

HOP SOFT

Dynalite Driver Installation Manual



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Introduction

This Dynalite driver for ELAN, supports many features, and supports many of the ways in which Dynalite is programmed. It can currently communicate with Dynalite through an IP communication.

To use this driver, you will need to know the Areas/Channels/Presets used by the Dynalite system. It would be easiest to use the Logical Export from Dynalite's software to be able to populate most of the drivers.

It is important to trial this driver before installing it at a customer's house, to understand the setup process, and the various ways to work with the driver.

Before You Begin

Before you begin trying to program/setup the driver, ensure that you have setup your Dynalite interface correctly. Make sure you have the details of the areas/channels/presets you would like to control.

Why should I add an extra port to the ethernet gateway? Can't I just use the default one?

You can use the default port which System Builder connects to. This will work, but it's advisable to add an extra port dedicated for the control system.

Adding an extra port will allow the Control System and System Builder to connect on separate ports to allow the ports to be set differently. System Builder's port can be left to the DyNet2 protocol, while the control system port can be changed to DyNet1, as that is the only protocol it understands.

Setting Up Ethernet Gateway

Ensure the gateway has been setup on a static IP address and that a port has been setup specifically for ELAN. Ensure the Envision Gateway has been setup for the DyNet1 protocol to work with this driver. If you are unsure about this, speak to the Dynalite programmer to set these options up for you.

The following screenshots will show an example of how the Ethernet Gateway can be set.

Example port setup for System Builder software connection (Dynamite programmer's connection)

Port	Type, Index	Connection	Description
Comm Port 1	1, 1	Spur	Baudrate: 9600
IPv4 Port 1	2, 1	Trunk	UDP Client, IP: 255.255.255.255, Port: 9998
IPv4 Port 2	2, 2	Trunk	TCP Server, Port: 50000
IPv4 Port 3	2, 3	Trunk	TCP Server, Port: 50001

Port	
Port type	DyNet2
Mode	Server
Port Number	50000
Protocol	TCP
Flags	
Connection	Trunk
Area zero transmit	Disabled
Sign on at start up	Enabled

Example port setup for ELAN system connection

Port	Type, Index	Connection	Description
Comm Port 1	1, 1	Spur	Baudrate: 9600
IPv4 Port 1	2, 1	Trunk	UDP Client, IP: 255.255.255.255, Port: 9998
IPv4 Port 2	2, 2	Trunk	TCP Server, Port: 50000
IPv4 Port 3	2, 3	Trunk	TCP Server, Port: 50001

Port	
Port type	DyNet1
Mode	Server
Port Number	50001
Protocol	TCP
Flags	
Connection	Trunk
Area zero transmit	Disabled
Sign on at start up	Enabled

Example port routing setup so both communicate with one another.

Enable	From	To	Filters
<input checked="" type="checkbox"/>	Comm Port 1, Spur	IPv4 Port 2, Trunk, TCP Server, Port: 50000	No filter
<input checked="" type="checkbox"/>	Comm Port 1, Spur	IPv4 Port 3, Trunk, TCP Server, Port: 50001	No filter
<input checked="" type="checkbox"/>	IPv4 Port 2, Trunk, TCP Server, Port: 50000	Comm Port 1, Spur	No filter
<input checked="" type="checkbox"/>	IPv4 Port 2, Trunk, TCP Server, Port: 50000	IPv4 Port 3, Trunk, TCP Server, Port: 50001	No filter
<input checked="" type="checkbox"/>	IPv4 Port 3, Trunk, TCP Server, Port: 50001	IPv4 Port 2, Trunk, TCP Server, Port: 50000	No filter
<input checked="" type="checkbox"/>	IPv4 Port 3, Trunk, TCP Server, Port: 50001	Comm Port 1, Spur	No filter
<input checked="" type="checkbox"/>	Internal Messages	Comm Port 1, Spur	No filter
<input checked="" type="checkbox"/>	Internal Messages	IPv4 Port 3, Trunk, TCP Server, Port: 50001	No filter
<input checked="" type="checkbox"/>	Internal Messages	IPv4 Port 2, Trunk, TCP Server, Port: 50000	No filter

Installation

Once you have placed the drivers into your ELAN drivers folder on your computer, you will be able to find it when adding a new 'Communication Device'.

If you are unable to locate it under the Communication Device selection, you may first need to try and add a lighting interface and select your drivers folder. Cancel out of the screen and go back to Communication devices.

The Communication Device will be called "Dyalite Comms HS"

Dyalite Communication Driver

Once you have added the communication driver, you'll need to configure it the IP and licensing settings.

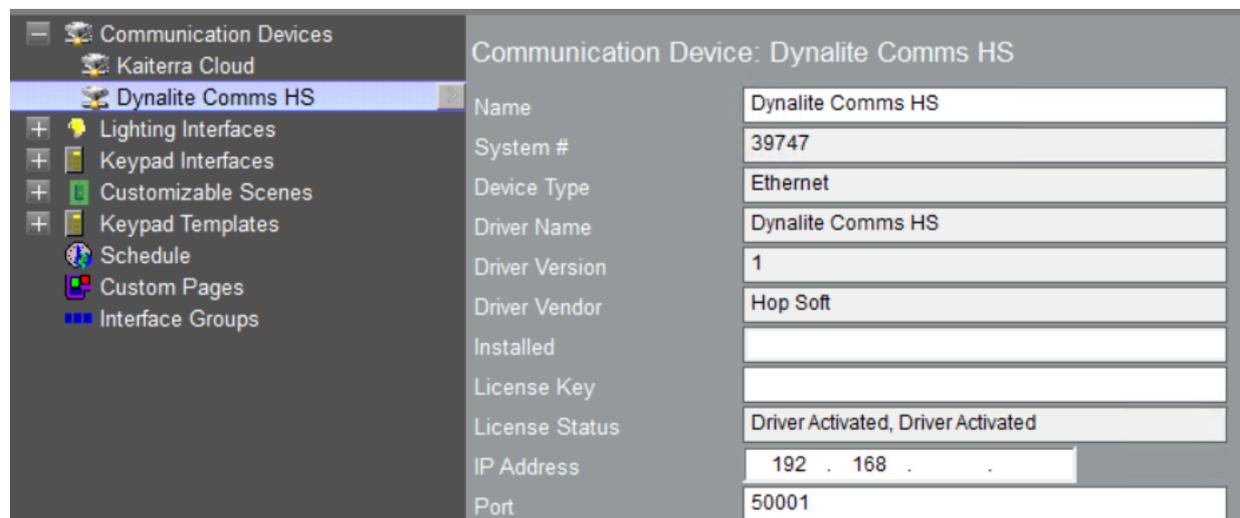
Configuration Options

License Key: Enter in the purchased license key and hit apply. You will require internet access to activate the license. If you don't have a license key, the driver will run in a trial mode for 21 days. It will tell you how much time is left on the trial.

License Status: This will display the current status of the driver's licence. It will display Valid/Invalid or the trial period remaining.

IP Address: This is the IP address of the Dyalite Ethernet Gateway

Port: This is the port setup on the Dyalite Gateway as detailed above. Ensure this is different to the port as used by the Dyalite programming software.



The screenshot shows a software interface with a left-hand navigation menu and a main configuration panel. The navigation menu includes 'Communication Devices', 'Kaiterra Cloud', 'Dyalite Comms HS', 'Lighting Interfaces', 'Keypad Interfaces', 'Customizable Scenes', 'Keypad Templates', 'Schedule', 'Custom Pages', and 'Interface Groups'. The 'Dyalite Comms HS' option is selected. The main panel is titled 'Communication Device: Dyalite Comms HS' and contains the following configuration fields:

Name	Dyalite Comms HS
System #	39747
Device Type	Ethernet
Driver Name	Dyalite Comms HS
Driver Version	1
Driver Vendor	Hop Soft
Installed	
License Key	
License Status	Driver Activated, Driver Activated
IP Address	192 . 168 . .
Port	50001

Dyalite Lighting Interface Driver

You will need to add in lighting interfaces via the Communication Device. There is a button to add a new interface. The driver has been limited to adding 5 lighting interfaces for the communication device.

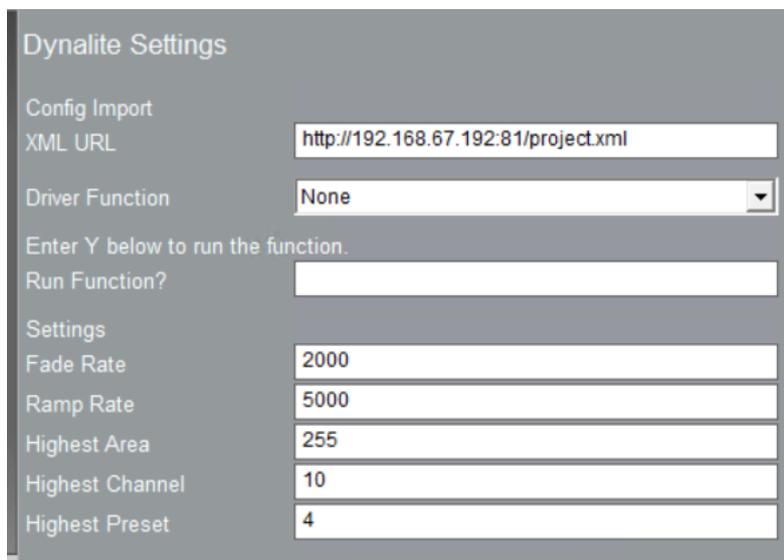
Why would I want to add multiple interfaces?

Good question. You may want to add multiple interfaces to split up large jobs and make it easier to find devices. For example, you could have an interface per floor. Another possibility is having an interface for each type of device. You could have an interface with all your Shade devices in it, one which contains all your area presets, and another which contains your channel control.

It basically gives you some options in organising the project in Configurator. This won't affect how things are displayed on the UI, that is still fully configurable.

Dynalite Settings Page

On this page you can make driver wide configuration settings for this lighting interface. Each lighting interface will use these settings independent of one another.



The screenshot shows the 'Dynalite Settings' interface. It includes a 'Config Import' section with an 'XML URL' field containing 'http://192.168.67.192:81/project.xml' and a 'Driver Function' dropdown menu set to 'None'. Below this is a 'Run Function?' field with the instruction 'Enter Y below to run the function.'. A 'Settings' section contains several input fields: 'Fade Rate' (2000), 'Ramp Rate' (5000), 'Highest Area' (255), 'Highest Channel' (10), and 'Highest Preset' (4).

XML URL: This is a URL to download the exported Logical XML file. If it has been loaded onto the Dynalite ethernet gateway it can be accessed using the url:

[http://\[ipaddress\]/project.xml](http://[ipaddress]/project.xml)

After you have changed this, you will need to run the function to retrieve the XML file. More information on running functions is below.

Driver Function: When changing this drop down, you will need to type a "Y" into the box below and then hit the Apply button at the bottom of the page.

"Download Logical File" This will download the XML file which is specified in the box above. It will store this file within the driver for later use by the other functions.

"Rescan Devices" This function will scan configurator for manually added devices to be able to provide feedback to them. This will automatically run when controller reboots or the driver is updated. So only needs to be run if you manually add a device and try to use it straight away.

"Add X" functions will scan the XML file downloaded and automatically add devices. Area presets will always be added as a SWITCH, areas will be added as DIMMER and Channels will be added based on the type set in Dynalite. It will add it as SWITCH,DIMMER,SHADE

accordingly. More information on how to configure the types in System Builder is later in the document.

Fade Rate: is a global fade rate added to all dimming commands. It is in milli seconds. It currently isn't possible in the driver to set different fade rates per device. You can set a different fade rate per lighting interface if devices do require different fade rates.

Ramp Rate: is a global ramp for Press/Release triggers (when using keypads/buttons). It currently isn't possible in the driver to set different ramp rates per device. You can set a different ramp rate per lighting interface if devices do require different ramp rates.

Highest Area/Channel/Preset: These are used for finding lighting loads within Configurator. It can be reduced so the controller doesn't need to scan through as many addresses and speed up the process. This is done every time the driver loads (or when the driver function above is used).

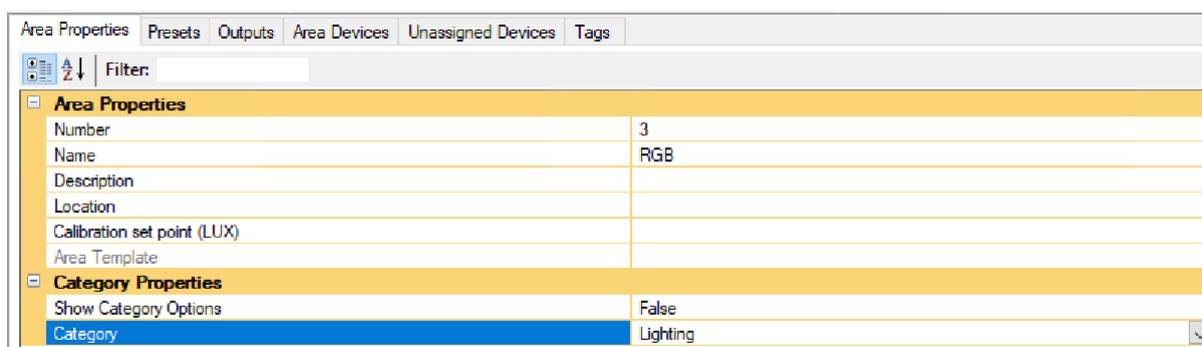
It's only necessary to change these if you are using Areas/Channels/Presets above the default values.

System Builder Tips

The information here will help to maximise the Logical File import functionality to minimise manual work required in configuring lighting loads.

Hiding Areas

If you wish the driver to ignore certain logical areas, change the “Category” to something other than “Lighting” or “Shades”



Area Properties	
Filter:	
Area Properties	
Number	3
Name	RGB
Description	
Location	
Calibration set point (LUX)	
Area Template	
Category Properties	
Show Category Options	False
Category	Lighting

Hiding Individual Channels

If you wish the driver to ignore particular channels, change the category on that individual channel to “Hidden”

Configuring Shades

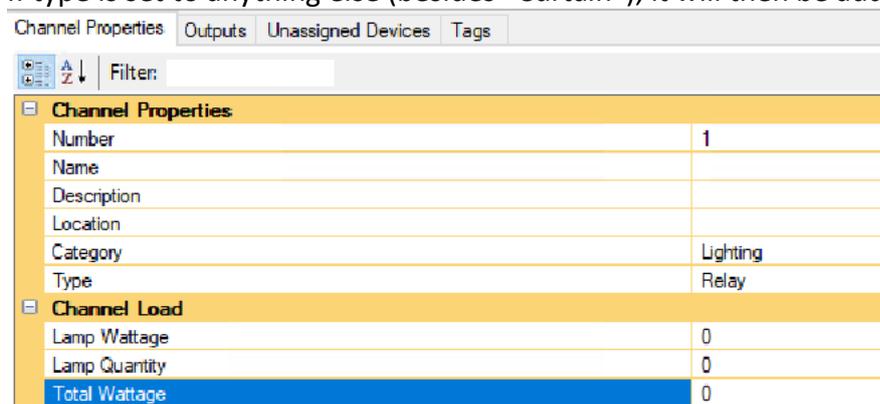
Shades can be configured in multiple ways. The recommended way is using Dynalite’s inbuilt shade/curtain functionality. If you are using this, you can then select the type of the Logical Channel to be “Curtain”. This will add the device into ELAN as a “Shade” and allow the showing of positional feedback from Dynalite.

If you are controlling shades using Presets, set the Logical Area’s category to “Shades”. That will not be a default option in the dropdown box, so you will just need to type it in.

Configuring Dimmer/Switched Loads

From the Logical Channels properties, you can specify to the driver to add it as a Switch, by settings it’s “Type” to be either “Relay” or “Volt Free”.

If type is set to anything else (besides “Curtain”), it will then be added as a Dimmer.



Channel Properties	
Filter:	
Channel Properties	
Number	1
Name	
Description	
Location	
Category	Lighting
Type	Relay
Channel Load	
Lamp Wattage	0
Lamp Quantity	0
Total Wattage	0

Tips and Tricks

Naming Logical Channels/Areas in System Builder

Once the driver adds lighting loads in, it can't modify their name. The names can only be configured manually after this, so ensure you have names set correctly in System Builder before importing.

What can I do to import the Logical XML File if I don't have a PDEG (Ethernet Gateway) with Web server?

If you don't have a Dynalite PDEG as the Ethernet Gateway, you will need to save the logical file to your computer, and either host that file on a webserver, or follow the instructions below to temporarily host it from your computer.

One thing to note, this will need to be done on the same network as the ELAN controller, it won't work when connected remotely to it.

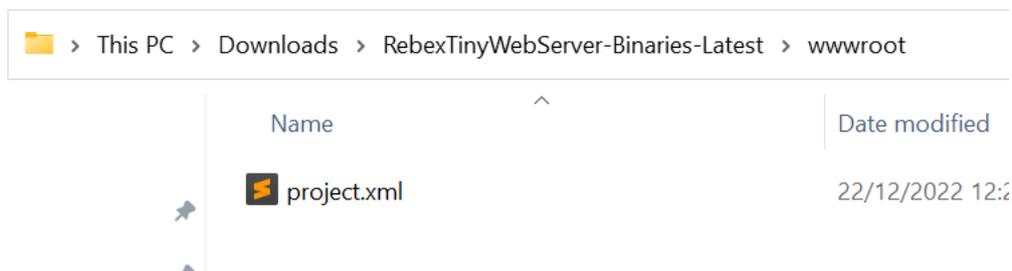
You will need to download the following software:

<https://www.rebex.net/tiny-web-server/>

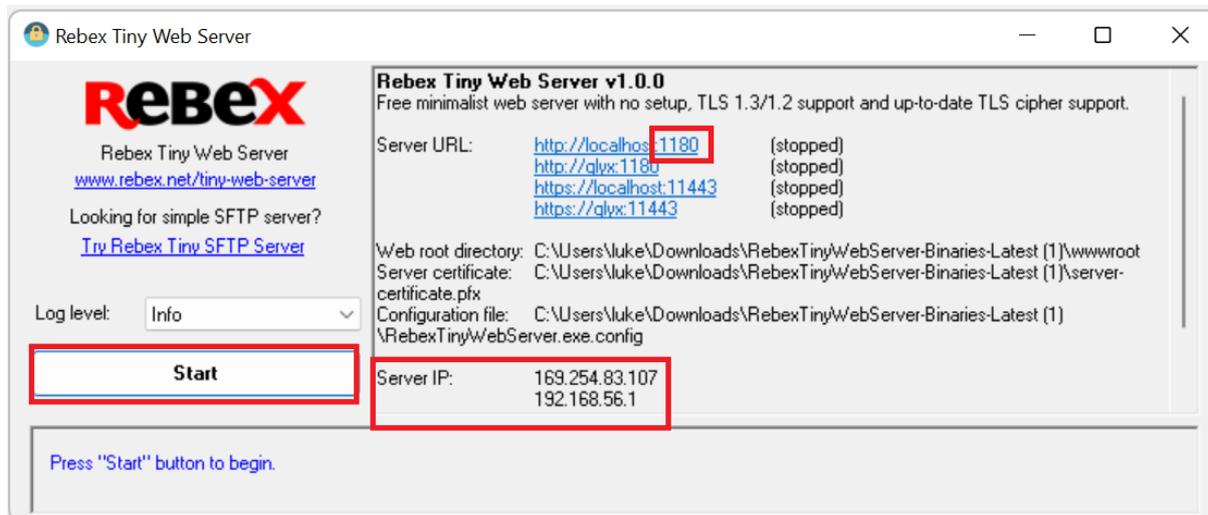
Once downloaded, extract the zip file, and go into the folder.

Run the RebexTinyWebServer.exe file, this will create a folder "wwwroot".

You will need to copy the Logical XML file into that folder and rename the logical XML to project.xml



After you have done this, go back to the software and you will need to hit the “Start” button.



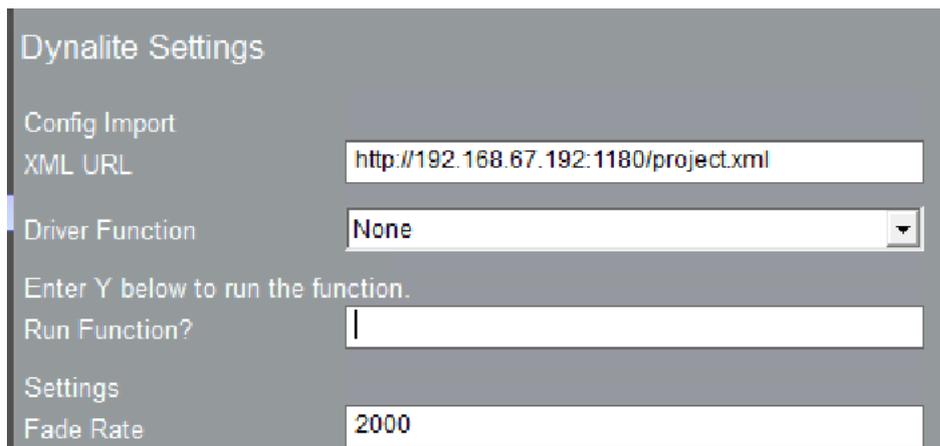
Also take note of the items outlined in red in the above screenshot. The top outlined item is the “PORT” that is being used by the software, you will need to use this when configuring the ELAN driver. The other item to take note of is the “Server IP”, this will list your computers IP addresses. One of these should be on the same network as the ELAN controller.

You will use these to fill in the “XML URL” setting in the driver.

The format will be: [http://\[ip of your computer\]:\[port\]/project.xml](http://[ip of your computer]:[port]/project.xml)

You will need to substitute the correct IP address and Port.

It will look something like:



After this has been configured you can follow the instructions earlier in the documentation to download the Logical XML file. Once you have downloaded the file into the ELAN controller, you are able to close the Rebex software.