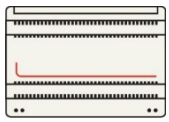
The LegrandMyHome Driver



The LegrandMyHome driver interfaces to the Legrand and BTicino My Home range of home automation devices. It connects, via an IP network, to an Open Web Net gateway. Available for Commander and ObSys.

This document relates to LegrandMyHome driver version 1.0

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

Contents

Compatibility with the My Home System

The LegrandMyHome driver allows North to interface with the Legrand and BTicino My Home range of home automation devices.

The driver connects to a single Open Web Net compatible Ethernet gateway, such as an F454 web server (Fig. 1), and can access function modules within the My Home system.

The gateway connects to a Legrand SCS bus, a network of control devices, actuators, interfaces, and load modules. Gateways to ZigBee wireless and KNX devices are also available.

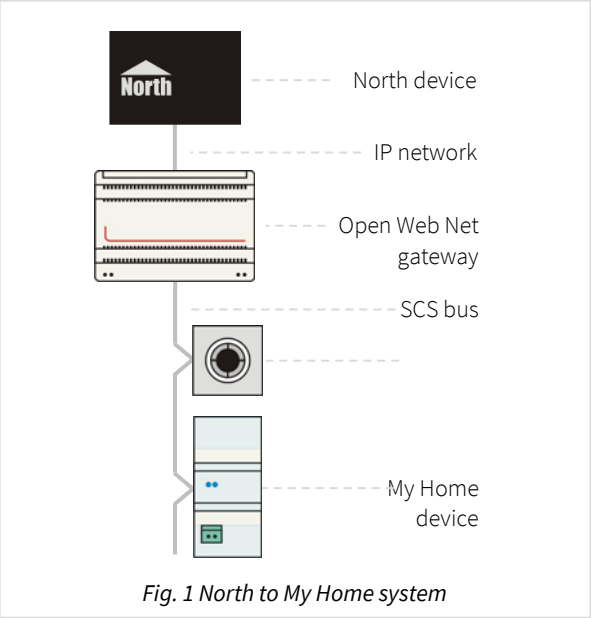


Fig. 1 North to My Home system

Equipment

Open Web Net gateways compatible with the driver include:

- F454 audio/video web server
- MH200N scenario programmer

My Home compatible home automation systems, based on the SCS bus, include:

- Legrand Arteor
- Legrand Céliane
- BTicino Axolute

Values

Depending on the type of My Home devices connected, the driver can typically access the following values:

- Scenarios
- Lighting
- Automation
- Burglar alarm
- Temperature control
- Energy management
- Load management

Prerequisites

Use Legrand VirtualConfigurator software to configure the My Home system.

The driver only sends requests to one Open Web Net gateway; you will require the IP address of this.

If you are connecting to the Open Web Net gateway via a firewall, then the driver will require access on TCP port 20000.

When requesting an object for an unconfigured feature, the Open Web Net gateway can take up to 10 seconds to respond with a fail message. Any other object requests made during this time will also fail.

To help reduce the impact of this extended wait time, the driver stores a list of failed objects in a block list. If a failed object is requested again, the driver will respond immediately without asking the gateway.

We also recommend configuring Essential Data within the North device to collect the objects required from the Legrand My Home system. Your application can then make requests for the cached value from Essential Data.

Using the Driver

On ObSys, the driver is pre-installed. On Commander, the driver is available to download in the file 'Bank11 LegrandMyHome.cdm'. On all of these North devices, you can use the driver to create an interface to My Home. Once started, you will need to configure the driver before it can communicate with the Legrand/BTicino My Home system.

Starting the Interface

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

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

The driver setup object (Mc), labelled **LegrandMyHome 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 **LegrandMyHome Setup** object (Mc). For example, if you started interface 1 with the driver earlier, then the object reference will be 'M1'
- → Set the **Gateway IP Address** object (SIA) to the IP address of the Open Web Net gateway.

Checking Communications

You can check that the interface is communicating by reading the **Device Communicating** object (DS). A value of 'Yes' indicates the driver has connected to and is communicating with the My Home system.

Once communications are established, the **Legrand MyHome System** object (Sc) will be available.

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 is 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 Legrand MyHome System object (S1) contains a Temperature Control object (O4), which contains Zone 1 (E1). Within this zone, there is a Temperature object (D0.RT). Therefore, the object reference will be 'S1.O4.E1.D0.RT'.

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.O4.E1.D0.RT) – therefore the complete object reference is 'IP.CDIP.S1.O4.E1.D0.RT'.

Device Top-Level Objects

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

LegrandMyHome Driver Setup

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

The LegrandMyHome driver contains the following objects:

Description	Reference	Type
System Label Label displayed when scanning the system object	DL	Obj\Text; Max. 23 chars; Adjustable
Gateway IP Address	SIA	Obj\IP; Adjustable
Device Communicating Indicates the driver has connected to and is communicating with the Open Web Net gateway	DS	Obj\NoYes
Clear Block List Set value to 'Yes' to clear list of failed objects. When requesting an object for an unconfigured feature, the Open Web Net gateway can take up to 10 seconds to respond with a fail message. Any other object requests made during this time will also fail. To help reduce the impact of this extended wait time, the driver stores a list of failed objects in a block list. If a failed object is requested again, the driver will respond immediately without asking the gateway	CB	Obj\NoYes; Adjustable

Legrand MyHome System

Object Type: *[LegrandMyHome v10\System]*

The Legrand MyHome System contains objects to access functions within the home automation system. Depending on the modules installed as part of the system, objects may or may not be available.

The following objects are available:

Description	Reference	Type
Scenarios Activate scenarios in a scenario module or control unit	O0	Fixed Container: *[LegrandMyHome v10\Scenarios]*
Lighting Control lights	O1	Fixed Container: *[LegrandMyHome v10\Lighting]*
Automation Control blinds, motorised curtains, sockets outputs, etc.	O2	Fixed Container: *[LegrandMyHome v10\Automation]*
Burglar Alarm Monitor the status of a security panel and zones	O5	Fixed Container: *[LegrandMyHome v10\BurglarAlm]*
Temperature Control Control and manage the heating and air conditioning components	O4	Fixed Container: *[LegrandMyHome v10\TempControl]*
Energy Management Read energy load and consumption data	O18	Fixed Container: *[LegrandMyHome v10\EnergyMan]*
Load Control Access values in a load management control unit	O3	Fixed Container: *[LegrandMyHome v10\LoadControl]*

Scenarios

Object Type: *[LegrandMyHome v10\Scenarios]*

Scenarios contains objects to activate a scenario in the My Home system. Use a scenario to trigger a pre-configured command.

The following objects are available:

Description	Reference	Type
Module *x* - Scenario The scenario module number, *x*, is in the range 1…99. Set a scenario number to trigger commands in the control module	E*x*.W	Obj\Num; Adjustable only Range: 1…16 or 20

Lighting

Object Type: *[LegrandMyHome v10\Lighting]*

Lighting contains objects to set a single or collection of lights in the My Home system.

The following objects are available:

Description	Reference	Type
General Command Set every lighting point in the system	E0.W	Obj\Num; Adjustable only Values: 0=Off, 1=On, 2…10=Dimmer 20…100%
Environment *x* Command Set lighting points belonging to the specific environment (scene). The environment number, *x*, is in the range 1…9	E*x*.W	Obj\Num; Adjustable only Values: 0=Off, 1=On, 2…10=Dimmer 20…100%
Point to Point *y* Command Set a specific lighting point. The point number, *y*, is in the range 11…99	E*y*.B	Obj\Num; Adjustable Values: 0=Off, 1=On, 2…10=Dimmer 20…100%
Group z Command Set every lighting point belonging to the specific group. The group number, *z*, is in the range 1…9	E#*z*.W	Obj\Num; Adjustable only Values: 0=Off, 1=On, 2…10=Dimmer 20…100%

Automation

Object Type: *[LegrandMyHome v10\Automation]*

Automation contains objects to set an automatism in the My Home system. These can include controlling blinds, motorised curtains, controlled sockets, watering system, etc.

The following objects are available:

Description	Reference	Type
General Command Set every automation point in the system	E0.W	Obj\ENum; Adjustable only Values: 0=Stop, 1=Up, 2=Down
Environment *x* Command Set automation points belonging to a specific environment (group of automation points). The environment number, *x*, is in the range 1…9	E*x*.W	Obj\ENum; Adjustable only Values: 0=Stop, 1=Up, 2=Down
Point to Point *y* Command Set a specific automation point. The point number, y, is in the range 11…99	E*y*.W	Obj\ENum; Adjustable only Values: 0=Stop, 1=Up, 2=Down
Group *z* Command Set every automation point belonging to the specific group. The group number, *z*, is in the range 1…9	E#*z*.W	Obj\ENum; Adjustable only Values: 0=Stop, 1=Up, 2=Down

Burglar Alarm

Object Type: *[LegrandMyHome v10\BurglarAlm]*

Burglar Alarm contains objects to view the status of different security zones. It is possible to change the status of a zone by writing a new value to a zone object.

The following objects are available:

Description	Reference	Type
Control Panel	E1.R	Obj\ENum; Range: 0…31 Values: 0=Maintenance, 1=Active, 2=Deactivate, 3=Delay end, 4=Battery fault, 5=Battery ok, 6=No network, 7=Network ok, 8=Engage, 9=Disengage, 10=Battery unloads, 11=Active zone, 12=Technical alarm, 13=Reset tech alarm, 14=No reception, 15=Intrusion alarm, 16=Tamper, 17=Panic alarm, 18=Non-active zone, 26=Start programming, 27=Stop programming, 31=Silent alarm
Zone *x* The zone number, *x*, is in the range 0…8, 12 (zone C), and 15 (zone F)	E#*x*.R	Obj\ENum; Range: 0…31 Values: 0=Maintenance, 1=Active, 2=Deactivate, 3=Delay end, 4=Battery fault, 5=Battery ok, 6=No network, 7=Network ok, 8=Engage, 9=Disengage, 10=Battery unloads, 11=Active zone, 12=Technical alarm, 13=Reset tech alarm, 14=No reception, 15=Intrusion alarm, 16=Tamper, 17=Panic alarm, 18=Non-active zone, 26=Start programming, 27=Stop programming, 31=Silent alarm

Temperature Control

Object Type: *[LegrandMyHome v10\TempControl]*

Temperature Control contains objects to control and manage the heating and air conditioning components of the My Home system.

The following objects are available:

Description	Reference	Type
Central Setpoint (°C) Sets the temperature setpoint for all zones. Adjusting the setpoint may also change the Mode	E#0.D14.WT	Obj\Float; Resolution: 0.5; Adjustable only
Central Mode Sets the mode for all zones	E#0.W	Obj\ENum: Adjustable only Value: 0=Conditioning, 1=Heating, 102=Anti-freeze, 202=Thermal protection, 311=Automatic, 302=Generic protection, 303=Off
Zone *x* The zone number, *x*, is in the range 1…99	E*x*	Fixed container: *[LegrandMyHome v10\TempControl\Zone]*
Zone Setup *y* The zone number, *x*, is in the range 1…99	E#*x*	Fixed container: *[LegrandMyHome v10\TempControl\ZoneSetup]*

Temperature Zone

Object Type: *[LegrandMyHome v10\TempControl\Zone]*

Temperature Zone contains objects to view the status of a temperature control zone. Use the Temperature Zone Setup object to adjust the setpoint and mode.

The following objects are available:

Description	Reference	Type
Temperature (°C)	D0.RT	Obj\Float
Setpoint (°C)	D14.RT	Obj\Float
Local offset	D13.R	Obj\ENum: 0…13 Value: 0=0, 1=+1, 2=+2, 3=+3, 4=Off, 5=Local protect, 11=-1, 12=-2, 13=-3
Mode	D12.RL	Obj\ENum Value: 0=Conditioning, 1=Heating, 102=Anti-freeze, 202=Thermal protection, 302=Generic protection, 103=Off (Heating), 203=Off (Conditioning), 303=Off
Operational Setpoint (°C) Zone operation temperature with adjust by local offset	D12.RT	Obj\Float
Fan Speed	D11.R	Obj\ENum: 0…15 Value: 0=Auto, 1=Speed 1, 2=Speed 2, 3=Speed3, 15=Off
Heating valve	D19.R1	Obj\ENum: 0…8 Value: 0=Off, 1=On, 2=Open, 3=Closed, 4=Stop, 5=Off, 6=Speed 1, 7=Speed 2,8=Speed 3
Conditioning valve	D19.R2	Obj\Enum: 0…8 Value: 0=Off, 1=On, 2=Open, 3=Closed, 4=Stop, 5=Off, 6=Speed 1, 7=Speed 2,8=Speed 3

Temperature Zone Setup

Object Type: *[LegrandMyHome v10\TempControl\ZoneSetup]*

A Temperature Zone Setup contains objects to set the mode and setpoint of a temperature zone.

Description	Reference	Type
Mode	W	Obj\ENum: Adjustable only Value: 0=Conditioning, 1=Heating, 102=Anti-freeze, 202=Thermal protection, 311=Automatic, 302=Generic protection, 303=Off
Setpoint (°C) Adjusting the setpoint may also change the Mode	D14.WT	Obj\Float: 5…40; Resolution: 0.5; Adjustable only

Energy Management

Object Type: *[LegrandMyHome v10\EnergyMan]*

Energy Management contains objects to read energy load and consumption data for the My Home system.

The following objects are available:

Description	Reference	Type
Energy Meter *x* The energy meter number, *x*, is in the range 1…255.	E5*x*	Fixed container: *[LegrandMyHome v10/EnergyMan/Meter]*

Energy Meter

Object Type: *[LegrandMyHome v10\EnergyMan\Meter]*

An Energy Meter contains objects to read instantaneous and total power values.

The following objects are available:

Description	Reference	Type
Power (W) Active power	D113.R	Obj\Num
Power Total (Wh) Total energy used	D51.R	Obj\Num
Monthly Power (Wh) Total energy used for current month	D53.R	Obj\Num
Daily Power (Wh) Total energy used for current day	D54.R	Obj\Num

Load Control

Object Type: *[LegrandMyHome v10\LoadControl]*

Load Control contains objects to access a load management control unit. This unit can control the power engaged, in order to prevent the power meter from cutting the power off, by excluding the loads based on the priorities set by the installer. If the installed actuators allow it, you can check the load consumption of the system.

The following objects are available:

Description	Reference	Type
Priority *x* The priority number, *x*, is in the range 1…8	E#*x*.B	Obj\ENum; 0…3; Adjustable Values: 0=Disabled,1=Enabled,2=Forced,3-Remove Forced
Voltage (V)	E10.D1.R	Obj\Num
Current (A)	E10.D2.R	Obj\Num
Power (W)	E10.D3.R	Obj\Num
Energy (Wh)	E10.D4.R	Obj\Num

Driver Versions

Version	Build Date	Details
1.0	1/7/14	Driver released

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: BS
Checked by: JF

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