

## WattNode LonWorks Firmware Upgrade with Niagara AX

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### Overview

This application note describes how to upgrade the application code (firmware) on a WattNode® for LonWorks® (WNC series) using the Tridium® Niagara® WorkPlace<sup>AX</sup> (formerly called Workbench, part of the <sup>AX</sup>Supervisor software package).

### Limitations

It is not possible to change the model or options by upgrading the firmware. Attempting to load a mismatched model or option version may result in an uncalibrated or unusable WattNode that will have to be reprogrammed by the factory. Specifically:

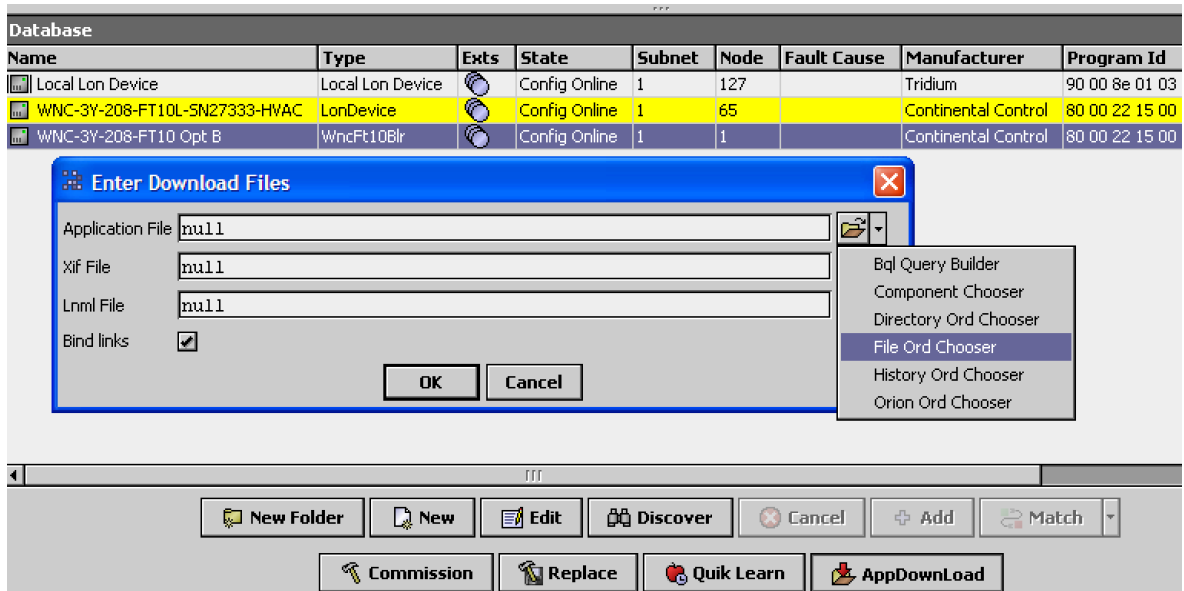
- If you have a regular WattNode Plus for LonWorks, the firmware version will be of the form 3.3x and the model will be WNC-xx-xxx-FT10 without any options.
- If you have a WattNode Logger for LonWorks, the firmware version will be of the form 3.6x and the model will be WNC-xx-xxx-FT10-**L** without any options.
- If you have a WattNode Plus for LonWorks with Option B, the firmware version will be of the form 3.0x and the model will be WNC-xx-xxx-FT10 **Opt B**.
- If you have a WattNode Plus for LonWorks with Option BI, the firmware version will be of the form 3.1x and the model will be WNC-xx-xxx-FT10 **Opt BI**.

### Steps

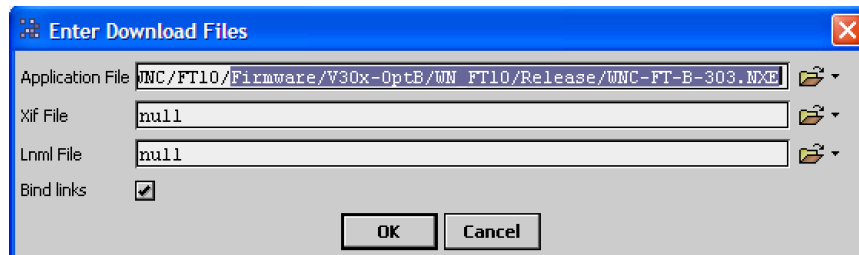
- 1) Determine which type of WattNode you have. It should be one of the following:

Model	LonWorks Program ID	Firmware Versions
WattNode Plus for LonWorks	9:00022:1500:8A:04:07	3.31, 3.32
	8:00022:1500:0A:04:07	3.33
WattNode Logger for LonWorks	8:00022:1500:8A:04:09	3.62
	8:00022:1500:0A:04:0A	3.63, 3.64
WattNode Plus for LonWorks Option B	8:00022:1500:0A:04:05	3.0x
WattNode Plus for LonWorks Option BI	9:00022:1500:0A:04:0B	3.1x

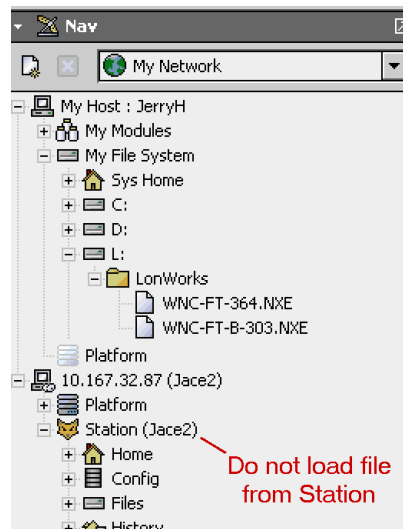
- 2) Visit the Continental Control Systems website [www.ccontrols.com](http://www.ccontrols.com) to find the firmware upgrade application image file for your WattNode. Find the page for the WattNode Plus for LonWorks or WattNode Logger for LonWorks, then click on the **Downloads** tab and select the correct **Firmware Update** link.
- 3) Save the firmware application image file to your computer. It should have an extension of **NXE**. Do not copy this to the JACE filesystem because the upgrade will not work.
- 4) Select Lon Device (WattNode) to upgrade in the **Lon Device Manager**. For this example “WNC-3Y-208-FT10 Opt B” was selected. Then click the **AppDownLoad** button to get following popup:



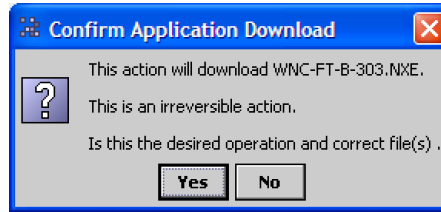
- 5) Select the Application File by clicking on the down arrow next to the open folder icon at the end of the Application File line. Select **File Ord Chooser**. A “File Chooser” popup will appear. Select the \*.NXE file to download and click **Open**.



- **NOTE:** Copy and pasting the file path into the popup does not work, you must use the “File Chooser” popup to select the file. The file should appear on the line labeled **Application File**.
- **NOTE:** Do not copy the files to JACE first. Downloading files from the JACE file system does not work. The NXE file must be located on your Workplace (or Workbench) host as shown in the figure below.



- 6) Click **OK** button. A popup “Confirm Application Download” will appear. Click **Yes** to start the download.



A progress bar labeled “Lon App Download” will appear in the Lon Device Manager. The download should take roughly 30 seconds.

Database										3 objects
Name	Type	Exts	State	Subnet	Node	Fault Cause	Manufacturer	Program Id	Neu	
Local Lon Device	Local Lon Device		Config Online	1	127		Tridium	90 00 8e 01 03 80 00 03	04 da d	
WNC-3Y-208-FT10L-SN27333-HVAC	LonDevice		Config Online	1	65		Continental Control	80 00 22 15 00 0a 04 0a	04 91 3	
WNC-3Y-208-FT10 Opt B	WncFt10Blr		Config Offline	1	1		Continental Control	80 00 22 15 00 0a 04 05	04 0d c	

When the download is complete, the progress bar will be replaced with “Success”.

- 7) Reset the WattNode by right-clicking on the device, then select **Actions > Reset**.  
 8) Verify that the WattNode is working correctly.

## Troubleshooting

In rare cases, the upgrade will not complete successfully. There are a few signs of this:

- An error message from WorkPlace.
- The WattNode service LED lights solid red.
- The WattNode reports obviously incorrect measurements, indicating a problem with the calibration data.

If such a problem occurs, you can try repeating the download process, but if that doesn't solve the problem, the WattNode will need to be returned to Continental Control Systems for reprogramming and recalibration.

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LonWorks is a registered trademark of Echelon Corporation

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