Notifier NFS-3030

Description

The NFS3030 Serial driver allows the FieldServer to record data from Notifier Onyx Series NFS3030 Fire Panels over RS-232.

The FieldServer acts as a Passive Client receiving messages and recording the status of a Notifier 3030 Fire Alarm Panel. There is no active polling by this driver; the communications are one-way through the panel's printer port.

This driver is not capable of emulating a Notifier NFS3030 panel and the very limited Server functionality has only been implemented to facilitate FieldServer's Quality Assurance program.

The purpose of this driver is to record the status of Fire Alarm System detectors and Modules in Data Arrays - one Data Array per loop. It is limited by the information that the Notifier NFS3030 unit sends in the form of text messages through its RS-232 printer port. The accuracy and timeliness of the data is therefore limited to the frequency of update messages that the Notifier Fire Panel issues.

The Communication Functions - Data Types Supported Section lists the Notifier message types supported by this driver and the effect on the status of points in the Data Array. The driver is capable of supporting the panel's port supervision message if configured to do so.

The panel must output messages in English.

Connection Facts

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

Formal Driver Type

Serial, Passive Client

Compatibility

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

Connection Information

Connection Type: RS-232 (Vendor Limitation)

Baud Rates: 9600 (Vendor Limitation)

Data Bits: 8 (Vendor Limitation)

Stop Bits: 1 (Vendor Limitation)

Parity: None (Vendor Limitation)

Multidrop Capability: No

Devices Tested

Device	Tested (Factory, Site)
NFS-3030 Test Panel supplied by Notifier Corp.	Factory
BOOT: 002.003.002 APP: 002.003.014	Site
BOOT: 002.012.006 APP: 002.013.002	Site

Communication Functions

Data Type Supported

This driver was designed to be connected to the Notifier Onyx NFS-3030 printer port and listen for incoming messages. The panel's default setting for the printer port is off. To utilize this driver, the printer port must be enabled to 80-columns, unsupervised, before this driver can be used.

The primary purpose of this driver is to record the status of devices connected to the NFS-3030 system by interpreting the text messages sent to the printer port. Not all messages will be interpreted, as many messages do not directly pertain to device status or are currently supported. The following subset of event messages is recognized:

Active Events
FIRE ALARM
TROUBLE
PREALARM
SECURITY ALARM
SUPERVISORY
DISABLED
ON/OFF (detectors, modules, panels only)
ACTIVE

A detailed mapping of message interaction System Trouble messages provided by Notifier at the time this driver was written is tabulated in the Driver Manual. Any changes or additions by Notifier will not be reflected in this driver unless specifically revised.

Zone Status

Information about zone status that is incorporated with point status messages will not be recorded by this driver. A device can belong to multiple zones; however, only the primary zone is listed in printer output. This severely limits the accuracy of zone data based on event generated messages, and therefore will not be recorded.

However, zone DISABLED messages will be recorded by the driver as there is no ambiguity in their status.

MSA Safety
1991 Tarob Court, Milpitas, California 95035 USA
O. +1 408 262-6611 **TF.** +1 800 727-4377 **E.** SMC-insidesales@msasafety.com
www.MSAsafety.com

Panel Status: Data Array Mapping

The status of NFS 3030 devices will be recorded into a series of data arrays within the FieldServer and are available for reading by any other connected device. The data from each loop will be recorded into a separate data array, and a single system array will record system troubles and disabled zones. The structure of the data arrays is provided below.

Most of these arrays will only contain binary information to represent an active or inactive state. However, there could be multiple troubles associated with a single device. For each trouble message, the data array register corresponding to a particular device will be incremented as a counter and decremented when a trouble is cleared.

Parameter	Registers (float)
{per loop}	
Fire Alarm	0-199 Detectors 200-399 Modules
Trouble - Each point will increment/ decrement the number of troubles recorded, system normal will reset the counter to zero	500-799 Detectors 700-899 Modules
PreAlarm	1000-1199 Detectors 1200-1399 Modules
Security Alarm	1500-1699 Detectors 1700-1899 Modules
Supervisory	2000-2199 Detectors 2200-2399 Modules
Disabled	2500-2699 Detectors 2700-2899 Modules
ON/OFF	3000-3199 Detectors 3200-3399 Modules
Active	3500-3699 Detectors 3700-3899 Modules
{system points only}	
System Troubles	0-1000
Disabled Zones	1000-1999 General Zones 2000-2099 Releasing Zones 2100-2199 Trouble Zones
Panel * some of these Data Arrays are not appropriate for panels but arranged in this fashion for symmetry in message parsing	3000-3099 Fire Alarm 3100-3199 Trouble 3200-3299 * 3300-3399 Security Alarm 3400-3499 * 3500-3599 Disabled 3600-3699 On/Off 3700-3799 *

MSA Safety
1991 Tarob Court, Milpitas, California 95035 USA
O. +1 408 262-6611 **TF.** +1 800 727-4377 **E.** SMC-insidesales@msasafety.com
www.MSAsafety.com

Driver Limitations & Exclusions

- Zone information will not be recorded.

- To synchronize the FieldServer with the panel, connect the running FieldServer and press the "System Reset" button on the panel. All current events will be re-sent to the FieldServer.

- The printer port must be enabled on the unit and set to 80 columns with NO supervision.

- Any data related to non-event driven reports will not be recorded by the FieldServer.

- This driver was written as a subset of NFS2-3030/NCA-2 EIA-232 Protocol & Data Formats 53219 Rev A 1/3/2008. Any changes or additions by Notifier will not be reflected in this driver unless specifically revised.

- This driver will not record information about zone status that is incorporated with point status messages.

- There can only be one panel connected to any given FieldServer port.

- This driver records data as presented to the Printer/CRT port by the Notifier panel and can only be as accurate as this data.

- The driver cannot send messages to the Notifier panel.

- Driver will clear any data on "System Normal" only if this data is previously set by driver and is not yet cleared by "Cleared" message and is configured to Clear_on_Normal. By default, Clear_on_Normal is "yes".

Driver will clear any Node data on "System RESET" only if this data is previously set by driver and is not yet cleared by "Cleared" message and is configured to Clear_on_Reset. By default, Clear_on_Reset is "no".