Product Engineering Guide

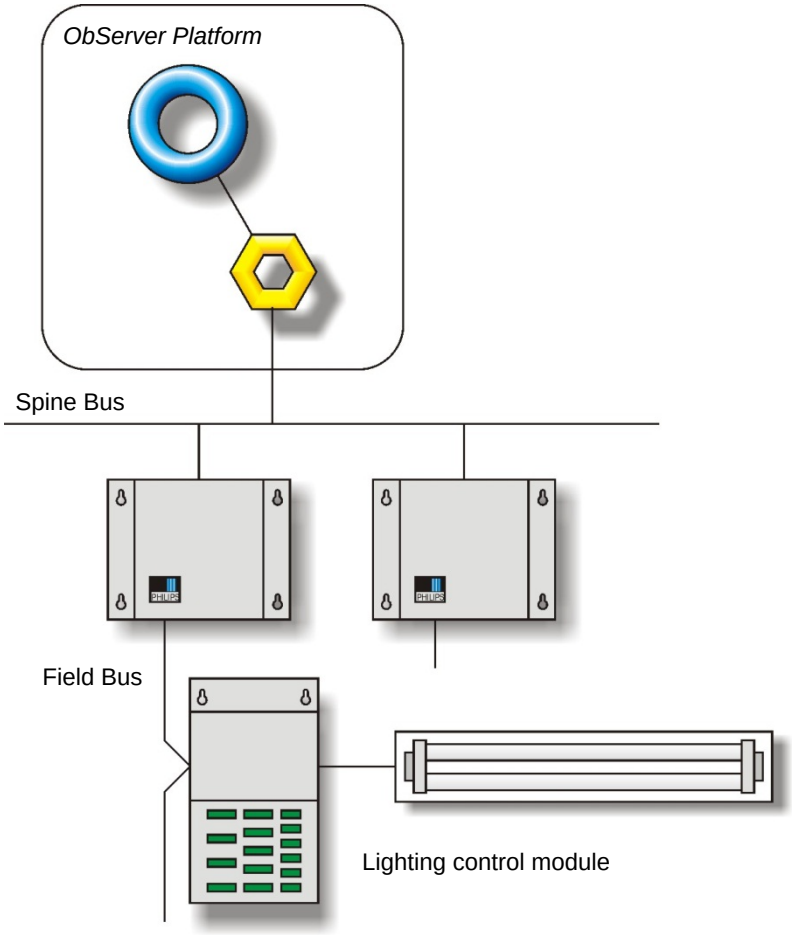
OSM v20 LtMaster v10

Introduction

The LightMaster OSM links a Philips ECS LightMaster or Apex Lighting Controls (ALC) Spectrum lighting system to ObServer. This is CAN bus based system, and the OSM connects directly using a PC-based CAN-PCI card.

The LightMaster system is a modular lighting system where LightMaster area controllers are networked together allowing access to lighting control modules, which host the output lighting ports and the input sensors. The lighting ports provide variable lighting levels for luminaires.

Please note this product is not available for Compass due to the hardware interface.



Supported Range

- Philips ECS LightMaster 100 system - gives access to up to 60 area controllers
- Philips ECS LightMaster LFC 5250/00 Area Controller - gives access to up to 80 lighting control modules
- Philips ECS LightMaster LLC 5319/50 Lighting Control Module - the lighting levels of up to 16 output ports can be monitored and adjusted, and up to 8 input sensors can also be monitored
- Apex Lighting Controls (ALC) Spectrum system - gives access to up to 60 area controllers

Alternative Interfaces

This driver is for CAN bus based networks, but must use a PC-based PCI card to connect to the network. If a limited number of values are required, the *ALCSpectrum* interface uses a simple RS232 gateway product.

Also available is the *PhilipsLM* interface for Ethernet based controllers.

Notes

A CAN-PCI card is required for the hardware interface; therefore any PC that is to be used to communicate with the system must have a spare PCI slot. The OSM was written and tested with a CAN-AC1-PCI card manufactured by Softing (This has one CAN channel (port). Also available is the CAN-AC2-PCI card that has two CAN channels. If using this, channel 1 must be used). **Further information on the setting up of the CAN-PCI card and of the LightMaster system is in the Engineering section of this document.**

The LightMaster system does not report alarms to Compass. If alarms are needed then an AlarmGen device will be required.

The LightMaster system does not provide logging facilities to Compass. If logging of values is needed then a Data Manager will be required.

Engineering

Step 1 – Install OSM

The LtMaster OSM is installed automatically with all ObSys editions. Refer to the 'ObSys CD sleeve' for details on how to install ObSys.

Step 2 – Configure LightMaster System

The LightMaster system has to be configured prior to communication. Each area controller (AC) has to have a unique address set up via its address switches within the panel. Each AC must be networked together using the spine bus. The lighting control modules (LM) are connected to each other and to the AC via the field bus. The user address of the LM must be set up using Philips LightMaster 100 configuration software.

The Softing CAN-PCI card comes with an installation disk. The software must be installed before communication can begin. When installing the software, select the custom install option "Wrapper for CAN API V4". You will then need to copy the .dll files from the 'C:\Program Files\Softing\CAN\CAN Layer2 V5.16\CAN_V4.0x_wrapper\<Interface Board>\Win32' directory into the ObSys program directory, which is by default 'C:\Program Files\North Building Technologies\ObSys'.

If a disk is unavailable, visit the Softing website (www.softing.com) for the latest download.

Step 3 – Connect CAN Port to LightMaster System

Using cable, connect the LightMaster spine bus to the CAN port of the PC. Refer to the section 'Cable' below for details of the cable.

Step 4 – Plug in LtMaster OSM to ObServer

Use object engineering software to locate the ObServer Setup object. Assign the LtMaster OSM to an available channel. Refer to *'ObServer v20 Application Engineering Guide'.*

Note: After inserting the OSM, your engineering software may need to re-scan the ObServer object in order to view the OSM.

Step 5 – Configure LtMaster OSM

The device label, alarm polling facilities, and alarm destination are configured using objects. Use object engineering software to view and modify the module objects within the OSM.

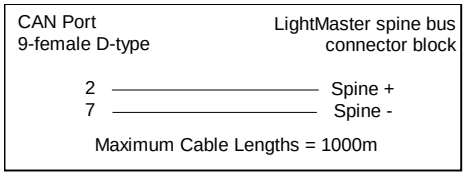
Step 6 – Access Objects within the LightMaster System

Values from the LightMaster system are made available as objects from ObServer. Any object software that is connected to the ObServer can access these objects.

Engineering Reference

Cable Specification

The cable between CAN port and the LightMaster system is as follows:



Objects

When the OSM is loaded the following objects are created within ObServer, use object software to access these objects.

Object [1]	***Label***	***R/W***	***Type***
S*c*	LightMaster System connected to channel *c*	-	*[LtMaster v10]* [2]
M*c*	LightMaster Module connected to channel *c*	-	*[OSM v20\LtMaster v10]*

Notes

[1] The ObServer channel number, *c*, is a number in the range 1…40.

[2] This object has a variable content and as such requires scanning.