The PanasonicNDR Driver

The PanasonicNDR driver allows North to interface with a range of Panasonic network disk recorders, to trigger alarm inputs. Available for Commander and ObSys.

This document relates to PanasonicNDR driver version 1.0

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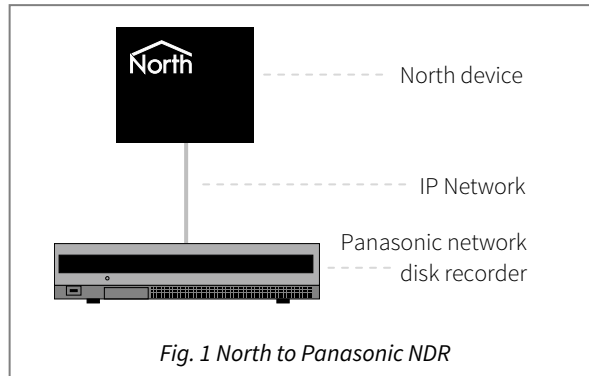
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Compatibility with the Panasonic System

The PanasonicNDR driver allows North to interface with a range of Panasonic network disk recorders, to trigger alarm inputs.

The driver connects, via an Ethernet network, to a Panasonic network disk recorder (Fig. 1). Up to 16 recorders may be connected.

Depending on the model of recorder, each supports between 16 and 64 alarm inputs.

Fig. 1 North to Panasonic NDR

Equipment

Panasonic network disk recorders that are compatible with the driver include:

- WJ-NV200 and WJ-ND200 (16 alarm inputs) – with v2.00 firmware or later
- WJ-NV300 and WJ-ND300A (32 alarm inputs) – with v4.40 firmware or later
- WJ-ND400 (64 inputs) – all versions

Values

Each Panasonic recorder supports between 16 and 64 alarm inputs, depending on model. The driver can only activate these alarm inputs. No control of the recorder is available.

Prerequisites

Configure an IP address for each Panasonic network video recorder using the on-screen setup menu.

If you are connecting via a firewall, then the driver will require access to TCP port 80 on each recorder.

Using the Driver

On ObSys, the PanasonicNDR driver is pre-installed. On Commander, the PanasonicNDR driver is available to download in the file 'Bank10 PanasonicNDR.cdm'. On all of these North devices, you can use the driver to create an interface to Panasonic. Once started, you will need to set up the driver before it can communicate with the Panasonic recorders.

Starting the Interface

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

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

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

→ Navigate to the top-level of your North device and re-scan it

The driver setup object (M*c*), labelled **PanasonicNDR 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 **PanasonicNDR Setup** object (M*c*). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'

→ Navigate to **Recorder 1** (R1) and set the **IP Address** (IA) of the recorder, along with a **Label** (L)

Checking Communications

Once you have set the IP address for a recorder, you can check that the interface is communicating by reading the **Device Communicating** object (R*x*.S). A value of 'yes' indicates the driver has connected to the Panasonic network disk recorder.

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 Panasonic System object (S1) contains Recorder 1 object (R1), which contains Input 1 (I1). This input contains Activate Alarm (S). Therefore, the complete object reference is 'S1.R1.I1.S'.

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.R1.I1.S) – therefore the complete object reference is 'IP.CDIP.S1.R1.I1.S'.

Device Top-Level Objects

When an interface is started using the PanasonicNDR 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
PanasonicNDR Setup Set up the PanasonicNDR driver, started on interface c (c is the interface number)	Mc	Fixed Container: On the Commander platform this will be *[CDM v20\PanasonicNDR v10]* On the ObSys platform this will be *[OSM v20\PanasonicNDR v10]*
Panasonic System Access Panasonic system connected to interface c (c is the interface number)	Sc	Variable Container: *[PanasonicNDR v10]*

PanasonicNDR Driver Setup

Object Type: *[OSM v20\PanasonicNDR v10]*
Object Type: *[CDM v20\PanasonicNDR v10]*

The PanasonicNDR driver contains the following objects:

Description	Reference	Type
System label Label displayed when scanning the system	DL	Obj\Text; Max. 20 chars; Adjustable
Recorder *x* Configure recorder's IP address. Recorder number, *x*, is in the range 1…16.	R*x*	Fixed Container: On the Commander platform this will be *[CDM v20\PanasonicNDR v10\Recorder]* On the ObSys platform this will be *[OSM v20\PanasonicNDR v10\Recorder]*

Recorder Setup

Object Type: *[OSM v20\PanasonicNDR v10\Recorder]*
Object Type: *[CDM v20\PanasonicNDR v10\Recorder]*

The Recorder Setup object contains the following objects:

Description	Reference	Type
Label Recorder label displayed when scanning the system	L	Obj\Text; Max. 20 chars; Adjustable
IP Address IP address of network disk recorder	IA	Obj\IP; Adjustable
Model Model of recorder	M	Obj\Text; Max. 10 chars
Device Communicating Indicates the driver can connect to the recorder	S	Obj\NoYes

Panasonic System

Object Type: *[PanasonicNDR v10]*

The Panasonic system contains objects to access individual recorders.

Description	Reference	Type
Recorder Label The recorder number, *x,* is in the range 1…16	R*x*	Fixed Container: *[PanasonicNDR v10\16]* *[PanasonicNDR v10\32]* *[PanasonicNDR v10\64]*

Recorder

Object Type: *[PanasonicNDR v10\16]*
Object Type: *[PanasonicNDR v10\32]*
Object Type: *[PanasonicNDR v10\64]*

A recorder contains several alarm inputs. The number of inputs available depends on the recorder model – 16, 32, or 64 inputs are supported.

Description	Reference	Type
Input *x* Alarm input within recorder. The input number, *x*, is in the range 1…16, 32, or 64 depending on recorder model	I*x*	Fixed Container: *[PanasonicNDR v10\Input]*

Input

Object Type: *[PanasonicNDR v10\Input]*

An alarm input can be activated within the recorder. Objects are available to activate the input directly or based on the value set.

Description	Reference	Type
Activate Alarm Activate the input alarm by setting the value to 'yes'	S	Obj\NoYes; Adjustable only
Activate if Equal *a* Activate the input alarm if value set is equal to *a*, ie `value == a` *a* is an unsigned integer	EQ*a*	Obj\Num: 0…4294967295; Adjustable only
Activate if Greater Than *b* Activate the input alarm if value set is greater than *b*, ie `value > b` *b* is an unsigned integer	GT*b*	Obj\Num: 0…4294967295; Adjustable only
Activate if Less Than *c* Activate the input alarm if value set is less than *c*, ie `value < c` *c* is an unsigned integer	LT*c*	Obj\Num: 0…4294967295; Adjustable only
Last Activated Date and time the input alarm was last activated by the driver	DT	Obj\DateTime

Driver Versions

Version	Build Date	Details
1.0	21/07/2016	Driver released
1.0	01/11/2017	Optimized TCP/IP receive

Next Steps…

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

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