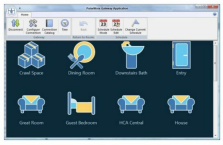

PULSEWORX UPStart for Beginners Software User Guide

Contents

PULSEWORX UPStart for Beginners Software

Product Information

The product is called UPStart, which is a UPB Configuration program. It provides additional configuration options for UPB devices.

The product requires a PulseWorx Powerline Interface Module (PIM) to control and program UPB devices. The PIM model mentioned in the manual has a USB connection to the computer.

The PIM can be purchased from the PCS Web store at the following link:
https://pcswebstore.com/products/pulseworx-powerline-interface-module-usb

Installation of a device driver is required to use this model of the PIM. The device driver creates a virtual serial port, which can be determined using the Windows Device Manager. UPStart software needs to know the assigned port to communicate with the PIM. The port can be selected in the Powerline Interface panel in the Network ribbon category. There may be additional settings in the software that need to be checked for optimal usage.

Product Usage Instructions

1. Connect the PulseWorx Powerline Interface Module (PIM) to your computer using the provided USB connection.
2. Ensure that the necessary device driver is installed. Windows usually installs it automatically, but it may take some time.
3. Open the Windows Device Manager to determine the assigned virtual serial port for the PIM. If unsure how to open it, search online for the procedure based on your Windows version.
4. Once the virtual serial port is identified, start UPStart software.
5. In the Powerline Interface panel, press the Configure button in the Network ribbon category.
6. Select the type of PIM you have and choose the assigned port.
7. Press the Connect button to establish the connection with the PIM. Close the connection dialog with OK.
8. Check the settings in the UPStart Options dialog and ensure they match the provided picture for optimal

usage.

If you have any further questions or issues, please contact PCS Lighting at: 19215 Parthenia St. Suite D Northridge, CA 91324

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- **Website:** www.pcswebstore.com

UPStart for beginners

Are you new to UPB and/or UPStart?

- Have you installed or configured UPB devices without using UPStart – using the HAI/Leviton OMNI systems – or performed a manual installation?
- Are you a homeowner who had a UPB devices professionally installed or purchased a home with UPB devices installed prior to your purchase?

In you fit into either of these groups, this application note is for you as it shows you step-by-step how to get started with the UPB Configuration program called UPStart. There are many reasons to consider using UPStart. With UPStart you have access to many additional configuration options in your devices that you may not knew existed. The good news is that UPStart is available at no cost from the Powerline Control Systems web site – same place you got this application note. Upstart can be a bit overwhelming at first but there is a User Guide – also available from the PCS web site – and to get you going quick, these topics are covered step-by-step here.

- Download and install UPStart from here: **https://pcswebstore.com/pages/upb-software**.
- Purchase and connect a power line interface module (PIM-U) to your computer so UPStart can send and receive UPB messages.
- Create a network file.
- Add devices.
- Modify the configuration in those devices.
- Write the changes to the devices.

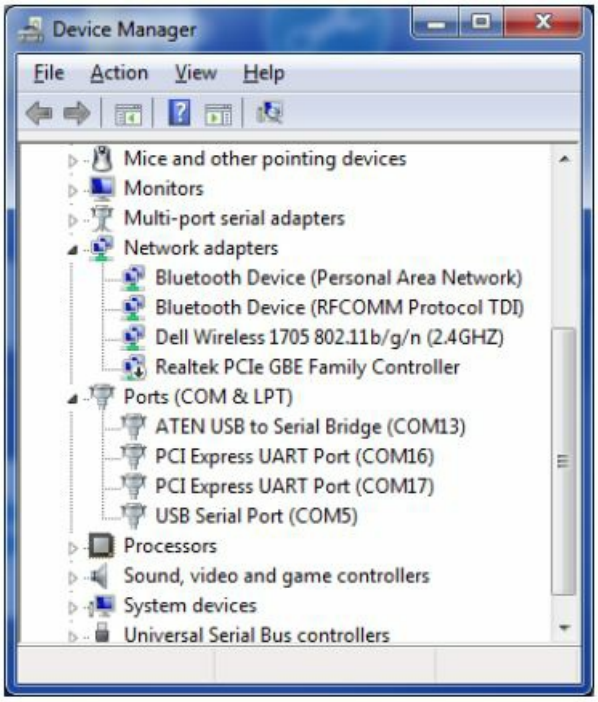
Getting ready with UPStart: Connecting a PIM

After you download and install UPStart – it's done just like any other Windows program by unzipping the downloaded file and running the install executable. Before UPStart can control and program UPB devices, you must connect the PIM to your computer. There are several models available but the most used one has a USB connection to the computer. It can be purchase from the PCS Web store: **https://pcswebstore.com/products/pulseworx-powerline-interface-module-usb**

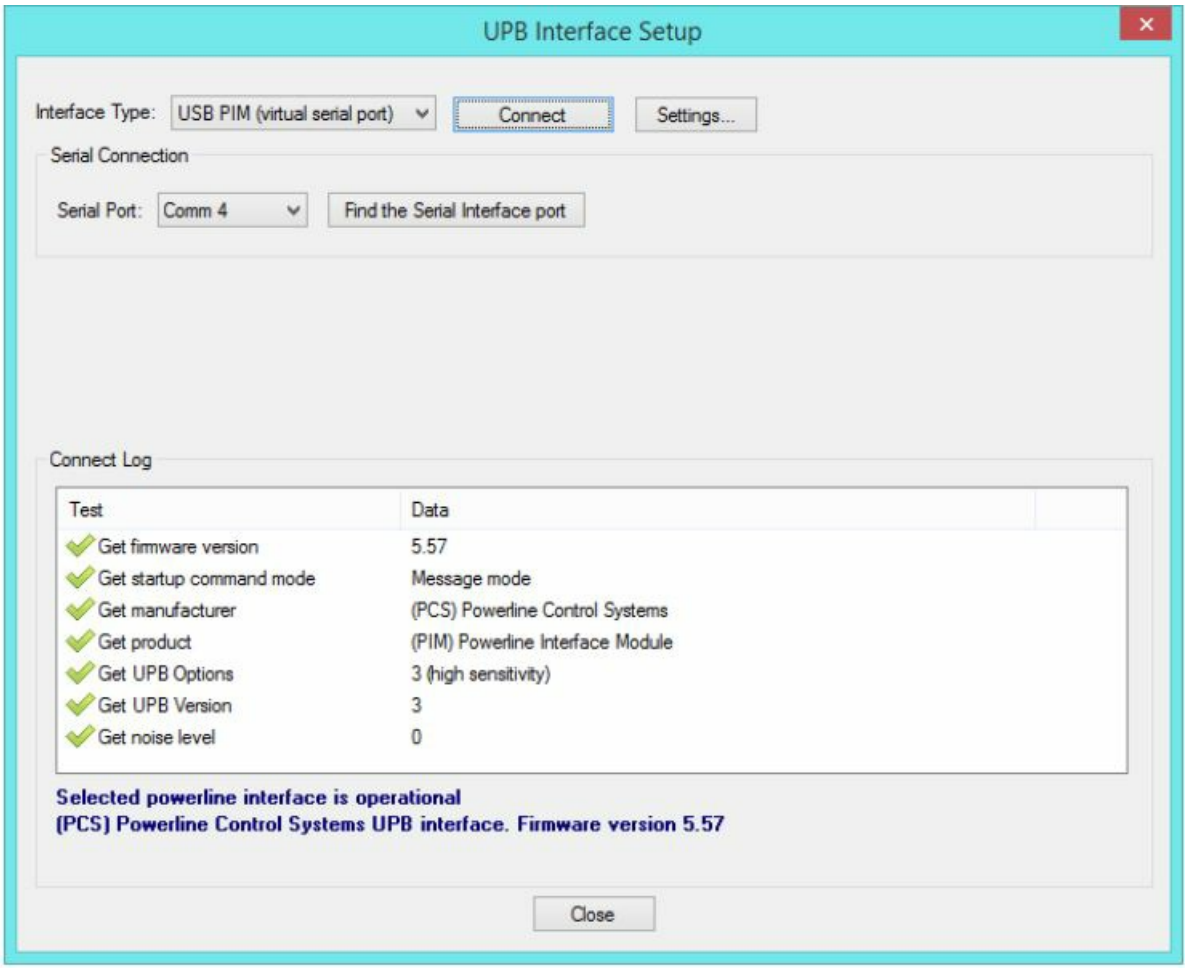
To use this model of the PIM requires installation of a device driver that creates a virtual serial port. Usually Windows automatically installs the necessary device driver when you connect it to your computer. Generally, this happens quickly but can take some time if you have a slow internet connection or the Windows update site is busy so be prepared to wait several minutes! The Windows Device Manager is the tool to determine the Virtual Serial Port the device driver created. How you open that depends upon the Windows version, but an internet search provides the procedure if you have not done this before. Once you have connected the USB PIM to your computer, UPStart must know what port is assigned to it to communicate with it. Open the Windows Device

Manager and when all the device drivers are installed, it will appear as “USB Serial Port”.

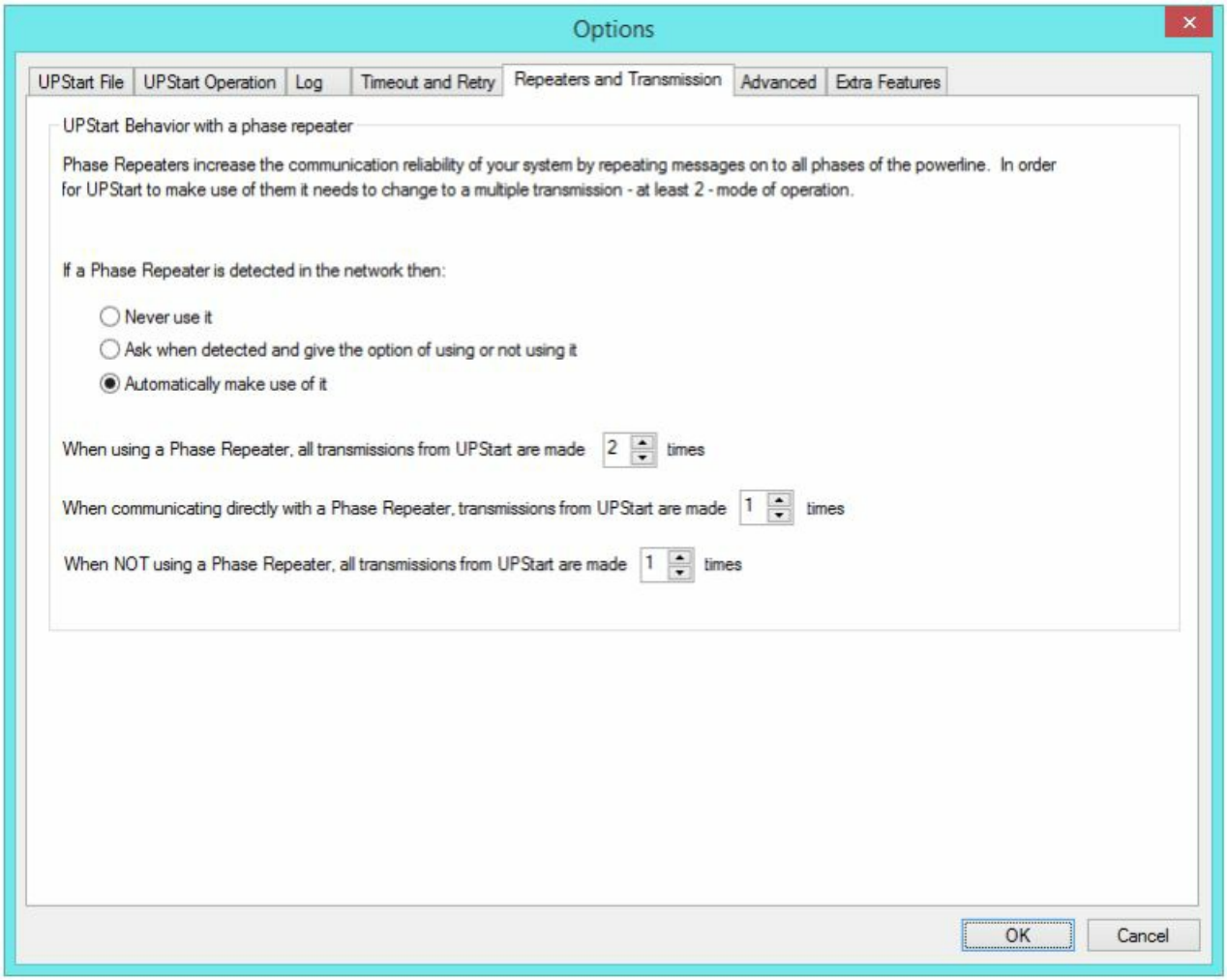
If many ports are listed and you are not clear which port the PIM is using, leave the Device Manager open and take note of which ports it shows. Then unplug the PIM and see what port is no longer shown when the display refreshes and that’s the one it is using. Plug it back in and you can then use that port in UPStart and connect. In the device manage image, the PIM is on port 5.



If you have the “true” serial version of the PIM-R (the one with the DB9 connector), but don’t have a serial port – many recent PCs don’t have them – there are widgets that make a serial port from a USB port. We can recommend the IO-Gear GUC232A USB to Serial Adapter as we have tested it extensively. Once you know what serial port (virtual or real) that the PIM is connected to, start UPStart and press the Configure button in the Powerline Interface panel in the Network ribbon category. Choose the type of PIM you have and the port it uses. In this example, a USB PIM was connected to the computer and the virtual serial port 4 was created by the device driver. Press the Connect button to make the connection then close the connect dialog with OK.



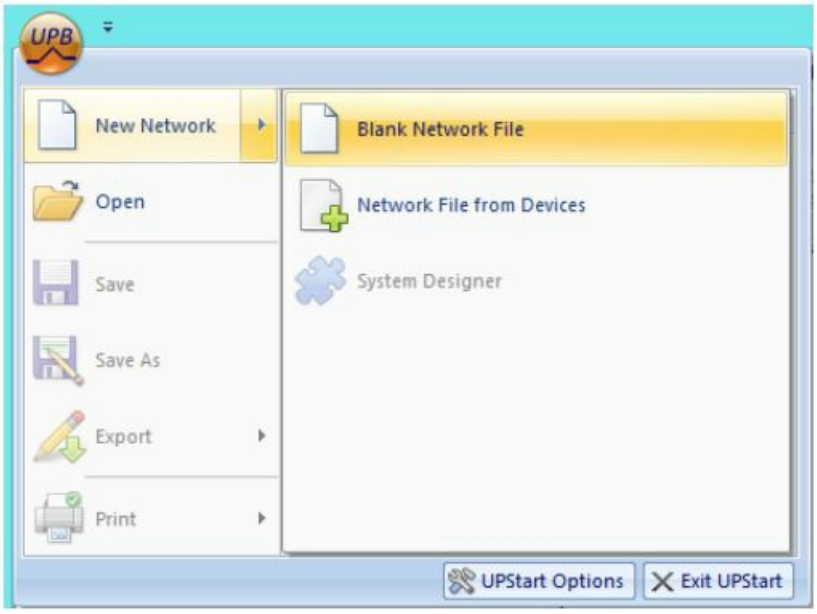
Once the PIM is connected there may be one additional change to make. If you have, or think you have, a UPB message repeater installed (called a SPR) in your installation, then open the application menu – click on the "bubble" at the left end of the ribbon – and press the "UPStart options" button in the lower right of the popup. Select the "Repeaters and Transmission" tab.



Make sure that the settings in the dialog are as shown in the picture above. The reason for this is that you want UPStart to make use of message repeater hardware if one is installed in the installation. If one isn't, then this setting will not cause any problems. Close the UPStart Options dialog with OK. The good news is that once you complete all this set up, UPStart will remember all these settings for next time you start it.

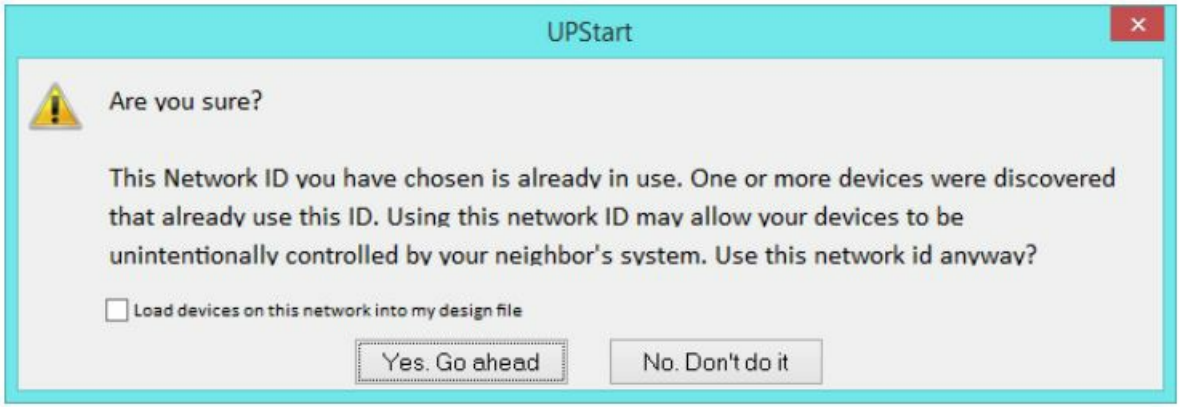
Finding your network id and password of an existing installation

- UPStart, like many Windows programs, can save its work in a file and you can load that file next time you start it. As part of creating a new file, you need two pieces of info. Each UPB installation has a network id – a number between 1 and 250 – and a 4-digit password. If you have an existing installation, then you create a file where this information matches what is in the devices. There are three ways to do this.
- First, you can just "know" these values. If, for example, you are using UPStart with a HAI/Leviton OMNI installation you can get this information from the HAI/Leviton PCS-Access software. Refer to the OMNI application note #2010written by PCS. This application note and others are on the support site App Notes page.
- Second, you can create a file from all your devices. There is explained later.
- Third, you can use UPStart and view the configuration of any device in your installation and that will show the network id and password. These steps are shown next.
- In UPStart, open the application menu and choose "New Network" and then "Blank Network File".



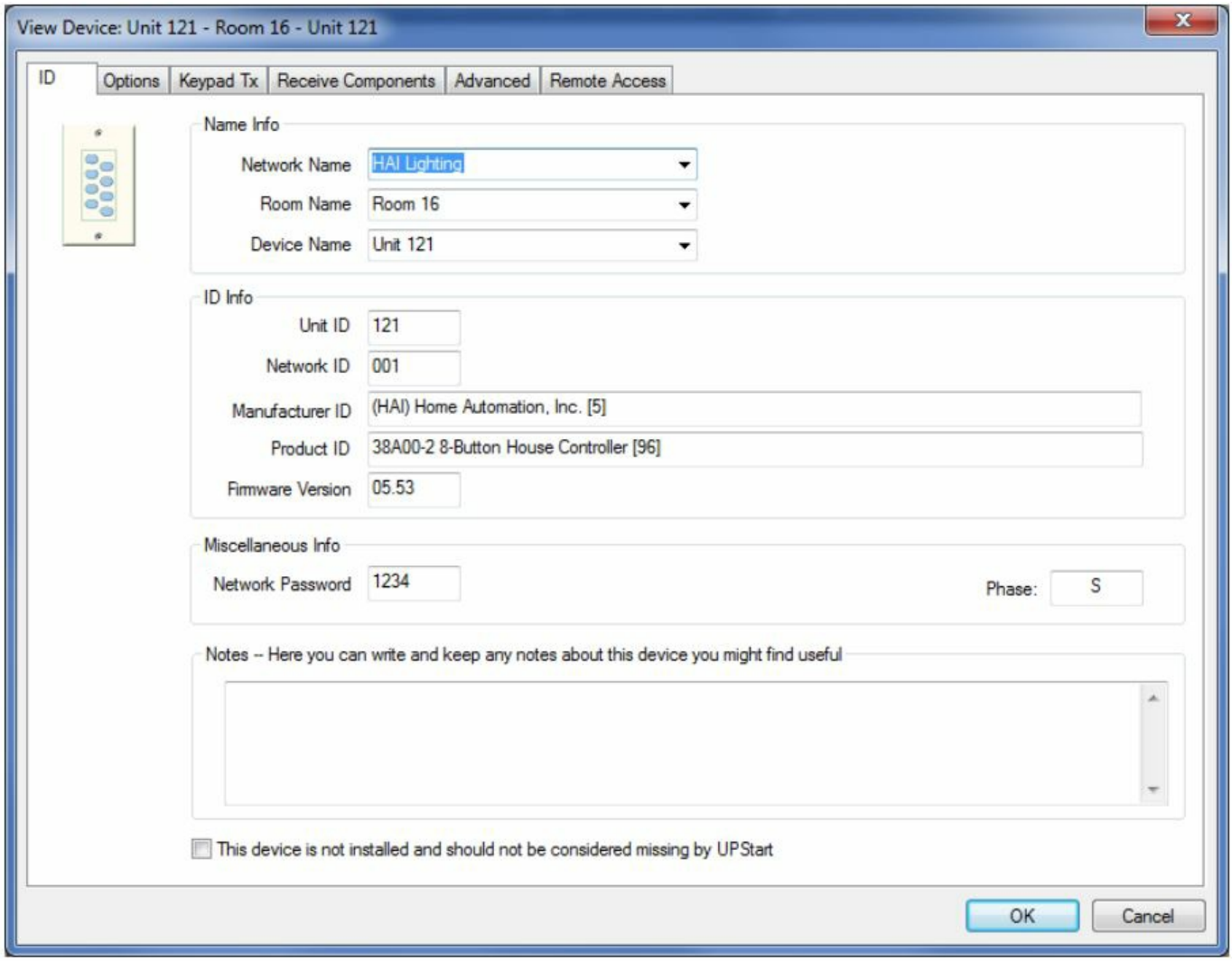
- A popup appears asking for the Network information. This is where you enter the UPB Network Address and UPB Network Password. Since you don't know what those are, just accept the defaults.

Press the OK button and you may see a popup message. If you do, just close it with "Yes, go head". What this means is that the network id of your installation just happens to be the default id that UPStart assumes.



The next step is to press the View button in the Add/Delete panel in the Devices ribbon category. When you do, this popup appears.

Perform that action as it says and pick any one device – a wall switch will probably be easiest – and put it in setup mode and then close the dialog with OK. As this is your first time working with Upstart, you may find it providing a lot of detail. It's all information that you can look at, but you don't need to understand it to use UPStart. What UPStart is doing is reading the configuration memory of the device. When that operation completes, the configuration of the device displays in a multi-tabbed dialog. As an example, here is what shows for a HAI/Leviton 8 button keypad.

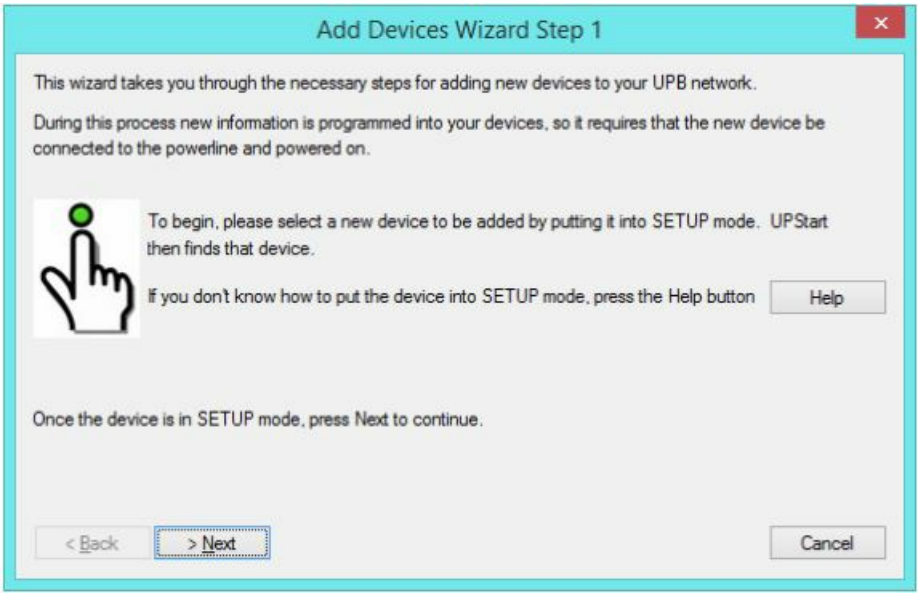


The key piece of information is the network id and the network password. In this example the network id is 1 and the password is 1234. You should write these down. Close the configuration dialog with OK.

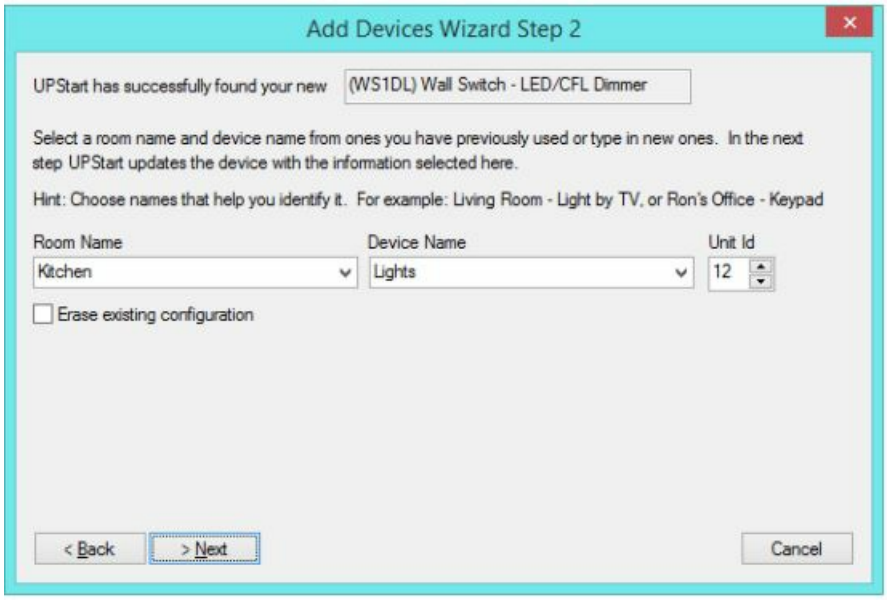
Creating a new file

Now that you have UPStart installed a PIM connected, and you know the network id and password of your installation, there are several ways to go from here. If you want to use UPStart to modify settings in many different devices it would be best to create a network file of your whole installation. If you only want to add a new device and know what id should be used for it, for example if you are adding it to an OMNI installation, then you don't need to read your whole installation. Both these approaches are covered next.

Adding a new device if you know its device id.
If you are using this approach, you must create a network file in the same manner as shown above using the appropriate network id and password. From the application menu, choose New Network and then Blank Network File. In the popup, enter the network id and password as you determined from the previous step. To add a device, Choose the Devices ribbon category, and in the Add/Delete panel press the Add button. The first step of a 3-step Wizard opens.



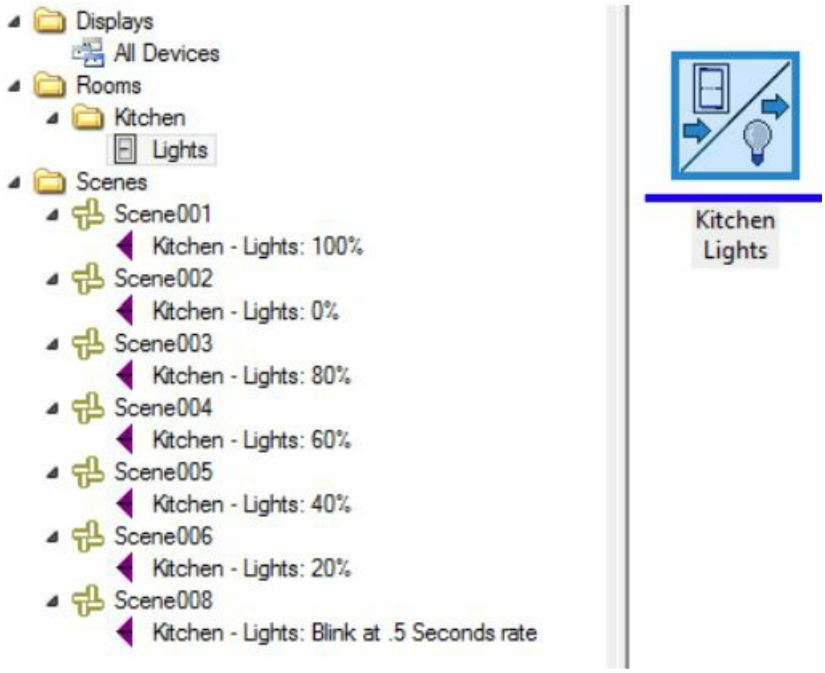
As the dialog text described, put the device into setup mode and then press Next. What UPStart does is to read all the information contained in the configuration memory of the device. When complete, step 2 appears.



The room name and device name are up to you and can be 16 characters max. Make sure that if you are adding a device that you want to give a specific unit id, make sure you enter it before pressing the Next button. Once you are sure that you have set the unit id correctly, press Next.

Note: You probably should tick the “Erase existing configuration” checkbox as that will remove the factory installed scenes in the device that were there for testing purposes. With UPStart you can create your own scenes. UPStart then writes out any changes to the configuration memory needed and then displays a dialog showing completion.

It also added an icon for the device to the screen. If you didn't tick the "Erase existing configuration" then any scenes in the device appear in the left pane also.



The UPStart File and network capture

As described above, another method of getting started is to create a file by reading all the previously installed devices in your network. To do this select from the application menu New Network – Network file from devices. This dialog opens:

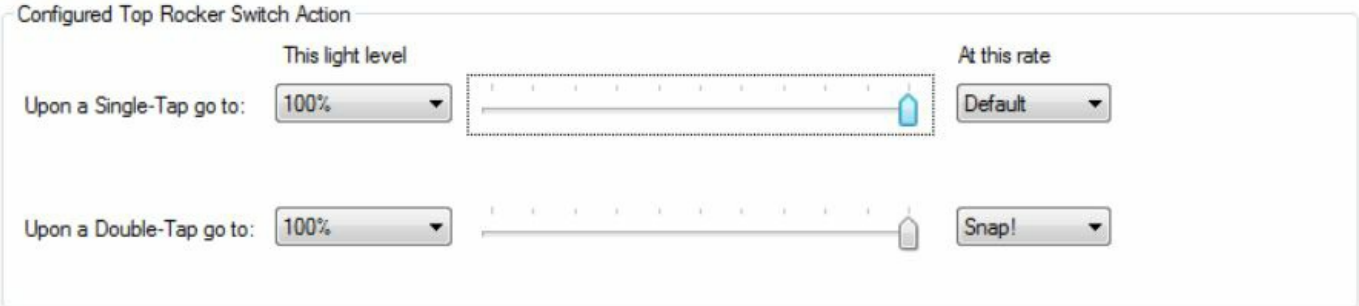
As it says, choose any device in your network and put it in setup mode. If you have a UPB message repeater it really is best if you choose that device as the device to put in setup mode. UPStart then scans your network and locates all your devices and reads their configuration memory and creates a new file. This can take some time if your installation has many devices.

Making Changes

The main use of UPStart is to make changes to the configuration of devices and then save those changes into them. When you double-click on a device icon – or press the Edit button in the Device ribbon category, a multi-tabbed dialog opens. This shows all the configuration settings for the device and you can modify them. As you modify the configuration in different device types you will see that they have both similar configuration options common to all device types and options specific to that device type. For example, a switch has settings about a rocker, but a module doesn't.

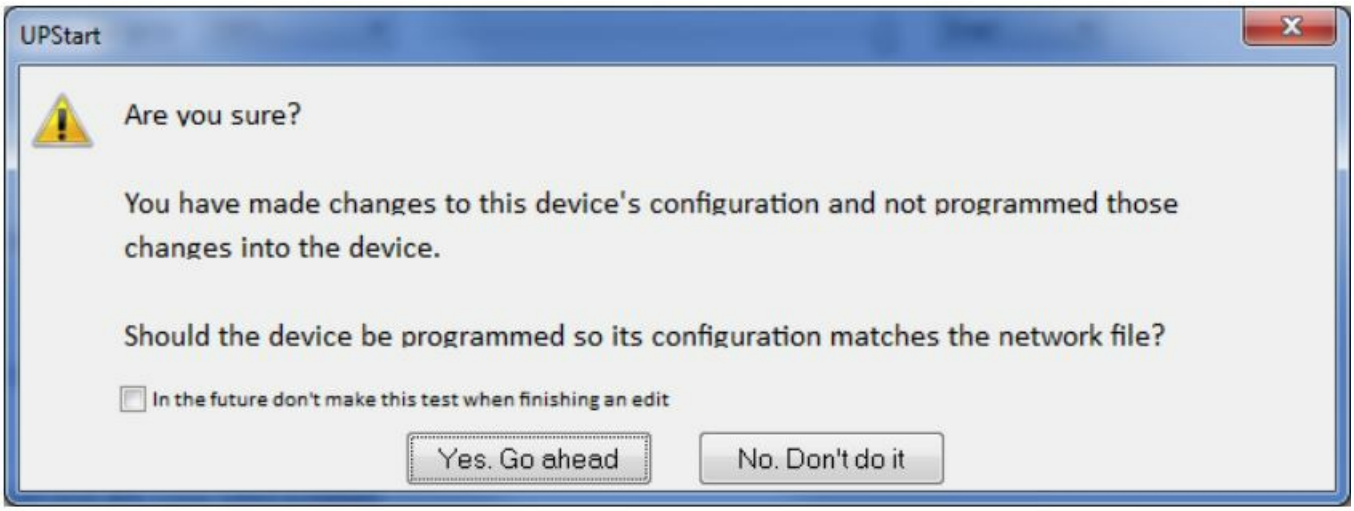
How do you know what each configuration does? UPStart, in general, provides explanatory text near each option. You can also review the user guide for the specific device type – available for download from the PCS website product pages.
Scene creation, which is a major portion of what UPStart does, can be a complex topic. UPStart has several tools to make scene creation quick and easy, but a full explanation of scenes and these tools isn't appropriate for this short note. Please refer to the UPStart user guide for more information.

As an example of changing just one device option, here is a switch and a section of what is shown on the Rocker Switch tab.



This setting determines what happens when you tab the rocker paddle to. Currently it is set to go to 100% at the default ramp rate. Using UPStart this can be changed to different settings:

Now when the switch paddle top is tapped, the lights come on only to 80% and a bit slower.
When you close the dialog with OK, this message appears:



You can go ahead and do the programming at this point or say no and use the programming techniques in the next section.

Programming changes

There are many ways to program changes you made in the configuration of devices. These are:

- Press the Program Device button at the bottom of each tab of the edit dialog
- Make changes and close the edit dialog with OK and answer “Yes” to the popup question as shown in the previous section
- Right-click on a device and select Program from the popup menu
- Select one or more devices and press the Program button in the Devices ribbon category
- Press the Program All or Program All Modified buttons in the Network ribbon category

When using any of these choices, UPStart communicates with a device to send the changes and verify that the device then contains the expected values.

Verify: To answer the question Does my file match my network?
The file that UPStart loads and saves contains all the information about all the device in your installation with the configuration settings of each. This may lead you to ask if what is stored in the file for a device matches exactly the configuration in a device. Anything stored in more than one place – the file and the device – can become out of sync.

To ensure that the file does match the device, UPStart has several verify tools that you can use. These are:

- In the Network ribbon category press the Verify button. This checks that the configuration for a device in the file matches the configuration stored in the device. It does this check so for all devices in your file.
- Right-click on a device and select Verify from the popup menu. This does the same check but only for that device.

At the end of the verify check, UPStart shows the differences, if there are any, and offers the update the device from the file, or the file from the device.

Summary
This application note covers only the absolute briefest mention of only a few UPStart features. To go in depth please review the UPStart user guide. The UPStart User Guide, and the download for the latest version is on the support site Software page.

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Documents / Resources

 App Note 201	PULSEWORX UPStart for Beginners Software [pdf] User Guide UPStart for Beginners Software, Beginners Software, Software

References

- Powerline Control Systems Online Store — PCS Lighting
- PulseWorx / SimpleWorx App Notes — PCS Lighting
- UPB Software/Drivers — PCS Lighting
- PulseWorx PIM-U: Powerline Interface Module, USB — PCS Lighting
- PulseWorx SPR-1: Split Phase Repeater - Wire-in — PCS Lighting