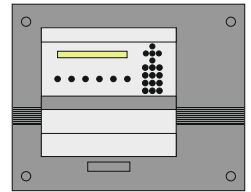# North

The Notifier Driver

The Notifier driver connects to the Notifier ID Series of fire detection panels. Available for Commander and ObSys.

This document relates to Notifier driver version 1.1

Please read the *Commander Manual* or *ObSys Manual* alongside this document, available from *www.northbt.com*

Contents

Compatibility with the Notifier System

The Notifier driver allows North to interface with a Notifier ID Series fire detection system. A stand-alone panel or networked panels in a master-slave configuration are supported.

The driver connects, via RS232, to a Notifier Network Master Panel (Fig. 1) and can communicate with this and up to seven Network Salve Panels.

Fig 1: North to Notifier
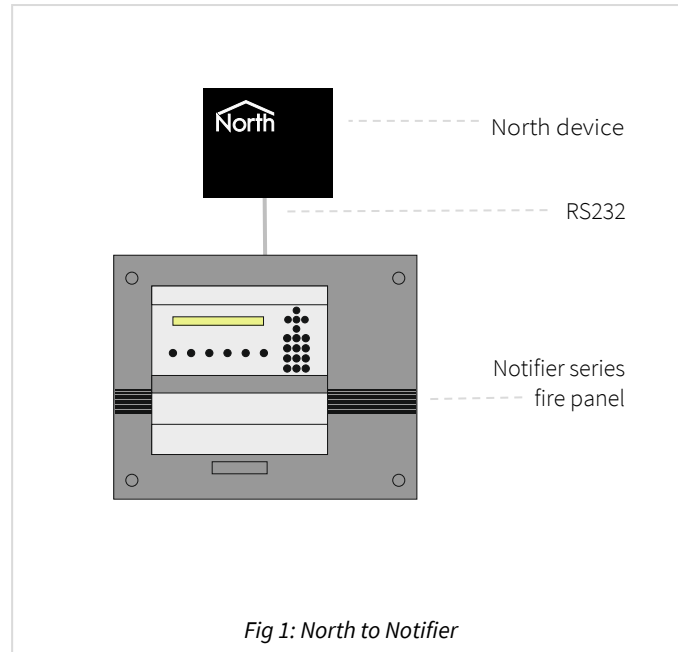
Equipment

Notifier fire control panels compatible with the driver include:

- Notifier ID3000 Series – master-slave network or stand-alone, with up to 8 loops
- Notifer ID50 Series – stand-alone panel with 1 loop
- Notifier ID2000 Series
- Notifier ID1000 Series
- Honeywell XLS80

Values

The driver can typically access the following values:

- Reset panel
- Sounders
- Panel state
- Loop state
- Loop sensor state
- Loop module state
- Zone state

States for fire, pre-alarm, fault, and isolation conditions are available.

Fire control panels can send alarms to the Notifier driver.

Prerequisites

The driver supports the RS232 full-duplex Notifier third-party protocol implemented on master-slave networks. Network-wide information is only available by connecting to the Network Master Panel.

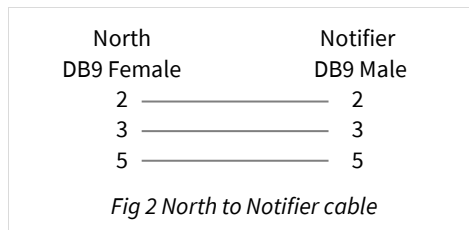Network Gateway Units (NGU) are not supported.

Notifier systems using the ID^{2}net peer-to-peer network are not currently supported. Please contact North if ID^{2}net is required, we may be able to update the driver.

Using the Driver

On ObSys and Commander, the Notifier driver is pre-installed. On all of these North devices, you can use the driver to create an interface to Notifier. Once started, you will need to set up the driver before it can communicate with the Notifier system.

Making the Cable

Using the RS232 cable specification, connect the North device COM port to the Notifier Network Master Panel's RS232 port. Connector types at each end of the cable are shown.

```
        North               Notifier
     DB9 Female             DB9 Male
         2 ───────────────────── 2
         3 ───────────────────── 3
         5 ───────────────────── 5
```
Fig 2 North to Notifier cable

The maximum RS232 cable length is 15m and should be as short as possible.

Cables are available from North, order code CABLE/NOTIFIER.

Starting the Interface

⌨ To start an interface using the Notifier driver, follow these steps:

→ **Start Engineering** your North device using ObSys

→ Navigate to **Configuration, Interfaces,** and set a unused **Interface** to 'Notifier' to start the particular interface

→ Navigate to the top-level of your North device, then rescan it

The driver setup object (M*c*), labelled **Notifier Setup**, should now be available. If this object is not available, check an interface licence is available and the driver is installed.

Setting up the Driver

⌨ To set up the driver, follow these steps:

→ Navigate to the **Notifier Setup** object (M*c*). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'

→ Set the **RS232 Com Port** (RS.COM) to select which serial port on the North device is connected to the Notifier device

→ Set **Baud Rate** (RS.BR) to match the connected Notifier panel, the default rate is 9600bps.

Checking Communications

You can check that the interface is communicating by reading the **Comms Online** object (DS). A value of 'Yes' indicates the driver has received a valid message from the Notifier panel.

Alarms

When the Notifier system reports an event to the driver, the driver sends a North-format alarm to the device's alarm processing.

Format

North-format alarms contain six text fields. The Notifier driver places the following information into these fields:

System – copied from System Label object (DL) within driver setup

Point – see Point Field section below

Condition – see Condition and Priority Field section below

Priority – see Condition and Priority Field section below

Date & Time – see Date & Time Field section below.

Examples

System	Point	Condition	Priority	Date	Time
Notifier System	Master Panel Loop 1 Device 3 Zone 1	Fire	1	01/03/20	14:29:48
Notifier System	Master Panel Loop 1 Device 3 Zone 1	Return from Fire	3	01/03/20	14:55:12
Notifier System	Master Panel Loop 2 Device 4 Zone 2	Test Start	4	11/03/20	11:26:26
Notifier System	Master Panel Loop 2 Device 4 Zone 2	Test End	4	11/03/20	11:32:02
Notifier System	Slave Panel 1 Loop 1 Sensor 1 Zone 3	Sounders Disabled	3	10/04/20	13:06:59
Notifier System	Slave Panel 1 Loop 1 Sensor 1 Zone 3	Sounders Enabled	3	10/04/20	14:17:35
Notifier System	Master Panel Loop 1 Device 3 Zone 2	Isolated	3	11/07/20	16:20:07
Notifier System	Master Panel Loop 1 Device 3 Zone 2	Deisolated	3	11/07/20	16:35:25

Point Field

The Point field starts 'Master Panel' or 'Slave Panel x'. What follows is selected by the **Alarm Point Field** object (AT) within driver setup.

If 'PLD reference' option is selected, Point field can be:

Loop a

Loop a Sensor b

Loop a Module c

Loop a Sensor b Zone z

Loop a Module c Zone z

Zone z

If 'Sensor label' option is selected, Point field contains:

device location from the panel

Date & Time Field

The Date field is provided by the North device.

The Time field is selected by the **Alarm Time Field** object (TS) within driver setup. If 'Panel' option is selected, the time is provided by the panel. If 'North device' option is selected, the time is provided by North device.

Condition and Priority Field

The following alarm conditions can be sent by the driver:

Condition	Priority
Fire	1
System Reset	1
Technical Alarm	1
Pre-Alarm	2
Alarms Re-Sounding	3
Alarms Silenced	3
Alarms Silenced	3
Alarms Sounding	3
Command Loopback Error	3
Control Outputs Disabled	3
Control Outputs Disabled	3
Control Outputs Enabled	3
Control Outputs Enabled	3
De-Isolated	3
De-Isolated	3
Duplicate Address	3
Duplicate Address	3
Earth Fault	3
Entire Loop Loss	3
Fault	3
Fault	3
Investigation Delay	3
Investigation Delay Extended	3
Investigation Delay Extended	3
Isolated	3
Isolated	3
Mains/PSU Failure	3
Missing	3
Module Load Short Circuit	3
Module Power Supply Fault	3
Part Loop Loss	3
PSU/Charger Fault	3
Remote Fire Output Activated	3
Remote Fire Output Deactivated	3
Remote Fire Output Disabled	3
Remote Fire Output Enabled	3
Remote Fire Output Fault	3
Restored after Missing	3
Return from Fault	3
Return from Fire	3
Sounders Disabled	3
Sounders Enabled	3
Transient Effects	3

Condition	Priority
Tx Fault	3
Type Mismatch Error	3
Aux Output 1 Fault	4
Aux Output 2 Fault	4
Battery Failure	4
Battery Low Voltage	4
Clock Set Incorrectly	4
Comms Fail	4
Fault Relay Disabled	4
Fault Relay Enabled	4
Fire (Isolated)	4
Fire (Test)	4
Fire Control Devices Disabled	4
Fire Control Devices Enabled	4
Fire Relay Disabled	4
Fire Relay Enabled	4
Internal Buzzer Muted	4
Internal Buzzer Muted	4
Internal Buzzer Muted	4
Network Disabled	4
Panel Cover Removed	4
Panel Cover Replaced	4
Power Restart	4
Pre-Alarm (Isolated/Test)	4
Printer Fault	4
Remote Fire Output Test	4
Remote Init Zone Test	4
Removed (Isolate/Test)	4
Reset	4
RS232 Link Fault	4
Simulated Test Failure	4
Sounder Test	4
Sounder/Relay Circuit Disabled	4
Sounder/Relay Circuit Enabled	4
Sounders in Delayed Mode	4
Sounders in Immediate Mode	4
Suspected Loop Break	4
Test End	4
Test Start	4
Transient Effects	4
Tx Fault (Isolated/Test)	4
Type Changed	4
Zone Reassigned	4

Notes

The priority field is typically used as follows:

1 – fire and evacuate events
2 – pre-alarm, security, isolation, and technical events
3 – fault events
4 – status events

Object Specifications

Once an interface is started, one or more extra objects become available within the top-level object of the device. As with all North objects, each of these extra objects may contain sub-objects, (and each of these may contain sub-objects, and so on) - the whole object structure being a multi-layer hierarchy. It is possible to navigate around the objects using the ObSys Engineering Software.

Each object is specified below, along with its sub-objects.

Example Object Reference

An example of a reference to an object in the same device: The Notifier (S1) contains Master Panel (P0), which contains a Condition (C). Therefore, the complete object reference is 'S1.P0.C'.

An example of a reference to an object in a different device: the IP network object (IP) contains Default Commander object (CDIP), which contains the object above (S1.P0.C) – therefore the complete object reference is 'IP.CDIP.S1.P0.C'

Device Top-Level Objects

When an interface is started using the Notifier driver, the objects below become available within the top-level object of the device. For example, if interface 1 is started, then the object references 'M1' and 'S1' become available.

Description	Reference	Type
Notifier Setup Set up the Notifier driver, started on interface c (c is the interface number)	Mc	Fixed Container: On the Commander platform this will be *[CDM v20\Notifier v11]* On the ObSys platform this will be *[OSM v20\Notifier v11]*
Notifier System Access Notifier system connected to interface c (c is the interface number)	Sc	Fixed Container: *[Notifier v11]*

Notifier Driver Setup

Object Type: *[OSM v20/Notifier v11]*
Object Type: *[CDM v20/Notifier v11]*

The Notifier driver contains the following objects:

Description	Reference	Type
RS232 COM Port	RS.COM	Obj\Num:1...8; Adjustable
Baud Rate	RS.BR	Obj\Num: 2400 to 38400; Adjustable
System Label Label displayed when scanning the system and within alarms	DL	Obj\Text: 20 chars; Adjustable
Panel Type Series of Notifier panel connected	PT	Obj\ENum: Adjustable Values: 0=Auto, 1=ID1000/2000, 2=ID3000
Comms Online Indicates whether communication is established with the panel	DS	Obj\NoYes
Alarm Time Field Selects source of alarm message time field. The date field is always provided by the North device	TS	Obj\ENum; Adjustable Values: 0=North device, 1=Panel
Alarm Point Field Selects source of the alarm message point field	AT	Obj\ENum; Adjustable Values: 0=PLD reference, 1=Sensor/Module label
Request Alarms at start-up Enabling this option causes the module to request all current alarms from the panel at start-up or when the driver is restarted. This also re-synchronises the Notifier driver so it is aware of current sensor/module states.	RA	Obj\NoYes; Adjustable Default: Yes
Restart driver Clears the internal database and re-establishes communication with the Notifier system	RD	Obj\NoYes; Adjustable

Notifier System

Object Type: *[Notifier v11]*

The Notifier system is a stand-alone or network of fire detection panels.

Description	Reference	Type
Master Panel	P0	Fixed Container: *[Notifier v11\Panel]*
Slave Panel *x* The slave panel number, *x*, is in the range 1…7	P*x*	Fixed Container: *[Notifier v11\Panel]*

Panel

Object Type: *[Notifier v11\Panel]*

A Panel is a Notifier ID Series fire detection panel, supporting up to eight loops of devices.

Objects are available to monitor the status of the panel and attached devices.

Description	Reference	Type
Condition Alarm state of the panel and its attached devices.	C	Obj\ENum: Values: 0=OK, 1=Isolation, 2=Fault, 3=Pre-Alarm, 4=Fire.
Panel OK	C0	Obj\NoYes
Isolations	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Actions Perform an action on the panel, such as reset, silence sounders, re-sound sounders, mute buzzer, and evacuate	A	Fixed Container: *[Notifier v11\Actions]*
Panel Status Overview of the panel's current condition	PS	Fixed Container: *[Notifier v11l\Panel\Status]*
Loop *x* The Loop number, *x*, is dependent on the panel, but can be in the range 1…8.	L*x*	Fixed Container: *[Notifier v11\Loop]*
Zone The Zone number, *y*, is dependent on the panel, but can be in the range 1…255.	Z*y*	Fixed Container: *[Notifier v11\Zone]*

Actions

Object Type: *[Notifier v11\Actions]*

Use Actions to perform an action on a Notifier fire detection panel. Actions include reset, silence sounders, re-sound sounders, mute buzzer, and evacuate.

Description	Reference	Type
Reset Panel	R	Obj\NoYes; Adjustable-only
Evacuate	E	Obj\NoYes; Adjustable
Sounders – Silence/Re-sound	S	Obj\OffOn; Adjustable-only
Mute Buzzer	M	Obj\NoYes; Adjustable-only

Panel Status

Object Type: *[Notifier v11\Panel\Status]*

The Panel Status contains the following objects:

Description	Reference	Type
Fire	B0	Obj\NoYes
Pre-Alarm	B1	Obj\NoYes
Fault	B2	Obj\NoYes
Device(s) Isolated	B3	Obj\NoYes
Evacuate	B4	Obj\NoYes
Test in Progress	B5	Obj\NoYes
Engineer	B6	Obj\NoYes
ID3000 Network Communications	B7	Obj\NoYes
Engineer-Mute	B8	Obj\NoYes
Sounders Delayed Mode	B9	Obj\NoYes
Sounders Disabled	B10	Obj\NoYes
System in Day Mode	B12	Obj\NoYes

Loop

Object Type: *[Notifier v11\Loop]*

A Loop contains the following objects:

Description	Reference	Type
Condition	C	Obj\ENum Values: 0=OK 1=Isolation, 2=Fault, 3=Pre-Alarm, 4=Fire
Loop OK	C0	Obj\NoYes
Isolations	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Sensor *x* The sensor number, x, is in the range 1…99.	S*x*	Fixed Container: *[Notifier v11\Sensor]*
Module *y* The module number, y, is in the range 1…99	M*y*	Fixed Container: *[Notifier v11\Module]*

Sensor

Object Type: *[Notifier v11\Sensor]*

A Sensor is an optical/heat type device.

Description	Reference	Type
Condition	C	Obj\ENum Values: 0=OK, 1=Isolation, 2=Fault, 3=Pre-Alarm, 4=Fire.
Device OK	C0	Obj\NoYes
Isolated	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Isolate Device	I	Obj\NoYes; Adjustable

Module

Object Type: *[Notifier v11\Module]*

A Module is a manual call point (MCP) type device.

Description	Reference	Type
Condition	C	Obj\ENum Values: 0=OK, 1=Isolation, 2=Fault, 3=Pre-Alarm, 4=Fire.
Device OK	C0	Obj\NoYes
Isolated	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Isolate Device	I	Obj\NoYes; Adjustable

Zone

Object Type: *[Notifier v11\Zone]*

A Zone contains the following objects:

Description	Reference	Type
Condition	C	Obj\ENum Value: 0=OK, 1=Isolation, 2=Fault, 3=Pre-Alarm, 4=Fire.
Zone OK	C0	Obj\NoYes
Isolations	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Isolate Zone	I	Obj\NoYes; Adjustable

Object Type: *[Notifier v11\Zone]*

Driver Versions

Version	Build Date	Details
1.0	28/02/2003	Driver released
1.0	30/01/2006	Optimisations
1.0	20/06/2008	Support for different event message layout
1.1	16/12/2008	Add module objects PT, AT, RA, RD Add C objects Add isolate Add new commands for reset, etc Add panel status object Add support for panel/system events (e.g. zone events)
1.1	07/06/2022	Fix: corruption of device label when isolating modules or sensors
1.1	30/06/2022	Mod: Action objects (adjustable-only) changed to read '' instead of '0'. Resolving an issue when adjusting via Essential Data.

Next Steps…

If you require help, contact support on 01273 694422 or visit *www.northbt.com/support*

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