

#### How to update the PulseWorx Gateway to a new version of firmware (updated 11-Sep-23)

Note: This application note describes two different methods to update the firmware in the Gateway. The first method described uses UPStart and the second is a manual method using Windows FTP. On some networks FTP gets blocked by either router settings and/or Anti-Virus programs. If the UPStart method fails for you, try the manual method. If that also fails, try disabling any anti-virus programs while you attempt the firmware update again.

#### **Update PulseWorx firmware using UPStart**

Before you begin: Make sure you have the latest version of UPStart installed. Part of that installation contains the latest Gateway firmware. If you have an older version of UPStart and want to hold onto that for some reason, or there is later firmware that hasn't been released with UPStart, you can download that firmware from the support website as detailed below. But it is your best option to make sure that UPStart is the latest version before you begin.

#### Step 1: Use UPStart to get started with the PulseWorx Gateway

UPStart, the UPB configuration program, uses the PulseWorx Gateway as an interface to the power line for control and configuration of any UPB device. Before beginning, you should be familiar with UPStart and the PulseWorx Gateway. The user guides for UPStart and the Gateway are available from the PCS support web site.

**UPStart Users Guide** 

https://cdn.shopify.com/s/files/1/0152/7169/0340/files/UPStartUsersGuide 8 1.pdf

Gateway Quick Start Guide

https://cdn.shopify.com/s/files/1/0152/7169/0340/files/PGWQuickStartGuidev1.1.pdf

Gateway User Guide

https://cdn.shopify.com/s/files/1/0152/7169/0340/files/GatewayUserGuide1.6.pdf

If you have a background in automation systems like URC, Control4, or RTI but are new to UPB, here is an application note that can help:

https://cdn.shopify.com/s/files/1/0152/7169/0340/files/PWX 201 Starting With UPStart.pdf

You will need the latest UPStart version. It can be downloaded from the PCS website at <a href="https://pcswebstore.com/pages/upb-software">https://pcswebstore.com/pages/upb-software</a>



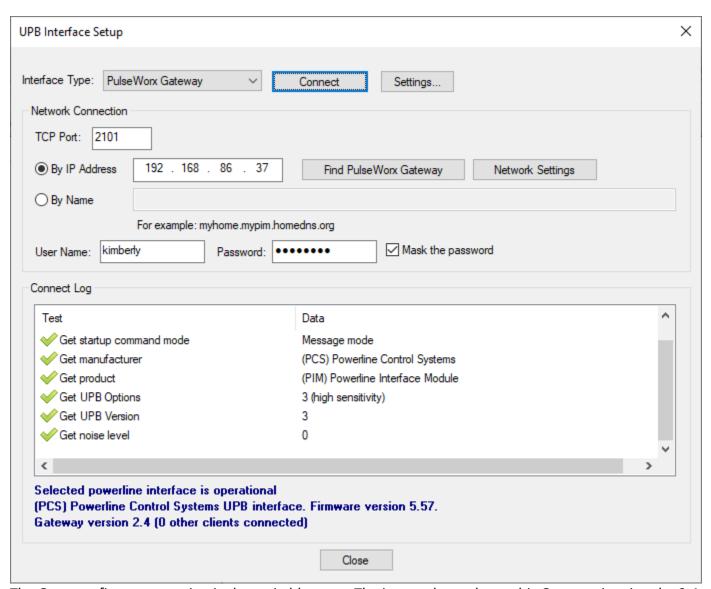




#### Step 2: Update the Gateway to the latest firmware version

For the Gateway to support the drivers for automation systems (URC, Control4, RTI) it must contain version 1.12 **or later** of the Gateway firmware. In To see what version of the firmware is in your Gateway, start UPStart and press the *Configure* button in the *Network* ribbon category, *Powerline Interface* panel. Then press the Connect button.

#### NOTE: It is best to use the latest version firmware available!



The Gateway firmware version is shown in blue text. The image above shows this Gateway is using the 2.4 firmware.







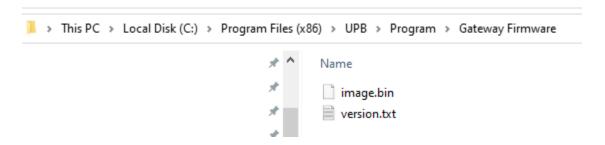
If there is later Gateway firmware available, it is easy to update. First download from the PCS Support website a zip file containing the new firmware files.

https://cdn.shopify.com/s/files/1/0152/7169/0340/files/PGW Firmware Current.zip

Put this zip file in a folder in your documents area and then unzip it. Two files are extracted:



Move the image.bin and version.txt file to the UPStart installation *Gateway Firmware* folder replacing the existing files with the same name in that folder. If you are using Windows 10, and accepted the default installation location when you installed UPStart on your computer, that would be here:



Windows may complain about the file being overwritten and complain that it is in a protected space on your computer. Allow the operation to be completed.

Next, Start UPStart and after connecting to the Gateway, select from the *PulseWorx Gateway* ribbon category the *Firmware Update* button in the *Advanced* panel. An informational popup appears that you can read and dismiss.

After the informational popup this appears:









If it doesn't show the expected version go back and check that you moved the correct image.bin and version.txt files extracted from the zip file to the correct location.

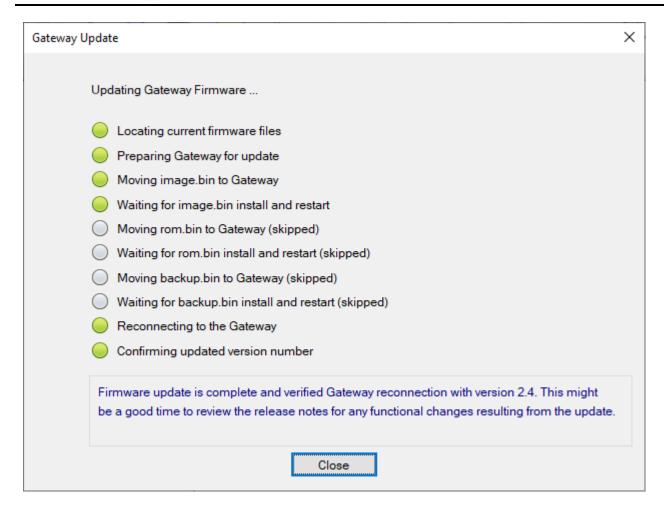
Windows may complain about network access being blocked by a firewall and wants you to confirm it is ok. Allow the operation to be completed.

Allow the firmware update to complete. It will take several minutes.









NOTE: This process uses Windows FTP to move the files to the Gateway. This works in almost all cases but there are some networks where it just doesn't allow FTP to proceed, probably due to some firewall. If the update fails, try the method in the next section.



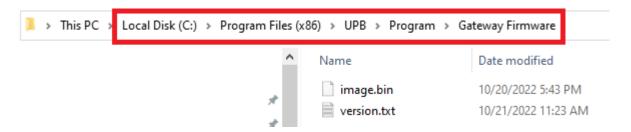




#### **Update PulseWorx firmware using Windows FTP**

Make sure that the Gateway is powered on and connected to the network. Figure out IP address the Gateway was assigned. It should be the same as you have UPStart configured for. If you don't know it, most routers have some form of user interface and a "device table" that shows all the network devices.

Next, on your computer locate the folder containing the image.bin file. The folder is typically as shown in the image below, but on your computer it may be different. For example, "Program Files (x86)" may be just "Program Files" on your machine. The goal is to find the folder in the UPStart installation that has the image.bin and version.txt files contained in it.



Start a Windows CMD command prompt. From the "Start" button, choose "Windows System", then "Command Prompt" from the menu.

If you have not used Windows CMD, it's like the old DOS days. Just follow the instructions below and refer to the image that shows the steps.

- Step 1: Type: cd followed by the path to the firmware folder in quotes, then press enter.
- Step 2: Type: ftp <ip address of the gateway>, then press enter.
- Step 3: FTP asks for the username. Enter upstart, then press enter.
- Step 4: FTP asks for a password. Enter firmware, then press enter.
- Step 5: Type: Put image.bin, then press enter.

Windows defender might display one of those warning messages about network access. Confirm that it is ok.

Step 6: Type: quit, then press enter.







Now wait several minutes for the Gateway to restart and update the firmware. The Gateway should be updated and ready to go. Try connecting to it via UPStart to verify the expected firmware version.

```
Command Prompt
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Microsoft Windows [Version 10.0.19045.2251]
(c) Microsoft Corporation. All rights reserved.
C:\Users\kharm>cd "\Program Files (x86)\UPB\Program\Gateway Firmware"
C:\Program Files (x86)\UPB\Program\Gateway Firmware>ftp 192.168.86.37
Connected to 192.168.86.37.
220 NET+OS 7.5.2.2 FTP server ready.
503 Bad sequence of commands
User (192.168.86.37:(none)): upstart
331 User upstart OK, send password.
Password:
230 Password OK.
ftp> put image.bin
200 PORT command Ok.
150 About to open data connection.
226 Transfer complete
ftp: 481331 bytes sent in 3.20Seconds 150.37Kbytes/sec.
ftp> quit
221 Goodbye.
C:\Program Files (x86)\UPB\Program\Gateway Firmware>
```

##end##



