2.3.4 CGI access

This section describes the common gateway interface available in HTML mode.

Where multiple computers need to access the lighting control system, the PDEG can host custom webpages to send commands to the network and to request the status of the network. A common gateway interface (CGI) provides the dynamic content for the webpages.

The CGI interface has been modelled on the Dynalite Text protocol and the Dynalite Tasking syntax. In these protocols many of the command parameters are optional, so if a parameter is not specified then the default value (or the value that was previously specified) for this parameter is used for subsequent CGI requests. This behavior is satisfactory when the ethernet gateway has a single client, but if many clients are connected at the same time then unintended parameter values may be applied. In this case it is important to explicitly specify a value for all parameters each time a command is executed.

CGI commands can be entered directly into a browser address bar or accessed from a user designed web interface. To create a custom web interface, use an FTP client to upload web pages/applications such as HTML, CSS, JavaScript etc. to the B:\WWW\USER folder.

Note: The default Philips web interface is preloaded directly under the B:www folder. For more information refer to Chapter 3 Philips Web Interface.

Issues to consider:

- FTP uploads use port 21 with Username as ‘guest’ and Password as ‘guest’. Ensure all other sessions are disconnected before opening a new session. There is a two-minute timeout period.
- Set the default remote directory to B: (directory A: is used for the PDEG log files).
- Do not name your default page Index.htm, as this filename is used by the Philips web interface.
- The filename WebPage.cgi is reserved for retrieving webpage data.
- The filename SetDyNet.cgi is reserved for issuing DyNet commands.
- The filename GetDyNet.cgi is reserved for retrieving DyNet status.
- All files must use an 8.3 file naming format (not case sensitive).
- ? = part of the CGI syntax, e.g. SetDyNet.cgi?
- & = delimiter, e.g. http://192.168.10.10/GetDyNet.cgi?a=3&p=2&l

DyNet commands and status requests

Following is the list of HTTP/CGI requests implemented in the gateway.

Function	CGI request	Required & Optional Parameters	Value Required	Range	Description
Recall preset (Set) Request current preset (Get)	**P** or **PRESET** Preset number Command	**A** C, J, F	Yes	0 to 65535	Also supports special presets: 0=Reset 65520=Off 65532=Restored Saved 65533=Toggle 65534=Panic 65535=don't care preset
Recall channel level (Set) Request current channel level (Get)	**L** or **LEVEL** Channel level Command/Parameter	**A** C, J, F	Yes	0 to 100	Channel level in percentage 255 is special don't know/don't care value.
Program/save preset (Set)	**PP** or **S** Preset number Command	**L, A** C, J	Yes	0 to 255	Saves the current channel levels to the specified preset
Start task (Set)	**STT** Task number Command	- DC, BN	Yes	0 to 255	If DC and BN are not provided, the device's DC and BN will be used.
Stop task (Set)	**SPT** Task number Command	- DC, BN	Yes	0 to 255	If DC and BN are not provided, the device's DC and BN will be used.
Pause task (Set)	**PT** Task number Command	- DC, BN	Yes	0 to 255	If DC and BN are not provided, the device's DC and BN will be used.
Enable event (Set)	**EEVT** Event number Command		Yes	0 to 255	0: All Events Other values: particular event number
Disable event (Set)	**DEVT** Event number Command		Yes	0 to 255	0: All Events Other values: particular event number
Trigger event (Set)	**TEVT** Event number Command		Yes	1 to 255	0: All Events Other values: particular event number

Read task port value (Get)	**RPV**
	`Task port number`
	`Command`
		-
		SBP
			`Yes`	0 to 255	SBP is optional for task sub-port number

Write on task port (Set)	**WPV** Task port number Command	- SBP	Yes	0 to 255	SBP is optional for task sub-port number
Write on sub-task port (Set)	**SBP** Task sub-port number Parameter	**RPV or WPV**	Yes	0 to 255	
Nudge up (Set)	**NU** Increment factor Command	**A** C, J	Yes	0 to 100	Channel level in percentage
Nudge down (Set)	**ND** Decrement factor Command	**A** C, J	Yes	0 to 100	Channel level in percentage
Ramp level (Set)	**RL** or **RAMPLEVEL** Ramp level value Command	**A** C, J	Yes	0 to 100	Level in percentage

Function	CGI request	Required & Optional Parameters	Value Required	Range	Description
Stop fade (Set)	**SF** or **STOPFADE** Stop fading Command	**A** C, J	No		
Get temperature (Get)	**TPTR** or **TEMPERATURE** Temperature in +/- xx.yy format Command	**A** J	No	-64 to 64	Returned temperature shall be in +/- xx.yy format
Set temperature set-point (Set) Get temperature set-point (Get)	**TPSP** or **TEMPERATURESETPOINT** Temperature in +/- xx.yy format Command	**A** J	Yes, for Set No, for Get	-64 to 64	Returned temperature shall be in +/- xx.yy format
Get DALI ballast runtime status (Get)	**QBS** DALI ballast runtime status Command	**DC, BN, C** CN	No		Reply if CN not specified: **QBS**=x Reply if CN specified (for example CN=5): **QBS**=x;x;x;x;x x=0 : Lamp failure, ballast offline x=1 : Lamp Ok, ballast offline x=2 : Lamp failure, ballast online x=3 : Lamp Ok, ballast online C: 1 to 64 for DDBC120-DALI CN: 1 to 64 for DDBC120-DALI
Set the preset offset (Set)	**O** or **OFFSET** Preset offset Command	**A** J	Yes	0 to 127 or 0 to 65535	Set the preset offset for an area. The maximum value that can be set for a DyNet 1 message is 127. The maximum value that can be set for a DyNet 2 message is 65535.
Set reply time out (Set) Get reply time out (Get)	**REPLYTIMEOUT** Reply time out in milliseconds Command		Yes, for Set No, for Get	200 to 20000	This is the amount of time that device will wait for a any request message (when GetDyNet.cgi is used) to get back with a reply. If there is no reply after this time, device will reply with an error back to the client.
Set task register X (Set) Get task register X (Get)	**X** X register value Command			0 to 255	
Set task accumulator (Set) Get task accumulator (Get)	**ACC** ACC register value Command			0 to 255	
Area (Set or Get)	**A** or **AREA** Area number Parameter		Yes	Area: 0 to 255 Channel: 1 to 255	If area is not specified than, request will be processed for last area received & saved by the Xport. Else channel level for requested area will be returned, without storing the requested area.
Join (Set or Get)	**J** or **JOIN** Join value Parameter		Yes	0 to 255	
Channel number (Set or Get)	**C** or **CHANNEL** Channel number Parameter		Yes	0 to 65535	
Number of physical channels (Get)	**CN** Number of physical channels Parameter		Yes	0 to 65535	

Function	CGI request	Required & Optional Parameters	Value Required	Range	Description
Box number (Set or Get)	**BN** Box number value in physical address Parameter		Yes	0 to 255	
Device Code (Set or Get)	**DC** Device Code value in physical address Parameter		Yes	0 to 255	
Fade time (Set)	**F or FADE** Fade time in milliseconds Parameter		Yes	0 to 5,242,710 ms	

DyNet commands and status request examples

To control DyNet Areas, DyNet logical commands use the http Set method with the SetDyNet.cgi file. DyNet logical status requests use the http Get method with the GetDyNet.cgi File.

Note: http parameters are not case sensitive, but CGI file names are case sensitive.

Example 1: Recalling preset 2 in area 3.

http://192.168.10.10/SetDyNet.cgi?a=3&p=2

This sets area 3 to preset 2. Multiple parameters may be used in the one request; however, only one of them should be of the command type. The response from this HTTP request automatically redirects the browser back to the calling page as detailed below.

<html><body onload=history.back()></body></html>

Example 2: Request the current preset in area 3

http://192.168.10.10/GetDyNet.cgi?a=3&p

or

http://192.168.10.10/GetDyNet.cgi?a=3

The response from this HTTP request contains the state retrieved from the DyNet area. A single numeric value is returned indicating the current preset or channel level. If the logical entity does not exist a single full stop character "." is returned. If the response shown below is returned from the request, then area 3 is in preset 4.

p=4

Example 3: Set the preset offset in area 2 to 6

http://192.168.10.10/SetDyNet.cgi?a=2&o=6

If the current preset is 4, the reply will be: p=4 o=6

Example 4: Check the current setting for Reply Time Out and set it to a new value

Reading the current setting:

http://192.168.10.10/GetDyNet.cgi?replytimeout

returns:

replytimeout=200

Now setting it to a new value: (this is typically for wireless devices that can have a very slow response times)

http://192.168.10.10/SetDyNet.cgi?replytimeout=2000

Example 5: Program Area 2, Channel 3 and Level 25% to Preset 10

http://192.168.10.10/SetDyNet.cgi?a=2&c=3,j=255&l=25&pp=10

Example 6: Fade Area 2, Channel 3 to 25% channel level with 5 seconds fade time

http://192.168.10.10/SetDyNet.cgi?a=2&c=3,j=255&l=25&f=5000

Example 7: Request the saved channel level in Area 2, Channel 3 for Preset 4

http://192.168.10.10/GetDyNet.cgi?a=2&c=3&j=255&p=4

Example 8: Request the current channel level in Area 3, channel 2 (returns 23%)

http://192.168.10.10/GetDyNet.cgi?a=3&c=2&j=255&l

or

http://192.168.10.10/GetDyNet.cgi?a=3&c=2&j=255

returns:

l=23