

# Raytec HTTP Command Creator User Guide

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# 1 Introduction

The Raytec HTTP Command Creator is a tool that simplifies the process of creating a HTTP command to send to IP lamps to perform an action.

The tool is intended to replace the large HTTP API user guide and act as an interactive user guide.

The intended use, and motivation behind the Raytec HTTP Command Creator is to provide the user with a means of creating and testing a HTTP command before exporting it (using the *Copy* option) to use it as part of another system.

The general workflow anticipated is as follows:

1. Update *Lamp Information* section to reflect settings of the lamp
2. Select interface and one or more parameters to build the HTTP command
3. *Send* the command to the lamp to test the behaviour is as intended
4. *Copy* the command to use it in another system.

## 2 System Requirements

### 2.1 Pre-requisites

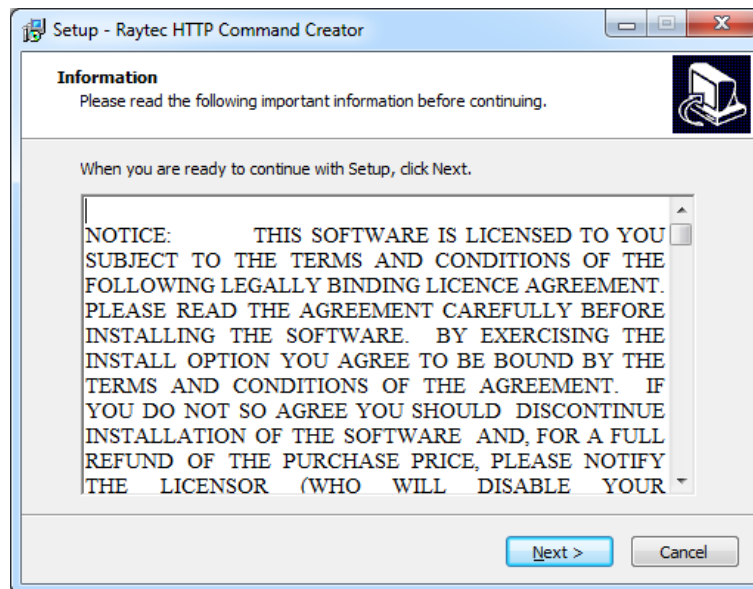
- Windows 7 or above
- .NET framework 4.5.2

Ensure that your lamps are in **HTTP** mode or **HTTP + local** mode. If you plan on using the *group* parameter on the *Power* or *Deter* interfaces, then the lamps must be in **HTTP + local** mode for this to work.

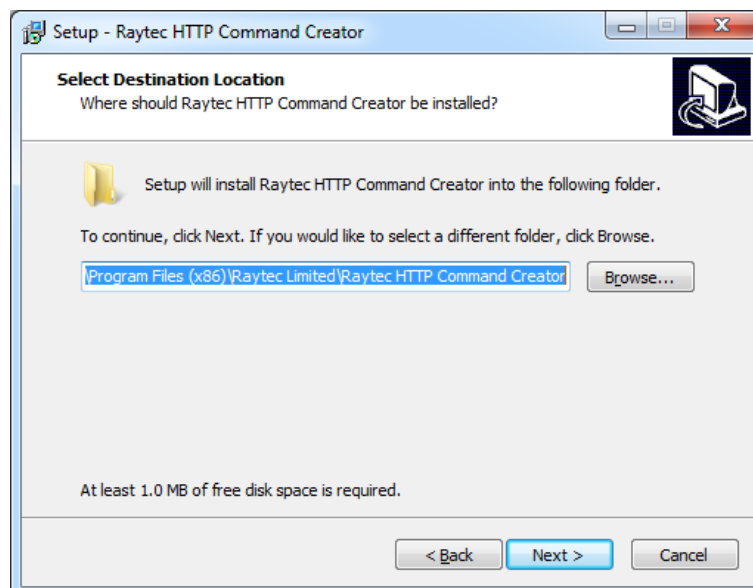
### 3 Installing the Raytec HTTP Command Creator

To install the Raytec HTTP Command Creator, follow the steps below:

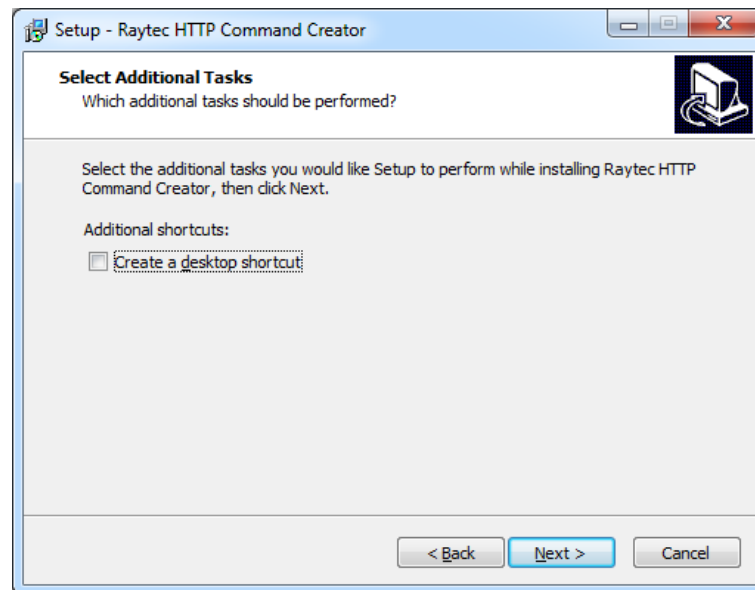
1. Run the executable *HTTPCmdCreatorInstaller.exe*, you should be presented with the following screen; after reading the software license agreement, click 'Next':



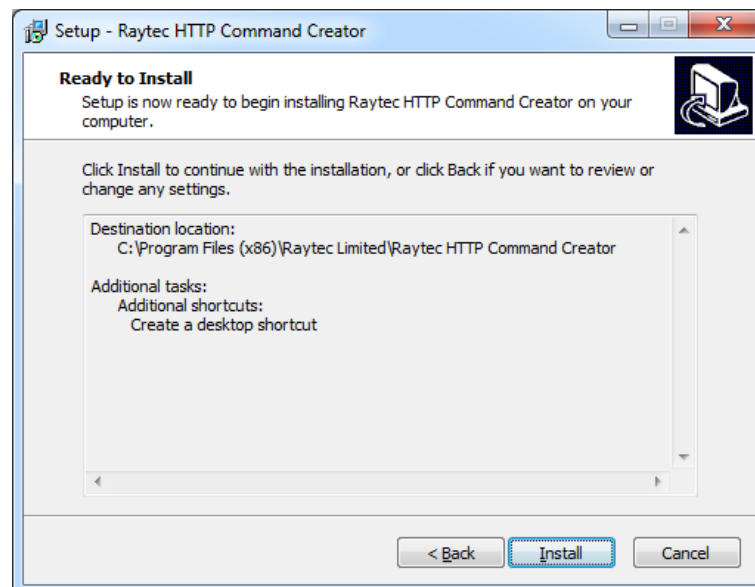
2. Select a location for the install and click 'Next'. The default location is *C:\Program Files (x86)\Raytec Limited\Raytec HTTP Command Creator*



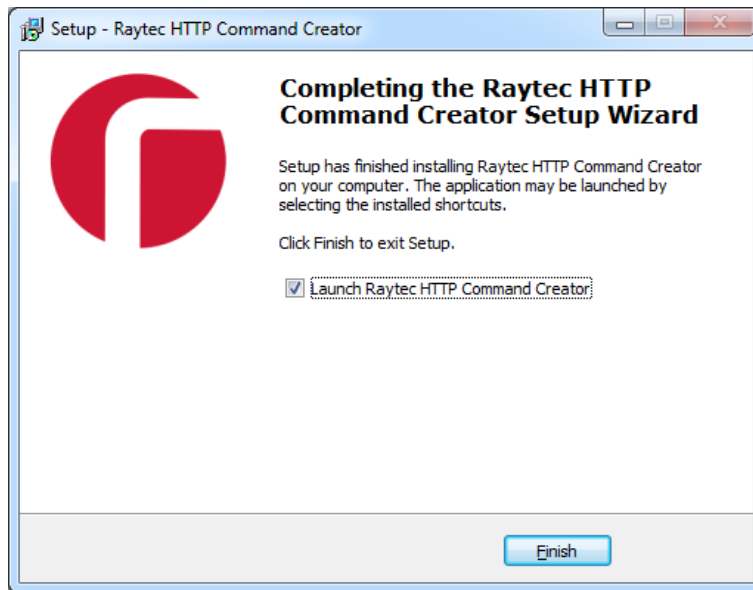
- The installer gives you the option to create a desktop shortcut, check the box to create one or click next for the next page of the installation wizard.



- Review your configuration, if you are happy, click *Install*, if not, use *<Back* button to change settings.



5. The wizard will install the software and present the following screen when finished. You can choose to launch the Raytec HTTP Command Creator right away.

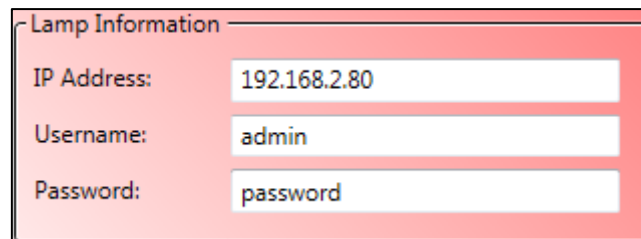


## 4 HTTP Command Creator User Interface

The HTTP Command Creator has three sections:

- Lamp Information
- Command
- Parameter selection

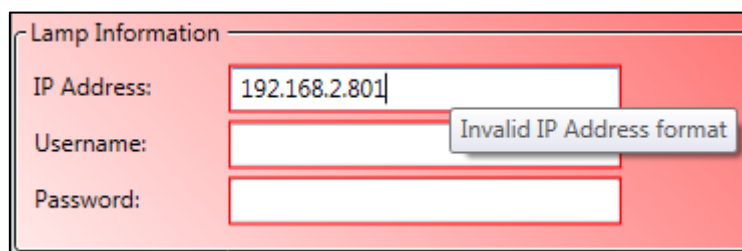
### 4.1 Lamp Information



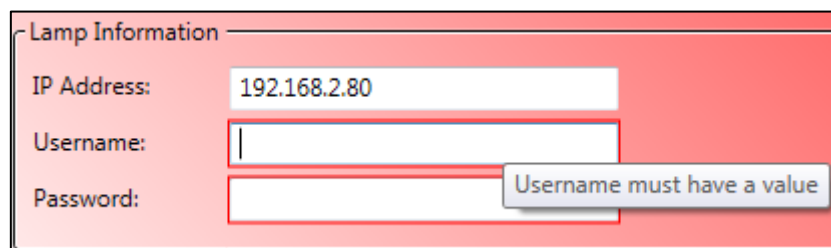
A screenshot of the 'Lamp Information' section in the HTTP Command Creator. It contains three input fields: 'IP Address' with the value '192.168.2.80', 'Username' with the value 'admin', and 'Password' with the value 'password'. The entire section is highlighted with a red border.

The *Lamp Information* section allows the user to enter the IP address of the lamp and the credentials to access the lamp. As you change these values and the text boxes lose focus (when moving between them), you will see the command change in the *Command* section.

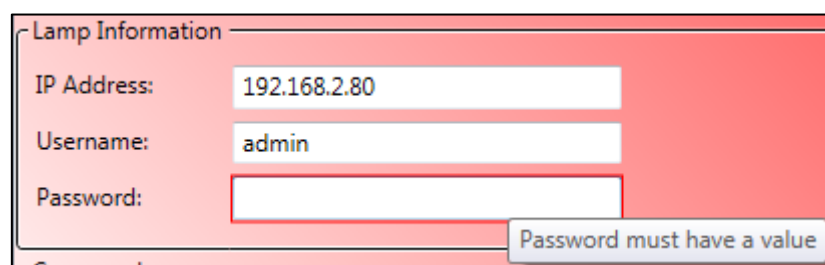
If there are any errors present in this section, the text box containing the error will be highlighted in red, hovering over the text box will show the error message.



A screenshot of the 'Lamp Information' section. The 'IP Address' field contains '192.168.2.801' and is highlighted in red. A tooltip message 'Invalid IP Address format' is displayed over the field. The 'Username' and 'Password' fields are empty.



A screenshot of the 'Lamp Information' section. The 'IP Address' field contains '192.168.2.80'. The 'Username' field is empty and highlighted in red. A tooltip message 'Username must have a value' is displayed over the field. The 'Password' field is empty.



A screenshot of the 'Lamp Information' section. The 'IP Address' field contains '192.168.2.80' and the 'Username' field contains 'admin'. The 'Password' field is empty and highlighted in red. A tooltip message 'Password must have a value' is displayed over the field. The 'Command' section is partially visible at the bottom.



## 4.2 Command



Command

Command:

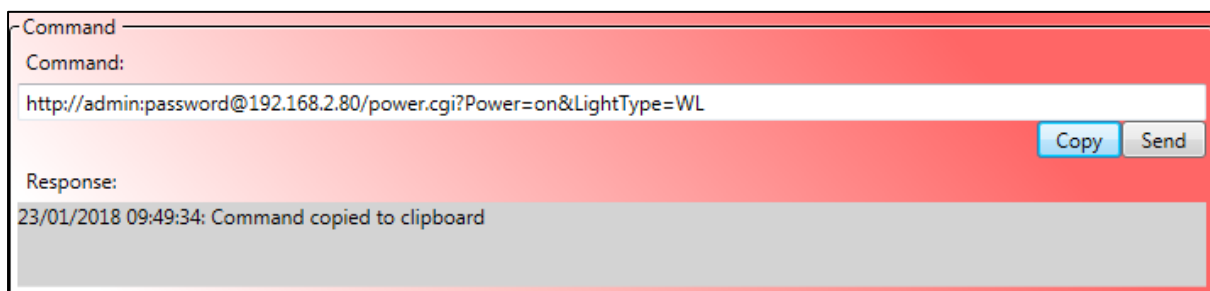
Response:

The *Command* section displays the command as it is automatically built when updating lamp information and parameters.

You can choose to *Copy* the command, so that it can be used in another program, or *Send* the command to the lamp. These buttons are disabled until a correctly-formed command exists.

The *Response* field provides both feedback from the lamp when a command is sent and error messages associated with a failed send.

### Response examples



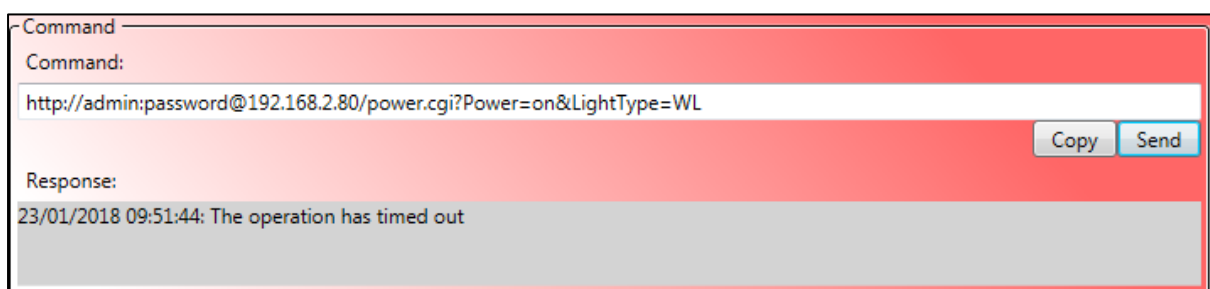
Command

Command:

Response:

23/01/2018 09:49:34: Command copied to clipboard

*Command copied – When you click “Copy”, the response field will give feedback on this. This response will disappear after 5 seconds.*



Command

Command:

Response:

23/01/2018 09:51:44: The operation has timed out

*Operation timed out – When you click “Send” but no response is received from the lamp, this error message will be returned. This response does not disappear like command copied above*

```

Command
Command:
http://user:password@192.168.2.80/settings.cgi?PCFollow=on
Copy Send
Response:
23/01/2018 09:59:48: The remote server returned an error: (401) Unauthorized.
  
```

*Unauthorised – the “user” account is not authorised to send HTTP commands using the settings interface. It is authorised to use power, deter and status however.*

```

Command
Command:
http://admin:password@192.168.2.80/power.cgi?Power=on&LightType=WL
Copy Send
Response:
23/01/2018 09:56:41: {"Status":"Error - lamp not in HTTP mode"}
  
```

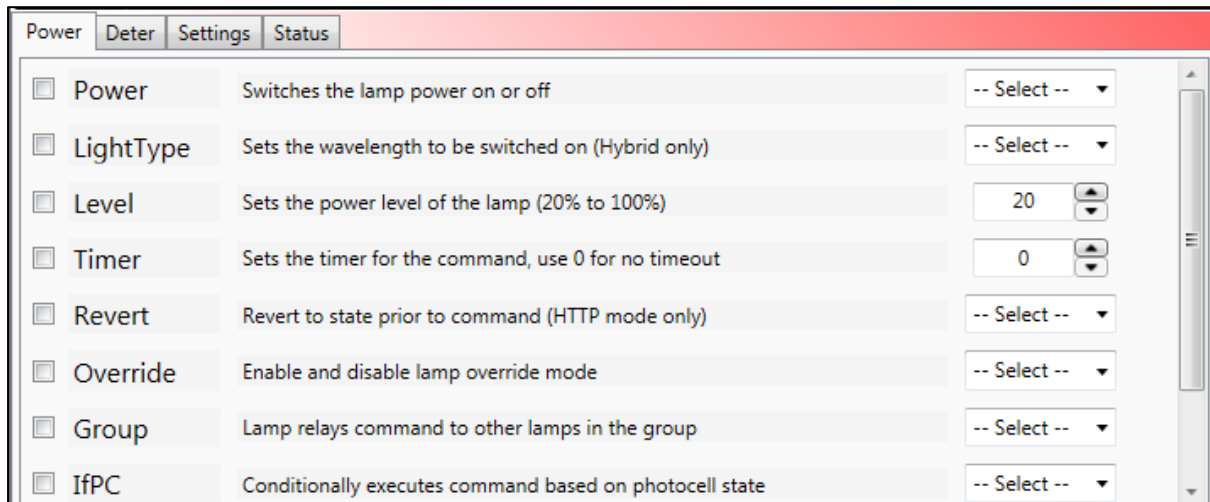
*Incorrect mode – response from the lamp when it isn’t in HTTP or HTTP + local mode.*

```

Command
Command:
http://admin:password@192.168.2.80/power.cgi?Power=on&LightType=WL
Copy Send
Response:
23/01/2018 09:57:58:
{"Status":"OK","Power":"on","Level":"50","LightType":"WL","Timer":"0","Revert":"yes","Photocell":"night","Telemetry":"inactive"}
  
```

*Successful command – response from lamp starting with “Status”:”OK” followed by acknowledgement of parameters sent and defaults (where parameters weren’t included in command)*

### 4.3 Parameters



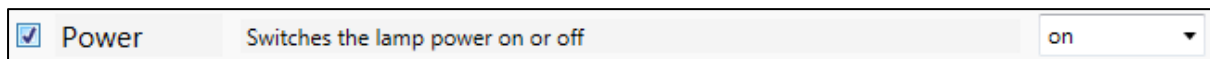
Power	Deter	Settings	Status
<input type="checkbox"/> Power	Switches the lamp power on or off		-- Select --
<input type="checkbox"/> LightType	Sets the wavelength to be switched on (Hybrid only)		-- Select --
<input type="checkbox"/> Level	Sets the power level of the lamp (20% to 100%)		20
<input type="checkbox"/> Timer	Sets the timer for the command, use 0 for no timeout		0
<input type="checkbox"/> Revert	Revert to state prior to command (HTTP mode only)		-- Select --
<input type="checkbox"/> Override	Enable and disable lamp override mode		-- Select --
<input type="checkbox"/> Group	Lamp relays command to other lamps in the group		-- Select --
<input type="checkbox"/> IfPC	Conditionally executes command based on photocell state		-- Select --

The *Parameters* section has tabs for each interface available in the HTTP API. Each tab lists the parameters associated with the interface with a small description and either a combo box or number spinner to select a value to send to the lamp for that parameter.

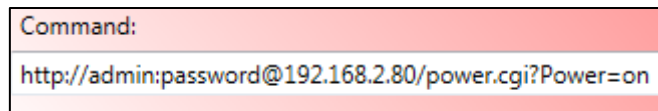
#### String Parameters

Each string parameter has placeholder text of “-- Select --” to begin with.

If you check the checkbox associated with the parameter, the first item will be selected in the combo box and the command will be updated.



<input checked="" type="checkbox"/> Power	Switches the lamp power on or off	on
---	-----------------------------------	----



```
Command:
http://admin:password@192.168.2.80/power.cgi?Power=on
```

You can also use the combo box to select your desired value, this will automatically check the checkbox and the command will be updated with the parameter and selected value.

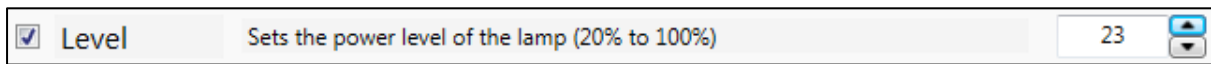
If you wish to remove the parameter from the command, simply uncheck the checkbox.

## Numeric Parameters

Numeric parameters behave the same as String Parameters in that checking the checkbox places the parameter into the command and changing the value checks the checkbox.

The value of the numeric control can be changed in many ways:

- *Using the up and down arrows*



If you want to update the value by a few numbers, then using the arrows is one of the quickest ways to do this.

When the minimum value is reached, the down arrow will be disabled and when the maximum is reached, the up arrow is then disabled.

- *Using the up and down cursor keys*

You can update the value of the selected numeric parameter using the up and down cursor keys. The behaviour is the same as above.

Ensure you have the cursor inside the textbox containing the number to do this.

- *Typing the number in directly*

If you need to change the current value considerably, the quickest way to do this is to type in the number and hit Enter on the keyboard. If the value is greater than the maximum, the maximum will be set. If the number is lower than the minimum, the minimum will be set.

### Notes:

When you return to a tab after using another, all values will be reset.

See appendix A for an exploded view of all interfaces, parameters and values available.

## 5 Appendices

### 5.1 Appendix A – Exploded Parameters

#### Power interface

Parameter	Type	Values
Power	String	on off
LightType	String	IR WL
Level	Number	Min 20 Max 100
Timer	Number	Min 0 Max 65535
Revert	String	yes no
Override	String	yes no
Group	String	yes no
IfPC	String	day night
IfT	String	active inactive

#### Deter interface

Parameter	Type	Values
Deter	String	on off
DeterPat	String	sos hi-lo wave
DeterFreq	String	slow medium fast
Level	Number	Min 20 Max 100
Timer	Number	Min 0 Max 65535
Revert	String	yes no
Override	String	yes no
Group	String	yes no
IfPC	String	day night
IfT	String	active inactive

### Settings interface

Parameter	Type	Values
PCFollow	String	on off
PCAdjust	Number	Min – 5 Max - 65
TFollow	String	on off

### Status interface

Parameter	Type	Values
Parameter	String	photocell telemetry pcadjust macaddress model name ipvoltage led auxoutput deterpat deterfreq ontime powertime group all