Technical Note

ProSoft
TECHNOLOGY

A 5202-DFNT-MCM4 to PLX31-EIP-MBS4 Configuration Conversion Guide

Document Code: TN 160205-002

Author: Daniel Roslan
Date: February 11, 2016

Asia Pacific
Malaysia Office
Phone: +603.7724.2080
asiapc@prosoft-technology.com
Languages spoken: Chinese, English

China Office
Phone: +86.21.5187.7337
asiapc@prosoft-technology.com
Languages spoken: Chinese, English

Europe, Middle East, Africa
France Office
Phone: +33 (0)5.34.36.87.20
europe@prosoft-technology.com
Languages spoken: French, English

Middle East and Africa
Phone: +971.(0)4.214.6911
mea@prosoft-technology.com
Languages spoken: English, Hindi

North America
Corporate Headquarters
Phone: +1 661.716.5100
support@prosoft-technology.com
Languages spoken: English, Spanish

Latin America
Brazil Office
Phone: +55.11.5083.3776
brasil@prosoft-technology.com
Languages spoken: Portuguese, English

Mexico and Central America Office
Phone: +52.222.3.99.6565
soporte@prosoft-technology.com
Languages spoken: Spanish, English

Regional Office
Phone: +1.281.298.9109
latinam@prosoft-technology.com
Languages spoken: Spanish, English

Document Information

Author	Daniel Roslan
Description	**Describes how to convert a 5202-DFNT-MCM4 .CFG Text File to import into a PLX31-EIP-MBS4 blank template**
Date	**February 11, 2016**
Revision	**1.00**
Product Name	**5202-DFNT-MCM4 and PLX31-EIP-MBS4**
Document Code	**TN 160205-002**

Introduction

This document describes how to export an existing configuration from an older ProLinx 5202-DFNT-MCM4 and convert it so that it can be imported into a newer ProLinx PLX31-EIP-MBS4 to make it work the same as the older ProLinx Gateway. This document will be helpful to anyone wanting to replace an existing 5202-DFNT-MCM4 with the new PLX31-EIP-MBS4.

Please note that, since the PLX31 gateway is newer than the older 5202 gateway, you will see new parameters in its configuration file that do not exist in the 5202. You may simply leave these at their default values. Also note that there will be differences between parameter names between the two gateways. These differences will be shown in the appropriate sections of this document as we come to them.

What you will need to have on your Personal Computer (PC):

1. ProSoft Configuration Builder, version 4.1.1.1 or higher (do NOT use version 4.4.1.1).
2. A simple text editor. (Windows Notepad, notepad ++, etc.)

REMEMBER

Save your work often as you progress. Use the "Save As" option so you can save variations of the file at different stages of the process. That way, if your system crashes at any point in the following procedure, you can start again without having to start from the beginning.

Exporting the configuration file

Open the project the current 5202-DFNT-MCM4 module was configured in.

Export the configuration file by right clicking the module to open the shortcut window then select *Export Configuration File(s)*
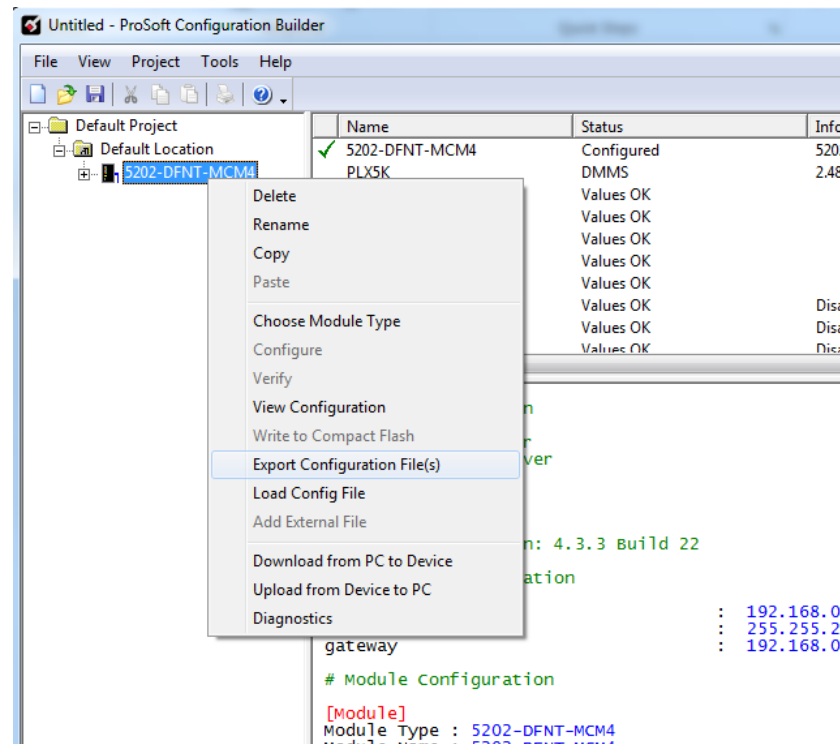
If you do not have the project file (.PPF) you can upload the configuration file from the original 5202-DFNT-MCM4 (Please refer to your user manuals for the 5202-DFNT-MCM4 for this process).
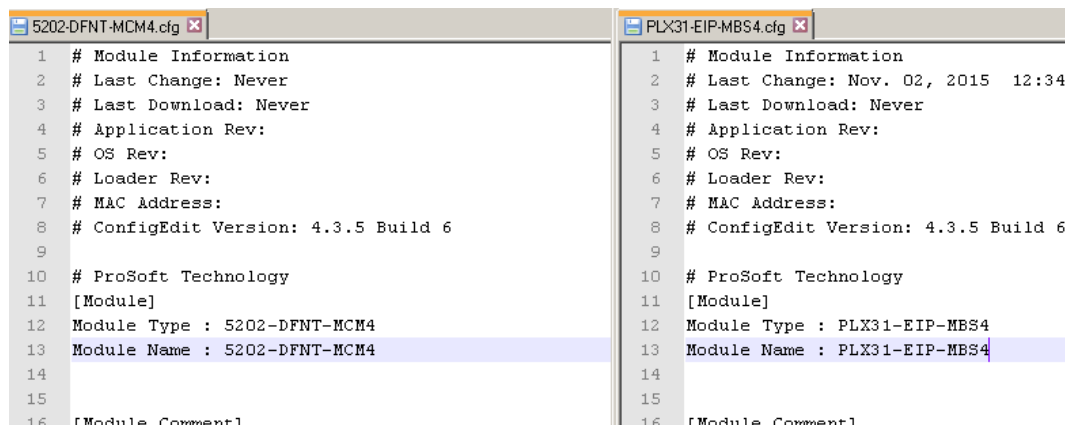
Note: A WATTCP.CFG file will also be generated, ignore this for now, we will be using it later.

Modifying the Configuration File

Using a text editor, browse to the location the .cfg files were saved, and open the file with the name you provided when you exported.

Note: You may need to change the file types displayed from Text Documents to All Files.

Once opened, change the Module Type field from 5202-DFNT-MCM4 to PLX31-EIP-MBS4.

Similarly, if the Module Name field is not unique to the project, the module name field should be changed to PLX31-EIP-MBS4. This field changes the module name displayed in PCB.

Next you'll need to replace all of the "DFNT" text with "EIP Class 3" text. The easiest way to do this is using the find and replace tool found in most text editors.
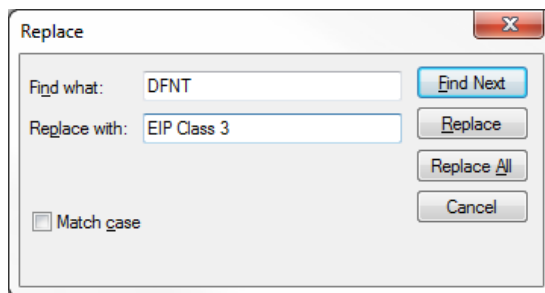
Now do the same thing again, except replace all "Modbus Port 3" text with "Modbus Port 4", then "Modbus Port 2" with "Modbus Port 3", "Modbus Port 1" with "Modbus Port 2" and finally all of the "Modbus Port 0" text with "Modbus Port 1". Please be aware you MUST replace them in this order (replacing Port 3 first and working down).

Once this has been completed, save the file in the same directory as the previous file.

Note: Be sure to change the Save as type to "All Files"

Importing the new configuration

In the Tree View in PCB, right click Default Location and add a new module. If the Choose Module Type window opens, click cancel to close it. Right click the New Module and select Load Config File.
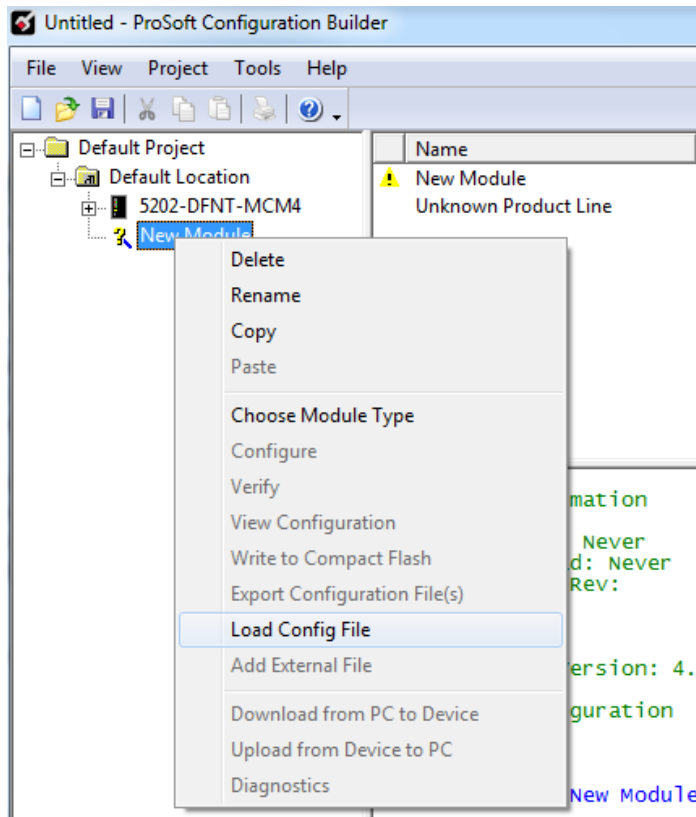
When you get the following warning, click OK, this is intended.

Next, browse to the saved file, select the file and click Open.

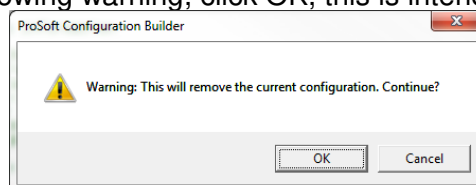You should now have a PLX31-EIP-MBS4 configuration in your tree on the left. Right click this PLX31-EIP-MBS4 and again select Load Config File and click OK to the warning a second time. This time, however, select the WATTCP.cfg that was generated earlier.

Now determine the RS Interface setting (i.e. RS232, RS422, or RS485) for each port of your 5202-DFNT-MCM4. This was defined by physical jumpers on the unit. If you are unsure what your jumper settings indicate, please refer to the 5201-DFNT-MCM user manuals for more detail. Unlike the 5202-DFNT-MCM4, the PLX31-EIP-MBS4 does not use jumpers to control this setting, instead doing so in software. As such, once the old setting is confirmed, expand out PLX31-EIP-MBS4 on the left (click the plus sign), then expand out MBS Port 1, and finally double click on Modbus Port 1 and in the edit window that appears edit the RS Interface setting to match your 5202-DFNT-MCM4's setting.
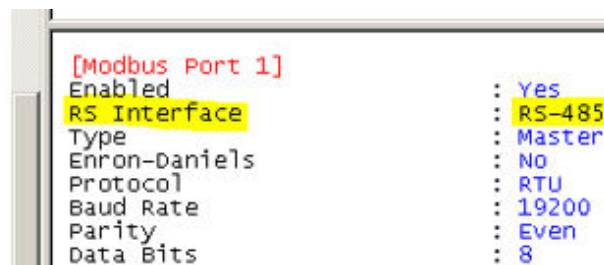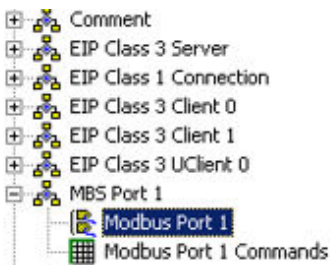
Repeat this process for ports 2 through 4 as well.

Finally, there is one more setting which you may need to change. In each of the Modbus port settings for your 5202-DFNT-MCM4, if the port Type is Slave, verify if you have Use Guard Band Timer set to No.

```
Edit - Modbus Port 0

Enabled                      No
Type                         Slave
Enron-Daniels                No
Protocol                     RTU
Baud Rate                    19200
Parity                       None
Data Bits                    8
Stop Bits                    1
RTS On                       0
RTS Off                      0
Minimum Response Delay       1
Use CTS Line                 No
Internal Slave ID            1
Bit Input Offset             0
Word Input Offset            0
Output Offset                0
Holding Register Offset      0
Use Guard Band Timer         No
Guard Band Timeout           0
```

If all slave ports are set to no, or you have no slave ports, your conversion is complete. If, however, any of the Use Guard Band Timer are set to Yes, take note of the Guard Band Timeout, then corresponding Modus Port edit window in your PLX31-EIP-MBS configuration.

```
Edit - Modbus Port 1                                          [X]

Enabled                 Yes        End of Message Delay
RS Interface            RS-485
Type                    Slave      [0]
Enron-Daniels           No
Protocol                RTU
Baud Rate               19200      Comment:
Parity                  Even       [                    ]
Data Bits               8
Stop Bits               1          Definition:
RTS On                  0
RTS Off                 0          0 to 65535
Minimum Response Delay  1          Adds time delay to the 3.5
Use CTS Line            No         character time used by the
Internal Slave ID       1          module to recognize the end of
Bit Input Offset        0          message. Certain applications
Word Input Offset       0          may require validation of
Output Offset           0          Modbus messages with more
Holding Register Offset 0          than 3.5 character time
End of Message Delay    0          between consecutive bytes
                                   (example: modem
                                   applications). A value of 0
                                   uses the default time or you
                                   can set the time value in
                                   milliseconds.

                                   Reset Tag      Reset All
```

The Use Guard Band Timer setting has been removed (now assumed to be Y if you have a non-zero time out) and the Guard Band Timeout has been renamed End of Message Delay. Make the End of Message Delay equal your 5201-DFNT-MCM's Guard Band Timeout for each corresponding port. Click okay, and your conversion is complete.

For instructions on how to download this Configuration to your PLX31 gateway, please refer to the PLX3x User Manual.

Please note that additional information on the 5202-DFNT-MCM4 and the PLX31-EIP-MBS4 can be found in the respective user manuals, as well as the ProLinx Reference Guide. If you have additional questions please contact your regional Technical Support Center.

Asia Pacific

Malaysia Office

Phone: +603.7724.2080

asiapc@prosoft-technology.com

Languages spoken: Chinese, English

China Office

Phone: +86.21.5187.7337

asiapc@prosoft-technology.com
Languages spoken: Chinese, English

Europe

France Office

Phone: +33 (0)5.34.36.87.20

support.emea@prosoft-technology.com
Languages spoken: French, English

Middle East and Africa

Phone: +971.(0)4.214.6911

mea@prosoft-technology.com

Languages spoken: English, Hindi

North America

California and Wisconsin Offices

Phone: +1 661.716.5100

support@prosoft-technology.com
Languages spoken: English, Spanish

Latin America

Brazil Office

Phone: +55.11.5083.3776

brasil@prosoft-technology.com

Languages spoken: Portuguese, English

Mexico and Central America Office

Phone: +52.222.3.99.6565
soporte@prosoft-technology.com

Languages spoken: Spanish, English

Regional Office

Phone: +1.281.298.9109

latinam@prosoft-technology.com

Languages spoken: Spanish, English