Installing WattNode Resource Files and XIFs for LNS/LonMaker

Before installing any WattNode® meters on an LNS®/LonMaker® based LonWorks® network, you should install the Continental Control Systems (CCS) resource file set and XIF files. This will ensure that LNS displays all network variables in the correct format, and that all configuration properties are visible and correctly formatted.

Before proceeding with this installation, we recommend exiting LonMaker and any other LNS applications. If this isn't possible because they are in use, it should still be possible to install and use the CCS resource files and XIF files.

Versions

There have been two publicly released versions of the CCS resource files:

- **1.04** - This was the first publicly released version and supports all models except the Option PT models.
- **1.05** - This updated version was released November 2011 and adds support for Option PT models. It is backwards compatible with all WattNode models.

Installing XIF Files

There may be one or more XIF files supplied with your WattNode. You can also download these from our website. Copy all of these into the **"C:\LonWorks\Import\"** folder on your computer.

When you first install a WattNode, in the **"New Device Wizard"**, there will be an **"External Interface Definition"** section where you can specify that you wish to **"Load XIF"**. Select the **"Load XIF"** option and click the **"Browse"** button. This should take you to the **"C:\ LonWorks\Import\"** folder, where you can select the correct XIF file. If you aren't sure which XIF file to use, select the one ending with the same three digits as the WattNode firmware version (printed on the front or back label of the WattNode). The current Watt-Node firmware versions and XIF files are listed below:

- WattNode Plus, FT10 - Version 3.37 - **WNC-FT-Plus-337.XIF**
- WattNode Plus, FT10, Option PT - Version 3.40 - **WNC-FT-Plus-PT-340.XIF**
- WattNode Logger, FT10 - Version 3.67 - **WNC-FT-Log-367.XIF**
- WattNode Logger, FT10, Option PT - Version 3.70 - **WNC-FT-Log-PT-370.XIF**
- WattNode Plus, FT10, Option B - Version 3.03 - **WNC-FT-B-303.XIF**
- WattNode Plus, FT10, Option BI - Version 3.13 - **WNC-FT-BI-313.XIF**

Installing Resource Files

If you install the WattNode LNS Plug-in, it should automatically install the resource files, so these instructions are intended for use if you are not using the plug-in or if the there was a problem with the resource file installation.

To manually install the CCS resource file set use the following steps:

1) If possible, shut down LonMaker (or your LNS application).
2) Create the folder **"C:\LonWorks\Types\User\CCS"**.
3) Copy the four resource files into this folder.

- CControlSys.ENU
- CControlSys.FMT
- CControlSys.FPT
- CControlSys.TYP

4) Open a command prompt

a) For Windows XP

- Click "Start" / "Run..."
- Type `cmd`
- Press Enter

b) For Windows Vista and Windows 7

- Click "Start"
- Type `cmd`
- Press Ctrl+Shift+Enter to run the command prompt with administrator rights.

5) Type `cd \LonWorks\Types`

6) Make a backup of the existing resource catalog file:

- Type `copy LDRF.CAT LDRF.CAT.bak`

7) Type `mkcat -aC:\LonWorks\Types\User\CCS` (Note: if you do not have mkcat on your system, see step 8 for an alternate approach).

To verify that you've successfully installed the resource file set, type `mkcat -l` (that is a lowercase L) and you should see something like the following (CCS files in bold):

```
C:\LonWorks\Types>mkcat -l
MKCAT - Copyright(c) 1999 by Echelon Corporation. All Rights Reserved.

The catalog knows about 3 directories:
        C:\LonWorks\Types\
        C:\LonWorks\Types\User\Echelon\
        C:\LonWorks\Types\User\CCS\

The catalog knows about 7 language files:
        C:\LonWorks\Types\STANDARD.ENG
        C:\LonWorks\Types\STANDARD.ENU
        ...
        C:\LonWorks\Types\User\CCS\CControlSys.ENU

The catalog knows about 5 type files:
        C:\LonWorks\Types\STANDARD.TYP
        ...
        C:\LonWorks\Types\User\CCS\CControlSys.TYP

The catalog knows about 5 FPT files:
        C:\LonWorks\Types\STANDARD.FPT
        ...
        C:\LonWorks\Types\User\CCS\CControlSys.FPT

The catalog knows about 4 format files:
        C:\LonWorks\Types\STANDARD.FMT
        ...
        C:\LonWorks\Types\user\ccs\CControlSys.FMT
```

8) (Alternate to using **mkcat** program). If you do not have **mkcat.exe** on your system, you may instead use **ldrfcat.exe**, which performs the same function.

- Use Windows Explorer to navigate to the C:\LonWorks\bin folder.

- Start **ldrfcat.exe** (or **ldrfcat** if extensions are not turned on). In Windows XP, you may just double-click to run the program. In Windows Vista and Windows 7, you will need to right-click the program and select "Run as Administrator").

- Click the "OK" button.

- Use the file dialog box to navigate to the "C:\LonWorks\types" folder and click "OK".

- Click the "Refresh Now" button in the upper right.

- To verify this completed, you may click the "Next Directory >>" button until you see "C:\LonWorks\types\User\CCS\" displayed.

Using XIF and Resource Files

There are signs when browsing the WattNode that will indicate if LNS is using the XIF file(s) and CCS resource files. When you browse a WattNode meter (use Browse / Options to make sure Configuration Properties are displayed), you should see the following:

- Configuration property names in the "Config Prop" column of the browser grid, like SCPTmaxSendTime. If you don't see these, LNS probably isn't using the XIF file.

- The CT amps configuration property UCPTctAmps. If instead, you have generic numbered UCPT values, then LNS hasn't loaded or isn't using the CCS resource files.

- The energy values should display values like 5.3. If you see something like 0000002E, then LNS isn't using the CCS resource files and is displaying energy as a hexadecimal value.