Panels over the RS-232 printer port. The FieldServer acts as a Passive Client receiving messages and updating its internal data arrays which records the status of devices connected to the QuickStart fire alarm control panel. The QuickStart panels currently do not support duplexed communications; therefore, this driver has only been designed to listen for messages passively and not to respond or to generate polls.

The main purpose of this driver is to record the status of Fire Alarm System points in bit oriented data arrays. It is limited by the information that the QuickStart control panels broadcasts in the form of text messages through its RS-232 printer port.

The types of EST messages supported by this driver are listed later in this fact sheet and in the FieldServer Driver Manual. Device status to the data array mapping is also provided. Since there are a variety of optional cards that can be selected for each QuickStart installation, each FieldServer application must be specifically configured before use. FieldServer data storage arrays for panel status will be allocated according to the number and type of cards implemented. Message information will also be stored according to card and panel addressing.

This driver is connection oriented; therefore, only one EST Panel may be connected to any single RS-232 FieldServer port.

The driver currently accommodates European and American English Conventional/Intelligent panels using the American English protocol with provisions for using the British English protocol at a later date.

1.1   FieldServer Synchronization

To synchronize the FieldServer's data arrays with the QuickStart control panel's status, the panel must have no active or disabled points on FieldServer start up. Alternatively, a panel can be hard/soft restarted to clear all point status, and then re-annunciate any active devices after the FieldServer has been started. This should only be undertaken by qualified technicians.

Should the panel be soft restarted unexpectedly, the FieldServer will recognize the "restart" command and clear all internal data arrays. There will be no need for FieldServer restart; however, for a hard restart, the FieldServer data arrays should be manually cleared by changing a bit in the CLEAR_FLAG data array through FS-GUI, then soft restarting the panel again to ensure that status of all points are re-sent and recorded by the FieldServer.

1.2   Device States

Each addressable device (real or pseudo) can have multiple states: alarm supervisory, monitor, other (security), and troubles. These states are not exclusive; therefore, a single addressable point may occupy multiple states at the same time.

Although there may be several trouble states for each device, there can only be a single alarm, supervisory, monitor and other (security) state per address. Therefore, any restoring messages for these four states indicate that the device is clear of any active problems for these types of conditions.

However, there may be several trouble states for a single addressable port. These trouble states will be recorded in a separate trouble array of 2 byte elements. Each array element will correspond to a device address and each bit within the element will correspond to a trouble type. The mapping of message trouble types to element bit configuration is given below. For modelling simplicity and flexibility, it is assumed that all addressable points (real or pseudo) can exist in all states.

2   FORMAL DRIVER TYPE

Serial

Passive Client

3   COMPATIBILITY MATRIX

FieldServer Model	Compatible
FS-B35	Yes
SlotServer	Yes
ProtoNode	Yes
QuickServer FS-QS-10xx	No
QuickServer FS-QS-12xx	Yes
ProtoCessor FPC-ED2	No
ProtoCessor FPC-ED4	Yes

4   CONNECTION INFORMATION

Connection type:	RS-232 (Edwards)
Baud Rates:	9600 (Vendor Limitation)
Data Bits:	8 (Vendor Limitation)
Stop Bits:	1 (Vendor Limitation)
Parity:	None (Vendor Limitation)
Multidrop Capability:	No

5   DEVICES TESTED

Device	Tested (FACTORY, SITE)
Edwards Systems Technology- European and American QS1-2/QS4-8 Addressable Panels, and the QSC Conventional Panel	SITE

6   SUPPORTED COMMUNICATION FUNCTIONS

6.1   Message Types Supported

The primary purpose of this driver is to record the status of devices connected to the QuickStart Fire Control Panel by interpreting the text messages sent to its printer port. Not all messages are interpreted, as many messages and reports do not directly affect device status. The following set of events and messages are recognized and recorded I the data arrays.

Event Description Text Strings		State	Comments
ACTIVATE RESTART			-OPERATOR COMMAND- clears all the Data Arrays
QUIESCENT	QUIE RST		Not Implemented
ALARM ACTIVE	ALARM RST	A	
PULL STATION	PULL STA RST	A	
HEAT ALARM	HEAT ALM RS	A	
WATERFLOW	WATERFLOW RS	A	
STAGE ONE		A	
SUPERVISORY	SUP RST	S	
TAMPER	TAMPER RST	S	
SECURITY	SECURITY RST	O	
FIREPHONE	PHONE RST	M	
MONITOR	MONITOR RST	M	
LATCH SUPV	LAT SUPV RST	S	
LATCH TAMPER	LAT TAMP RST	S	
UNKNOWN	UNKNOWN RST	O	
ALARM VERIFY	ALM VFY RST	M	
PREALARM	PREALARM RST	M	
TROUBLE OPEN	TBL OPEN RST	T	
TROUBLE SHRT	TBL SHRT RST	T	
LCL TROUBLE	LCL TRBL RST	T	
MAINT ALERT	MAT ALERT RS	M	
DIRTY HEAD	DTY HEAD RST	T	
COMMN FAULT	COMM FLT RST	T	
GROUND FAULT	GND FLT RST	T	
INTERNAL TBL	INTR TRBL RS	T	
BAD TYPE	BAD TYPE RST	T	
BAD PRSONATY	BAD PRSTY RS	T	
UNEPECT DEV	UNEC DEV RST	T	
TROUBLE	TROUBLE RST	T	
RELAY CONFIR	RLY CFRM RST	M	
LCL MONITOR	LCL MNTR RST	M	
SWITCH	SWITCH RST	M	
TEST	TEST RST	T	
DEV COMPATBL	DEV COMP RST	T	
AND GROUP	AND GRP RST	A	
MATRIX GROUP	MATRIX G RST	A	
SERVICE GRP	SERVICE G RS	T	
TIME CONTROL	TIME CNTL RS	M	
ACK	ACK RST	M	
DISABLED	DISABLED RST	T	
DISAB SOUND	DISSOUND RST	T	
OBJECT RUN	OBJETRUN RST	M	
ZONE ALARM	ZONE ALM RST	A	
ZONE SUPER	ZONE SUP RST	S	
ZONE MONITOR	ZONE MON RST	M	
OUTPUT GROUP	OUTPUT G RST	M	
AUDIBLE	AUDIBLE RST	M	
VISUAL	VISUAL RST	M	
SUPER OUTPUT	SUPER OUT RT	M	
NONSUPER OUT	NONSUP OUT R	M	
COMM ALM OUT	COMMALOUTRST	M	
LED OUTPUT	LEDOUTPU RST	M	

6.2 FieldServer Limitations and Exclusions

- Only one QuickStart panel may be connected to any given RS-232 port at once.

- QuickStart and FieldServer synchronization requires some manual steps. This is described in the section of this fact sheet called "FieldServer Synchronization".

- This driver cannot poll for data, thus if a message sent by the panel is lost or corrupted the status reported by the FieldServer will not correctly reflect the status of the panel until the panel is synchronized again or until the FieldServer receives a new message reporting the status of the lost message's point.

- Because of the message structure for the QuickStart protocol, it was intended to be the only protocol assigned to any single port.

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