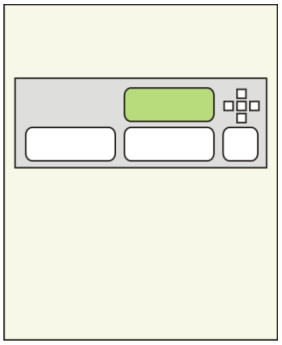

The Advanced Driver

The Advanced driver connects to the Advanced Electronics MxPro range of fire detection panels. Available for Commander and ObSys.

This document relates to Advanced driver version 1.5 and Advanced4000 driver version 1.4

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

Contents

Compatibility with the Advanced System

The Advanced driver allows North to interface with an Advanced Electronics MxPro fire detection system.

The driver connects to an Advanced MXP-510 or MXP-010 network interface (Fig. 1), and can communicate with up to 200 MxPro panels.

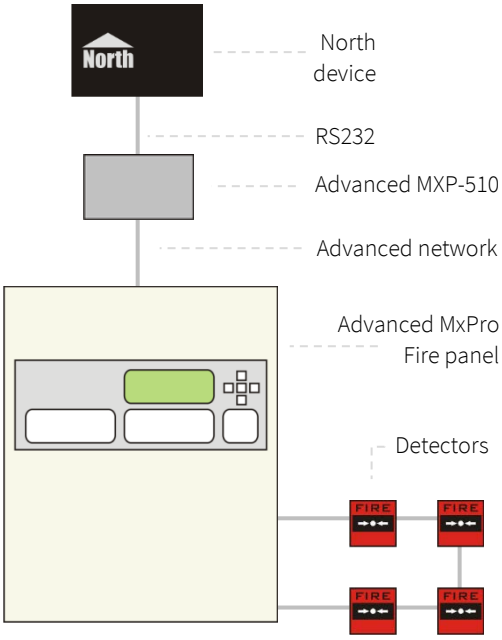

Fig. 1 North to Advanced panel

Equipment

Advanced Electronics fire control panels compatible with the driver include:

- MxPro 5 series
- MxPro 4 series
- MX5000 series
- MX4000 series

Apollo, Hochiki, Argus Vega and Nittan Evolution devices are supported.

Values

The driver can typically access the following values:

- Reset panel
- Sounders
- External alarm
- System state
- Panel state
- Loop state
- Loop device state
- Sub-address state
- Zone state
- Damper state

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

Fire control panels can send alarms to the Advanced driver.

Prerequisites

An Advanced network interface panel is required. For MxPro 4 networks use an MXP-010, for MxPro 5 networks use an MXP-510.

Each Advanced panel, including the network interface, must be configured with its own address and the address of the next panel on the network. This can be configured from the panel or using the Advanced configuration software.

With version 1.5, this driver was renamed to ‘Advanced’ from ‘Advanced4000’.

Driver Operation

Events from the panel

The driver connects to an Advanced Electronics network interface, and listens for change-of-state events. These events are processed by the driver to maintain a database of active alarm states in the Advanced system.

On starting the interface, the driver synchronises its database with the Advanced system by requesting the current active alarms and labels for each device. You can also force a re-synchronisation at any time by using the Resync Interface object (RST).

The driver monitors communication to the network interface. 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 an Advanced panel, the driver sends this as a North-format alarm to the device's alarm processing.

Reading from the Advanced System

On reading an object from the Advanced System, the driver responds with the state from its database. No request is sent to the panel.

Commands to the Advanced System

Commands can be sent to the Advanced System. These can be to: silence or reset active events on the system; isolate a zone, loop device, or sub-device; or control the state of an output device.

Using the Driver

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

Making the Cable

Using the RS232 cable specification (Fig. 2), connect the North device COM port to the Advanced network interface port. Connector types at each end of the cable are shown.

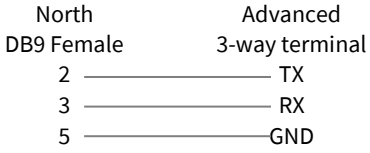

Fig 2 North to Advanced cable

The maximum RS232 cable length is 15m.

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

Starting the Interface

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

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

The driver setup object (Mc), labelled **Advanced 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 **Advanced 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 Advanced panel is connected to.
- Set the **Baud Rate** (RS.BR) to match that of the Advanced network interface. This is 38400 (default), or 19200 baud.
- Set the **Connected panel address** (ADDR) to match the address of the Advanced network interface.

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 connected to, and is communicating with the Advanced system.

If a 'network node missing' fault is present, then the driver will be unable to scan for available panels on the network. Check that each panel, including the network interface panel, has been configured with the address of the next network node in the loop.

Alarms

When the Advanced 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 Advanced 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 North device

Examples

System	Point	Condition	Priority	Date	Time
Advanced System	Panel 1 Loop 1 Dev 3.0 Zone 2 MCP	Fire	1	01/03/13	14:29:48
Advanced System	Panel 1 Loop 1 Dev 3.0 Zone 2 MCP	Fire Cleared	1	01/03/13	14:35:12
Advanced System	Panel 1 Loop 2 Dev 16.0 Zone 1	Isolated	2	11/03/13	14:26:26
Advanced System	Panel 1 Loop 2 Dev 16.0 Zone 1	De-Isolated	2	11/03/13	14:32:02
Advanced System	Panel 2 Loop 3 Dev 1.1 Zone 16	Pre-Alarm	1	10/04/13	13:06:59
Advanced System	Panel 2 Loop 3 Dev 1.1 Zone 16	Pre-Alarm Cleared	1	10/04/13	14:17:35
Advanced System	Panel 2 Loop 1 Dev 10.0 Zone 3	Device Missing	3	10/04/13	14:21:00
Advanced System	Panel 2 Loop 1 Dev 10.0 Zone 3	Fault Cleared	3	10/04/13	14:30:43
Advanced System	Panel 2 Dev 12.3 Zone 20	Fault	3	12/04/13	09:17:04
Advanced System	Panel 1	Supply Fault	3	16/04/13	07:16:19
Advanced System	Panel 1	Fault Cleared	3	18/04/13	10:23:42

Point Field

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

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

Panel *a*

Panel *a* Dev *c.c* Zone *d*

Panel *a* Loop *b*

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

Panel *a* Loop *b* Dev *c.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, Point Field contains:

Panel *a* + *device location* from the panel

In addition, 'Communications' alarms generated by the driver all contain the Point field:

System

Condition and Priority Field

The following alarm conditions can be sent by the driver:

Condition	Priority
Evacuate	1
Fire	1
Fire Cleared	1
Reset	1
Alarm 1	2
Alarm 2	2
Alarm 3	2
Isolated	2
De-Isolated	2
Group Isolated	2
Group De-Isolated	2
Outputs Isolated	2
Outputs De-Isolated	2
Pre-Alarm	2
Pre-Alarm Cleared	2
Record	2
Security Alert	2
Supervisory	2
Buzzer Silenced	3
Alarms Silenced	3
Alarms Re-sounding	3
Fault	3
Fault Cleared	3
Battery Fault	3
Battery Low: Backup	3
Battery Low: Main	3
Cleared	3
Communications Lost	3
Communications Regained	3
Control	3
Corrupt Data	3
Device Added	3
Device Dirty	3
Device Missing	3
Device Replaced	3
Device Tamper	3
Duplicate Address	3

Condition	Priority
Duplicate Zone	3
Earth Fault	3
Fail to Close	3
Fail to Open	3
High Resistance Fault	3
Input Fault	3
Loop Closed Circuit	3
Loop Open Circuit	3
Mode Failed	3
Network Fault	3
Network Lost	3
Network Node Missing	3
Not Commissioned	3
Overload	3
Service Required	3
Signal Strength Fault	3
Sounder Fault	3
Sounder Missing	3
Supply Fault	3
System Fault	3
System Fault: Clock	3
System Fault: Display	3
System Fault: Memory	3
System Fault: Software	3
Too High	3
Too Low	3
Unable to Calibrate	3
Wrong Device Type	3
CPU Reset	4
Delay Mode Off	4
Delay Mode On	4
Device Slightly Dirty	4
FSD Door Open	4
Isolator Open	4
Keylock Operated	4
Out of Paper	4
Test	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 Advanced System (S1) contains Panel 1 (P1), which contains Loop 2 (L2), which has Device 22 (D22), which contains an alarm state (C). Therefore, the complete object reference will be 'S1.P1.L2.D22.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.L2.D22.C) – therefore the complete object reference is 'IP.CDIP.S1.P1.L2.D22.C'.

Device Top-Level Objects

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

Description	Reference	Type
Advanced Setup Set up the Advanced driver, started on interface *c* (*c* is the interface number)	M*c*	Fixed Container: On the Commander platform this will be *[CDM v20\Advanced v15]* On the ObSys platforms this will be *[OSM v20\Advanced v15]*
Advanced System Access Advanced system connected to interface *c* (*c* is the interface number)	S*c*	Variable Container: *[Advanced v15]*

Advanced Driver Setup

Object Type: *[OSM v20\Advanced v15]*
Object Type: *[CDM v20\Advanced v15]*
Object Type: *[OSM v20\Advanced4000 v14]*
Object Type: *[CDM v20\Advanced4000 v14]*

The Advanced 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: 19200, 38400
System Label Label displayed when scanning the system and within alarms	DL	Obj\Text: 20 Chars; Adjustable
Connected Panel Address Address of the connected network interface panel	ADDR	Obj\Num: 1…200; Adjustable
Comms Online Indicates whether communication is established with the panel	DS	Obj\NoYes
Alarm Point field Selects source of the alarm message point field	AT	Obj\Enum: 0…1; Adjustable Values: 0=PLD reference, 1=Detector label
Legacy Alarm Text Set 'Yes' to use alarm text from driver v1.3	LAC	Obj\NoYes; Adjustable
Load labels from panel Driver requests and stores device/sub-device labels configured in system. This setting does not affect the Alarm Point field content.	LL	Obj\NoYes; Adjustable
Label storage available Device labels from the system are stored by the driver. Limited storage is available.	LC	Obj\Num: 0…4032
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 Advanced system	RST	Obj\NoYes; Adjustable
Filter Events Stop the driver listening for particular event types or panels. This provides more event storage for other event types.	FE	Fixed Container: On the Commander platform this will be *[CDM v20\Advanced v15\Filter]* On the ObSys platforms this will be *[OSM v20\Advanced v15\Filter]*

Advanced Driver Filter Events

Object Type: *[OSM v20\Advanced v15\Filter]*
Object Type: *[CDM v20\Advanced v15\Filter]*
Object Type: *[OSM v20\Advanced4000 v14\Filter]*
Object Type: *[CDM v20\Advanced4000 v14\Filter]*

Each event from the Advanced system must be remembered by the driver. On a large Advanced fire 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 – isolation, fault, damper events, etc.

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

Description	Reference	Type
Ignore Isolation events Enable to ignore isolation 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. This provides more event storage for other event conditions	I.C4	Obj\NoYes; Adjustable
Ignore Damper events Enable to ignore damper events from the system	I.C5	Obj\NoYes; Adjustable
Store events from panel (start) Lowest address of network interface panel to store events from	PS	Obj\Num: 0…200; Adjustable
Store events from panel (end) Highest address of network interface panel to store events from	PE	Obj\Num: 0…200; Adjustable

Advanced System

Object Type: *[Advanced v15]*
Object Type: *[Advanced4000 v14]*

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

Description	Reference	Type
Zone & System Summary	P	Fixed container: *[Advanced v15\System]*
Panel *x* Panel number, *x,* can be in the range 1…200	P*x*	Fixed container: *[Advanced v15\Panel]* Note: an eight loop panel is presented as two panels with four loops

Zone and Summary Information

Object Type: *[Advanced v15\System]*

The Zone and System Summary object contains zone, group, and network-wide status for the Advanced system. Objects are also available to perform network-wide commands – reset, silence, etc. – and activate external fire or alarm conditions.

Description	Reference	Type
Commands Contains objects for resetting latched events, silencing sounders and muting buzzer for all panels on network	A	Fixed container: *[Advanced v15\Actions]*
System Alarm State	C	Obj\ENum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire
System OK	C0	Obj\NoYes
Isolation	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Confirmed Alarm Indicates if two or more fire alarms are active within the system (double knock). Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	DK	Obj\NoYes
Isolation Count	N1	Obj\Num
Fault Count	N2	Obj\Num
Pre-Alarm Count	N3	Obj\Num
Fire Count Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	N4	Obj\Num
External Fire Triggers a fire condition on the panel	XF	Obj\OffOn; Adjustable only
External Alarm Triggers an alarm condition on the panel	XA	Obj\OffOn; Adjustable only
Zone *x* The zone number, x, is in the range: 1…1000 for MxPro 4 panels 1…2000 for MxPro 5 panels.	Z*x*	Fixed container: *[Advanced v15\Zone]*
Isolate Group *y* The output group number, *y*, is in the range 1…200	G*y*.I	Obj\NoYes; Adjustable only

Advanced Panel

Object Type: *[Advanced v15\Panel]*

An Advanced panel contains the following objects:

Description	Reference	Type
Commands Contains objects for resetting latched events, silencing sounders and muting panel buzzer	A	Fixed container: *[Advanced v15\Actions]*
Panel Alarm State	C	Obj\Enum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire
Panel OK	C0	Obj\NoYes
Isolation	C1	Obj\NoYes
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Isolation Count	N1	Obj\Num
Fault Count	N2	Obj\Num
Pre-Alarm Count	N3	Obj\Num
Fire Count Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	N4	Obj\Num
Loop *x* The loop number, *x*, is typically in the range 0…4. If a loop offset is configured in the panel then *x* is in the range offset…(offset+4). Loop 0 is used for panel I/O. An 8-loop panel consists of two 4-loop panels, with the second panels loop number in the range 5…8.	L*x*	Fixed container: *[Advanced v15\Loop]*

Zone

Object Type: *[Advanced v15\Zone]*

An Advanced zone contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 32 chars
Zone Alarm State	C	Obj\Enum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire Adjustable: 0=De-Isolate, 1=Isolate
Zone OK	C0	Obj\NoYes
Zone Device Isolation Indicates whether devices in this zone are isolated. Can be written to in order to isolate or de-isolate a zone	C1	Obj\NoYes; Adjustable
Zone Device Fault	C2	Obj\NoYes
Zone Device Pre-Alarm	C3	Obj\NoYes
Zone Device Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Zone Confirmed Alarm Indicates if two or more fire alarms are active within the zone (double knock). Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	DK	Obj\NoYes
Zone Device Isolation Count	N1	Obj\Num
Zone Device Fault Count	N2	Obj\Num
Zone Device Pre-Alarm Count	N3	Obj\Num
Zone Device Fire Count Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	N4	Obj\Num

Commands

Object Type: *[Advanced v15\Actions]*
Object Type: *[Advanced4000 v14\Actions]*

The Advanced panel commands object contains the following objects:

Description	Reference	Type
Reset Panel Performs a reset on the panel	R	Obj\NoYes; Adjustable only
Sounders Silences or re-sounds sounders	S	Obj\OffOn; Adjustable only
Buzzer Silence the panel buzzer	B	Obj\OffOn; Adjustable only

Loop

Object Type: *[Advanced v15\Loop]*
Object Type: *[Advanced4000 v14\Loop]*

An Advanced panel loop contains the following objects:

Description	Reference	Type
Loop Alarm State	C	Obj\Enum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire
Loop OK	C0	Obj\NoYes
Isolations	C1	Obj\NoYes
Faults	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Device *x* or *device label* The device address, *x*, range depends on the device manufacturer: Hochiki – 1…127 Apollo – 1…126 Argus Vega – 1…240 Nittan – 1…254	D*x*	Fixed container: *[Advanced v15\Device]*

Device

Object Type: *[Advanced v15\Device]*
Object Type: *[Advanced4000 v14\Device]*

An Advanced loop device contains the following objects. Refer to documentation on the specific device for information on sub address usage.

Description	Reference	Type
Label Only available if Load Labels from panel is set within driver setup	L	Obj\Text: 26 chars
Device Alarm State	C	Obj\ENum: 0…4; Adjustable Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire Adjustable: 0=Deisolate, 1=Isolate
Device OK	C0	Obj\NoYes
Device Isolated Indicates whether this device is isolated. Can be written to in order to isolate or de-isolate the device.	C1	Obj\NoYes; Adjustable
Device in Fault	C2	Obj\NoYes
Device in Pre-Alarm	C3	Obj\NoYes
Device in Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Damper active See note below	C5	Obj\NoYes
Output Control state of an output device	O	Obj\OffOn; Adjustable only
Sub address *x* or ***Label*** The sub address number, x, is in the range 0…16	S*x*	Fixed Container: *[Advanced v15\SubDev]*

Damper Interface Devices

Damper interface devices (MXP-046) contain three sub-addresses:

Damper open (sub address 0) – use object S0.C5

Damper closed (sub address 1) – use object S1.C5

Damper fault (sub address 2) – use object C2

Alarms can be sent by a damper interface, North-format alarms are sent with the following Condition field:

Alarm Condition Field	Notes
Control	Sub address indicates damper open/closed event
Fail to Open	
Fail to Close	
Supply Fault	
Normal	Clears fault or open/closed event

If you are using relay outputs to control dampers, then the damper state is not available directly. Instead, read the zone or loop-device state for the inputs that will cause an damper activation.

Sub Address

Object Type: *[Advanced v15\SubDev]*
Object Type: *[Advanced4000 v14\SubDev]*

An Advanced sub address contains the following objects.

Description	Reference	Type
Label Only available if Load Labels from panel is set within driver setup.	L	Obj\Text: 26 chars
Alarm State	C	Obj\Enum: 0…4; Adjustable Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire Adjustable: 0=De-Isolate, 1=Isolate
OK	C0	Obj\NoYes
Isolated Indicates whether this sub-address is isolated	C1	Obj\NoYes; Adjustable
Fault	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Damper	C5	Obj\OffOn
Output Control state of an output sub-address	O	Obj\OffOn; Adjustable only
Device Type Only available if Load Labels from panel is set within driver setup.	TY	Obj\Num: 0…34 See note 1
Analogue Value	A	Obj\Text: 7 chars Value depends on device type

Notes

1 The following device types are reported by the panel.

Device Type	Description
0	Unknown device
1	Ionisation smoke
2	Optical smoke
3	Multi
4	Heat
5	Zone monitor
6	Call point (MCP)
7	Temperature sensor
8	Volts
9	Volts
10	Volts
11	Switch
12	Sounder
13	Monitored relay
14	Relay
15	Monitor
16	Current
17	Current

Device Type	Description
18	Carbon monoxide (fire)
19	Carbon monoxide (gas sensor)
20	Flame detector
21	Switch (monitored)
22	Ionisation smoke
23	Optical smoke
24	Multi
25	Heat
26	Double address
27	Beacon
28	Multi heat
29	Rate of rise heat
30	Optical smoke
31	Flame
32	Input
33	Input
34	Sensor

Zone and Summary Information (v14)

Object Type: *[Advanced4000 v14\System]*

The Zone and System Summary object contains zone, group, and network-wide status for the Advanced system. Objects are also available to perform network-wide commands – reset, silence, etc. – and activate external fire or alarm conditions.

Description	Reference	Type
Commands Contains objects for resetting latched events, silencing sounders and muting buzzer for all panels on network	A	Fixed container: *[Advanced4000 v14\Actions]*
System Alarm State	C	Obj\ENum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire
System OK	C0	Obj\NoYes
Isolations	C1	Obj\NoYes
Faults	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
External Fire Triggers a fire condition on the panel	XF	Obj\OffOn; Adjustable only
External Alarm Triggers an alarm condition on the panel	XA	Obj\OffOn; Adjustable only
Zone *x* The zone number, x, is in the range: 1…1000 for MxPro 4 panels 1…2000 for MxPro 5 panels.	Z*x*	Fixed container: *[Advanced4000 v14\Zone]*
Isolate Group *y* The output group number, *y*, is in the range 1…200	G*y*.I	Obj\NoYes; Adjustable only

Zone (v14)

Object Type: *[Advanced4000 v14\Zone]*

An Advanced zone contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 32 chars
Zone Alarm State	C	Obj\Enum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire Adjustable: 0=De-Isolate, 1=Isolate
Zone OK	C0	Obj\NoYes
Zone Devices Isolated Indicates whether devices in this zone are isolated. Can be written to in order to isolate or de-isolate a zone	C1	Obj\NoYes; Adjustable
Zone Devices in Fault	C2	Obj\NoYes
Zone Devices in Pre-Alarm	C3	Obj\NoYes
Zone Devices in Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes

Advanced Panel (v14)

Object Type: *[Advanced4000 v14\Panel]*

An Advanced panel contains the following objects:

Description	Reference	Type
Commands Contains objects for resetting latched events, silencing sounders and muting panel buzzer	A	Fixed container: *[Advanced4000 v14\Actions]*
Panel Alarm State	C	Obj\Enum: 0…4; Where: 0=Ok, 1=Isolated, 2=Fault, 3=Pre-Alarm, 4=Fire
Panel OK	C0	Obj\NoYes
Isolations	C1	Obj\NoYes
Faults	C2	Obj\NoYes
Pre-Alarm	C3	Obj\NoYes
Fire Optionally append the object reference with '.A' for automatic (sensor) fire events; or '.M' for manual (MCP) fire events	C4	Obj\NoYes
Loop *x* The loop number, *x*, is typically in the range 0…4. If a loop offset is configured in the panel then *x* is in the range offset…(offset+4). Loop 0 is used for panel I/O. An 8-loop panel consists of two 4-loop panels, with the second panels loop number in the range 5…8.	L*x*	Fixed container: *[Advanced4000 v14\Loop]*

Driver Versions

Version	Build Date	Details
1.0	22/03/2004	Driver released
1.1	06/10/2010	Modified driver to use new C objects Alarm point and condition field changes. Added background check to monitor panel New Zone & System Summary object (P) New driver objects for DS, RST, ADDR, II and SC Maximum events increased to 450 Updated to protocol issue 2b
1.2	04/12/2013	Fixed issue with byte-stuffing CRC (caused occasional duplicate alarms) New damper state object (C5) for device New analogue value (A) object for device New option to load labels (and device type) from system. New objects LL and LC within driver, and L and TY within device. Alarm point now includes panel number when using detector label option. Alarm condition field changes Isolate objects P.Zx.I, Px.Lx.Dx.I and Px.Lx.Dx.Sx.I deprecated. Use object C1 instead. When a device in fault is subsequently isolated, driver now clears fault state, to report just the isolation state. This matches panel's operation. Can be disabled by using driver object ICF. Modified initialisation Maximum events increased to 500 Updated for protocol issue 3 compatibility Baud rate initialized at 38400.
1.2	05/08/2014	Added more alarm conditions from protocol issue 3 If device is an MCP, alarm point now includes this Default driver object LL to No
1.3	01/11/2017	Increased event storage to 900. Added Filter Events object to ignore event types Added Filter Events object to restrict events to a range of panels Added C4.A and C4.M objects for fires from auto sensors and MCPs. .C objects adjustable for isolate/deisolate.
1.4	14/09/2018	Modified alarm condition text. Where possible, send 'Fire Cleared', 'Pre-Alarm Cleared', and 'Fault Cleared' instead of 'Reset' or 'Normal'. Driver object LAC added to enable v1.3 alarm condition text. Added support for .V legacy objects (not documented)
1.4	19/03/2019	Modified alarm text. Device number always includes the sub-address, '.0' previously not included.
1.4	04/06/2020	Resolved issue with Load Labels (LL) option not always loading all labels from the network. Modified Panel Action objects (Px.A.x) to return '' (blank) rather than '0' when reading. Improving operation in Essential Data.
1.4	02/02/2022	Increased storage to 1500 events
1.5	12/09/2023	Renamed driver to Advanced. Added objects for Confirmed Alarm (DK), and Event Count (Nx)

Next Steps…

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

North Building Technologies Ltd
+44 (0) 1273 694422
support@northbt.com
www.northbt.com

Author: JF
Checked by: AB

Document issued 12/12/2023.