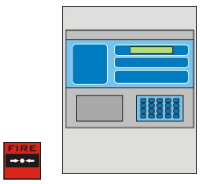
The ZitonZP3 Driver



The ZitonZP3 driver allows North to interface with a Ziton ZP3 fire detection system supporting the ZCP2-3 protocol. Available for Commander and ObSys.

This document relates to ZitonZP3 driver version 2.0

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

Contents

Compatibility with the Ziton System

The ZitonZP3 driver allows North to interface with a Ziton ZP3 fire detection system supporting the ZCP2-3 communications protocol.

The driver connects, via RS232, to a Ziton fire panel fitted with an optional serial communications card (Fig. 1), and can communicate with a network of panels connected to the Ziton Z-Net.

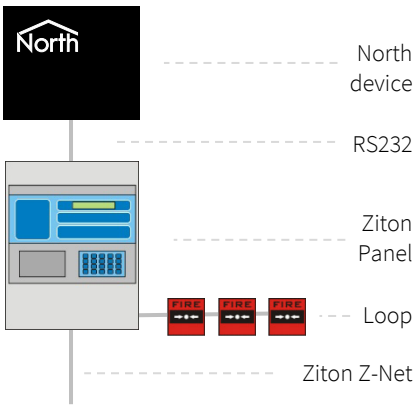


Fig. 1 North to Ziton panel

Equipment

Ziton fire control panels compatible with the driver include:

- Ziton ZP3 series

Values

The driver can typically access the following values:

- Reset panel
- Sounders
- System state
- Panel state
- Loop state
- Loop device state
- Zone state

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

Fire control panels can send alarms to the ZitonZP3 driver.

Prerequisites

To physically connect to the Ziton ZP3 panel, a ZP3AB-RS232 communications card must be fitted in Z-Port 1a. Note that Z-Port 1a cannot be used at the same time as the programming port (Z-Port 1), located on the inside door.

After installing the communications card, set the protocol on the panel by navigating to the menu: Setup > System Configuration > Peripheral Comms > Comms Parameters

Select Z-Port '1' and set: Protocol - '18' (ZCP2-3.2), Parity - 'Even', Data bits - '8', stop bits - '1', and Baud rate to match the driver (default 9600).

The driver will require a security code and access level configuring within the panel's Level 4 Operations menu.

The Ziton ZP2 panel is not compatible with this driver. Use BACnetIP or ModbusTCP drivers instead.

Driver Operation

Events from the panel

The driver connects to a Ziton ZP3 compatible fire alarm control panel, and listens for change-of-state events. These events are processed by the driver to maintain a database of active alarm states in the fire alarm system.

On starting the interface, the driver is currently unable to request the current state of the system. It will therefore be unaware of any active fire, fault, or disablement conditions.

The driver monitors communication to the panel. If communications are lost, then the fault is reported. Once regained, the driver re-synchronises its database with the panel and operation resumes.

Alarms

When an event is received from the Ziton panel, the driver sends this as a North-format alarm to the device's alarm processing.

Reading from the Ziton System

On reading an object from the Ziton System, the driver typically responds with the state from its database.

Commands to the Ziton System

Commands can be sent to a Ziton system. These can be to silence or reset active events on the system, or disable a zone or loop device.

The driver provides a required access level to the panel during initialisation, this level must be sufficient enough to perform the command.

Using the Driver

On ObSys and Commander, the ZitonZP3 driver is pre-installed. On all of these North devices, you can use the driver to create an interface to Ziton. Once started, you will need to set up the driver before it can communicate with the Ziton system.

Making the Cable

Using the RS232 null-modem cable specification (Fig. 2), connect the North device COM port to the Ziton ZP3 communications card. Connector types at each end of the cable are shown:

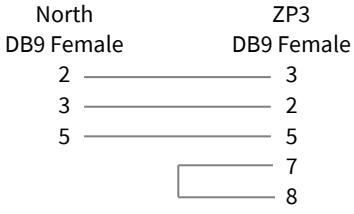


Fig 2 North to Ziton ZP3 cable

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

Cables are available from North, order code CABLE/ZITONZP3.

Starting the Interface

To start an interface using the ZitonZP3 driver, follow these steps:

- → **Start Engineering** your North device using ObSys
- → Navigate to **Configuration, Interfaces,** and set an unused **Interface** to 'ZitonZP3' to start the particular interface
- → Navigate to the top-level of your North device and re-scan it

The driver setup object (Mc), labelled **Ziton 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 **Ziton Setup** object (Mc). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'
- → Set **RS232 Com Port** (RS.COM) to select the serial port number on the North device the panel is connected to
- → Set the **Baud Rate** (RS.BR) to match the connected Ziton panel, the default is 9600
- → Set **Panel Address** (P.ADDR) with the attached panel number
- → Set **Panel Access Code** (P.PIN) and **Panel Access Level** (P.AL) with the security code configured within the panel

Checking Communications

Ziton Setup contains a **Comms Online** (DS) object. A value of 'yes' indicates the driver is receiving data from the Ziton system. The **Panel Authenticated** (P.AS) object indicates that the driver has successfully initiated a session with the panel using the access code provided. The **Insufficient Access Fails** (P.AS) object may indicate an insufficient access level – particularly if a disablement, panel reset, or sounders command does not work.

Alarms

When the Ziton 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 ZitonZP3 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 – from fire panel

Examples

System	Point	Condition	Priority	Date	Time
Ziton System	Panel 1	Fault	3	19/07/24	15:35:12
Ziton System	Panel 1 Loop 1 Dev 3 Zone 6	Fire	1	19/07/24	18:52:06
Ziton System	Panel 1	Buzzer Silenced	3	19/07/24	18:52:06
Ziton System	Panel 1	Alarms Silenced	3	19/07/24	18:55:06
Ziton System	Panel 1	Reset	1	19/07/24	18:55:26
Ziton System	Panel 1	Fault Cleared	3	19/07/24	18:55:26
Ziton System	Panel 2 Loop 2 Dev 16 Zone 1 MCP	Disabled	2	20/07/24	08:29:48
Ziton System	Panel 2 Loop 2 Dev 16 Zone 1 MCP	Enabled	2	20/07/24	10:41:37

Point Field

Selected by the Alarm Point Field object (AT) within driver setup.

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

System

Panel *a*

Panel *a* Loop *b*

Panel *a* Loop *b* Dev *c*

Panel *a* Loop *b* Dev *c* Zone *d*

In addition, if the detector is a manual call point, then 'MCP' will be appended to the point field.

If 'Detector label' option is selected, and the point has a label configured, then Point field contains:

Panel *a Custom text from panel*

Condition and Priority Field

The following alarm conditions can be sent by the driver:

Condition	Priority
Evacuate	1
Fire	1
Reset	1
Disabled	2
Enabled	2
Pre-Alarm	2
Alarms Silenced	3
Battery Fault	3
Battery Voltage Low	3
Buzzer Silenced	3
Charger Fault	3
Device Missing	3
Earth Fault	3
Fault	3
Fault Cleared	3
Maintenance Fault	3
Open Circuit	3

Condition	Priority
PSU Fault	3
PSU Fault Cleared	3
Short Circuit	3
Sounder Fault	3
Supply Fault	3
System Fault	3
System Fault: Memory	3
Wrong Device Type	3
Duplicate Address	4
Service Completed	4
Service Required	4
Sounder Disabled	4
Alarm/Trigger	4
Control switch activated	4
Security switch activated	4
Control switch de-activated	4

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 Ziton System (S1) contains Panel 1 (P1), which contains Zone 3 (Z3), which contains an alarm state (C). Therefore, the complete object reference will be 'S1.P1.Z3.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.P1.Z3.C) – therefore the complete object reference is 'IP.CDIP.S1.P1.Z3.C'.

Device Top-Level Objects

When an interface is started using the ZitonZP3 driver, the objects below become available within the top-level object of the device. For example, if Interface 1 is started, then the objects with references 'M1' and 'S1' become available.

Description	Reference	Type
Ziton Setup Set up the ZitonZP3 driver, started on interface *c* (*c* is the interface number)	M*c*	Fixed Container: On the Commander platform this will be *[CDM v20\ZitonZP3 v20]* On the ObSys platforms this will be *[OSM v20\ZitonZP3 v20]*
Ziton System Access Ziton system connected to interface *c* (*c* is the interface number)	S*c*	Variable Container: *[ZitonZP3 v20]*

Ziton Driver Setup

Object Type: *[OSM v20\ZitonZP3 v20]*
Object Type: *[CDM v20\ZitonZP3 v20]*

The ZitonZP3 driver contains the following objects:

Description	Reference	Type
RS232 COM Port	RS.COM	Obj\Num: 1…8; Adjustable
Baud Rate	RS.BR	Obj\Num; Adjustable Values: 4800, 9600, 19200, 38400
System Label Label displayed when scanning the system and within alarms	DL	Obj\Text: 20 Chars; Adjustable
Comms Online Indicates whether communications has been established with the panel	DS	Obj\NoYes
Panel Address Address of the connected panel, formatted as '*domain.site.host.panel*' e.g. '0.0.0.1'	P.ADDR	Obj\IP; Adjustable
Panel Access Code 4-digit security code to establish a session with the panel	P.PIN	Obj\Text: 4 chars; Adjustable
Panel Access Level Security access level required. This cannot be higher than the access level configured for the above access code	P.AL	Obj\Num: 1…4; Adjustable
Panel Authenticated Indicates whether the above access code and level have been accepted by the panel	P.AS	Obj\NoYes
Insufficient Access Fails Count of commands sent to the panel that have failed due to an insufficient access level	P.IAC	Obj\Num
Alarm Point Field Selects source of the alarm message point field	AT	Obj\ENum; Adjustable Values: 0 = PLD reference, 1=Detector label
Event storage available Each event from the system must be remembered by the driver. **If no storage is available for a new event, the driver will not be able to remember it.**	SC	Obj\Num: 0…1500
Reset driver Clears the internal database and re-establishes communication with the Ziton system	RST	Obj\NoYes; Adjustable
Filter events	FE	Fixed Container: On the Commander platform this will be *[CDM v20\ZitonZP3 v20\Filter]* On the ObSys platforms this will be *[OSM v20\ZitonZP3 v20\Filter]*

Ziton Driver Filter Events

Object Type: *[OSM v20\ZitonZP3 v20\Filter]*
Object Type: *[CDM v20\ZitonZP3 v20\Filter]*

Each event from the Ziton system must be remembered by the driver. On a large Ziton fire detection system with a significant number of active events at any one time, use this object to select which event types are ignored by the driver – disablement, fault, pre-alarm events, etc.

If more event storage is required, use multiple interface connections to the system, with each ZitonZP3 driver configured to store events for a particular range of panels.

Description	Reference	Type
Ignore Disablement events Enable to ignore disablement events from the system	I.C1	Obj\NoYes; Adjustable
Ignore Fault events Enable to ignore fault events from the system	I.C2	Obj\NoYes; Adjustable
Ignore Pre-Alarm events Enable to ignore pre-alarm events from the system	I.C3	Obj\NoYes; Adjustable
Ignore Fire events Enable to ignore fire events from the system	I.C4	Obj\NoYes; Adjustable
Ignore Damper events Enable to ignore damper/switch events from the system. This provides more event storage for other event conditions	I.C5	Obj\NoYes; Adjustable
Store events from panel (start) Lowest address of network interface panel to store events from	PS	Obj\Num: 0…255; Adjustable
Store events from panel (end) Highest address of network interface panel to store events from	PE	Obj\Num: 0…255; Adjustable

Ziton System

Object Type: *[ZitonZP3 v20]*

The Ziton system is a network of Ziton ZP3 fire detection panels. It contains objects to view the status of the whole system (P) and objects to access information from each connected panel (P*x*).

Description	Reference	Type
System Summary	P	Fixed container: *[ZitonZP3 v20\System]*
Panel *x* The panel number, *x*, is a number in the range 1..255	P*x*	Fixed container: *[ZitonZP3 v20\Panel]*

System Summary

Object Type: *[ZitonZP3 v20\System]*

The System Summary object contains the network-wide status for the Ziton system.

Description	Reference	Type
Commands Contains objects for resetting latched events, silencing sounders and muting buzzer for all panels on network	A	Fixed container: *[ZitonZP3 v20\Actions]*
System Alarm State	C	Obj\ENum: 0…4; Where: 0=OK, 1=Disablement, 2=Fault, 3=Pre-Alarm, 4=Fire
System OK	C0	Obj\NoYes
Disablement	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes

Actions

Object Type: *[ZitonZP3 v20\Actions]*

Use Actions to perform an action on a Ziton fire alarm control panel. Actions include reset, silence sounders, mute buzzer, and evacuate.

Description	Reference	Type
Reset	R	Obj\NoYes; Adjustable-only
Sounders Silence sounder outputs, trigger an evacuate	S	Obj\OffOn; Adjustable-only
Buzzer Mute buzzer	B	Obj\OffOn; Adjustable-only

Panel

Object Type: *[ZitonZP3 v20\Panel]*

A Ziton panel contains the following objects:

Description	Reference	Type
Commands Contains objects for resetting latched events, silencing sounders and muting buzzer for the panel	A	Fixed container: *[ZitonZP3 v20\Actions]*
Panel Alarm State	C	Obj\Enum: 0…4; Where: 0=OK, 1=Disablement, 2=Fault, 3=Pre-Alarm, 4=Fire
Panel OK	C0	Obj\NoYes
Disablement	C1	Obj\NoYes
Faults	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Loop *x* The Loop number, *x*, is in the range 1..4	L*x*	Fixed container: *[ZitonZP3 v20\Loop]*
Zone *y* The panel-local Zone number, *y*, is in the range 1..128	Z*y*	Fixed container: *[ZitonZP3 v20\Zone]*

Loop

Object Type: *[ZitonZP3 v20\Loop]*

A Ziton loop contains the following objects:

Description	Reference	Type
Loop Alarm State	C	Obj\Enum: 0…4; Where: 0=OK, 1=Disablement, 2=Fault, 3=Pre-Alarm, 4=Fire
Loop OK	C0	Obj\NoYes
Device Disablement	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire	C4	Obj\NoYes
Device *x* The device number, *x*, is in the range 1..127	D*x*	Fixed container: *[ZitonZP3 v20\Device]*

Device

Object Type: *[ZitonZP3 v20\Device]*

A Ziton device contains the following objects:

Description	Reference	Type
Device Alarm State	C	Obj\Enum: 0…4; Adjustable Where: 0=Ok, 1=Disablement, 2=Fault, 3=Pre-Alarm, 4=Fire Adjust: 0=Enable, 1=Disable
Device OK	C0	Obj\NoYes
Device Disabled	C1	Obj\NoYes; Adjustable
Device in Fault	C2	Obj\NoYes
Device in Pre-Alarm	C3	Obj\NoYes
Device in Fire	C4	Obj\NoYes
Damper Active	C5	Obj\NoYes

Zone

Object Type: *[ZitonZP3 v20\Zone]*

A Ziton zone contains the following objects:

Description	Reference	Type
Zone Alarm State	C	Obj\Enum: 0…4; Adjustable Where: 0=Ok, 1=Disablement, 2=Fault, 3=Pre-Alarm, 4=Fire Adjust: 0=Enable, 1=Disable
Zone OK	C0	Obj\NoYes
Zone Device Disablement Indicates whether the zone is fully disabled, or any devices in the zone are disabled (partial). Adjust to disable or enable the full zone.	C1	Obj\NoYes; Adjustable
Zone Device Fault	C2	Obj\NoYes
Zone Device Pre-Alarm	C3	Obj\NoYes
Zone Device Fire	C4	Obj\NoYes

Driver Versions

Version	Build Date	Details
2.0	15/12/2025	Re-developed the ZITONZP driver to use ZCP2-3 (rev 2) protocol, which includes session based authentication with the panel and the ability to request the current status. Adjusted timing for compatibility with CPU v4.01. Increased storage of events. Added filter events. Alarm condition text changed.

Next Steps…

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

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