North

The LutronHW Driver

The LutronHW driver interfaces to the Lutron Original HomeWorks or HomeWorks Interactive lighting control system. Available for Commander and ObSys.

This document relates to LutronHW driver version 1.0

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

Contents

Compatibility with the Lutron System

The LutronHW driver allows North to interface to the Lutron Original HomeWorks or HomeWorks Interactive lighting control system. Providing access to keypad buttons and dimmer lighting levels.

The driver connects via an RS232 serial connection to a HomeWorks Processor.

The LutronQS driver is also available, connecting to the Lutron HomeWorks QS range.

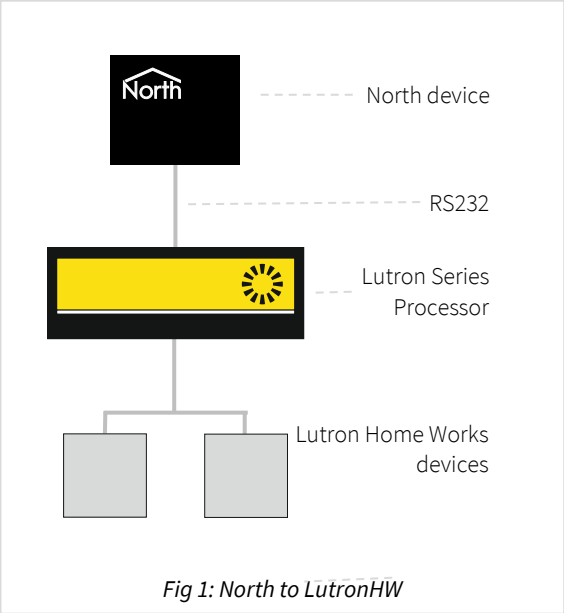

Fig 1: North to LutronHW

Equipment

Lutron product ranges compatible with the driver include the original HomeWorks control system and HomeWorks Interactive processors.

Values

The driver can typically access the following values:

- Dimmer light level
- Keypad button press

Prerequisites

The Lutron HomeWorks system requires the configuration of the keypads and dimmer, which need to have address setup within them. Use Lutron software to do this.

Using the Driver

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

Making the Cable

Using the RS232 cable specification, connect the North Device COM port to the Lutron processor's 'RS232' port. Connector types at each end of the cable are shown.

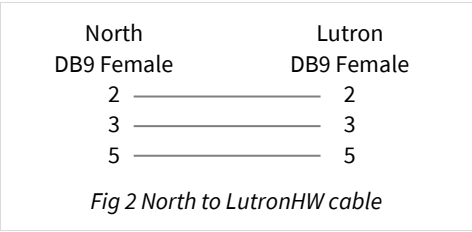

Fig 2 North to LutronHW cable

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

Cables are available from North, order code CABLE/LUTRONHW/DB9.

Starting the Interface

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

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

The driver setup object (Mc), labelled **LutronHW 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 **LutronHW Setup** object (Mc). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'
- Set the **RS232 Com Port** (RS.COM) to select which serial port on the North Device is connected to the Lutron HomeWorks processor
- Set the **Baud Rate** (RS.BR) to match that of Lutron.

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 Lutron (S1) contains Dimmer *x* (D1), which contains an adjustable level Value (V). Therefore, the complete object reference is 'S1.D1.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.D1.V) – therefore the complete object reference is 'IP.CDIP. S1.D1.V'

Device Top-Level Objects

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

LutronHW Driver Setup

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

The LutronHW driver contains the following objects:

Description	Reference	Type
RS232 COM Port	RS.COM	Obj\Num:1…8; Adjustable
RS232 Baud Rate	RS.BR	Obj\Num: 1200…38400; Adjustable
Device Label	L	Obj\Text: 20 chars; Adjustable

LutronHW System

Object Type: *[LutronHW v10]*

The LutronHW system contains the following objects:

Description	Reference	Type
Keypad *x* The keypad address, x, can be in the range 1…16.	K*x*	Fixed Container: *[LutronHW v10/Keypad]*
Dimmer *y* The dimmer address, y, can be in the range 1…16.	D*y*	Fixed Container: *[LutronHW v10/Dimmer]*

Keypad

Object Type: *[LutronHW v10\Keypad]*

A LutronHW Keypad is a keypad connected to the Lutron HomeWorks system. The keypad contains an address, the value of the button press, and 16 LED values.

The LutronHW Keypad contains the following objects:

Description	Reference	Type
Address The address must match that of the Keypad within the Lutron system which is configured by the Lutron engineer	A	Obj\Text; Adjustable Address has the format: *Panel*:*Link*:*Keypad*
Button Press	B	Obj\Num; Adjustable
Led *x* The Led is a number in the range of 1...24	L*x*	Obj\ENum: Values: 0=Off, 1=On, 2=Flash1, and 3=Flash2

Dimmer

Object Type: *[LutronHW v10\Dimmer]*

A LutronHW Dimmer contains the following objects:

Description	Reference	Type
Address The address must match that of the dimmer within the Lutron Dimmer which is configured by the Lutron engineer	A	Obj\Text; Adjustable
Level	V	Obj\Float: 0…100; Adjustable

Driver Versions

Version	Build Date	Details
1.0	15/05/2008	Driver released

Next Steps…

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

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