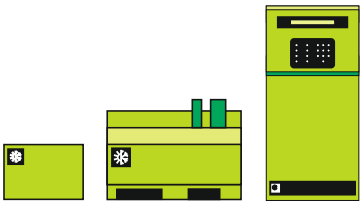
The YorkISN Driver



The YorkISN driver connects to the York International ISN (Integrated Systems Network) building management system. Available for Commander and ObSys.

This document relates to YorkISN driver version 1.1

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

Contents

Compatibility with the York ISN System

The YorkISN driver allows North to interface with a York International ISN (Integrated Systems Network) building management system.

The driver connects, via an RS232 serial connection, to a York LINC Universal RS232 (Fig. 1). The LINC provides a gateway to a network of York ISN controllers.

There are restrictions on the LAN speed and ISN controllers supported by the driver – see *Prerequisites*.

The YorkTalk driver is also available, using the York Talk protocol to communicate with one or more York chillers.

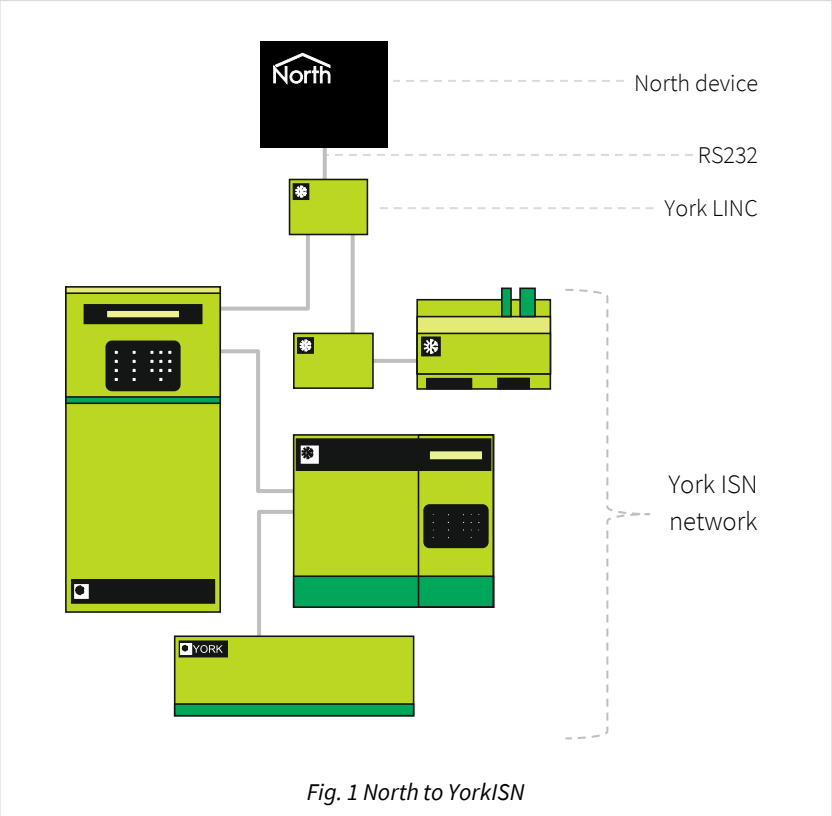


Fig. 1 North to YorkISN

Equipment

York ISN controllers compatible with the driver include:

- TDC R1.1
- FDC R6.6
- LDC R6.6 and R6.6 YT
- EDC R6.6
- UCS UDC v4 and v5

Values

Depending on the type of York controllers connected and software release, the driver can typically access the following values:

- Measured values
- Metered values
- Status values
- Switched control
- Modulating control
- Analogue control
- Schedules
- System calendar
- Logs

York controllers can send alarms to the YorkISN driver.

Prerequisites

A York Universal LINC232 is required to connect to the ISN network. These are no longer manufactured but may be available from a surplus or used industrial automation stockist. The Universal LINC232 UCS is not supported.

Configure the Universal RS232 LINC using DIP-switches, set: Device type – FM, Baud – 9600, LAN – 19k2.

The protocol used by the driver requires a LAN speed of 19.2k baud. A LAN speed of 50k baud is not supported.

Values are available from ISN controllers using release 6.6 software (see *Equipment*).

If a password is configured, the driver will communicate with all ISN controllers using that same password.

Using the Driver

On ObSys, the YorkISN is pre-installed. On Commander, the driver is available to download in the file 'Bank15 YorkISN.cdm'. On all of these North devices, you can use the driver to create an interface to York. Once started, you will need to set up the driver before it can communicate with the York ISN system.

Making the Cable

Using the following RS232 cable specification, connect the North Device COM port to York Universal RS232 LINC (Fig. 2). Connector types at each end of the cable are shown.

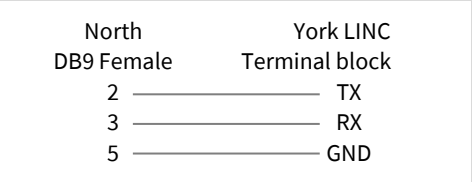


Fig 2 North to YorkISN

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

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

Starting the Interface

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

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

The driver setup object (Mc), labelled **YorkISN 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 **YorkISN 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 York LINC is connected to
- → If the connected York ISN controllers use a password, set **Password** (LINC.P).

Alarms

When the York 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 YorkISN driver places the following information into these fields:

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

Point – contains labels from the *ISN controller* (12 chars) followed by *point* (12 chars)

Condition – see Condition Field section below

Priority – see Priority Field section below

Date & Time – from ISN controller.

Examples

System	Point	Condition	Priority	Date	Time
York	F/C_EAST_1 PRIMARY_PMP1	ALARM	4	01/05/21	14:29:48
York	F/C_EAST_1 TE_F/CRT_SPC	ALARM LOW	4	01/09/21	14:55:12
York	F/C_EAST_1 TE_VT01-FLO	ALARM HIGH	3	11/10/21	11:26:26

Condition Field

Depending on the York feature reporting the alarm, the following alarm conditions can be sent by the driver:

York Feature	Conditions
11 – Analogue Alarms	NORMAL ALARM LOW ALARM HIGH
12 – Digital Alarms	NORMAL ALARM ALARM LATCHED
14 – Hours Run	Hours Run Limit
36 – Lead/Lag	*Feedback* + *Duty state* NORMAL DUTY FAULT STANDBY LOCAL

Priority Field

The York alarm class is mapped to an alarm priority by the driver:

York alarm class	Priority
Critical, Fire	1
Security, Safety	2
Performance, Equipment	3
Maintenance	4
Advisory	5

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 YorkISN System (S1) contains a Controller (C1) that contains Status Values (STV) which contains Object 1 (O1) which itself contains a Value (V). Therefore, the object reference will be 'S1.C1.STV.O1.V'

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.C1.STV.O1.V) – therefore the complete object reference is 'IP.CDIP.S1.C1.STV.O1.V'

Device Top-Level Objects

When an interface is started using the YorkISN 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
YorkISN Setup Set up the YorkISN driver, started on interface *c* (*c* is the interface number)	M*c*	Fixed Container: On the Commander platform this will be *[CDM v20\YorkISN v11]* On the ObSys platform this will be *[OSM v20\YorkISN v11]*
YorkISN System Access YorkISN system connected to interface *c* (*c* is the interface number)	S*c*	Variable Container: *[YorkISN]*

YorkISN Setup

Object Type: *[OSM v20\YorkISN v11]*
Object Type: *[CDM v20\YorkISN v11]*

The YorkISN driver setup contains the following objects:

Description	Reference	Type
RS232 Com Port	RS.COM	Obj\Num; Range: 1…8; Adjustable
Device Label Label displayed when scanning the system and within alarms	DL	Obj\Text: 20 chars; Adjustable
Network Scan Enable Performs additional checks when scanning YorkISN System for networks	NSE	Obj\NoYes; Adjustable
Password Optional password to use when accessing a controller	LINC.P	Obj\Text: 8 chars; Adjustable

YorkISN System

Object Type: *[YorkISN]*

The YorkISN System object is a variable container, and contains a list of York controllers on the local network, and a list of other sub-networks. Scan the object to view the controllers available.

Description	Reference	Type
Controller *y* Controller is dependent on the type of ISN node detected. The controller address, *y*, is in the range 1…127	C*y*	Fixed container, one of the following: *[YorkISN\TDC v11]* *[YorkISN\FDC v66]* *[YorkISN\LDC v66]* *[YorkISN\LDC YT v66]* *[YorkISN\EDC v66]* *[YorkISN\UCS UDC v4]* *[YorkISN\UCS UDC v5]*
Network *x* Network, *x*, is in the range 1…98 and is dependent upon engineering within the York system	N*x*	Variable container: *[YorkISN\Net]*

Network

Object Type: *[YorkISN\Net]*

The YorkISN Network contains the following objects:

Description	Reference	Type
Controller *y* Controller is dependent on the type of ISN node detected. The controller address, *y*, is in the range 1…127	C*y*	Fixed container, one of the following: *[YorkISN\TDC v11]* *[YorkISN\FDC v66]* *[YorkISN\LDC v66]* *[YorkISN\LDC YT v66]* *[YorkISN\EDC v66]* *[YorkISN\UCS UDC v4]* *[YorkISN\UCS UDC v5]*

TDC Controller

Object Type: *[YorkISN\TDC v11]*

A TDC controller is a York ISN Terminal Digital Controller Extended.

The TDC is available in several configurations:

- The TDC8E has 4 configurable inputs, 3 analogue outputs, and 1 digital output relay.
- The TDC9E has 4 configurable inputs, 4 triac digital outputs, and 1 digital output relay.
- An optional plug-in Terminal Extender card (TEC2) provides 2 additional digital output relays.

The TDC controller contains the following objects:

Description	Reference	Type
Measured Values	MSV	Fixed container: *[YorkISN\TDC v11\MSV]*
System Variables	SYV	Fixed container: *[YorkISN\TDC v11\SYV]*
Status Values	STV	Fixed container: *[YorkISN\TDC v11\STV]*
Switched Control	SWC	Fixed container: *[YorkISN\TDC v11\SWC]*
Modulating Control	MDC	Fixed container: *[YorkISN\TDC v11\MDC]*
Analogue Control	ANC	Fixed container: *[YorkISN\TDC v11\ANC]*
Schedule/Reset Control	SCH	Fixed container: *[YorkISN\TDC v11\SCH]*
Time Schedules	TSC.S1	Fixed container: *[YorkISN\TDC v11\TSC]*
System Information	SYS	Fixed container: *[YorkISN\TDC v11\SYS]*
System Calendar	SYC	Fixed container: *[YorkISN\TSC v11\SYC]*
Analogue History	LOG	Fixed container: *[YorkISN\TDC v11\LOG]*
Digital History	DLOG	Fixed container: *[YorkISN\TDC v11\DLOG]*
Engineering The Engineering object provides access directly to Feature Section Page comms within the ISN controller.	E	Variable container: *[YorkISN\FSP]*

FDC Controller

Object Type: *[YorkISN\FDC v66]*

An FDC controller is a York ISN Local Digital Controller

The FDC 8 has 4 analogue/Digital inputs and 4 analogue/digital outputs. The digital outputs require a Field Output Module 4 (FOM 4). The FOM 4 is supplied with 2 output relays.

The FDC controller contains the following objects:

Description	Reference	Type
Measured Values	MSV	Fixed container: *[YorkISN\FDC v66\MSV]*
System Variables	SYV	Fixed container: *[YorkISN\FDC v66\SYV]*
Metered values	MTV	Fixed container: *[YorkISN\FSC v66\MTV]*
Status Values	STV	Fixed container: *[YorkISN\FDC v66\STV]*
Switched Control	SWC	Fixed container: *[YorkISN\FDC v66\SWC]*
Modulating Control	MDC	Fixed container: *[YorkISN\FDC v66\MDC]*
Analogue Control	ANC	Fixed container: *[YorkISN\FDC v66\ANC]*
Schedule/Reset Control	SCH	Fixed container: *[YorkISN\FDC v66\SCH]*
Time Schedule	TSC	Fixed container: *[YorkISN\FDC v66\TSC]*
System Information	SYS	Fixed container: *[YorkISN\FDC v66\SYS]*
System Calendar	SYC	Fixed container: *[YorkISN\FSC v66\SYC]*
Optimum Control	OPC	Fixed container: *[YorkISN\FSC v66\OPC]*
Utility Supply	UTS	Fixed container: *[YorkISN\FSC v66\UTS]*
Analogue History	LOG	Fixed container: *[YorkISN\FDC v66\LOG]*
Digital History	DLOG	Fixed container: *[YorkISN\FDC v66\DLOG]*
Engineering The Engineering object provides access directly to Feature Section Page comms within the ISN controller.	E	Variable container: *[YorkISN\FSP]*

LDC Controller

Object Type: *[YorkISN\LDC v66]*
Object Type: *[YorkISN\LDC YT v66]*

An LDC controller is a York ISN Local Digital Controller

The LDC is available in several configurations:

- The LDC 34 has 16 analogue/digital inputs, plus 2 dedicated pulse inputs and 16 universal outputs on 2 cards.
- The LDC 17 has 8 analogue/digital inputs, plus 1 dedicated pulse input and 8 universal outputs on 1 card.
- An optional 32 digital input card (DIB) can replace the above standard I/O card(s).

The FDC controller contains the following objects:

Description	Reference	Type
Measured Values	MSV	Fixed container: *[YorkISN\LCD v66\MSV]*
System Variables	SYV	Fixed container: *[YorkISN\LCD v66\SYV]*
Metered values	MTV	Fixed container: *[YorkISN\LCD v66\MTV]*
Status Values	STV	Fixed container: *[YorkISN\LCD v66\STV]*
Switched Control	SWC	Fixed container: *[YorkISN\LCD v66\SWC]*
Modulating Control	MDC	Fixed container: *[YorkISN\LCD v66\MDC]*
Analogue Control	ANC	Fixed container: *[YorkISN\LCD v66\ANC]*
Schedule/Reset Control	SCH	Fixed container: *[YorkISN\LCD v66\SCH]*
Time Schedule	TSC	Fixed container: *[YorkISN\LCD v66\TSC]*
System Information	SYS	Fixed container: *[YorkISN\LCD v66\SYS]*
System Calendar	SYC	Fixed container: *[YorkISN\LCD v66\SYC]*
Optimum Control	OPC	Fixed container: *[YorkISN\LCD v66\OPC]*
Utility Supply	UTS	Fixed container: *[YorkISN\LCD v66\UTS]*
Analogue History	LOG	Fixed container: *[YorkISN\LCD v66\LOG]*
Digital History	DLOG	Fixed container: *[YorkISN\LCD v66\DLOG]*
Engineering The Engineering object provides access directly to Feature Section Page comms within the ISN controller.	E	Variable container: *[YorkISN\FSP]*

EDC Controller

Object Type: *[YorkISN\EDC v66]*

An EDC controller is a York ISN Local Digital Controller.

The EDC is available in several configurations:

- The EDC 72 has 48 analogue/digital/pulse inputs, and 24 analogue/digital outputs, with optional on-board outputs relays and on/off/auto switches.
- The EDC 36 has 24 analogue/digital/pulse inputs, and 12 analogue/digital outputs, with optional on-board output relays.
- Each controller has a 2 x 40 character vacuum fluorescent display with keypad access and configure all the controller data.

The EDC controller contains the following objects:

Description	Reference	Type
Measured Values	MSV	Fixed container: *[YorkISN\EDC v66\MSV]*
System Variables	SYV	Fixed container: *[YorkISN\EDC v66\SYV]*
Metered values	MTV	Fixed container: *[YorkISN\EDC v66\MTV]*
Status Values	STV	Fixed container: *[YorkISN\EDC v66\STV]*
Switched Control	SWC	Fixed container: *[YorkISN\EDC v66\SWC]*
Modulating Control	MDC	Fixed container: *[YorkISN\EDC v66\MDC]*
Analogue Control	ANC	Fixed container: *[YorkISN\EDC v66\ANC]*
Schedule/Reset Control	SCH	Fixed container: *[YorkISN\EDC v66\SCH]*
Time Schedule	TSC	Fixed container: *[YorkISN\EDC v66\TSC]*
System Information	SYS	Fixed container: *[YorkISN\EDC v66\SYS]*
System Calendar	SYC	Fixed container: *[YorkISN\EDC v66\SYC]*
Optimum Control	OPC	Fixed container: *[YorkISN\EDC v66\OPC]*
Utility Supply	UTS	Fixed container: *[YorkISN\EDC v66\UTS]*
Analogue History	LOG	Fixed container: *[YorkISN\EDC v66\LOG]*
Digital History	DLOG	Fixed container: *[YorkISN\EDC v66\DLOG]*
Engineering The Engineering object provides access directly to Feature Section Page comms within the ISN controller.	E	Variable container: *[YorkISN\FSP]*

UCS UDC Controller

Object Type: *[YorkISN\UCS UDC v4]*
Object Type: *[YorkISN\UCS UDC v5]*

An UCS controller is a York ISN Universal Controller Software with pre-defined control functions for HVACR applications.

The UCS has networked input/output cards that are connected to the controller.

The UCS controller contains the following objects:

Description	Reference	Type
Measured Values	MSV	Fixed container: *[YorkISN\UCS UDC v5\MSV]*
System Variables	SYV	Fixed container: *[YorkISN\UCS UDC v5\SYV]*
Metered values	MTV	Fixed container: *[YorkISN\UCS UDC v5\MTV]*
Status Values	STV	Fixed container: *[YorkISN\UCS UDC v5\STV]*
Switched Control	SWC	Fixed container: *[YorkISN\UCS UDC v5\SWC]*
Modulating Control	MDC	Fixed container: *[YorkISN\UCS UDC v5\MDC]*
Analogue Control	ANC	Fixed container: *[YorkISN\UCS UDC v5\ANC]*
Schedule/Reset Control	SCH	Fixed container: *[YorkISN\UCS UDC v5\SCH]*
Time Schedule	TSC	Fixed container: *[YorkISN\UCS UDC v5\TSC]*
System Information	SYS	Fixed container: *[YorkISN\UCS UDC v5\SYS]*
System Calendar	SYC	Fixed container: *[YorkISN\UCS UDC v5\SYC]*
Optimum Control	OPC	Fixed container: *[YorkISN\UCS UDC v5\OPC]*
Utility Supply	UTS	Fixed container: *[YorkISN\UCS UDC v5\UTS]*
Analogue Logs	LOG	Fixed container: *[YorkISN\UCS UDC v5\LOG]*
Digital Logs	DLOG	Fixed container: *[YorkISN\UCS UDC v5\DLOG]*
Engineering The Engineering object provides access directly to Feature Section Page comms within the ISN controller.	E	Variable container: *[YorkISN\FSP]*

Measured Values

Object Type: *[YorkISN\TDC v11\MSV]*
Object Type: *[YorkISN\FDC v66\MSV]*
Object Type: *[YorkISN\LDC v66\MSV]*
Object Type: *[YorkISN\LDC YT v66\MSV]*
Object Type: *[YorkISN\EDC v66\MSV]*
Object Type: *[YorkISN\UCS UDC v4\MSV]*
Object Type: *[YorkISN\UCS UDC v5\MSV]*

A Measured Value is a group of York ISN analogue inputs. TDC contains 48 measured values, FDC contains 64, LDC contains 64, LDC YT contains 72, EDC contains 99, and UDC contains 99.

A Measured Value contains the following objects:

Description	Reference	Type
Object *x* The measured value object number, x, is in the range 1…48, (TDC) 1…64 (FDC), 1…64(LDC), 1…72(LDC YT), 1…99(EDC), 1…99(UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\MSV\Obj]* *[YorkISN\FDC v66\MSV\Obj]* *[YorkISN\LDC v66\MSV\Obj]* *[YorkISN\LDC YT v66\MSV\Obj]* *[YorkISN\EDC v66\MSV\Obj]* *[YorkISN\UCS UDC v4\MSV\Obj]* *[YorkISN\UCS UDC v5\MSV\Obj]*

Measured Value Object

Object Type: *[YorkISN\TDC v11\MSV\Obj]*
Object Type: *[YorkISN\FDC v66\MSV\Obj]*
Object Type: *[YorkISN\LDC v66\MSV\Obj]*
Object Type: *[YorkISN\LDC YT v66\MSV\Obj]*
Object Type: *[YorkISN\EDC v66\MSV\Obj]*
Object Type: *[YorkISN\UCS UDC v4\MSV\Obj]*
Object Type: *[YorkISN\UCS UDC v5\MSV\Obj]*

A Measured Value Object is a York ISN analogue input value.

A Measured Value Object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value Writing modifies the Default Value. Only when the Measured Value source is engineered as 'Dummy' will this modify the current value.	V	Obj\Num: -999.9…9999.9; Adjustable
Units	U	Obj\Text: 3 chars
Setpoint	SP	Num: -999…9999; Adjustable

System Variables

Object Type: *[YorkISN\TDC v11\SYV]*
Object Type: *[YorkISN\FDC v66\SYV]*
Object Type: *[YorkISN\LDC v66\SYV]*
Object Type: *[YorkISN\LDC YT v66\SYV]*
Object Type: *[YorkISN\EDC v66\SYV]*
Object Type: *[YorkISN\UCS UDC v4\SYV]*
Object Type: *[YorkISN\UCS UDC v5\SYV]*

A System Variable is a group of York ISN maths functions. The TDC contains 60 system variables, FDC contains 64, LDC contains 64, LDC YT contains 64, EDC contains 99, UDC contains 99

A System variable contains the following Objects:

Description	Reference	Type
Object *x* The system variable object number, x, is in the range 1…60 (TDC) 1…64 (FDC), 1…64(LDC), 1…64(LDC YT), 1…99(EDC), 1…99(UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\SYV\Obj]* *[YorkISN\FDC v66\SYV\Obj]* *[YorkISN\LDC v66\SYV\Obj]* *[YorkISN\LDC YT v66\SYV\Obj]* *[YorkISN\EDC v66\SYV\Obj]* *[YorkISN\UCS UDC v4\SYV\Obj]* *[YorkISN\UCS UDC v5\SYV\Obj]*

System Variable Object

Object Type: *[YorkISN\TDC v11\SYV\Obj]*
Object Type: *[YorkISN\FDC v66\SYV\Obj]*
Object Type: *[YorkISN\LDC v66\SYV\Obj]*
Object Type: *[YorkISN\LDC YT v66\SYV\Obj]*
Object Type: *[YorkISN\EDC v66\SYV\Obj]*
Object Type: *[YorkISN\UCS UDC v4\SYV\Obj]*
Object Type: *[YorkISN\UCS UDC v5\SYV\Obj]*

A System Variable Object is an York ISN maths function calculation.

A System Variable Object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value	V	Obj\Num: -999.9…9999.9
Units	U	Obj\Text: 3 chars

Metered Values

Object Type: *[YorkISN\FDC v66\MTV]*
Object Type: *[YorkISN\LDC v66\MTV]*
Object Type: *[YorkISN\LDC YT v66\MTV]*
Object Type: *[YorkISN\EDC v66\MTV]*
Object Type: *[YorkISN\UCS UDC v4\MTV]*
Object Type: *[YorkISN\UCS UDC v5\MTV]*

A Metered Value is a group of York ISN pulse inputs. The FDC contains 6 metered values, LDC contains 6, LDC YT contains 6, EDC contains 48, UDC contains 99

A Metered Value contains the following objects:

Description	Reference	Type
Object *x* The metered value object number, x, is in the range 1…6 (FDC) 1…6 (LDC), 1…6(LDC YT), 1…48(EDC), 1…99(UDC)	O*x*	Fixed Container: *[YorkISN\FDC v66\MTV\Obj]* *[YorkISN\LDC v66\MTV\Obj]* *[YorkISN\LDC YT v66\MTV\Obj]* *[YorkISN\EDC v66\MTV\Obj]* *[YorkISN\UCS UDC v4\MTV\Obj]* *[YorkISN\UCS UDC v5\MTV\Obj]*

Metered Value Object

Object Type: *[YorkISN\FDC v66\MTV\Obj]*
Object Type: *[YorkISN\LDC v66\MTV\Obj]*
Object Type: *[YorkISN\LDC YT v66\MTV\Obj]*
Object Type: *[YorkISN\EDC v66\MTV\Obj]*
Object Type: *[YorkISN\UCS UDC v4\MTV\Obj]*
Object Type: *[YorkISN\UCS UDC v5\MTV\Obj]*

A Metered Value object is a York ISN pulse input.

A Metered Value object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value Writing modifies the Default Value. Only when the source is engineered as 'Dummy' will this modify the current value.	V	Obj\Num: -999.9…9999.9; Adjustable
Units	U	Obj\Text: 3 chars

Status Values

Object Type: *[YorkISN\TDC v11\STV]*
Object Type: *[YorkISN\FDC v66\STV]*
Object Type: *[YorkISN\LDC v66\STV]*
Object Type: *[YorkISN\LDC YT v66\STV]*
Object Type: *[YorkISN\EDC v66\STV]*
Object Type: *[YorkISN\UCS UDC v4\STV]*
Object Type: *[YorkISN\UCS UDC v5\STV]*

Status Values is a group of York ISN digital inputs. The TDC contains 10 status values, FDC contains 64, LDC contains 64, LDC YT contains 24, EDC contains 99, UDC contains 96

A System variable contains the following Objects:

Description	Reference	Type
Object *x* The system variable object number, x, is in the range 1…10 (TDC) 1…64 (FDC), 1…64 (LDC), 1…24 (LDC YT), 1…99 (EDC), 1…96 (UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\STV\Obj]* *[YorkISN\FDC v66\STV\Obj]* *[YorkISN\LDC v66\STV\Obj]* *[YorkISN\LDC YT v66\STV\Obj]* *[YorkISN\EDC v66\STV\Obj]* *[YorkISN\UCS UDC v4\STV\Obj]* *[YorkISN\UCS UDC v5\STV\Obj]*

Status Value Object

Object Type: *[YorkISN\TDC v11\STV\Obj]*
Object Type: *[YorkISN\FDC v66\STV\Obj]*
Object Type: *[YorkISN\LDC v66\STV\Obj]*
Object Type: *[YorkISN\LDC YT v66\STV\Obj]*
Object Type: *[YorkISN\EDC v66\STV\Obj]*
Object Type: *[YorkISN\UCS UDC v4\STV\Obj]*
Object Type: *[YorkISN\UCS UDC v5\STV\Obj]*

A Status Value Object is an York ISN digital input.

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value Writing modifies the Default State. Only when the source is engineered as 'Dummy' will this modify the current state.	V	Obj\OffOn; Adjustable

Switched Control

Object Type: *[YorkISN\TDC v11\SWC]*
Object Type: *[YorkISN\FDC v66\SWC]*
Object Type: *[YorkISN\LDC v66\SWC]*
Object Type: *[YorkISN\LDC YT v66\SWC]*
Object Type: *[YorkISN\EDC v66\SWC]*
Object Type: *[YorkISN\UCS UDC v4\SWC]*
Object Type: *[YorkISN\UCS UDC v5\SWC]*

A Switched Control is a group of York ISN digital outputs. The TDC contains 38 Switched Controls. FDC contains 64, LDC contains 64, LDC YT contains 72, EDC contains 99, UDC contains 99.

A switched Control contains the following objects:

Description	Reference	Type
Object *x* The switched Control object number, x, is in the range 1…38 (FDC) 1…64 (FDC),1…64(LDC), 1…72(LDC YT), 1…99(EDC), 1…99(UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\SWC\Obj]* *[YorkISN\FDC v66\SWC\Obj]* *[YorkISN\LDC v66\SWC\Obj]* *[YorkISN\LDC YT v66\SWC\Obj]* *[YorkISN\EDC v66\SWC\Obj]* *[YorkISN\UCS UDC v4\SWC\Obj]* *[YorkISN\UCS UDC v5\SWC\Obj]*

Switched Control Object

Object Type: *[YorkISN\TDC v11\SWC\Obj]*
Object Type: *[YorkISN\FDC v66\SWC\Obj]*
Object Type: *[YorkISN\LDC v66\SWC\Obj]*
Object Type: *[YorkISN\LDC YT v66\SWC\Obj]*
Object Type: *[YorkISN\EDC v66\SWC\Obj]*
Object Type: *[YorkISN\UCS UDC v4\SWC\Obj]*
Object Type: *[YorkISN\UCS UDC v5\SWC\Obj]*

A Switched Control Object is a York ISN digital output switch.

A Switched Control Object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value	V	Obj\OffOn
Control State	S	Obj\ENum; 0…3; Adjustable Where: 0=Automatic, 1=Manual On, 2=Manual Off, 3=Override

Modulating Control

Object Type: *[YorkISN\TDC v11\MDC]*
Object Type: *[YorkISN\FDC v66\MDC]*
Object Type: *[YorkISN\LDC v66\MDC]*
Object Type: *[YorkISN\LDC YT v66\MDC]*
Object Type: *[YorkISN\EDC v66\MDC]*
Object Type: *[YorkISN\UCS UDC v4\MDC]*
Object Type: *[YorkISN\UCS UDC v5\MDC]*

A Modulating Control is a group of York ISN analogue outputs. The TDC contains 8 Modulating Controls, FDC contains 16, LDC contains 16, LDC YT contains 24, EDC contains 32, UDC contains 48.

A Modulating Control contains the following objects:

Description	Reference	Type
Object *x* The Modulating Control object number, x, is in the range 1…8 (TDC), 1…16(FDC), 1…16(LDC), 1…24(LDC YT), 1…32(EDC), 1…48(UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\MDC\Obj]* *[YorkISN\FDC v66\MDC\Obj]* *[YorkISN\LDC v66\MDC\Obj]* *[YorkISN\LDC YT v66\MDC\Obj]* *[YorkISN\EDC v66\MDC\Obj]* *[YorkISN\UCS UDC v4\MDC\Obj]* *[YorkISN\UCS UDC v5\MDC\Obj]*

Modulating Control Object

Object Type: *[YorkISN\TDC v11\MDC\Obj]*
Object Type: *[YorkISN\FDC v66\MDC\Obj]*
Object Type: *[YorkISN\LDC v66\MDC\Obj]*
Object Type: *[YorkISN\LDC YT v66\MDC\Obj]*
Object Type: *[YorkISN\EDC v66\MDC\Obj]*
Object Type: *[YorkISN\UCS UDC v4\MDC\Obj]*
Object Type: *[YorkISN\UCS UDC v5\MDC\Obj]*

A Modulating Control Object is a York ISN analogue output value.

A Modulating Control Object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value (%)	V	Obj\Float: 0…100; Adjustable
Control State	S	Obj\ENum: 0…1; Adjustable 0=Automatic; 1=Manual, 2=Locked

Analogue Control

Object Type: *[YorkISN\TDC v11\ANC]*
Object Type: *[YorkISN\FDC v66\ANC]*
Object Type: *[YorkISN\LDC v66\ANC]*
Object Type: *[YorkISN\LDC YT v66\ANC]*
Object Type: *[YorkISN\EDC v66\ANC]*
Object Type: *[YorkISN\UCS UDC v4\ANC]*
Object Type: *[YorkISN\UCS UDC v5\ANC]*

An Analogue Control is a control feature utilising proportional, integral, and differential algorithm to maintain set point conditions based on an analogue input. The TDC contains 16 Analogue Controls, FDC contains 16, LDC contains 16, LDC YT contains 16, EDC contains 24, UDC contains 16.

An Analogue Control contains the following object:

Description	Reference	Type
Object *x* The Analogue Control object number, x, is in the range 1…16(TDC), 1…16(FDC), 1…16(LDC), 1…16(LDC YT), 1…24(EDC), 1…16(UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\ANC\Obj]* *[YorkISN\FDC v66\ANC\Obj]* *[YorkISN\LDC v66\ANC\Obj]* *[YorkISN\LDC YT v66\ANC\Obj]* *[YorkISN\EDC v66\ANC\Obj]* *[YorkISN\UCS UDC v4\ANC\Obj]* *[YorkISN\UCS UDC v5\ANC\Obj]*

Analogue Control Object

Object Type: *[YorkISN\TDC v11\ANC\Obj]*
Object Type: *[YorkISN\FDC v66\ANC\Obj]*
Object Type: *[YorkISN\LDC v66\ANC\Obj]*
Object Type: *[YorkISN\LDC YT v66\ANC\Obj]*
Object Type: *[YorkISN\EDC v66\ANC\Obj]*
Object Type: *[YorkISN\UCS UDC v4\ANC\Obj]*
Object Type: *[YorkISN\UCS UDC v5\ANC\Obj]*

An Analogue Control Object is a York ISN analogue control function.

An Analogue Control Object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Fixed Setpoint	SP	Obj\Float: -999.9…9999.9
Boost Setpoint	BV	Obj\Float: -999.9…9999.9

Schedule/Reset Control

Object Type: *[YorkISN\TDC v11\SCH]*
Object Type: *[YorkISN\FDC v66\SCH]*
Object Type: *[YorkISN\LDC v66\SCH]*
Object Type: *[YorkISN\LDC YT v66\SCH]*
Object Type: *[YorkISN\EDC v66\SCH]*
Object Type: *[YorkISN\UCS UDC v4\SCH]*
Object Type: *[YorkISN\UCS UDC v5\SCH]*

A Schedule/Reset Control is a York ISN feature that allows automatic adjustment of a value against a variable.

A Schedule/Reset Control contains the following objects:

Description	Reference	Type
Object *x* The Schedule object number, x, is in the range 1…2 (TDC), 1…2 (FDC), 1…2 (LDC), 1…2 (LDC YT), 1…8 (EDC), 1…8 (UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\SCH\Obj]* *[YorkISN\FDC v66\SCH\Obj]* *[YorkISN\LDC v66\SCH\Obj]* *[YorkISN\LDC YT v66\SCH\Obj]* *[YorkISN\EDC v66\SCH\Obj]* *[YorkISN\UCS UDC v4\SCH\Obj]* *[YorkISN\UCS UDC v5\SCH\Obj]*

Schedule/Reset Control Object

Object Type: *[YorkISN\TDC v11\SCH\Obj]*
Object Type: *[YorkISN\FDC v66\SCH\Obj]*
Object Type: *[YorkISN\LDC v66\SCH\Obj]*
Object Type: *[YorkISN\LDC YT v66\SCH\Obj]*
Object Type: *[YorkISN\EDC v66\SCH\Obj]*
Object Type: *[YorkISN\UCS UDC v4\SCH\Obj]*
Object Type: *[YorkISN\UCS UDC v5\SCH\Obj]*

A Schedule/Reset Control Object is a York ISN schedule calculated value.

A Schedule/Reset Control Object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text: 12 chars
Value	V	Obj\Float: -999.9…9999.9; Adjustable
Units	U	Obj\Text: 3 chars
Operating Mode	S	Obj\ENum: 0…1; Adjustable Where: 0=Automatic; 1=Manual, 2=Locked
Minimum Output Value	VL	Obj\Float: 0…999.9
Maximum Output Value	VH	Obj\Float: 0…9999.9
Influence Setpoint	IS	Obj\Float: 0…9999.9
Influence Scale Factor	IF	Obj\Float: 0…9999.9
Point *x* – Input Value The Point number, x, is in the range 1…3	P*x*.I	Obj\Float: 0…9999.9
Point *x* – Output value The Point number, x, is in the range 1…3	P*x*.O	Obj\Float: 0…9999.9

Time Schedule

Object Type: *[YorkISN\TDC v11\TSC]*
Object Type: *[YorkISN\FDC v66\TSC]*
Object Type: *[YorkISN\LDC v66\TSC]*
Object Type: *[YorkISN\LDC YT v66\TSC]*
Object Type: *[YorkISN\EDC v66\TSC]*
Object Type: *[YorkISN\UCS UDC v4\TSC]*
Object Type: *[YorkISN\UCS UDC v5\TSC]*

A Time Schedule is a York ISN feature that provides a series of switching times which can be referenced by Time Program and Optimal Control features.

Description	Reference	Type
Schedule *x* The Schedule, x, is in the range 1…8 (TDC), 1…8 (FDC), 1…8 (LDC), 1…5 (LDC YT), 1…16 (EDC), 1…16 (UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\TSC\S]* *[YorkISN\FDC v66\TSC\S]* *[YorkISN\LDC v66\TSC\S]* *[YorkISN\LDC YT v66\TSC\S]* *[YorkISN\EDC v66\TSC\S]* *[YorkISN\UCS UDC v4\TSC\S]* *[YorkISN\UCS UDC v5\TSC\S]*

Time Schedule Object

Object Type: *[YorkISN\TDC v11\TSC\S]*
Object Type: *[YorkISN\FDC v66\TSC\S]*
Object Type: *[YorkISN\LDC v66\TSC\S]*
Object Type: *[YorkISN\LDC YT v66\TSC\S]*
Object Type: *[YorkISN\EDC v66\TSC\S]*
Object Type: *[YorkISN\UCS UDC v4\TSC\S]*
Object Type: *[YorkISN\UCS UDC v5\TSC\S]*

A Time Schedule Object is a York ISN controller's table of switching times.

Description	Reference	Type
Label	L	Obj\Text: 12 chars
State	S	Obj\OffOn
Next Start Time	NS	Obj\Time (*hh:mm*)
Next End Time	NE	Obj\Time (*hh:mm*)
Mode	M	Obj\ENum: 0…1 Where: 0=Extended, 1=Remote
Extension Time (mins)	XT	Obj\Num: 0…999; Adjustable
Profile *x* The Profile, x, is in the range 1…28.	P*x*	Fixed Container: *[YorkISN\TDC v11\TSC\P]* *[YorkISN\FDC v66\TSC\P]* *[YorkISN\LDC v66\TSC\P]* *[YorkISN\LDC YT v66\TSC\P]* *[YorkISN\EDC v66\TSC\P]* *[YorkISN\UCS UDC v4\TSC\P]* *[YorkISN\UCS UDC v5\TSC\P]*

Time Schedule Profile

Object Type: *[YorkISN\TDC v11\TSC\P]*
Object Type: *[YorkISN\FDC v66\TSC\P]*
Object Type: *[YorkISN\LDC v66\TSC\P]*
Object Type: *[YorkISN\LDC YT v66\TSC\P]*
Object Type: *[YorkISN\EDC v66\TSC\P]*
Object Type: *[YorkISN\UCS UDC v4\TSC\P]*
Object Type: *[YorkISN\UCS UDC v5\TSC\P]*

A Time Schedule Profile is a York ISN time schedule start and stop time.

A Time Schedule Profile contains the following objects:

Description	Reference	Type
Day Type	DT	Obj\ENum: 1…22; Adjustable 1=Weekends, 2=Weekdays, 3=Mon, 4=Tue, 5=Wed, 6=Thu, 7=Fri, 8=Sat, 9=Sun, 10=Holiday 11=Jan, 12=Feb, 13=Mar, 14=Apr, 15=May, 16=Jun, 17=Jul, 18=Aug, 19=Sep, 20=Oct, 21=Nov, 22=Dec
Start Day	SD	Obj\Num: 0…31; Adjustable
Number of Days	ND	Obj\Num: 0…99; Adjustable
Start and End Time	T	Obj\Times; Adjustable
Reset Function	RF	Obj\ENum: 0…2: 0=Fixed, 1=Reset, 2=Expired.

System Information

Object Type: *[YorkISN\TDC v11\SYS]*
Object Type: *[YorkISN\FDC v66\SYS]*
Object Type: *[YorkISN\LDC v66\SYS]*
Object Type: *[YorkISN\LDC YT v66\SYS]*
Object Type: *[YorkISN\EDC v66\SYS]*
Object Type: *[YorkISN\UCS UDC v4\SYS]*
Object Type: *[YorkISN\UCS UDC v5\SYS]*

A System Information module is a collection of objects describing the ISN controller's status.

A System information module contains the following objects:

Description	Reference	Type
Unit Name	L	Obj\Text: 12 chars; Adjustable
Unit ID	ID	Obj\Num: 0…9999
Unit Status	S	Obj\ENum: 0…2: 0=Halt, 1=Run, 2=Monitor
Alarm Count – Total	AC.T	Obj\Num
Alarm Count – Active	AC.A	Obj\Num
Alarm Count – Unacknowledged	AC.U	Obj\Num

System Calendar

Object Type: *[YorkISN\TDC v11\SYC]*
Object Type: *[YorkISN\FDC v66\SYC]*
Object Type: *[YorkISN\LDC v66\SYC]*
Object Type: *[YorkISN\LDC YT v66\SYC]*
Object Type: *[YorkISN\EDC v66\SYC]*
Object Type: *[YorkISN\UCS UDC v4\SYC]*
Object Type: *[YorkISN\UCS UDC v5\SYC]*

A System Calendar module is a collection of objects used to configure the controllers time, date and holiday schedules.

A System Calendar module contains the following objects:

Description	Reference	Type
Date and Time	TIME	Obj\DateTime
Holiday *x* The holiday number, x, is in the range 1…17	H*x*	Fixed Container: *[YorkISN\TDC v11\SYC\Hol]* *[YorkISN\FDC v66\SYC\Hol]* *[YorkISN\LDC v66\SYC\Hol]* *[YorkISN\LDC YT v66\SYC\Hol]* *[YorkISN\EDC v66\SYC\Hol]* *[YorkISN\UCS UDC v4\SYC\Hol]* *[YorkISN\UCS UDC v5\SYC\Hol]*

Holiday

Object Type: *[YorkISN\TDC v11\SYC\Hol]*
Object Type: *[YorkISN\FDC v66\SYC\Hol]*
Object Type: *[YorkISN\LDC v66\SYC\Hol]*
Object Type: *[YorkISN\LDC YT v66\SYC\Hol]*
Object Type: *[YorkISN\EDC v66\SYC\Hol]*
Object Type: *[YorkISN\UCS UDC v4\SYC\Hol]*
Object Type: *[YorkISN\UCS UDC v5\SYC\Hol]*

A Holiday object is a system calendar holiday schedule.

Description	Reference	Type
Date	D	Obj\Text: *dd mmm*
Duration	L	Obj\Num

Optimal Control

Object Type: *[YorkISN\FDC v66\OPC]*
Object Type: *[YorkISN\LDC v66\OPC]*
Object Type: *[YorkISN\LDC YT v66\OPC]*
Object Type: *[YorkISN\EDC v66\OPC]*
Object Type: *[YorkISN\UCS UDC v4\OPC]*
Object Type: *[YorkISN\UCS UDC v5\OPC]*

Optimal Control delays the starting of HVAC plant until the last possible moment at which it is still able to achieve the required occupancy temperature at occupation time. It is also able to advance the time at which HVAC plant can be stopped, without loss of occupancy temperature before building occupancy ceases. The FDC contains 8 optimal control objects, LDC contains 10, LDC YT contains 5, EDC contains 16, UDC contains 16.

An Optimal Control contains the following objects:

Description	Reference	Type
Object *x* The Optimum control object number, x, is in the range 1…8(FDC), 1…10(LDC), 1…5(LDC YT), 1…16(EDC), 1…16(UDC).	O*x*	Fixed Container: *[YorkISN\FDC v66\OPC\Obj]* *[YorkISN\LDC v66\OPC\Obj]* *[YorkISN\LDC YT v66\OPC\Obj]* *[YorkISN\EDC v66\OPC\Obj]* *[YorkISN\UCS UDC v4\OPC\Obj]* *[YorkISN\UCS UDC v5\OPC\Obj]*

Optimal Control Object

Object Type: *[YorkISN\FDC v66\OPC\Obj]*
Object Type: *[YorkISN\LDC v66\OPC\Obj]*
Object Type: *[YorkISN\LDC YT v66\OPC\Obj]*
Object Type: *[YorkISN\EDC v66\OPC\Obj]*
Object Type: *[YorkISN\UCS UDC v4\OPC\Obj]*
Object Type: *[YorkISN\UCS UDC v5\OPC\Obj]*

An Optimal Control object delays the starting of HVAC plant until the last possible moment at which it is still able to achieve the required occupancy temperature at occupation time. It is also able to advance the time at which HVAC plant can be stopped, without loss of occupancy temperature before building occupancy ceases.

An Optimal Control object contains the following objects:

Description	Reference	Type
Target Occupancy Temperature	STT	Obj\Float: 1…99.9; Adjustable
End of Occupancy Target Temperature	ETT	Obj\Float: 1…99.9; Adjustable
End of Occupancy Limit Temperature	ELT	Obj\Float: 1…99.9; Adjustable
Unoccupied Limit Temperature	ULT	Obj\Float: 1…99.9; Adjustable
Maximum heat-up period (mins)	MHP	Obj\Num: 0…999
Maximum cool-down period (mins)	MCP	Obj\Num 0…999
Calculated Start/Stop Times	CSS	Obj\Times

Utility Supply

Object Type: *[YorkISN\FDC v66\UTS]*
Object Type: *[YorkISN\LDC v66\UTS]*
Object Type: *[YorkISN\LDC YT v66\UTS]*
Object Type: *[YorkISN\EDC v66\UTS]*
Object Type: *[YorkISN\UCS UDC v4\UTS]*
Object Type: *[YorkISN\UCS UDC v5\UTS]*

The Utility Supply totalises Analogue Input values which have been sampled during a preset period. The FDC contains 6 utility supply objects, LDC contains 6, LDC YT contains 8, EDC contains 48, UDC contains 20.

The utility Supply contains the following objects:

Description	Reference	Type
Object *x* The utility supply object number, x, is in the range 1…6(FDC), 1…6(LDC), 1…8(LDC YT), 1…48(EDC), 1…20(UDC)	O*x*	Fixed Container: *[YorkISN\FDC v66\UTS\Obj]* *[YorkISN\LDC v66\UTS\Obj]* *[YorkISN\LDC YT v66\UTS\Obj]* *[YorkISN\EDC v66\UTS\Obj]* *[YorkISN\UCS UDC v4\UTS\Obj]* *[YorkISN\UCS UDC v5\UTS\Obj]*

Utility Supply Object

Object Type: *[YorkISN\FDC v66\UTS\Obj]*
Object Type: *[YorkISN\LDC v66\UTS\Obj]*
Object Type: *[YorkISN\LDC YT v66\UTS\Obj]*
Object Type: *[YorkISN\EDC v66\UTS\Obj]*
Object Type: *[YorkISN\UCS UDC v4\UTS\Obj]*
Object Type: *[YorkISN\UCS UDC v5\UTS\Obj]*

The utility Supply totalises Analogue Input values which have been samples during a preset period, used to measure fuel or power flow.

The Utility Supply object contains the following objects:

Description	Reference	Type
Total Units – Current Consumption	TU.V	Obj\Num
Total Units – Units	TU.U	Obj\Text: 3 chars
Total Units – Period Type	TU.P	Obj\ENum: 0…5: 0=Daily, 1=Weekly, 2=Monthly, 3=Quarterly, 4=Yearly, 5=Other
Total Cost -Units	TC.U	Obj\Text: 3 chars
Total Cost – Value	TC.V	Obj\Num
Total Cost – Monetary Units	TC.MU	Obj\Text: 3 chars
Total Cost - Period	TC.P	Obj\ENum: 0…5: 0=Daily, 1=Weekly, 2=Monthly, 3=Quarterly, 4=Yearly, 5=Other
Projected Cost (per hour)	PC	Obj\Text

Analogue History

Object Type: *[YorkISN\TDC v11\Log]*
Object Type: *[YorkISN\FDC v66\Log]*
Object Type: *[YorkISN\LDC v66\Log]*
Object Type: *[YorkISN\LDC YT v66\Log]*
Object Type: *[YorkISN\EDC v66\Log]*
Object Type: *[YorkISN\UCS UDC v4\Log]*
Object Type: *[YorkISN\UCS UDC v5\Log]*

A Log is a control feature providing a history of analogue values, taken at preset intervals. The TDC contains 4 log, FDC contains 16, LDC contains 16, LDC YT contains 10, EDC contains 48, UDC contains 80

A log contains the following objects:

Description	Reference	Type
Log *x* The Log number, x, is in the range 1…4(TDC), 1…16(FDC), 1…16(LDC), 1…10(LDC YT), 1…48(EDC), 1…80(UDC)	O*x*	Fixed Container: *[YorkISN\TDC v11\Log\Hol]* *[YorkISN\FDC v66\Log\Hol]* *[YorkISN\LDC v66\Log\Hol]* *[YorkISN\LDC YT v66\Log\Hol]* *[YorkISN\EDC v66\Log\Hol]* *[YorkISN\UCS UDC v4\Log\Hol]* *[YorkISN\UCS UDC v5\Log\Hol]*

Analogue Log

Object Type: *[YorkISN\TDC v11\Log\Hol]*
Object Type: *[YorkISN\FDC v66\Log\Hol]*
Object Type: *[YorkISN\LDC v66\Log\Hol]*
Object Type: *[YorkISN\LDC YT v66\Log\Hol]*
Object Type: *[YorkISN\EDC v66\Log\Hol]*
Object Type: *[YorkISN\UCS UDC v4\Log\Hol]*
Object Type: *[YorkISN\UCS UDC v5\Log\Hol]*

An Analogue Log object is a control feature providing a history of measured values, system variables, modulating control, or schedule/reset control values, taken at preset intervals.

An Analogue Log object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text
Log data	LOG	Obj\Log

Digital History

Object Type: *[YorkISN\TDC v11\DLog]*
Object Type: *[YorkISN\FDC v66\DLog]*
Object Type: *[YorkISN\LDC v66\DLog]*
Object Type: *[YorkISN\LDC YT v66\DLog]*
Object Type: *[YorkISN\EDC v66\DLog]*
Object Type: *[YorkISN\UCS UDC v4\DLog]*
Object Type: *[YorkISN\UCS UDC v5\DLog]*

A Digital History is a control feature providing a history of digital values, taken at preset intervals. The TCD contains 4 Logs, FDC contains 10, LDC contains 10, LDC YT contains 10, EDC contains 48, UDC contains 80.

Description	Reference	Type
Log *x* The Log number, x, is in the range 1…4	O*x*	Fixed Container: *[YorkISN\TDC v11\DLog\Hol]* *[YorkISN\FDC v66\DLog\Hol]* *[YorkISN\LDC v66\DLog\Hol]* *[YorkISN\LDC YT v66\DLog\Hol]* *[YorkISN\EDC v66\DLog\Hol]* *[YorkISN\UCS UDC v4\DLog\Hol]* *[YorkISN\UCS UDC v5\DLog\Hol]*

Digital Log Object

Object Type: *[YorkISN\TDC v11\DLog\Hol]*
Object Type: *[YorkISN\FDC v66\DLog\Hol]*
Object Type: *[YorkISN\LDC v66\DLog\Hol]*
Object Type: *[YorkISN\LDC YT v66\DLog\Hol]*
Object Type: *[YorkISN\EDC v66\DLog\Hol]*
Object Type: *[YorkISN\UCS UDC v4\DLog\Hol]*
Object Type: *[YorkISN\UCS UDC v5\DLog\Hol]*

A Digital Log object is a control feature providing a history of status and switched values, taken at preset intervals.

A Digital Log object contains the following objects:

Description	Reference	Type
Label	L	Obj\Text
Log data	LOG	Obj\Log

Engineering

Object Type: *[YorkISN v11\FSP]*

The Engineering object provides access to a York ISN Feature Section Page (FSP) references within a controller.

The YorkISN interface already gives easy access to the most used features, this engineering module is intended for engineers that wish to access those features not available elsewhere in the interface.

Features available elsewhere in the interface include:

F01 SYS	System Alarms
F02 MSV	Measured Values
F03 SYV	System Variables
F04 MTV	Metered Values
F05 STV	Status Values
F06 SWC	Switched Control
F07 MDC	Modulating Control

F09 SCH	Schedule/Reset Control
F10 SYC	System Calendar
F19 UTS	Utility Supply
F32 OPC	Optimal Control
F33 TSC	Time Schedules
F37 ANC	Analog Control
F60 SYS	System Structure

The Engineering Module contains the following objects:

Description	Reference	Type
Feature *a* – Section *b* – Page *c* Read *d* – Value *l* Feature, *a*, is in the range 1…60. Section, *b*, is in the range 1…99. Page, *c*, is in the range 1…99	F*a*.S*b*.Pc*Rd*.V*l*	Obj\Num
Feature *a* – Section *b* – Page *c* Read *d* – Write *e* -Value *l* Read offset, *d*, is in the range 1…80 and indicates the starting character from the returned page to parse the value. Write field, *e*, is a number in the range 1…9 and indicates the editable field number to write.	F*a*.S*b*.Pc*Rd*We.V*l*	Obj\Num; Adjustable
Feature *a* – Section *b* – Page *c* Read *d* – Label *l* The length, *l* , is a number in the range 1…80 and indicates the length of the data to parse from the returned page	F*a*.S*b*.Pc*Rd*.L*l*	Obj\Text: *l* chars
Feature *a* – Section *b* – Page *c* Read *d* – Write *e* - Label *l*	F*a*.S*b*.Pc*Rd*We.L*l*	Obj\Text: *l* chars; Adjustable

Using Feature Section Page references

To use this object, you will require the ISN software reference manual of the relevant ISN controller and software version.

Each Feature has several instances, referenced by the Section number, each containing values grouped in a Page.

Status values are contained within Feature 05. Section 01 contains status value 1, Section 02 status value 2, etc. Each Section has 5 Pages containing:

P01 Status input descriptor

P02 Contact made state and open state

P03 Signal source

P04 Default state

P05 Power up reset

Reading Values

When reading a value the whole page is returned from the controller. For example reading Feature 05 Section 02 returns:

```
P02 MADE: mmm OPEN: mmm
```

Where `mmm` could be OFF, ON, OPN, CLO, STA, STO, etc. (refer to menu C in the ISN reference manual)

To decode a value from the page a **read offset** and **length** can be specified in the object reference.

From the example above, the made fields starts at position 11 (the read offset) and has a length of 3 characters. To read this value we would use the object reference: 'F5.S1.P2R11.L3'

Writing Values

When writing values to a controller the **writeable field number** is specified in the object reference. For example, Feature 05 Section 01 Page 02 contains two fields, made is field 1 and open is field 2.

```
P02 MADE: mmm OPEN: mmm
```

From menu C of the ISN reference manual, STA (started) is value '5' and STO (stopped) is value '6'.

To set the made value to 'started' we need to write '5' to field 1. We can add this to the object reference used previously to read the made value, so the object becomes F5.S1.P2R11W1.L3 = '5'.

To set the open value to 'stopped' we need to write '6' to field 2. The object for this would be F5.S1.P2R23W2.L3 = '6'.

Example 1

Read the current value from Feature 09, Section 03 (schedule/reset Control).

From the ISN software reference manual, the current value is contained in Page 01 with the format:

```
P01 ttttttttttt vvvvvv mmm mmmmmmmmmmmm
```

Where:

t..t	Descriptor
v..v	Current value
mmm	Engineering unit
m..m	Operating mode

The current value starts at position 18, and has a maximum length of 6 characters. So the object is: F9.S3.P1R18.L6.

Example 2

Set the value of Feature 02, Section 01 (measured values).

From the ISN software reference manual, the default value is contained in Page 05, with the format:

```
P05 DEFAULT VALUE vvvvvv
```

The value starts at position 19, and has a maximum length of 6 characters. To set the value we need to adjust writable field 1.

The object to read and write the value is: F2.S1.P5R19W1.L6

Driver Versions

Version	Build Date	Details
1.0	02/08/2001	Driver released
1.0	01/03/2002	Added support for UDC controller
1.1	01/06/2005	Increased scan to allow for 127 controllers on 99 networks
1.1	16/01/2015	Updated for Commander

Next Steps…

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

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