



App Note 205

How to use a PulseWorx Switch with the OMNI in HLC Mode

If you are using the HAI/Leviton OMNI with devices in HLC mode, you can easily use PulseWorx switches without a lot of effort. This application note shows you how step-by-step.

There are two different paths you can go down to accomplish integrating the OMNI with PulseWorx switches.

- Follow the “Using UPStart” instructions if you are already familiar with and use the UPB configuration program called UPStart.
- Follow the “Using the HAIme tool” instructions if you have not used UPStart.

Using UPStart

Before getting down to step-by-step instructions, the most important concept to understand about using PulseWorx devices with the OMNI in HLC mode is this: You must tell the OMNI that the device exists by adding it to the device table, but you don’t have to program the device using the OMNI.

If you have used HAI devices before in HLC mode you know that the usual procedure is to first add the device to the OMNI device table, then put the device into setup mode, then right-click and select “Configure HLC Device” to configure the device. But you don’t have to do the “Configure HLC Device” step as UPStart can do it for you.

Step 1. Add the switch to the device table

When adding a new device, you must first begin in the PC-Access software. Open the devices list and find an unused slot in the room that you want to add the device to.

	009 (RM2)	Kitchen		HAI Lighting Control (HLC)
	010 ---(RM2-2)	Desk		HAI Lighting Control (HLC)
	011 ---(RM2-3)	Counters		HAI Lighting Control (HLC)
▶	012 ---(RM2-4)	UNIT 12		HAI Lighting Control (HLC)
	013 ---(RM2-5)	UNIT 13		HAI Lighting Control (HLC)



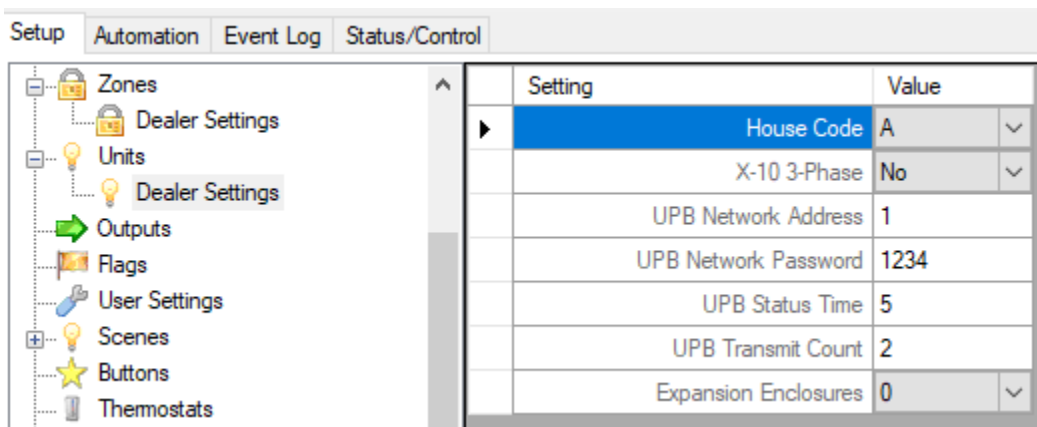
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In this example a new device is being added to the Kitchen (room 2) and as device 4 in that room which PC-Access shows as RM2-4. The key piece of information is the number in the first column. In this example 012. Make sure you write that down. At this point you should also click on the cell and enter the name of the device.

Step 2. Create or open an UPStart file that uses the same network id as selected in the OMNI

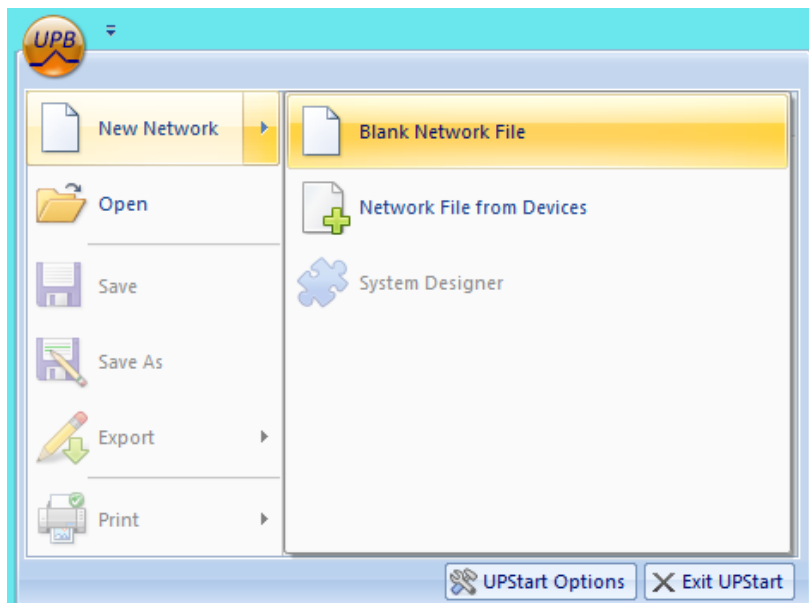
Before moving to UPStart, you need two pieces of info that you can find from the PC-Access program. Each UPB installation has a network id – a number between 1 and 250 – and a 4-digit password. You must know these for UPStart to be able to program your devices as the OMNI expects them.

In the PC-Access software choose the “Dealer Settings” under “Units” on the “Setup” tab.

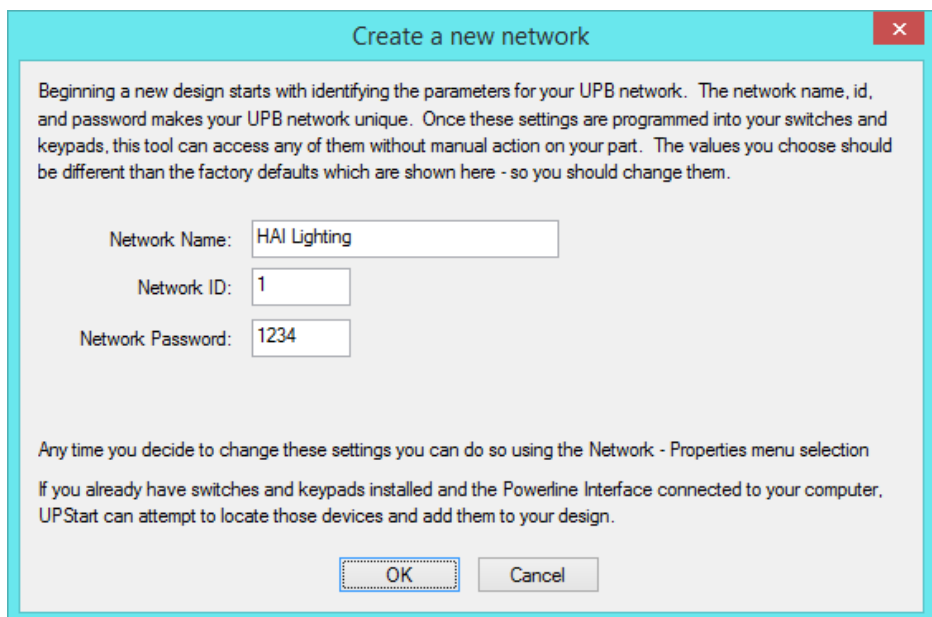


The key items that you should write down are the “UPB Network Address” and the “UPB Network Password”. In this example the network address is 1 and the password is 1234.

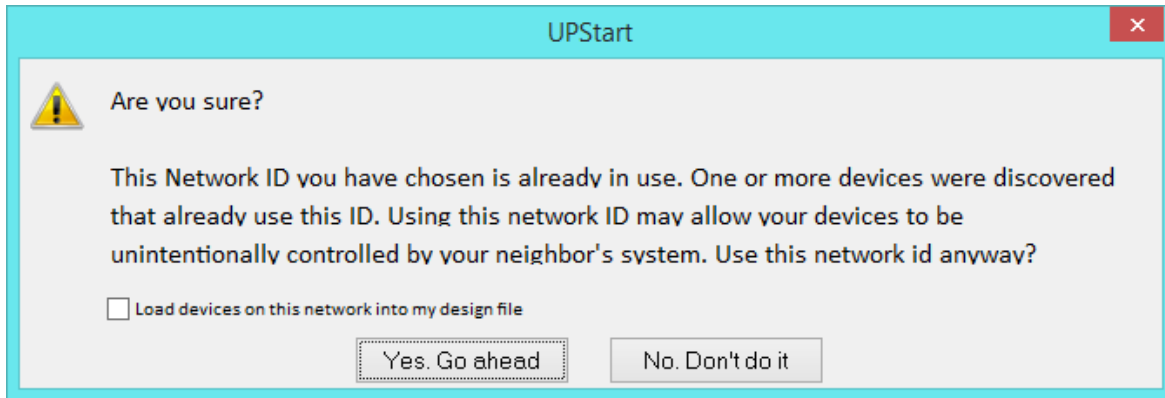
In UPStart, open the application menu and choose “New Network” and then “Blank Network File”.



A popup appears asking for the Network information. This is where you enter the **same UPB Network Address and UPB Network Password that you copied down from the PC-Access software**. The network name isn't really used, but to be consistent with what the OMNI uses, you may want to use "HAI Lighting" as the network name as shown in the image below.



Press the OK button and you may see a popup message.



If you see this message it is a good thing! This means that the network ID you entered was the correct one and UPStart has seen that there are already installed UPB devices that your OMNI has been controlling.

Step 3. Add the PulseWorx switch and give it the same device id that you used in the OMNI

In UPStart, 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. If you are familiar with the PC-Access software and have not used UPStart before you will immediately see that UPStart shows a lot more detail. You can review or ignore, that is up to you. What it is doing is reading all the information contained in the configuration memory of the device.



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The screenshot shows a dialog box titled "Add Devices Wizard Step 2". It contains the following text and controls:

- Header: Add Devices Wizard Step 2 (with a close button)
- Text: UPStart has successfully found your new (WS1DL) Wall Switch - LED/CFL Dimmer
- Text: Select a room name and device name from ones you have previously used or type in new ones. In the next step UPStart updates the device with the information selected here.
- Text: Hint: Choose names that help you identify it. For example: Living Room - Light by TV, or Ron's Office - Keypad
- Form fields:
 - Room Name: Kitchen (dropdown menu)
 - Device Name: Lights (dropdown menu)
 - Unit Id: 12 (spin box)
- Checkbox: ☐ Erase existing configuration
- Buttons: < Back, > Next, Cancel

Step 2 is the key: set the "Unit Id" to the slot you want to use in the PC-Access software before you press Next.

You should enter the room name and device name for this new device for your own use, but what you entered with the PC-Access software is the name that the OMNI uses. Once you are sure that you have set the unit id correctly, press Next.

Note: You can tick the *Erase existing configuration* checkbox or not. It will not matter.

UPStart then writes out any changes to the configuration memory needed and then displays a dialog showing completion.

The screenshot shows a dialog box titled "Add Devices Wizard Step 3". It contains the following text and controls:

- Header: Add Devices Wizard Step 3 (with a close button)
- Text: UPStart has successfully added this new device to your network
- Form fields:
 - Manufacturer: (PCS) Powerline Control Systems
 - Product: (WS1DL) Wall Switch - LED/CFL Dimmer
 - Network: HAI Lighting
 - Name: Kitchen - Lights
- Text: If you have more devices to add, press "Add more devices".
If you have added all your devices, press "Done".
- Buttons: Add more devices, Done

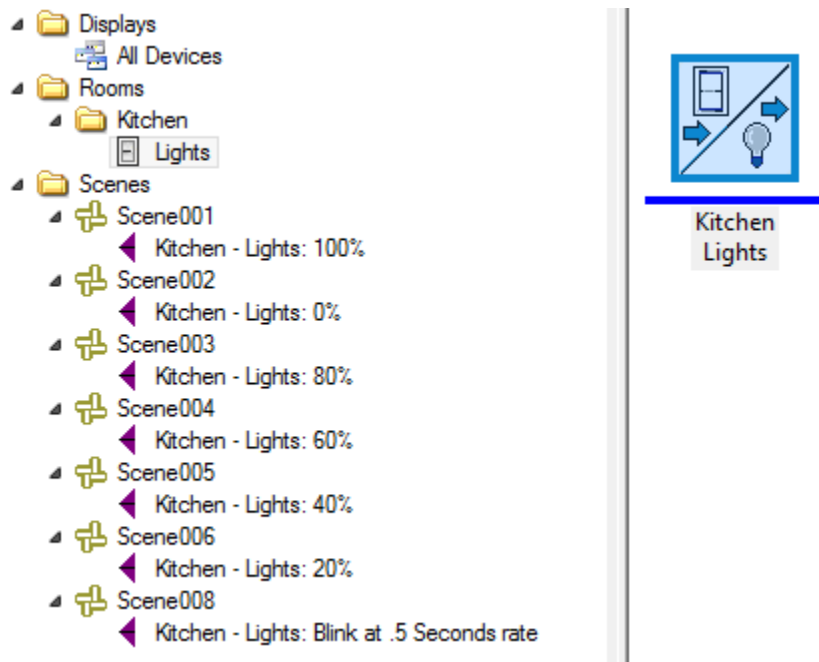


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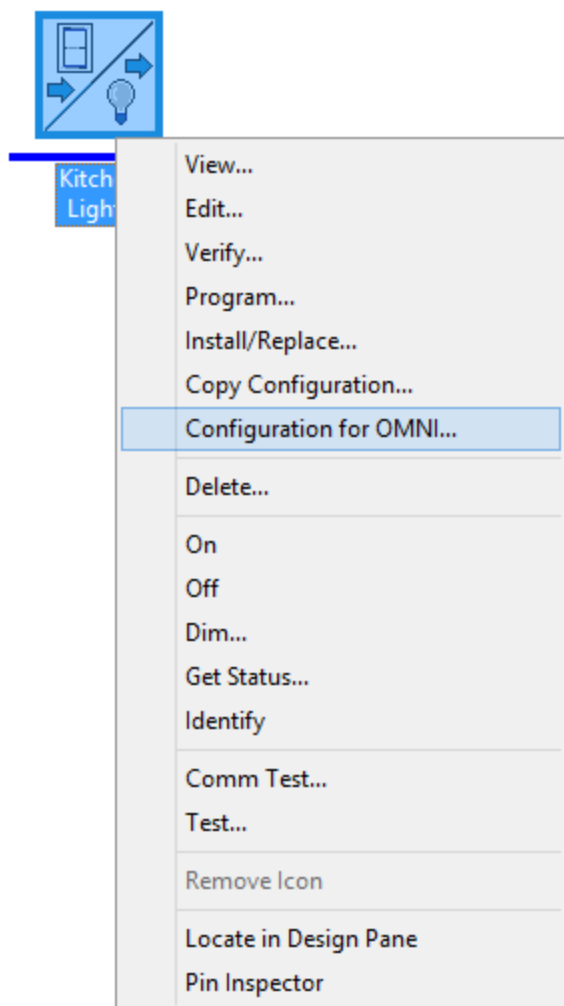
It also added an icon for the device to the screen. Don't worry about the scenes displayed in the left pane as they are just default scenes present in a new switch. They will be replaced by the correct ones needed for the OMNI in the next step.



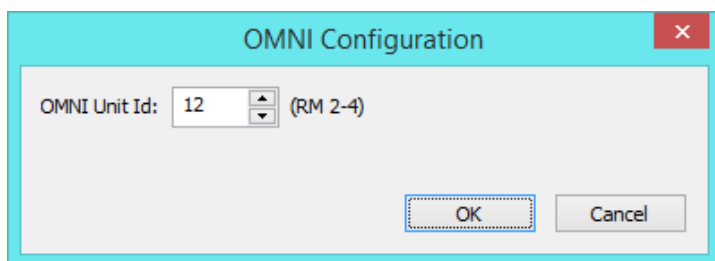
Step 4. In UPStart do the HLC programming

Now that the device is part of your UPB Network, the final step can be performed to make the OMNI understand it. What UPStart does is to write to its configuration memory all the settings that the OMNI would program into it.

To begin, right-click on the OMNI and select *Configuration for OMNI*.



A “helpful” popup makes sure we know what we are doing. Read and close. Finally, the popup we care about opens:





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The OMNI Unit Id will already be filled in with the Unit Id you selected during the add process. As a double-check, it displays the room and device number as the PC-Access software shows it. **Verify it is correct** and press OK.

What this menu pick does is to configure the device exactly as the OMNI would have configured it. However, unlike PC-Access the device isn't programmed at this point.

To program the device with the changes, right-click on the device icon or on the name of the device in the left pane and select *Program* from the popup menu. Or select the device in the left pane and in the *Devices* ribbon category, *Program* panel, press the *Program* button.

And that's it! The device is now programmed as the OMNI expects it and can be used with all the standard OIMNI tools for automation and will appear in the SnapLink software.

You should not use the "Configure for HLC Device" in PC-Access. It isn't needed so don't do it.



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Using the HAI me tool

A UPB developer has created a tool that can modify a PulseWorx switch so that it is recognized by the OMNI as a HAI switch. The good news is that the software is free and is easy to use. It isn't a PCS product, so we don't directly support it, but we have found it works well.

Get it by downloading from their website at: <http://www.voiceupbbridge.com/HAI me.html>

In order to use this tool you need:

- A Windows computer to run the software
- A UPB PIM (PIM-U) or a Serial PIM (PIM-R) that you can connect to the computer. The PIM that is attached to the OMNI can't be used for this as it has a connector that can't be attached to the computer.

Once you have the software downloaded and installed on your computer and a PIM connected, then start the program and follow the instructions. Once the program has completed its work, you can then add the device to the OMNI in the same manner as you do with HAI branded devices.

=== PulseWorx Type ===	=== HAI type ===	== Retains change after factory reset ==
WS1D Wall Switch Standard Dimmer	HAI Dimming Switch	Yes
WS1DL Wall Switch LED/CFL Dimmer	HAI CFL Dimming Switch	Yes
WS1R Wall Switch Relay	HAI 15A Relay Switch	Yes
WS1E Wall Switch Electronic Low Voltage	HAI Dimming Switch	Yes
KPC7 Keypad 7-Button	HLC Keypad Room Controller	No
KPLD7 Keypad Load Dimmer 7-Button	HLC Keypad Room Controller	No
KPLR7 Keypad Load Relay 7-Button	HLC Keypad Room Controller	No
LM1 Lamp Module	HAI 300W Lamp Module	No
AM1 Appliance Module	HAI 15A Appliance Module	No
RM1 Receptacle	HAI 15A Appliance Module	No

Note: All configuration in the device is overwritten.

Step 1. Connect serial or USB PIM. Port: Comm 7 Connect

Step 2. Place device into setup mode then press the Go button. Go

☐ Locate device in Setup mode
☐ Read existing manufacturer and type
☐ Change manufacturer and type
☐ Read Configuration
☐ Write Configuration
☐ Exit setup mode



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