

# Wired System Setup Guide

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## 1 What you need to get started

This guide is for programming a system using the Rasoft Pro software (available for download at <http://www.rakocontrols.com/rasoftpro/>).



Rasoft classic



Rasoft Pro

To use original Rasoft please refer to the Rasoft programming guide (available for download at [http://www.rakocontrols.com/files/4313/3769/0573/Wireless\\_module\\_system\\_setup\\_guide.pdf](http://www.rakocontrols.com/files/4313/3769/0573/Wireless_module_system_setup_guide.pdf)). It is strongly advised to download and use the new software as some new features are not supported by Rasoft classic.

Programming the system will require a communication device to be connected: either a RAUSB/RAMPI or Bridge Module to a laptop or mac. It may also be useful to have a full list of the rooms and circuits that will be included in the project so these can be entered when using the new project wizard.

## 2 Create a new Rasoft Pro Project File

Open the Rasoft Pro programming software and click “File” - “New Project” to bring up the new project wizard. Each step of the process of creating the file is prompted in the software but further detail is provided here.

### 2.1 Project name and House numbers

Choose a suitable project name, typically the name of the property, a description for the project can also be added.

The screenshot shows the 'New Project Wizard' dialog box. The 'Steps' list on the left indicates the current step is '1. Project Name'. The main area is titled 'Project Name (1. from 6)'. It contains a 'New Project' section with the following fields:

- Project Name:** A text box containing 'Example wired project'.
- Project Description:** A large empty text box.
- Project House Number:** A spinner box set to '19'.

Below these fields, a message states: 'A new house number has been picked based on recent projects'. At the bottom, it shows 'Connected Bridge's House: 98'. The bottom of the dialog features a row of buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

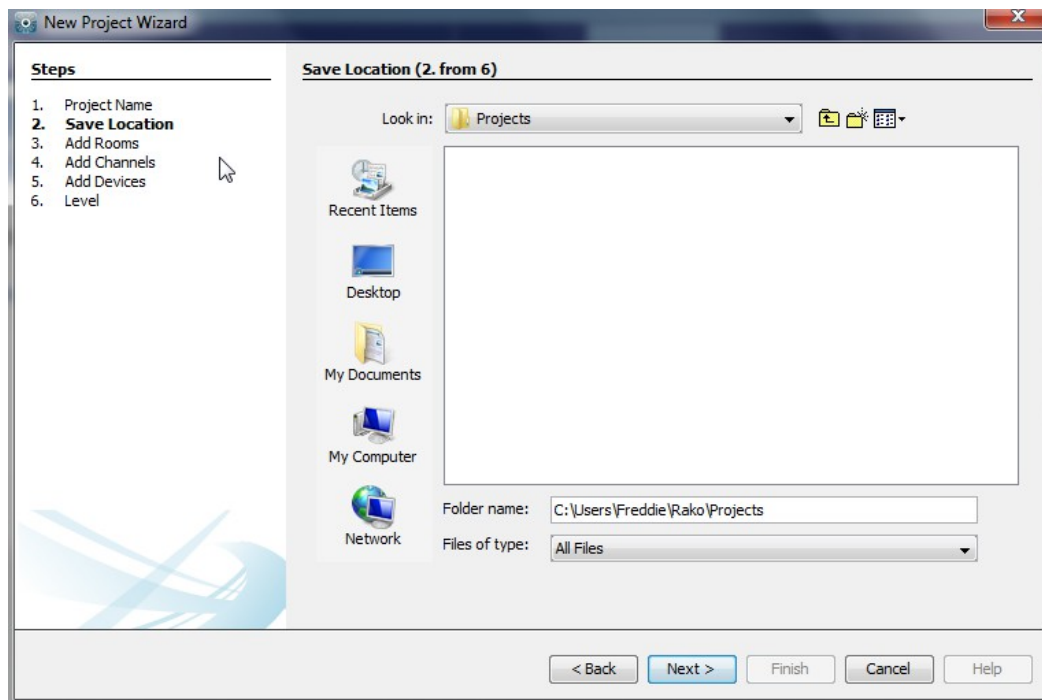
Every Rako system must be assigned a House number. Rasoft Pro will suggest a House number based on previous projects by default, a custom House number can be selected if preferable.

## NB

*Rako products have a factory default House number of 1 so it is strongly recommend that this is not used. This will avoid interference with other systems also left on the default house address.*

## 2.2 Save Locations

Select the Save Location for the project file. It is best to use the default save location ([C:/Users/\[user\]/Rako](C:/Users/[user]/Rako)). Files saved at this address will appear in recent projects on the Rasoft Pro home screen when it is reopened.



## 2.3 Adding rooms

**New Project Wizard**

**Steps**

1. Project Name
2. Save Location
3. **Add Rooms**
4. Add Channels
5. Add Devices
6. Level

**Add Rooms (3. from 6)**

**Rooms In Project**  
Note: More can be added later

1. Room Name:

2. Room Types:  
☒ Lighting  
☐ Blinds  
☐ Switch

3.

Living Room - Lights  
Kitchen - Lights  
Hall - Lights  
Study - Lights

< Back   Next >   Finish   Cancel   Help

To add rooms to the project, type in the room name, select the room type (lights, blinds or switched) and click add.

Setting the correct room type is important at this stage as it will determine how certain pages of the software and App are displayed. The switched option should only be used when rooms contain switched circuits only. For a room where a combination of dimmed and switched circuits are present select lighting.

### NB

*Rako rooms do not necessarily directly relate to physical rooms. For example a physical room with lighting and blind control is usually set as two Rako rooms. This is because the mode of control of lighting and blinds are quite different and for ease of programming not normally linked*

Once a room is added it will appear under the room list heading with an automatically assigned room number. Continue adding until the box on the right hand side is populated with all the rooms in the property. Rooms can be deleted at any time by highlighting them and clicking “delete selected”.

**New Project Wizard**

**Steps**

1. Project Name
2. Save Location
3. **Add Rooms**
4. Add Channels
5. Add Devices
6. Level

**Add Rooms (3. from 6)**

**Rooms In Project**  
Note: More can be added later

1. Room Name:

2. Room Types:  
☒ Lighting  
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3.

Living Room - Lights  
Kitchen - Lights  
Hall - Lights  
Study - Lights

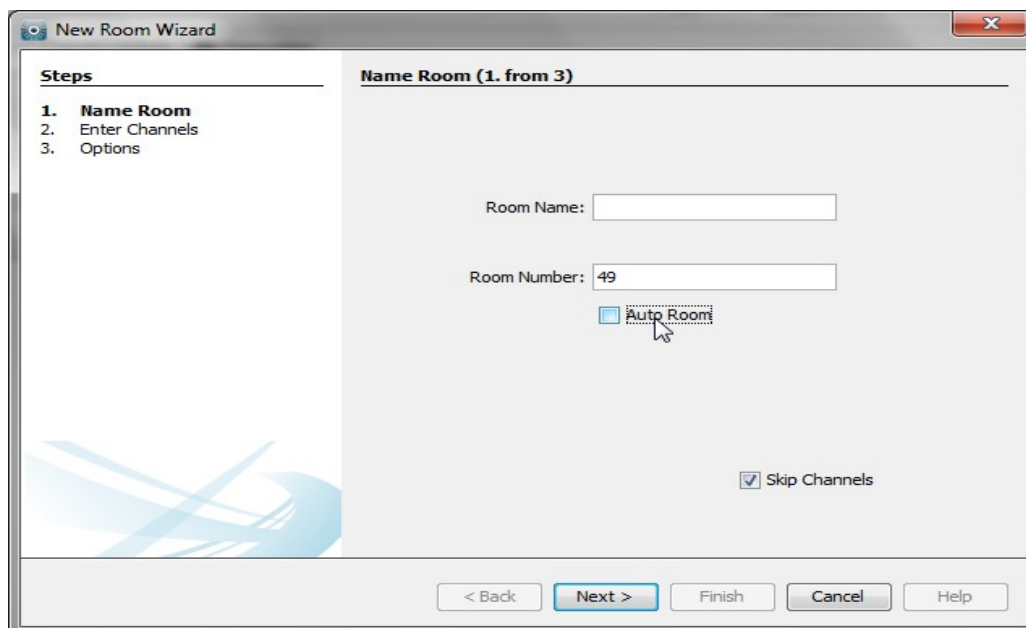
< Back   Next >   Finish   Cancel   Help

More than one room type can be selected per room. In this example for the master bedroom both lighting and blinds have been selected. Rasoft pro will automatically will create separate Rako Rooms for lighting and blinds with different Room numbers.

### Adding rooms for group features:

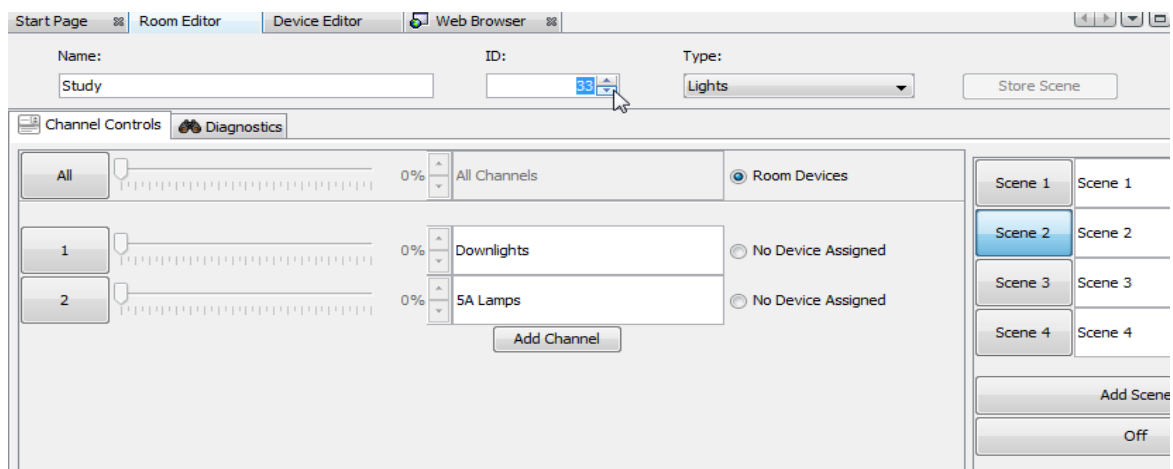
Although in most cases the automatically assigned Room numbers are adequate sometimes it may be preferable to manually select Room numbers. This will mainly be necessary when “Group” features are being used (see Appendix 3).

There are two methods of setting a custom Room number. For a new Room in an existing project select “File” – “New Room” to bring up this menu:



Un-check the “Auto-Room” box and enter the desired Room number.

If the project is already created an existing Room number can be changed from the “Room Editor” tab. Select ID and change the value as desired:



It is best to do this before any devices are assigned to this Room. If circuits are already mapped to the Rak-Link the following link will appear:



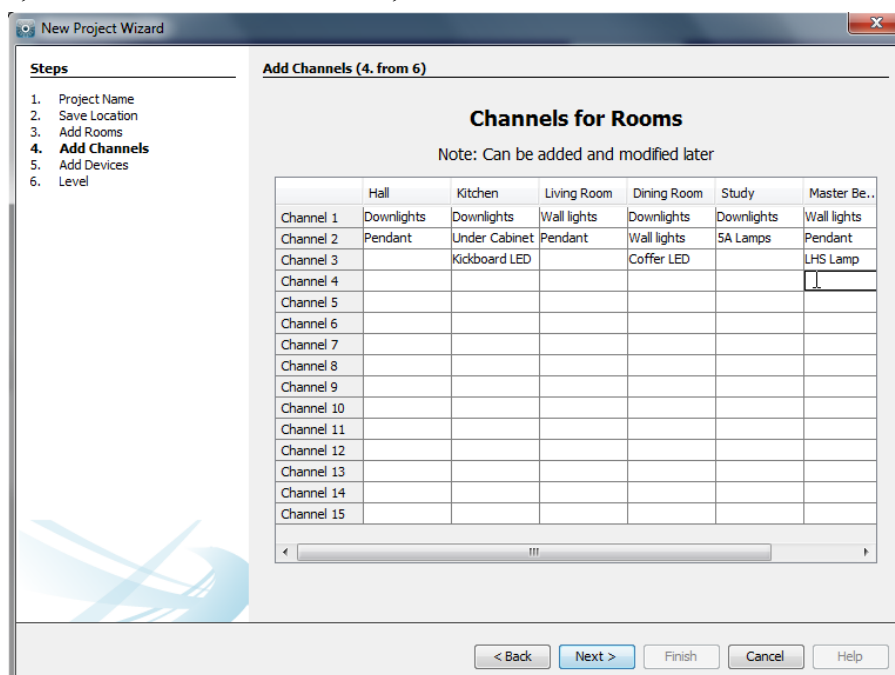
Select “Yes” to both options. These will cause the room numbers in the mappings page for the Rak-Link to the new room numbers. The mappings will have to be uploaded again once these changes have been made.

## 2.4 Adding channels

In the “Add Channels” screen all the added rooms will appear along the top. Each column below the room name lists the Channels within that Room.

*A channel is usually directly related to a circuit of lights although it may sometimes be desirable to have two or more circuits as one channel if they are always to dim together.*

Type the name of the circuits into the column associated with each room to populate the channels. Like Rooms, new Channels can be added, altered or deleted later.



## 2.5 Adding devices

The devices to be programmed are added to the project using this page. Devices added using this tool will be marked in the project as “Virtual Devices” and will still need to be programmed. Add them into the project by highlighting the desired device, choosing the correct quantity and pressing “Add”.

The screenshot shows the 'New Project Wizard' window at step 5, 'Add Devices (5. from 6)'. On the left, a 'Steps' pane lists: 1. Project Name, 2. Save Location, 3. Add Rooms, 4. Add Channels, 5. **Add Devices**, and 6. Level. The main area is titled 'Devices in System'. It contains a 'Device' section with the instruction 'Please choose first device type (You can skip this stage and add devices later)'. Below this are three radio buttons: 'Any' (unselected), 'Wired' (selected), and 'Wireless' (unselected). A list of device types is shown: Bridge, RF-Bridge, **RAKLink** (highlighted), WADMX, WAPIR, WAVFR, WAVMI, WICUB, and WSR-DALT. To the right of the list is a 'Quantity' spinner set to 2. Below the list is a 'Note: RAK4s are added via Rx/RakLinks Later'. At the bottom right is an 'Add' button with a mouse cursor over it. Below the device list is a text box labeled 'Bridge (Qty: 1)'. At the bottom of the main area is a 'Remove Selected' button. The bottom of the window has navigation buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

It is a good idea to add a Bridge at this stage as this will need to be programmed first (see appendix 1). All wired devices (RakLinks, WCMs, etc.) can be added at this stage although this is not recommended. Adding all wired devices at the start increases the chances of multiple device conflicts later.

### NB

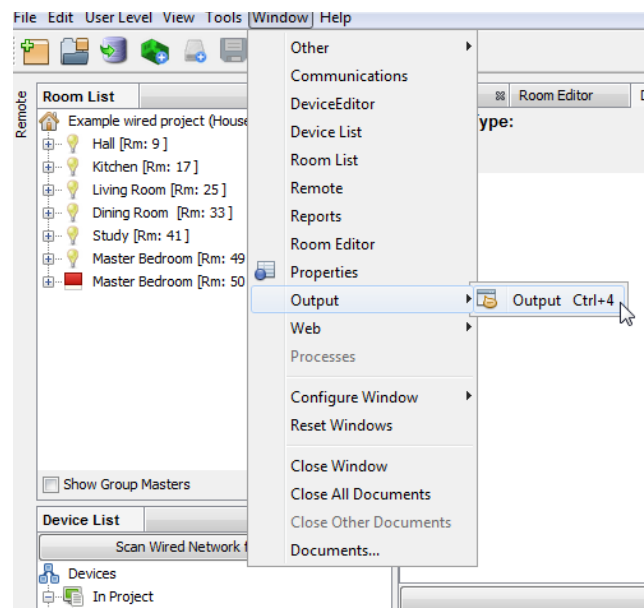
*Unless programming is being done off site it is advised that only the Bridge is added at this stage. All wired devices will add themselves to the device list automatically. Adding all WCMs at this stage can cause confusion so is best avoided.*

## 2.6 Selecting a level

There are three user levels available in Rasoft Pro. In general the intermediate level should be used, this will give full access to all menus while still providing help options if required.

The beginner mode excludes a small number of menus such as: fade rates per scene, profile editor and the change type function.

The expert mode allows access to all debug menus. When programming a wired system this is sometimes useful as it includes a “wired feedback” tab that will show all messages sent from CAN devices. Once the project has been created select “Window” from the toolbar then “Output”.



This will bring up a new tab at the bottom of the Rasoft pro screen:

Wired Feedback – Tracks the data sent along the CAN network. For a command sent from a wired plate it will contain: the unique ID, room number, channel number and command type.

UDP Feedback – This is essentially the information seen by the Bridge. It shows everything that the Bridge outputs via the RJ45 network connection.

IDE log and Diagnostic tabs can be ignored.

## 2.7 Connecting to the Bridge

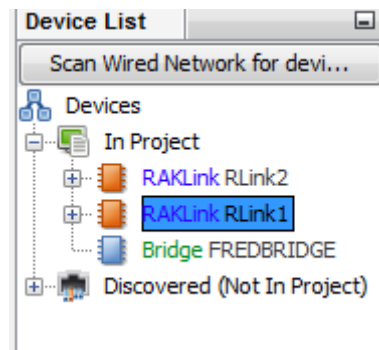
Once the file has been created using the new project wizard all that remains before starting to program is to connect to the Bridge. When a Bridge can be found by Rasoft Pro it will appear in the communications window in the bottom right of the screen. It is also important at this stage to set the Bridge house address so that it is the same as the project file this is done using the Bridge webpages. To access the bridge web-pages right click on the bridge in the communications window and select “open in browser”. For full details of how to connect to a Bridge with Rasoft Pro see Appendix 1.



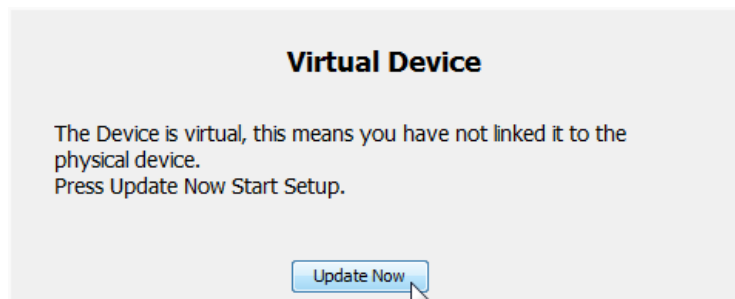
## 3 Addressing the RAKLink

To address the RAKLink first remove the lid to access the top board. At this stage this top board should be connected to both a Bridge and the WCMs.

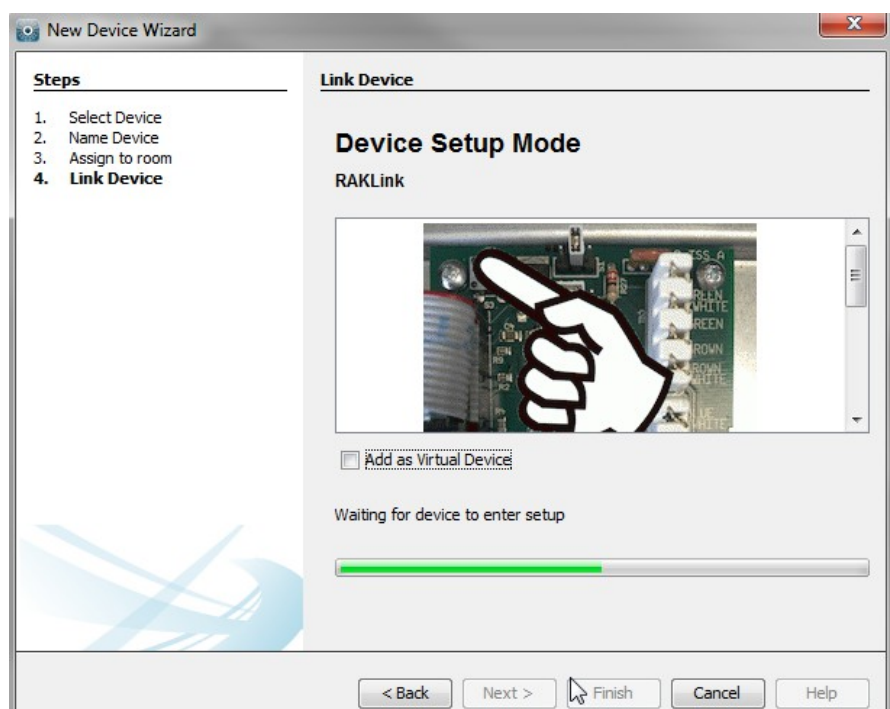
### 3.1 Setup if the RAKLink is already in the device list



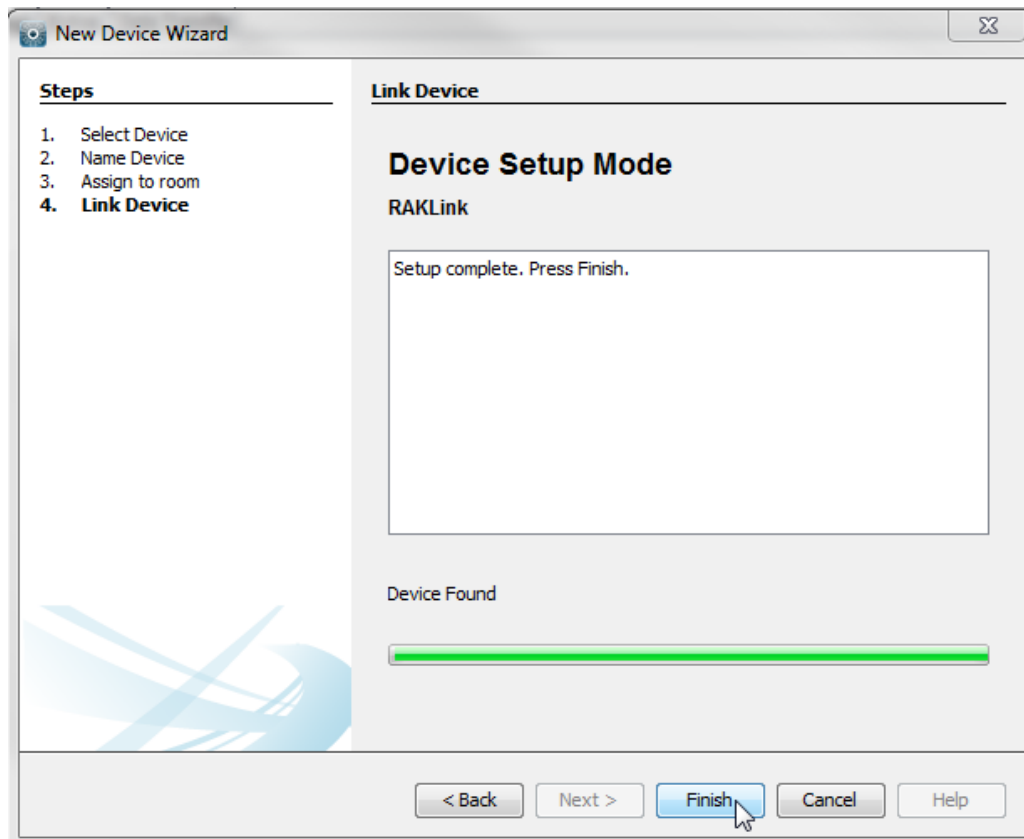
This will bring up the following message in the device editor.



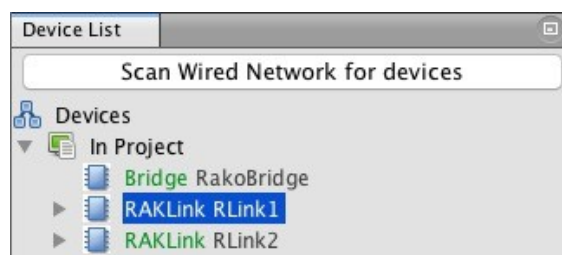
Select “update now” to open the new device wizard for the RakLink.



Now return to the RakLink top board: in the top left corner is the blue setup button. Pressing this will bring the top LED on, continue to hold the button down until the top LED begins to flash (takes around 5 seconds) when it does release the button. If successful the RakLink should now be addressed and the screen below displayed. Select finish to complete setup.



The newly added RAKLink will now appear with green text and a blue icon in the device list (bottom left of the screen).

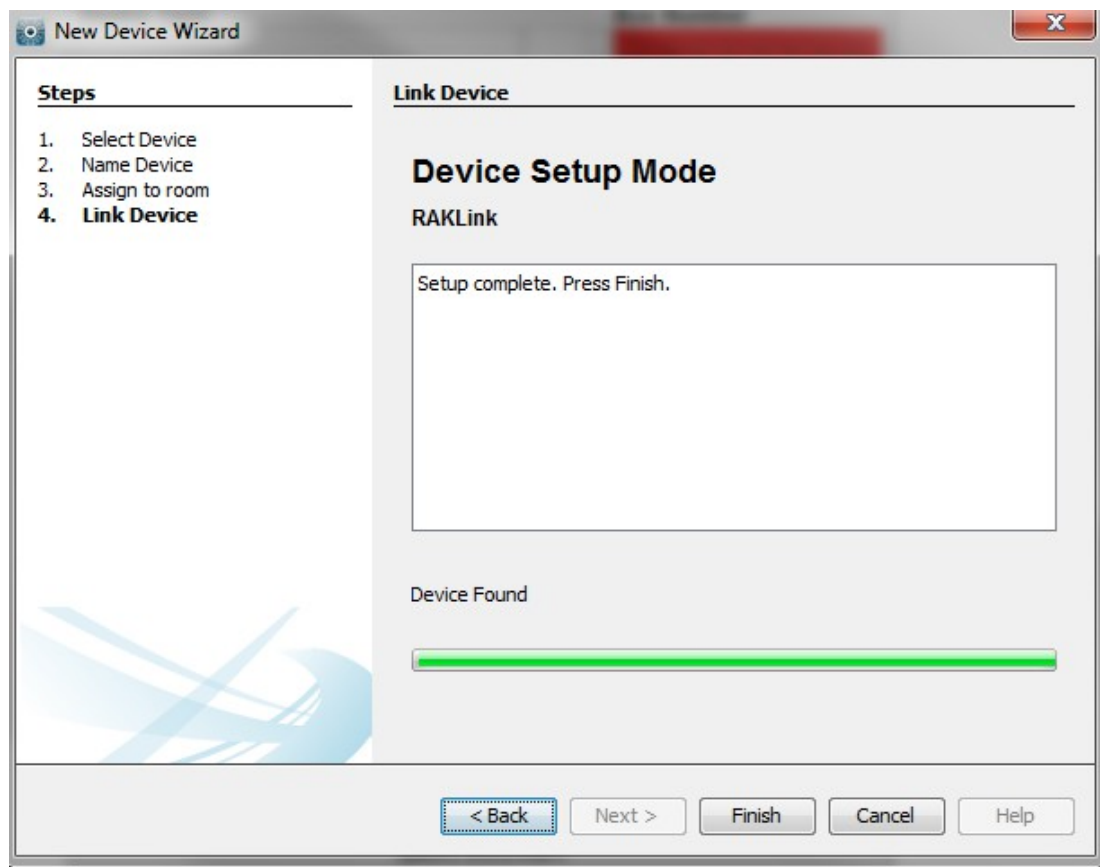


## 3.2 Setup if the RAKLink is not in the device list

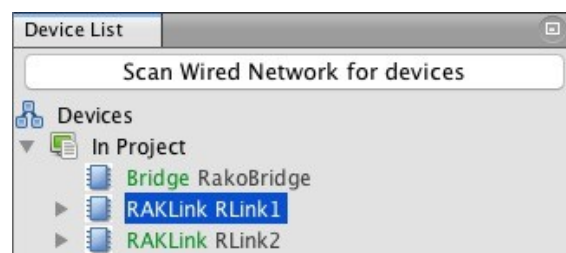
It is not necessary to have added the RakLink as a device (either via the new project wizard or “add device” tool) before setting it up. However it is useful to do so if mappings are to be completed off-site. It also encourages the programme to address the RakLinks first which is good practice and helpful for fault finding.

If the RAKLink does not already appear in the project as a virtual device it can added directly by putting the RAKLink into setup mode. Press and hold the blue button in the top left corner of the RAKLink until the top LED begins to flash (takes around 5 seconds). If successful the pop up box below will appear in the software:

Give the RAKLink an appropriate name and click through the remaining two windows.



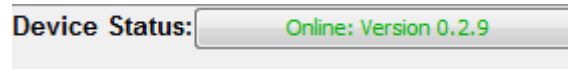
The newly added RAKLink will now appear with green text and a blue icon in the device list (bottom left of the screen).



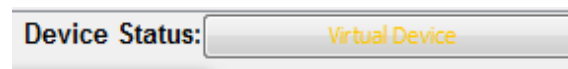
### 3.3 Other RAKLink information

#### Devices status:

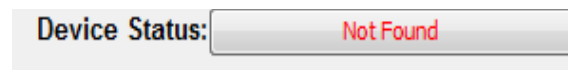
Devices that are connected to the CAN network will have a device status at the top right of the device editor.



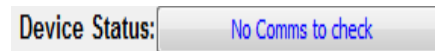
**Online:** Indicates that the Bridge is successfully communicating with this device.



**Virtual Device:** This device has not been addressed.

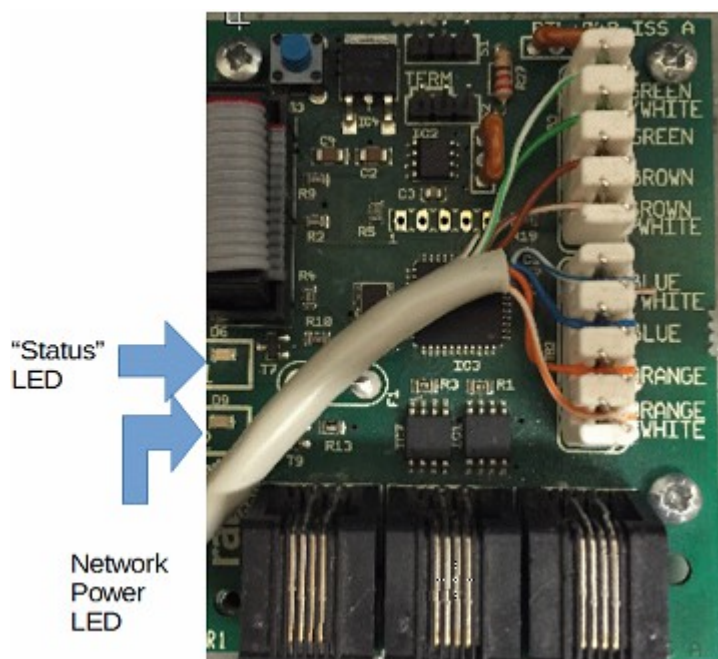


**Not Found:** The device has been addressed but cannot communicate with the Bridge. Usually indicates a wiring problem of some sort.



**No Comms. to check:** Rasoft cannot talk to the CAN network at all. Usually means that the Bridge is not connected to the computer correctly.

#### Indicator LEDs:



**Status LED:**

The status LED is very useful when programming a system.

It will flicker whenever data is received by the top board of the RAKLink for example if a button is pressed on a WCM or a signal sent to the RAK from Rasoft Pro.

This LED can also indicate if the RAKLink is either in setup or “ping” mode. Setup mode is a slow flash and indicates the device is sending a setup signal to the software so the RAKLink can be addressed (see [#4.3 Addressing the RakLink](#)). The RAKLink is put in to ping mode by continuing to press and hold the button for a further 3 seconds after the setup flash starts.

Ping mode is a very useful features which allows the data cabling of the CAN network to be checked without needing to use a computer.

When a RAKLink is put into ping mode the status LED will flash rapidly. If everything is connected correctly all other RAKLinks will also start to flash rapidly and all WCMs will cycle through the LED backlights.

**Power LED:**

Bottom LED-Power indicating LED. This will illuminate if the 15V CAN network supply is powered up. This means that either this RakLink or another RakLink connected via punchdown or RJ11 is switched on.

**NB**

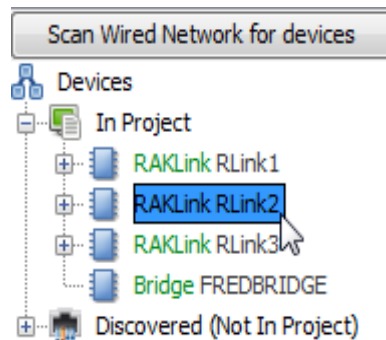
*Do not remove the top tray of the RakLink while it is switched on. Doing so is dangerous and also runs a significant risk of damaging the RakLink.*

## 4 Adding the lighting circuits to the RAKLink(s)

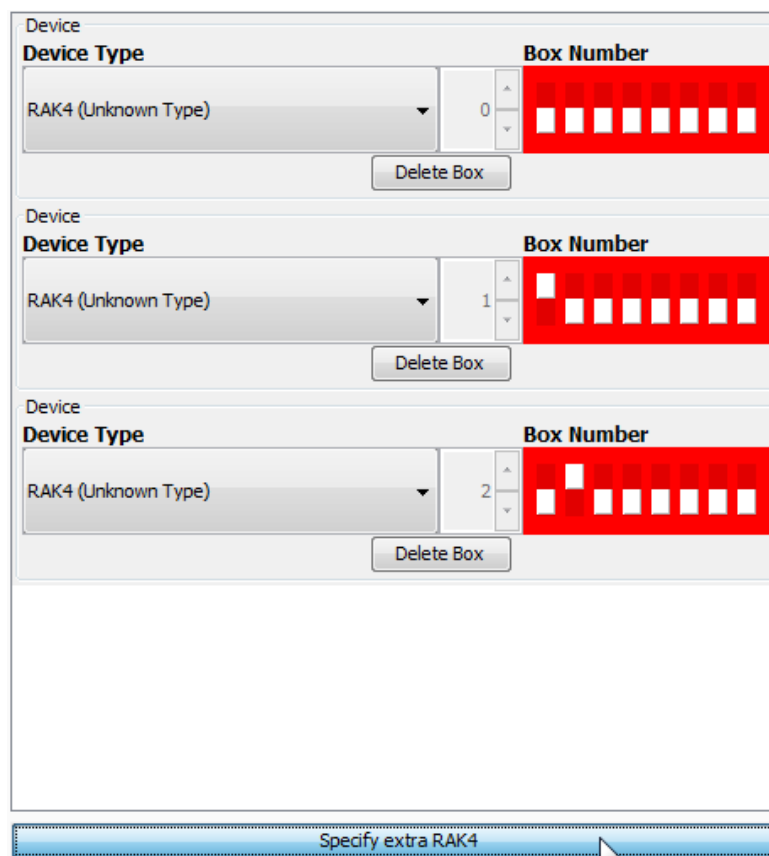
Once the RAKLink is added as a device into the software the next stage is to assign each of the lighting circuits to the relevant RAK channel.

### 4.1 Adding the RAKs and setting the dip-switches

Select the RAKLink to be programmed in the Device List to open it in the Device Editor.



The “RAK4s” tab should open. Click “Specify extra RAK4” until the number of RAKs connected to the RakLink are displayed.



The type of each RAK (4T,4F,4R etc.) is set using this screen. it is important to set these as some of the settings available vary between different types of RAKs. Changing the type of RAK in this menu does not need to be uploaded, they only change the options in the software.

Each RAKLink can be used to interface with up to eight RAK cards, numbered from “Box 0” to a maximum of “Box 7”. Do not duplicate box numbers as two RAKs with the same box number will not be able to be separately programmed.

The box numbers are set by the dip-switches on each RAK. These switches are easily seen near the top edge of each RAK card. The software provides the dip-switch settings required for each box number.

**NB**

*The Box number of the RAKs can be set in any order. The RAK connected directly to the RAKLink does not need to be 0.*

Before mapping the RAKLink it is important to know what each of the RAK channels is feeding. Usually this information should be available but sometimes it is necessary to manually identify each circuit after it has been wired.

It is possible to identify circuits using the dip-switches. Switches 5,6,7 and 8 can be used to toggle the RAK outputs on and off.



Switch 5 equates to circuit one of the RAK, 6 to circuit two etc. Moving the dip-switch up will turn on the corresponding circuit moving it down will turn it off. By using this method it is possible to discover exactly what is wired into each circuit of the RAKs.

**NB**

**CAUTION!** *To perform this test the RAKs need to be powered up, do not touch any part of the circuit board including heatsinks. If in any doubt ask the installing electrician to do this.*

## 4.2 Mapping the RAKLink:

Having addressed the RAKLinks and assigned all the RAKs box numbers it is now possible to map the RAKLink. Mappings correspond the Rooms and Channels created in the software to the physical RAK Circuits by assigning them different Box and Circuit numbers.

To access the mappings screen select the RAKLink in the Device List and select “Circuits (Mapping)” from the Device Editor tabs at the top of the middle panel of the screen.

Box	Circuit	Room	Room#	Channel	Channel#
0	1	Hall [Rm: 9]	9	Pendant [Ch: 2]	2
0	2	Kitchen [Rm: 17]	17		
0	3				
0	4				
1	1			Downlights [Ch: 1]	
1	2			Under Cabinet [Ch: 2]	
1	3			Kickboard LED [Ch: 3]	
1	4			Assign to new channel	
2	1				
2	2				
2	3				
2	4				

The Box and Circuit numbers will already have been filled in to match the RAK4s added previously. Starting with Box 0 Circuit 1 click on the empty box under the “room” heading to bring up the drop down menu. Select the Room and Channel that is supplied by this Rak Circuit. If all the rooms and channels have been added into the project already repeat the process for the channels and continue until all maps have been added.

### NB

*If a room does not appear on the mapping screen then it needs to be added into the project by selecting File-New room to bring up the new room wizard.*

If a channel does not appear on the mapping screen it can be added directly from the mappings page. Open the channel drop down menu and select “Assign to new Channel”. Enter the name of the new channel, it will automatically be assigned to the next unnamed channel in that room.

Box	Circuit	Room	Room#	Channel	Channel#
0	1	Hall [Rm: 9]	9	Pendant [Ch: 2]	2
0	2	Kitchen [Rm: 17]	17	Under Cabinet [Ch: 2]	2
0	3	Living Room [Rm: 25]	25	Wall lights [Ch: 1]	1
0	4	Living Room [Rm: 25]	25	Pendant [Ch: 2]	2
1	1	Study [Rm: 41]	41		
1	2				
1	3			Downlights [Ch: 1]	
1	4			5A Lamps [Ch: 2]	
2	1			Assign to new channel	
2	2				
2	3				
2	4				

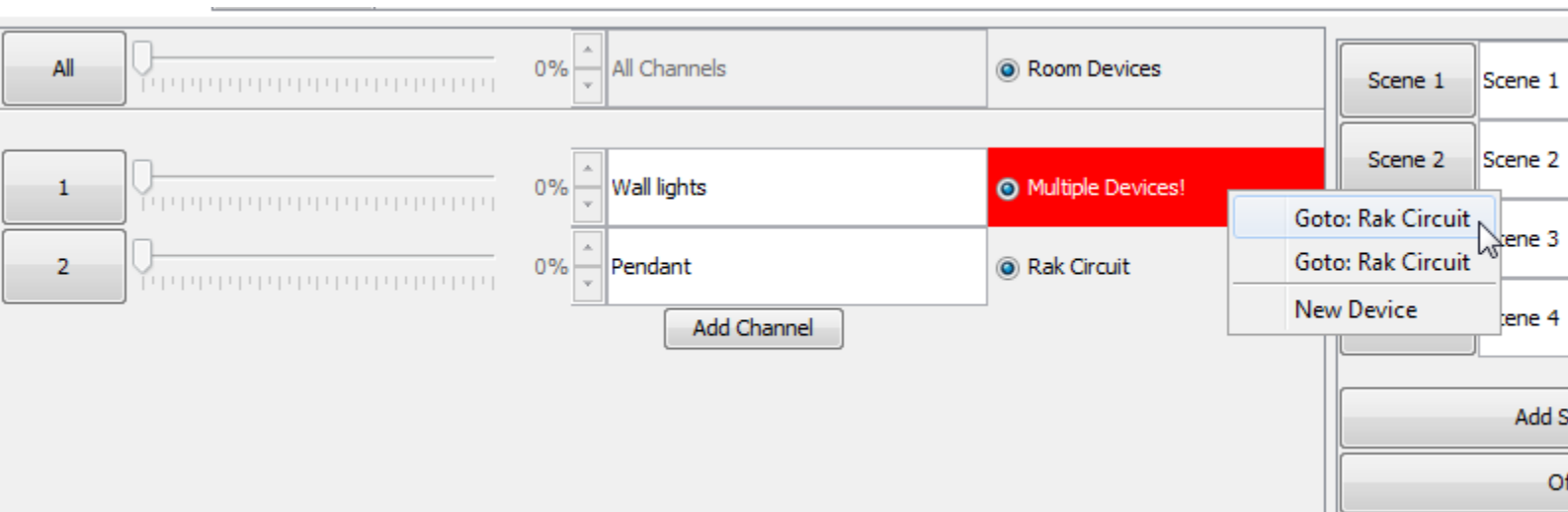
Continue mapping circuits in this way until all used circuits associated with Rx-Link are mapped to channels. Click “Save For Upload” at the bottom of the mapping page to upload the mappings to the Rx-Link



## NB

*If a room is selected but the channel box is left blank then this circuit will remain unmapped. This means it will not respond to commands even from the assigned room number.*

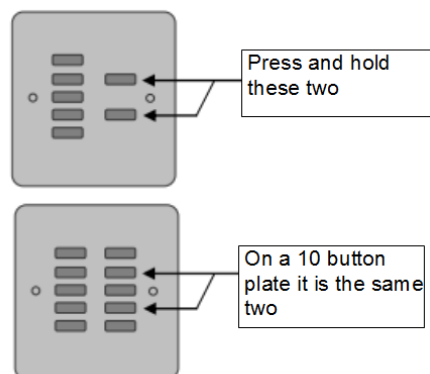
Once all the mappings are filled in it is a good idea to check for any “multiple device” errors. This is a good way of discovering any circuits that have been entered twice by accident.



Check through all of the rooms, any channels which have been mapped to more than one circuit will display as above. Check the mappings to find where the channel has been duplicated or right click on the multiple devices warning to be linked directly to the RakLink page.

## 6 Addressing the WCMs

Once the RAKLink(s) are all identified the next step is to assign all the WCMs as devices. Like the RakLink the WCMs must be put into setup mode to be addressed in the software. To do this:



### To put a WCM070 (7 button) into setup:

Press up and hold the fade up and fade down buttons until the LEDs on the plate start to cycle

### To put any other WCM into setup:

Press and hold the equivalent buttons (second from top and second from bottom) until the LEDs on the plate start to cycle. With some button configurations there may be no buttons plastic buttons in these positions. If this is the case remove the cover plate and press the two rubber contractors on the circuit board where the buttons would be.

Once the WCM is in setup mode a pop up box will appear on the software.

If no pop up box appears then there is an issue with the installation or the connection of the software with the system.



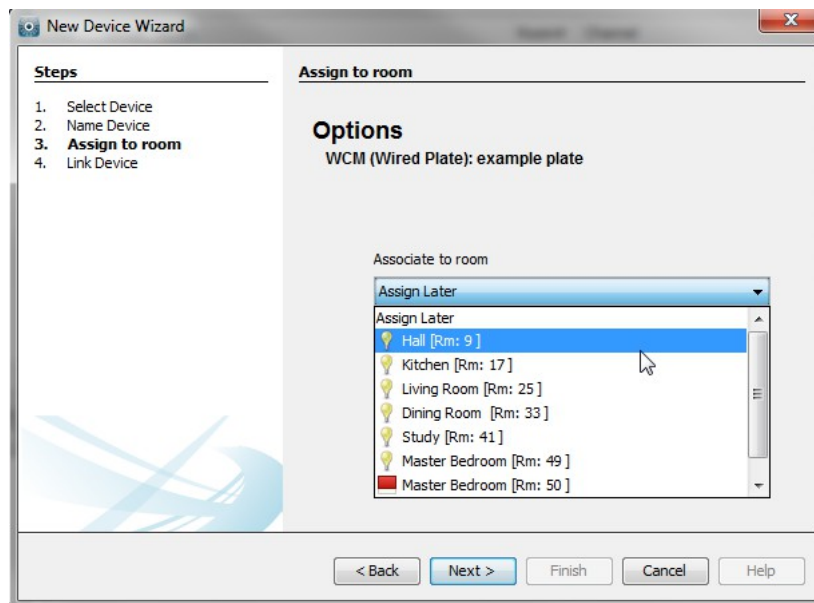
Enter a device name that states which physical room the plate is in and its location within it. This will be the label that appears in the device list.

### NB

*It is very important each plate is identifiable from this name. If a plate cannot be easily identified from its name it will make any fault finding and button mapping that may be required later much more difficult.*

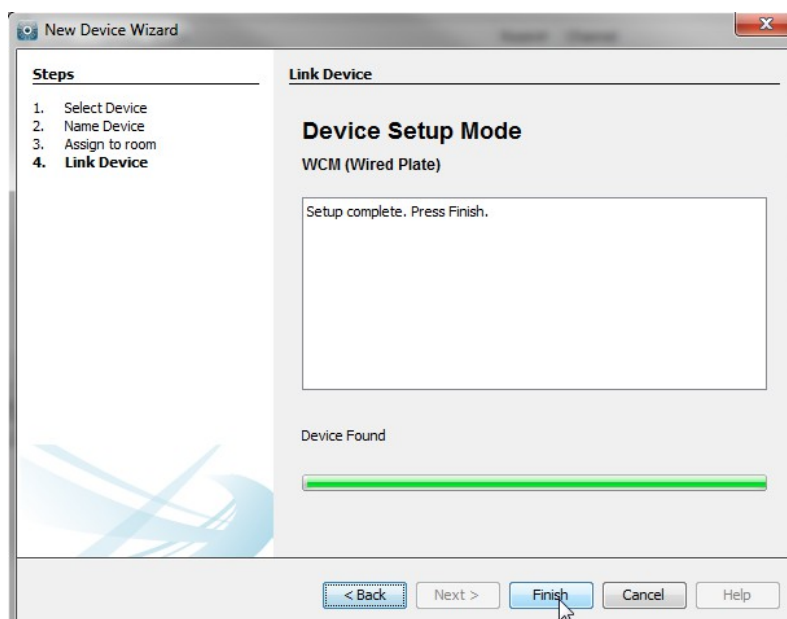
Once named, click next, ensuring that the Device ID is left on “automatic ID”.

All WCMs must be associated with a Room. This will be the room number that the plate transmits when set to “local room”. In nearly all cases this will be the same as the room in which it is located: select this room from the drop down menu and click “next”.

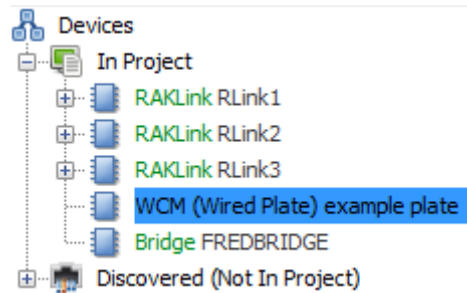


### NB

*A custom room can also be chosen by selecting “custom” and manually entered the room number. This is only used when a dummy room (one that is not associated to a physical room in the house) needs to be added. In this situation all button maps for the plate will have to be added manually.*



At this stage the WCM has all the information required by the software to be added as a device, click next on the “link device screen”. The WCM will now appear in the device list.



Once added successfully the “WCM” text in the device list will be green and the device status in the device editor should be “online”.

Repeat this process for all WCMs until the device list is populated with all WCMs in the system.

## 7 Mapping the WCM buttons

By default a WCM will behave as if they are a seven button keypad, ie four scenes fade up and fade down. When other types of WCM are used or if custom button maps are required the “button config (mapping)” screen needs to be used.

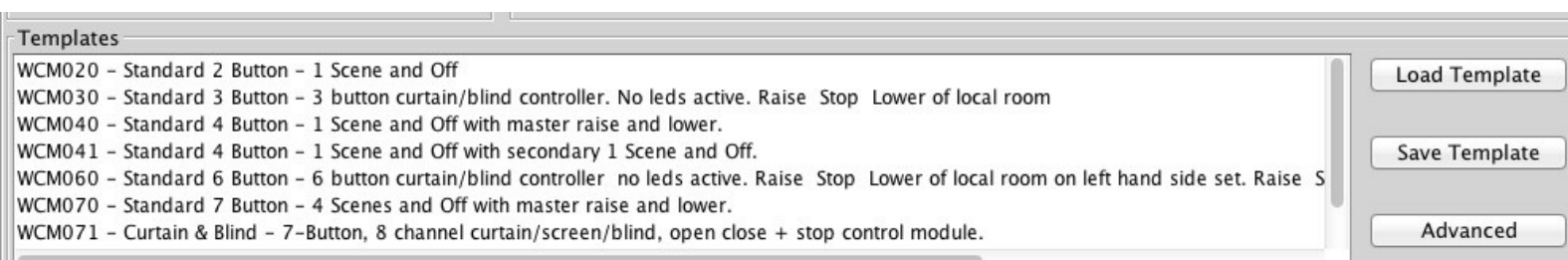
The button mapping screen can be accessed by selecting it in the device list this will open the device editor of the WCM to be programmed.

### 7.1 Templates

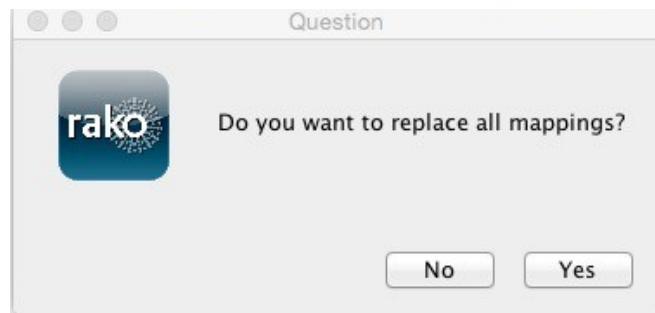
Mapping templates for all common WCM button layouts are available in Rasoft Pro.

To apply a template to a WCM:

- In the button mapping tab of the device editor scroll to the bottom to view the templates tile



- Select the relevant template and click load template. This will open a pop up box; select yes to overwrite the mapping with the template



- The mappings for this template will now appear in the left tile of the device editor
- Click “save for upload” at the bottom of the page to upload these setting onto the WCM

## 7.2 Setting a custom button map

By default or when any of the templates are uploaded the WCM will only send commands to the “local room” defined during the initial setup of the WCM. With a wired keypad it is possible to make any button send a command to any device in the system by manually writing the maps into the software.

The main section of the mapping screen is divided into three sections, from left to right “mappings” “keypad” and “output action”.

### Mappings:

This section shows the mappings that will be uploaded to the plate. This tile is also used to select the mapping to be edited. The mapping is summarised in this tile in the format:

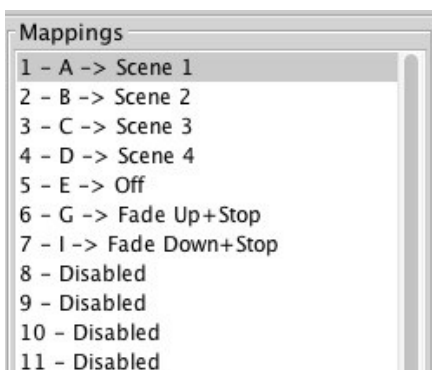
**Button input:** letter corresponding to that selected in the keypad tile

**Room:** this will only show if the room number is different to the “local room”

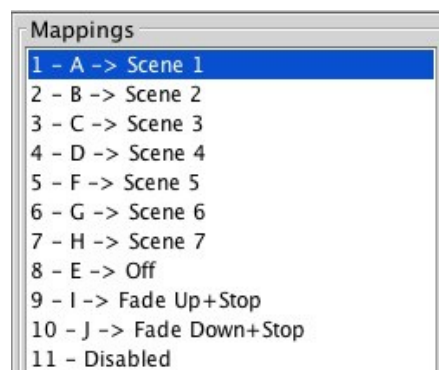
**Action:** scene, fade, level etc.

A WCM can hold twenty four maps but a maximum three maps should be used per button input (letter). When more than three commands are desired from a single button press either groupings or a Bridge Macro (see Bridge guide) should be used.

Seven button plate maps (default):



Ten button plate maps (requires template):



## Keypad:

The keypad configuration window is titled "Keypad". It features a 5x3 grid of buttons. The first and third columns are labeled "Led's" and the middle column is labeled "Required Buttons". The buttons in the first column are "On" (highlighted in blue), "Off", "Off", "Off", and "Off". The buttons in the third column are "Off", "Off", "Off", "Off", and "Off". The buttons in the middle column are labeled A, B, C, D, E, F, G, H, I, and J. Below the grid is a section titled "Mapping Options". It includes a checked "Enabled" checkbox, an unchecked "Send Stop On Release" checkbox, a "Trigger on Press" dropdown menu, an "Input Longer than" dropdown menu, a slider bar, a numeric input field set to "0" with "Seconds" next to it, and three unchecked checkboxes: "Don't Update Previous Room", "LED's Fade After", and "LED Level Override".

This tile defines the input to be mapped. The lettered buttons equate directly to all the buttons available for use on a WCM, often not all these will be occupied by a button and will remain unmapped. So on a ten button plate (WCM100) all buttons A-J will be used whereas on a two button plate (WCM020) only inputs G and I are used.

There are two types of button input that can be used in a WCM mapping:

**Trigger on press:** As soon as the button is pressed the mapped “output action” will be sent. In nearly all cases this is the setting used.

**Trigger on release** – A trigger on release will send the mapped “output action” command once the button is released. By default a trigger on release This is defined by selecting “input longer than” and using the slider to select the amount of time the button needs to be held down for.

When mapping a fade command it is vital that the “send stop on release” check box is ticked. When a dimmer hears a fade command it will continue to fade until it receives a “stop”

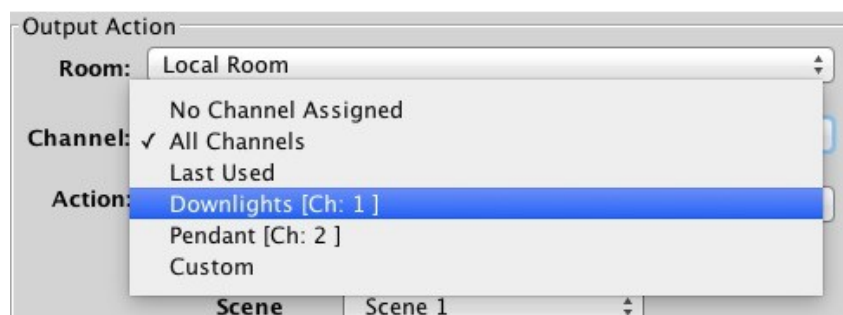
## Output action:

The output action configuration window is titled "Output Action". It contains several settings: "Room:" with a dropdown menu set to "Local Room", "Channel:" with a dropdown menu set to "All Channels", and "Action:" with a dropdown menu set to "Scene". Below these is a "Scene" label with a dropdown menu set to "Scene 1". Further down is a "Fade Rate" label with a slider bar. At the bottom is a checked "Use Default Value" checkbox.

This tile is used to set the command that will be sent from the input selected in “keypad”. Before being altered the room will be the local room for that keypad. All the rooms in the project will be visible in the drop down menu as will an option for a custom room for which a room number can be manually added.



The next drop down menu can be used to change the channel affected by this command. Usually “all channels” is selected so that the entire room will be affected by this map. All the rooms added in the room editor will appear in this drop down menu as will “last used” and “custom”.

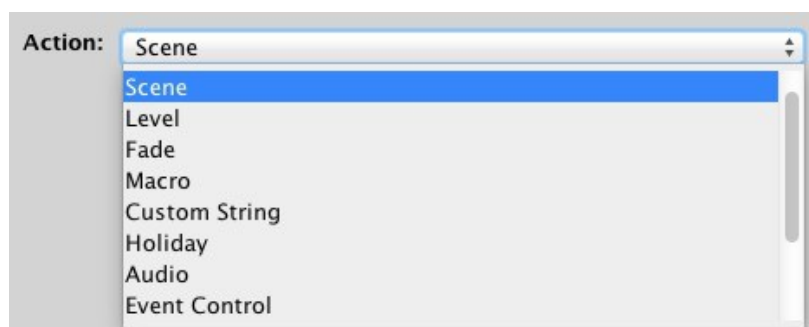


The last used function sets the channel to the most recent previous command sent from that device. This is commonly used when a WCM is set up to toggle individual channels. In this case “last used” is used for the fade buttons so that the user can adjust the brightness of the channel they have just turned on.

### NB

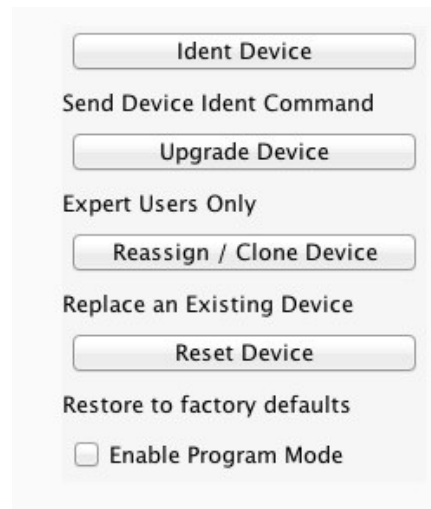
The last used function only works per device. It will not track the commands from another WCM even if it is in the same room.

The action sections sets which command will be to the room and channel that have been set.



## 7.3 Extras

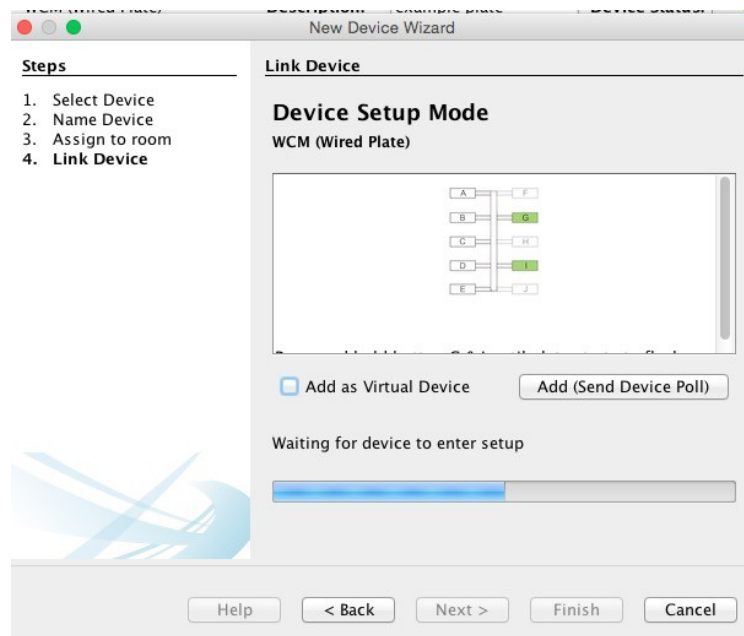
The extras in the WCM device editor contains several useful features:



**Ident device:** This command is useful to associate which WCM tis device in the software is associated with. It will make the LEDs on the front of the WCM flash three time.

**Upgrade device:** **WARNING DO NOT USE UNLESS INSTRUCTED TO BY RAKO STAFF.** This tool allows a firmware update to be performed on the WCM over the CAN network.

**Reassign/Clone device:** This will upload all of the data on the WCM selected in the device editor to the next WCM to be put into setup mode.





# Appendix

## 1 Setting up communication devices:

### RAUSB/RAMPI:

To connect to the RAUSB/RAMPI simply plug the module into the USB port on your computer. Rasoft should find the device, right click on “RAUSB/RAMPI” in the communications box and select connect. If the “RAUSB/RAMPI” icon does not appear click refresh below the communications box.

### Bridge:

#### Step 1: Connect the Bridge to a router:

The RA & RTC-Bridges are supplied with an RJ45 network cable. Connect this to an unused port on a wireless router. Connect the Bridge power supply to a convenient ac socket and switch it on. A Blue light should flash continuously within the Bridge. Connect your PC to the same router, either by wireless network or by fixed Ethernet cable.

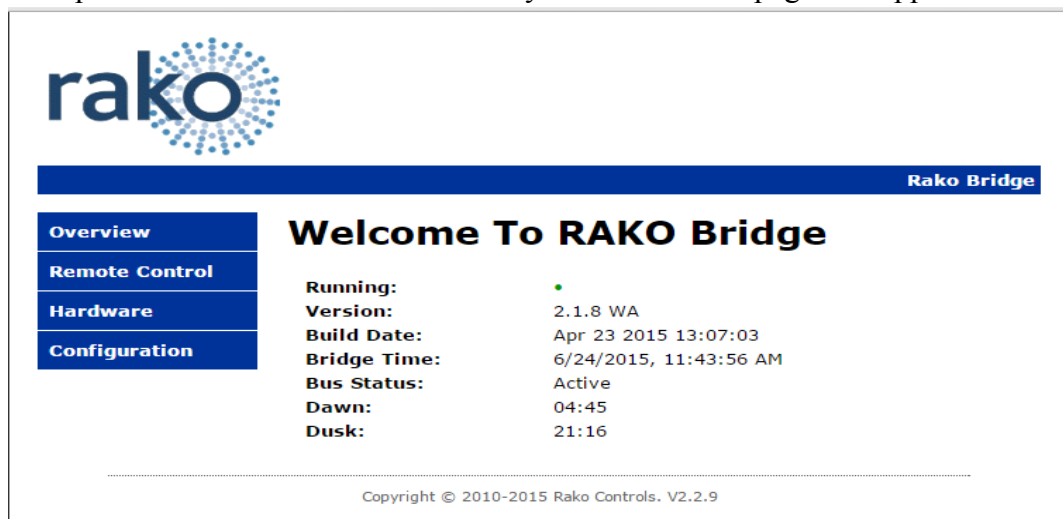
#### Step 2: Set the Bridge to the same House ID number as your Rako system:

Every RAKO wireless system has a House ID number between 1 and 255. It is necessary to tell the Bridge which house ID number has been chosen so that it talks to the correct house. The RASOFT configuration file gives the chosen House ID number at the top of the room list. Alternatively, look at the DIP switches settings on the rear of the lighting control wall plates and decode the house ID number from those. The dip-switch information panel (right click on room in room list select dip-switches) can be used to decode the binary settings. Move the switches on the screen to match those of the wall-plate to show the House and Room number.

#### To configure the Bridge House number:

On a laptop, start the Web Browser (e.g. Windows Internet Explorer). In the URL line type: [HTTP://RAKOBIDGE](http://RAKOBIDGE) and press Enter.

Alternatively in Rasoft Pro in the bottom right communications window right click on the Bridge and select “Open in Browser”. When successfully loaded the Webpage will appear as below:



Click on the Configuration Button.

The default User Name is *admin*

The default password is *microchip*

When successfully logged in, the screen below will be displayed:

The screenshot shows the 'Rako Bridge Configuration' web interface. On the left is a navigation menu with options: Overview, Remote Control, Hardware, Configuration, -- Events, -- Macro States, -- Holiday States, and -- Dip Switch. The 'Configuration' option is selected. The main heading is 'Rako Bridge Configuration'. Below it, a note states: 'This page allows the configuration of the bridge's network settings.' A red-bordered box contains a 'CAUTION' message: 'Incorrect settings may cause the bridge to lose network connectivity. Recovery options will be provided on the next page.' Below this, it says 'Enter the new settings for the bridge below:'. A form contains the following fields and options: MAC Address (00:1E:C0:9A:08:24), Host Name (RAKOBIDGE), Wireless House Address (1), UID (1), Bridge Address (1000), Bridge Channel (1), Password (microchip), Disable Wireless (checkbox), Wireless Rate Mode (checked, with note '(Disable Fade Rate Info)'), Wireless Booster Mode (checkbox, with note '(Disable RAB100)'), Wireless Link Mode (checkbox, with note '(Link bridges via Wireless)'), Enable EtherBridge (checkbox, with note '(connect Bridges by Ethernet)'), Disable Auto Detect (checkbox, with note '(Hide from smartphone)'), and Require smartphone (checkbox, with note 'Requires iPhone V2.5.0/ Android V1.1').

Change the “Wireless House Address” to the house number in the project file (default will be 1). Scroll to the bottom of the screen and press “save config”. The following message will be displayed if the settings are successfully changed:

## Reboot In Progress...

Your settings were successfully saved, and the bridge is now rebooting to configure itself with the new settings.

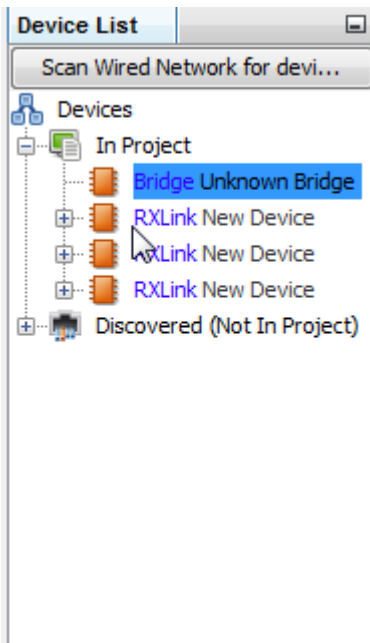
**Your bridge is now located at: <http://RAKOBIDGE/>**

## NB

*Some firewall programs will prevent access to the Bridge. Temporarily turning off the firewall will allow Bridge configuration. Remember to re-enable the firewall afterwards.*

If it is not possible to make connection to the Bridge from the laptop, it could be due to IP addressing in the router. Try connecting the Bridge directly to the laptop using an RJ45 cable. This will allow the Bridge to be configured. Connect the Bridge back onto the router afterwards in order to enable the iPhone to work with it.

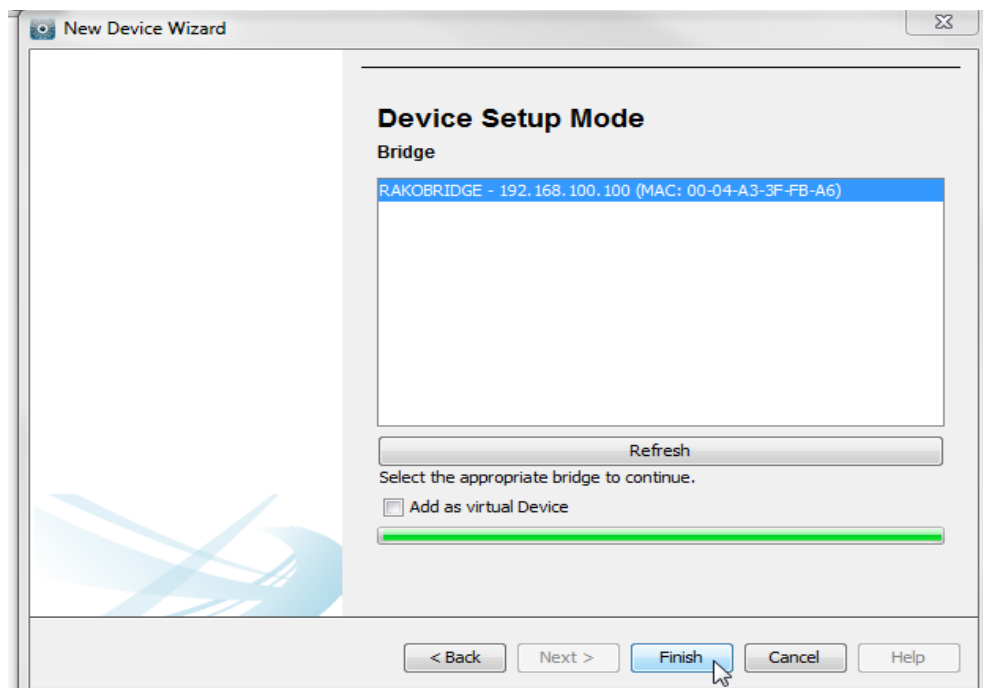
Once the Bridge is successfully connected and the House number has been set the Bridge is ready to talk to the system. The communications window in the bottom right of the screen will say if the Bridge is connected or not. When Rasoft can see the Bridge a green tick will appear next to it.



Although the bridge is now connected it still needs to be added as a device. Add it using file-new device ad then select the Bridge in the device list. In the centre of the screen it will be described as a virtual device, select “Update Now”.

This will bring up the screen as below. The Bridge you are connected to will appear followed by its IP and MAC address. Select it and click “finish”. The icon in the device editor will change from orange to blue and the text will change to green.

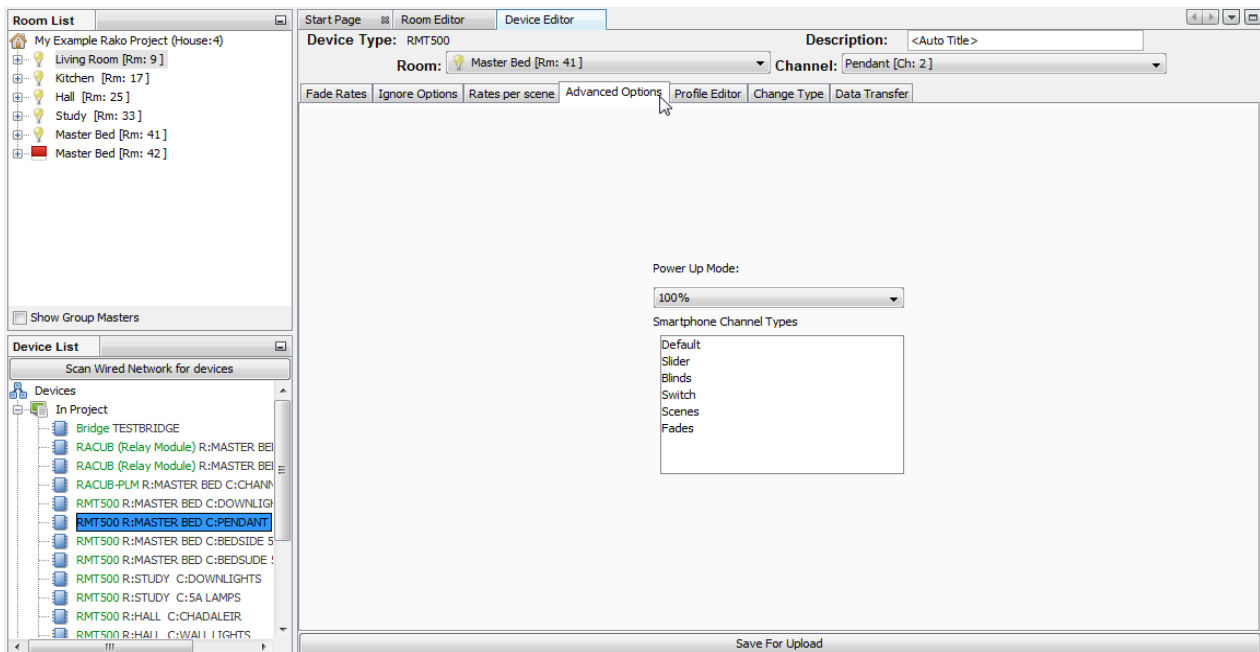
Now this device is assigned on the software all Bridge functions will be accessible via tabs in the device editor. For more information on the Bridge functions please see the Bridge instructions contained within the Bridge box.



## 2 Power up modes

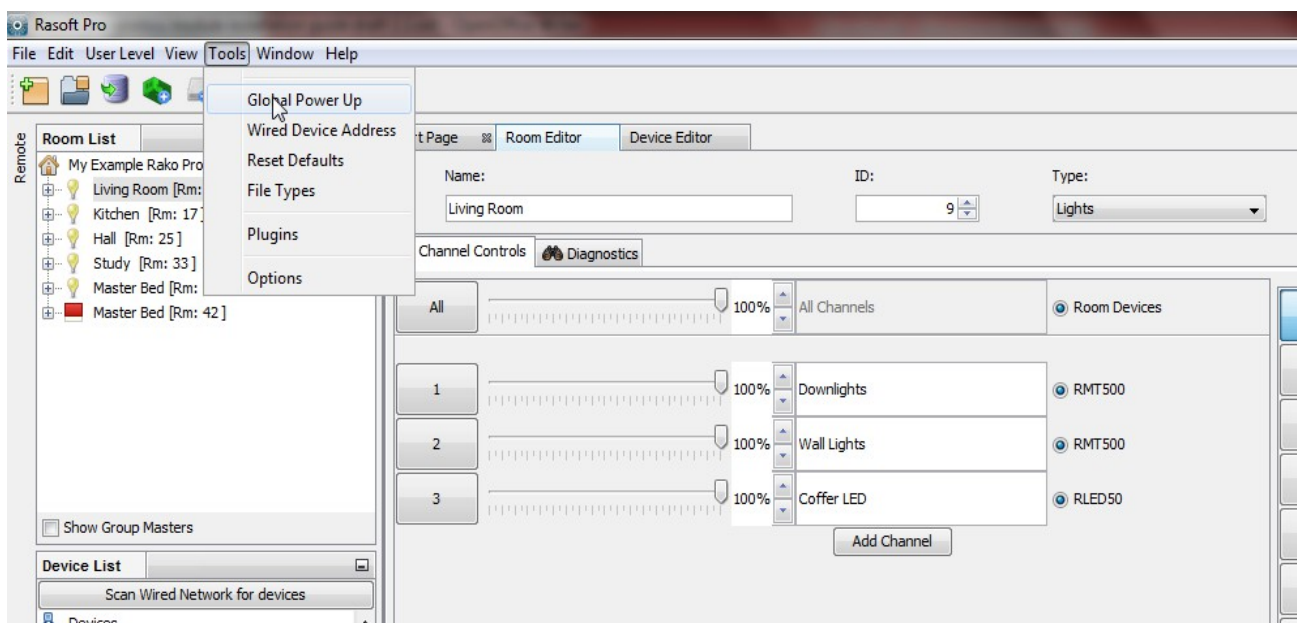
The power up mode dictates the output of a circuit on power restoration. While still on factory default settings all Rako products will have a power up mode setting of 100%.

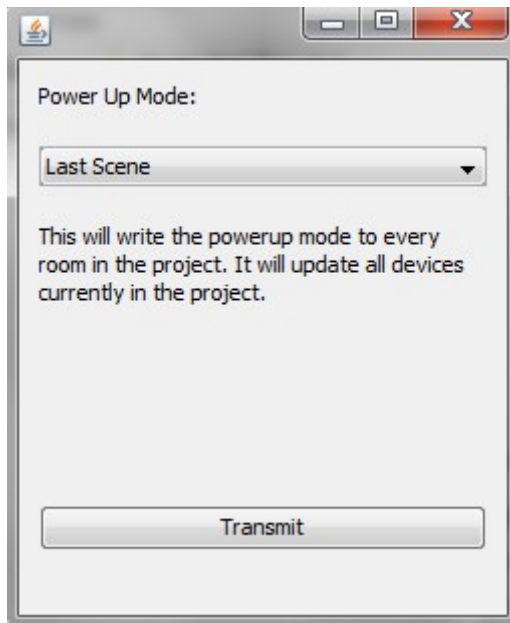
When dimmer modules with a setup button are addressed to a House number that is not the default of one then the power up mode will automatically change from 100% to Off. For all other Rako products the power up mode must be changed using the software.



To manually change the power up mode of a specific circuit click on it in the device list. This will bring up the device editor tab in the centre of the screen. Click on “advanced options” tab to show the power up mode options.

It is possible to set the power up modes “globally” for the entire system. To access this menu select “tools” - “global power up”. This will send a House master power up mode to all modules.



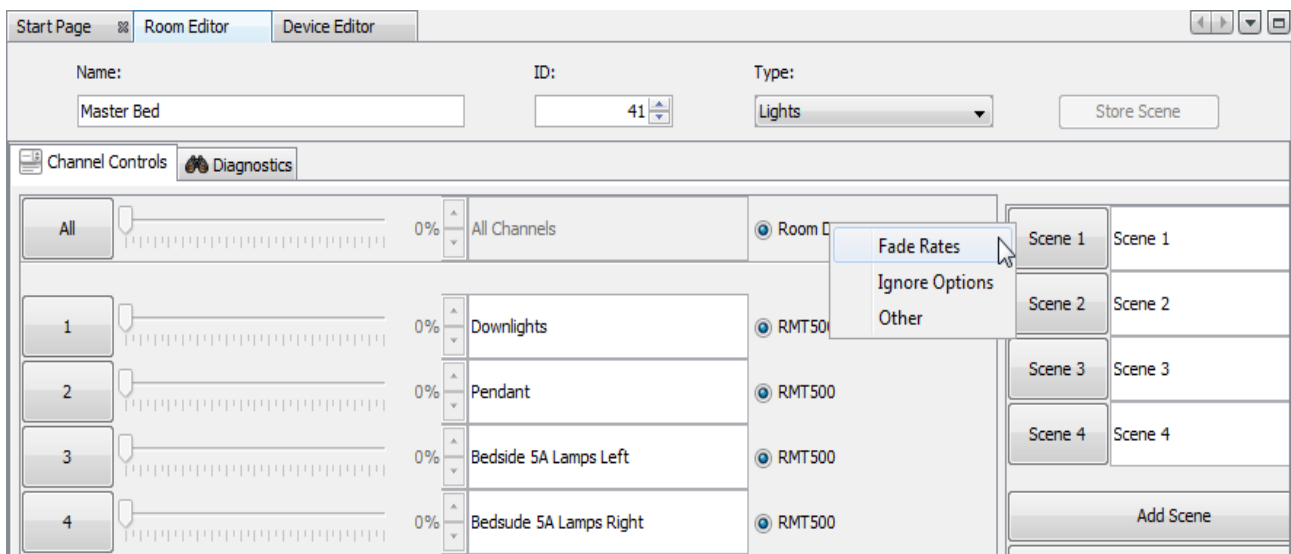


It is advised that the power up mode is either left on “off” or set to “last scene.” In general it is not a good idea to have the lights come on after a power cut so a scene or percentage power up mode is usually best avoided.

To test the power-up modes it is a good idea to turn off Rako circuits from the MCB to make sure that the desired power-up modes have been set correctly.

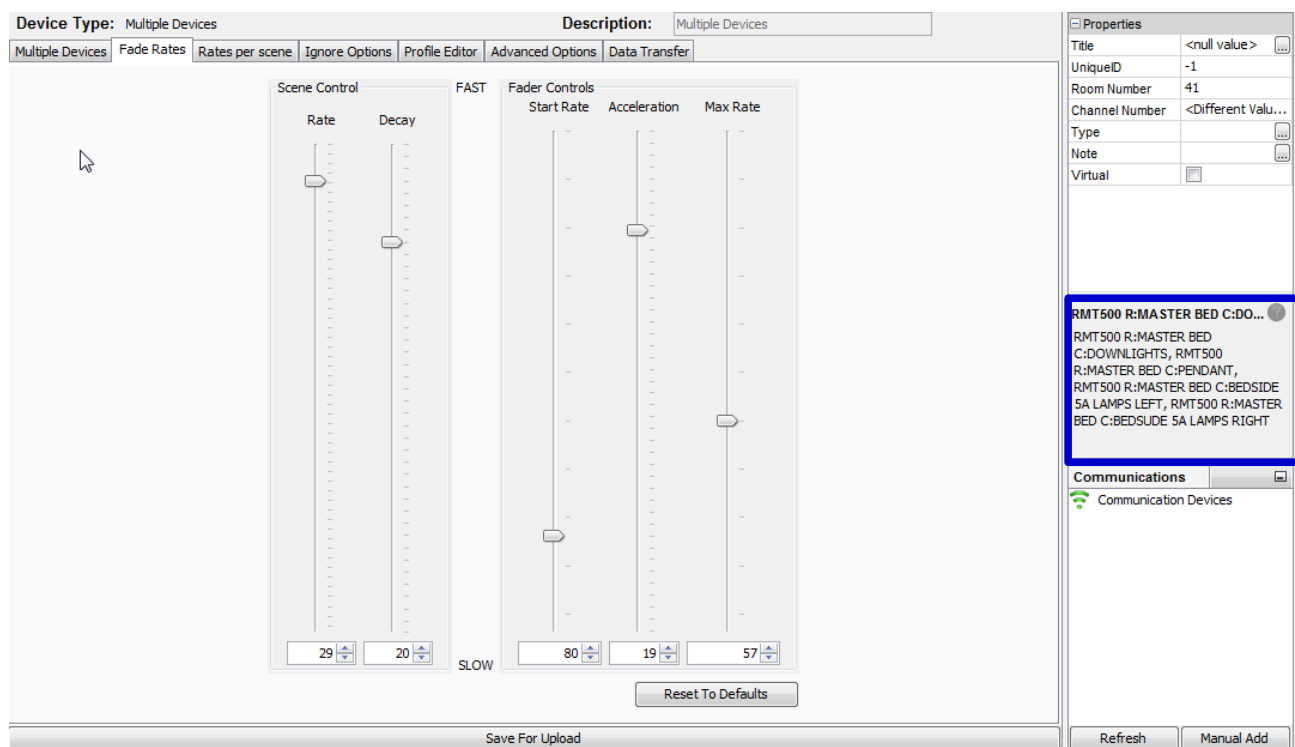
### 3 Fade rates

Using Rasoft pro it is possible to edit the rate at which Rako modules move between different lighting levels. To change the fade rates for the entire room right click on “room devices” in the top right of the room editor.



#### NB

*This will set fade rates for every device in the master bedroom. To set fade rates for a specific device select it in the device list and click on the fade rates tab in the device editor.*



The fade rates menu will be displayed as above. Notice the window on the right hand side (highlighted above) lists the circuits that will be affected by these changes are listed.

There are two types of fade rates that can be adjusted:

**Scene controls** will change the rate at which circuits move between scenes (including Off).

**Fader controls** will change the rate at which circuits dim up or down when the fade buttons (raide/lower) are used.

#### NB

*Setting all of the fader controls to max. speed will make it almost impossible to dim the lights from the fade up/down buttons.*

## 4 Uploading to a Bridge and App setup

Once programmed the last thing required is a Bridge upload. This ensures that the programming data on the computer matches that on the Bridge. This is important even if the Rako App is not being used as it will enable the project file to be downloaded by anyone accessing the Bridge without the need for the original file.

To upload to the Bridge select the bridge from device list, opening the Bridge options in the device editor tab. Go to the “data transfer” tab and click “upload”.

There are several settings that can be altered to change the appearance and functionality of the Rako App. Select the “Smartphone/Wed Data” tab. This should display all the rooms that have been added to the project:

Start Page

Room Editor

Device Editor

Web Browser

Device Type: Bridge

Description: TESTBRIDGE

Smartphone / Web Data

Room Import

Mappings

Custom Strings

Firmware

Advanced

Feedback

Data Transfer

Note: Sorting the Room columns will affect the smartphone order

Rooms:

ID	Enabled	Title	Type	Mode
9	<input checked="" type="checkbox"/>	Living Room	Lights	4 Scenes + Off
17	<input checked="" type="checkbox"/>	Kitchen	Lights	4 Scenes + Off
25	<input checked="" type="checkbox"/>	Hall	Lights	4 Scenes + Off
33	<input checked="" type="checkbox"/>	Study	Lights	4 Scenes + Off
41	<input checked="" type="checkbox"/>	Master Bed	Lights	4 Scenes + Off
42	<input checked="" type="checkbox"/>	Master Bed	Blinds	4 Scenes + Off
40	<input checked="" type="checkbox"/>	Master Bed Group master	Lights	4 Scenes + Off

Channels:

ID	Enabled	Title	Type
----	---------	-------	------

Scenes:

ID	Enabled	Title
----	---------	-------

Save & Upload To Bridge

Save For Upload

From this page the various setting to define how the App will appear are set. To bring up the channels and scene settings to be uploaded highlight the desired room:

Smartphone / Web Data

Room Import

Mappings

Custom Strings

Firmware

Advanced

Feedback

Data Transfer

Note: Sorting the Room columns will affect the smartphone order

Rooms:

ID	Enabled	Title	Type	Mode
9	<input checked="" type="checkbox"/>	Living Room	Lights	4 Scenes + Off
17	<input checked="" type="checkbox"/>	Kitchen	Lights	4 Scenes + Off
25	<input checked="" type="checkbox"/>	Hall	Lights	4 Scenes + Off
33	<input checked="" type="checkbox"/>	Study	Lights	4 Scenes + Off
41	<input checked="" type="checkbox"/>	Master Bed	Lights	4 Scenes + Off
42	<input checked="" type="checkbox"/>	Master Bed	Blinds	4 Scenes + Off
40	<input checked="" type="checkbox"/>	Master Bed Group master	Lights	4 Scenes + Off

Channels:

ID	Enabled	Title	Type
----	---------	-------	------

Scenes:

ID	Enabled	Title
1	<input checked="" type="checkbox"/>	Scene 1
2	<input checked="" type="checkbox"/>	Scene 2
3	<input checked="" type="checkbox"/>	Scene 3
4	<input checked="" type="checkbox"/>	Scene 4

Save & Upload To Bridge

Save For Upload

**Enable** – When this box is checked this room/channel/scene will appear on the app. If it is not desirable to have all rooms accessible from every device with the App certain rooms can be restricted from within the App using the restrictive rooms feature. See App user guide for further details.

**Title** – This will be the label given to this room/channel/scene on the App. Changing this will also change the room name in the room list of the project file.

**Type** – This will change the screen layout of the channels section in the App.

**Mode** - This will change how the on screen keypad in the App is displayed. It can represent either a 7 or 10 button keypad. It can also be displayed as a scrolling menu showing all 16 scenes.

It is also possible to change the order in which the rooms will appear in the App. To do this just click and drag the rooms to the desired position.

**NB**

*The Master Bed Group Master is unchecked, typically Group Masters or “dummy rooms” will be excluded as they do not have channels associated with them directly.*