

1 DESCRIPTION

The EST3 External Communications Protocol (ECP) driver allows the FieldServer to transfer data to and from EST devices over RS-232 or RS-485 (with converter) serial ports using the EST3 ECP protocol. In the EST application the FieldServer always emulates a Client. Gateway Type II and Type III formats are supported.

The FieldServer makes use of the following ECP Services:

Read Operations

- Report Service
- Delta Service

Write Operations

- Command Service

All read points are continually updated using the Report Service; response times are enhanced using Delta Service broadcasts by the EST3 panel.

1.1 Connection Facts

| FieldServer Mode | Nodes | Comments |
|------------------|-------|--|
| Client | 1 | Each FieldServer port can connect to only 1 EST3 panel |
| Server | 0 | The EST3 ECP driver cannot be used as a Server |

2 FORMAL DRIVER TYPE

Serial
Client Only

3 COMPATIBILITY

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

4 CONNECTION INFORMATION

Connection Type: RS-232 or RS-485
 Baud Rates: 9600; 19200 (as determined by EST3 panel)
 Data Bits: 8
 Stop Bits: 1
 Parity: None
 Multidrop Capability: Yes

5 DEVICES TESTED

| Device | Tested (FACTORY, SITE) |
|------------|------------------------|
| EST3 panel | Factory |

6 COMMUNICATION FUNCTIONS

6.1 Data Types Supported

The following commands may be send using the EST3 Command Service.

| EST3 Object Type | EST3 Commands |
|------------------|------------------------------------|
| Relay | Activate, Restore, Enable, Disable |
| Led | Activate, Restore, Enable, Disable |
| ServGroup | Activate, Restore, Enable, Disable |
| GuardPtrl | Activate, Restore, Enable, Disable |
| ChkInGrp | Activate, Restore, Enable, Disable |
| AltMessage | Activate, Restore |
| AmpPower | Activate, Restore, Enable, Disable |
| AudMsg | Activate, Restore |
| Reset | Activate, Restore |
| PanelSil | Activate, Restore |
| AlarmSil | Activate, Restore |
| Drill | Activate, Restore |
| GAInhibit | Activate, Restore |
| Set Time | Activate, Restore |
| Set Date | Activate, Restore |
| Reboot | Activate, Restore |
| Evacuate | Activate, Restore |
| AltSensitiv | Activate, Restore |
| MCmsg | Activate, Restore, Enable, Disable |
| CmdList | Activate, Restore, Enable, Disable |
| Input | Enable, Disable |
| Zone | Enable, Disable |
| Card | Enable, Disable |
| AndGroup | Activate, Restore, Enable, Disable |
| Matrix | Enable, Disable |

| EST3 Object Type | EST3 Commands |
|-------------------------|------------------------------------|
| TimeCtrl | Enable, Disable |
| InstructionText | Enable, Disable |
| ClrPartitionEvent | Activate, Restore |
| DeviceTest | Activate, Restore |
| SysFunction1 | Activate, Restore |
| SysFunction2 | Activate, Restore |
| SysFunction3 | Activate, Restore |
| SysFunction4 | Activate, Restore |
| CalibrateAnalog | Activate, Restore |
| 2StageSounder | Activate, Restore, Enable, Disable |
| SensorByPass | Activate, Restore |
| GasAccelerated Response | Activate, Restore |
| RemoteReadLock | Activate, Restore |
| RemoteWrite Unlock | Activate, Restore |
| LogicalOutput | Activate, Restore, Enable, Disable |
| LampTest2 | Activate, Restore |
| Partition | Away, Disarm |

FieldServer as a Client

EST3 Report Service (polled)

All panel points IO Status
 Status values are able to be decoded and stored as Alarm, Trouble, Supervisory, Monitor or as Others. It is now possible to configure the category that an event is placed in.

The Driver can be configured to provide Relay confirmation status.

The Driver can be configured to provide the acknowledge state of a point and can acknowledge it.

Sensitivity Report

The Driver can be configured to store dirtiness as value*10 for system sensor devices and the actual value for other devices (The Panel sends % values for other devices).

EST3 Delta Service (unsolicited)

All panel points
 Delta message status values are optionally decoded and stored as Alarm, Trouble, Supervisory, Monitor or as Others.

EST3 Date and Time Service

The FieldServer can be configured to synchronize its clock with Panel or the FieldServer can set the Panel's clock

6.2 Read Operations supported

The EST3 ECP driver makes use of the **Report Service** to read the current state of EST3 points. It also updates the current state if **Delta Service** reports are received, which are unsolicited broadcasts initiated by the EST3 panel when a point changes.

7 UNSUPPORTED FUNCTIONS AND DATA TYPES

| EST3 Command | Reason |
|------------------|----------------------|
| Stay | not required to date |
| Conditional Away | not required to date |
| Conditional Stay | not required to date |
| Update Status | not required to date |
| Remove Bypass | not required to date |
| Bypass | not required to date |

| EST3 Service | Reason |
|--------------------------------|----------------------|
| Panel State Service | not required to date |
| Protocol Encapsulation Service | not required to date |
| Access Event Service | not required to date |
| Partition Reset Service | not required to date |
| Command Logging Service | not required to date |