MODCOM Manual

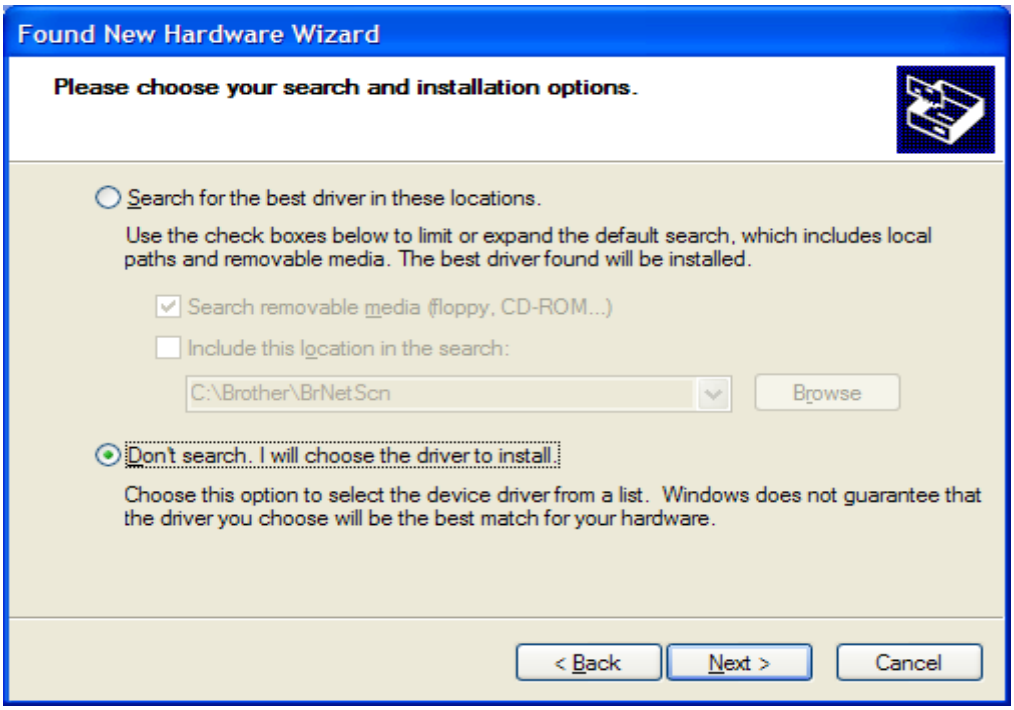
Table of Contents

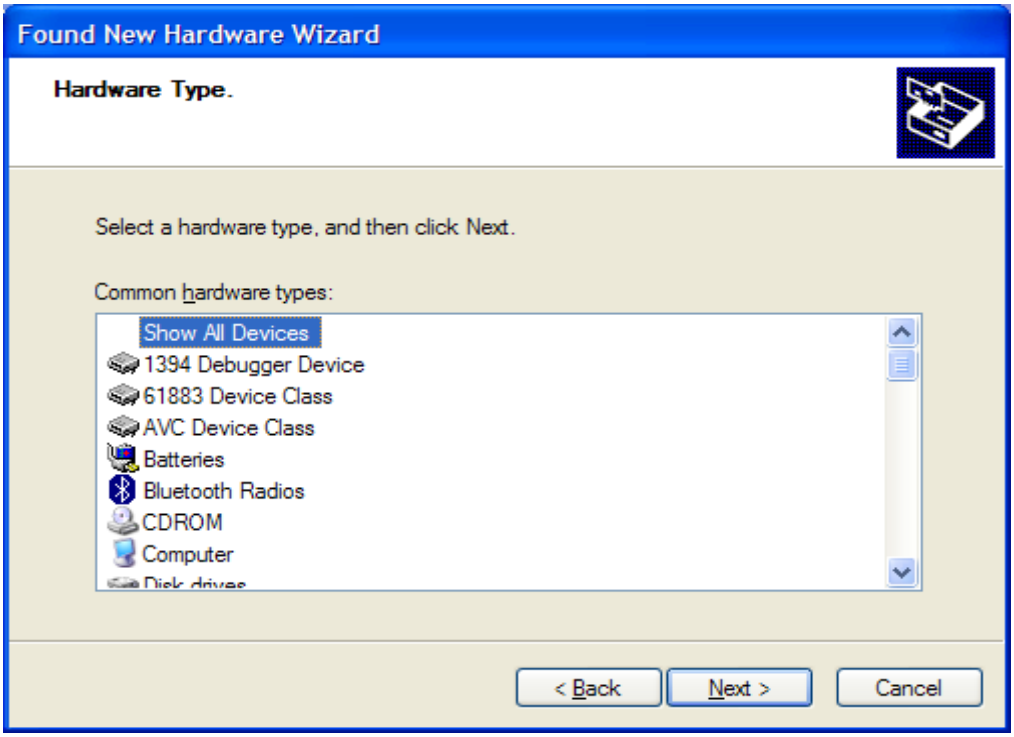
1 MXI Installation

Connect the CXI to a free USB Port on your PC and following picture will appear:

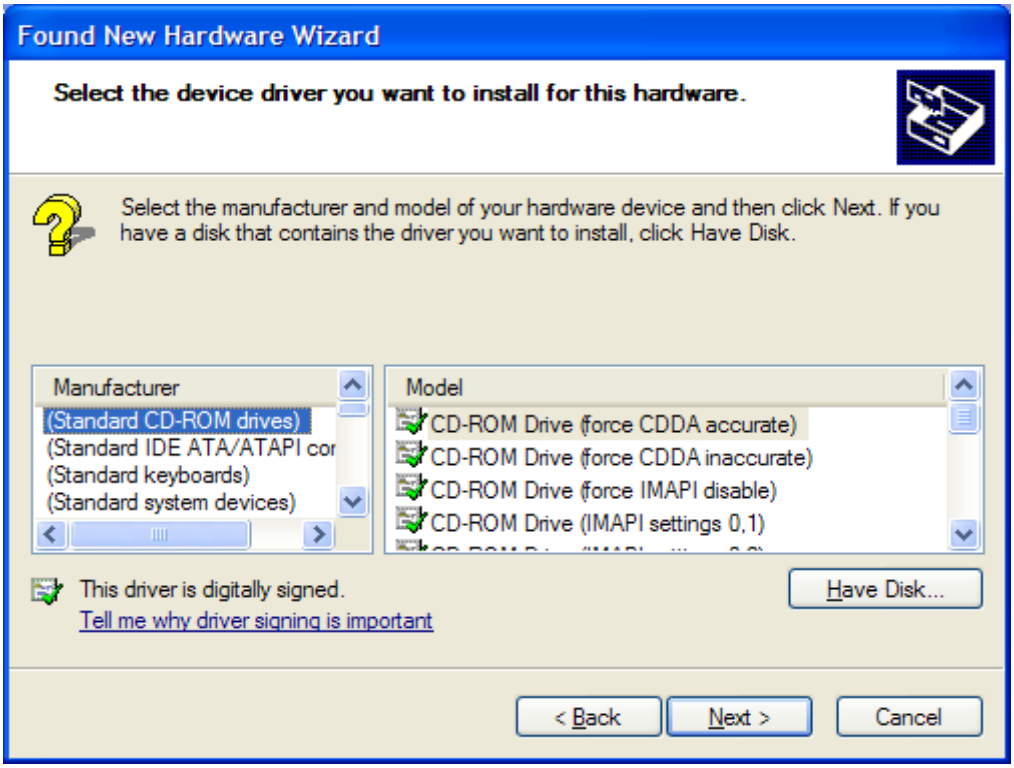
Choose “Install from a list of specific location (Advanced)”

Choose “Don’t search. I will choose the driver to install” in the next window

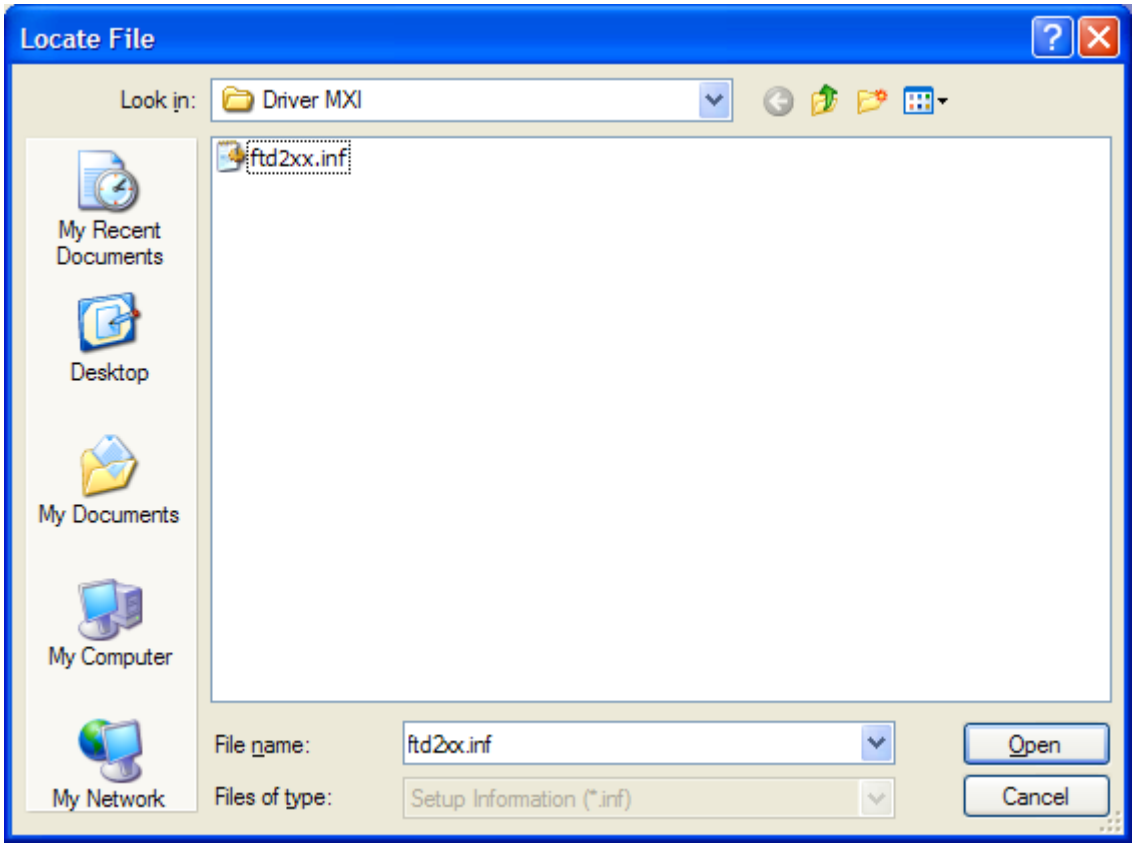




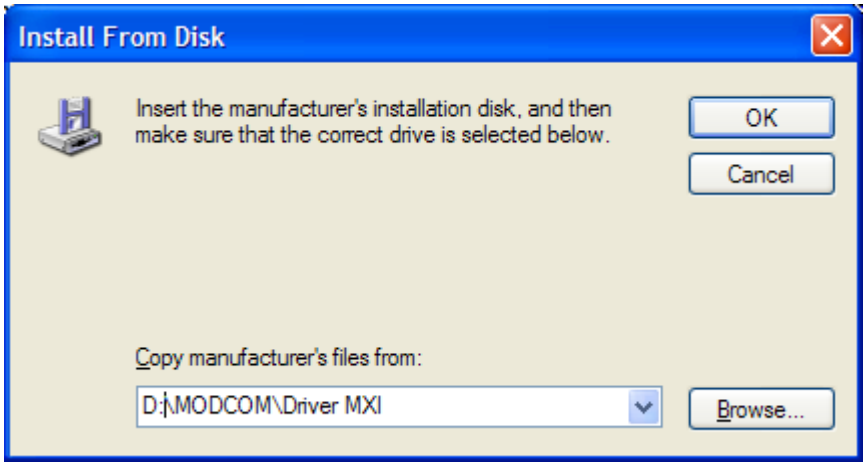
Click on “Show All Devices” than on “Next”



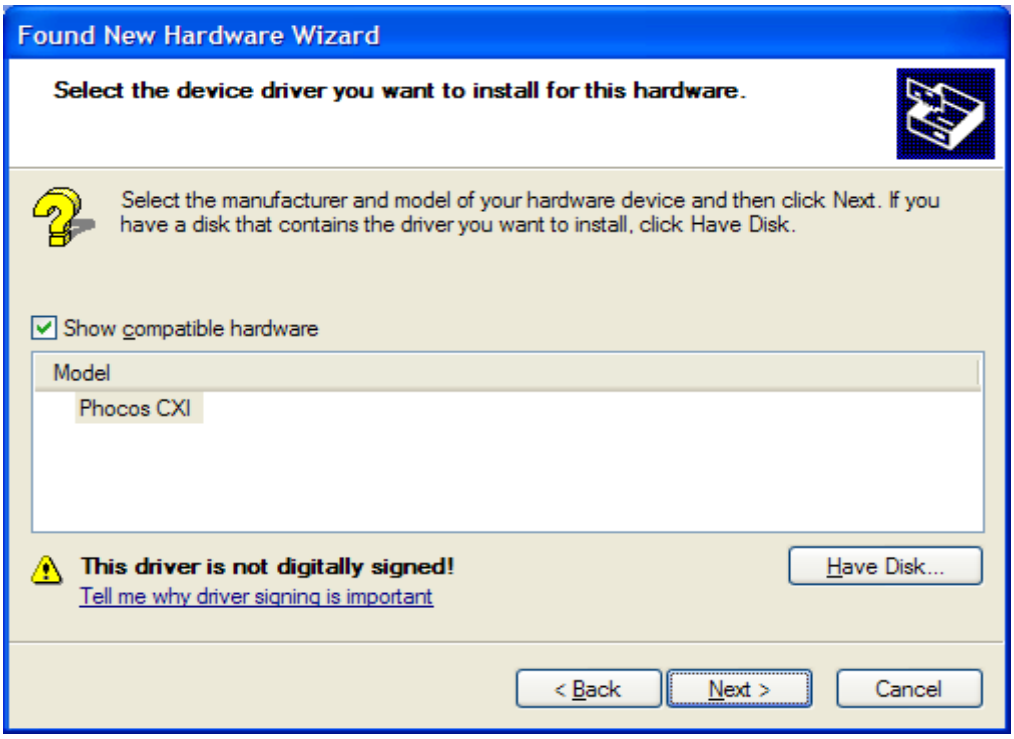
Click on „Have Disk“



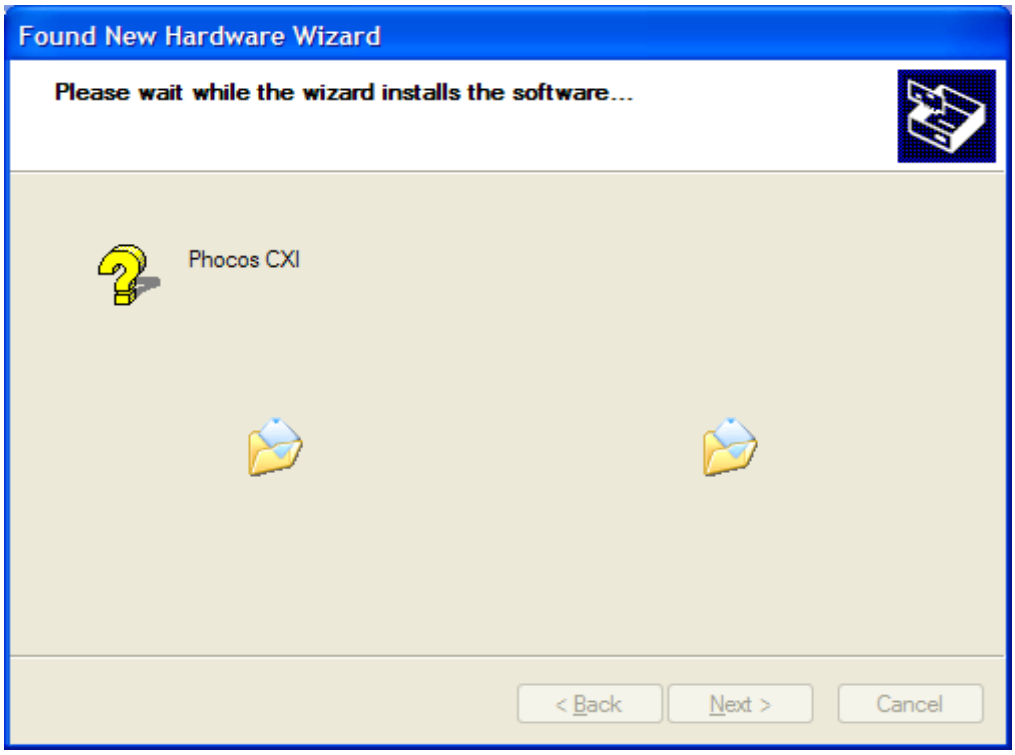
Choose the file “ftd2xx.inf“ at the disk or folder on your PC where you have the MODCOM files ….\Modcom\Driver MXI\ ftd2xx.inf



Click on „Next“ at the window below.

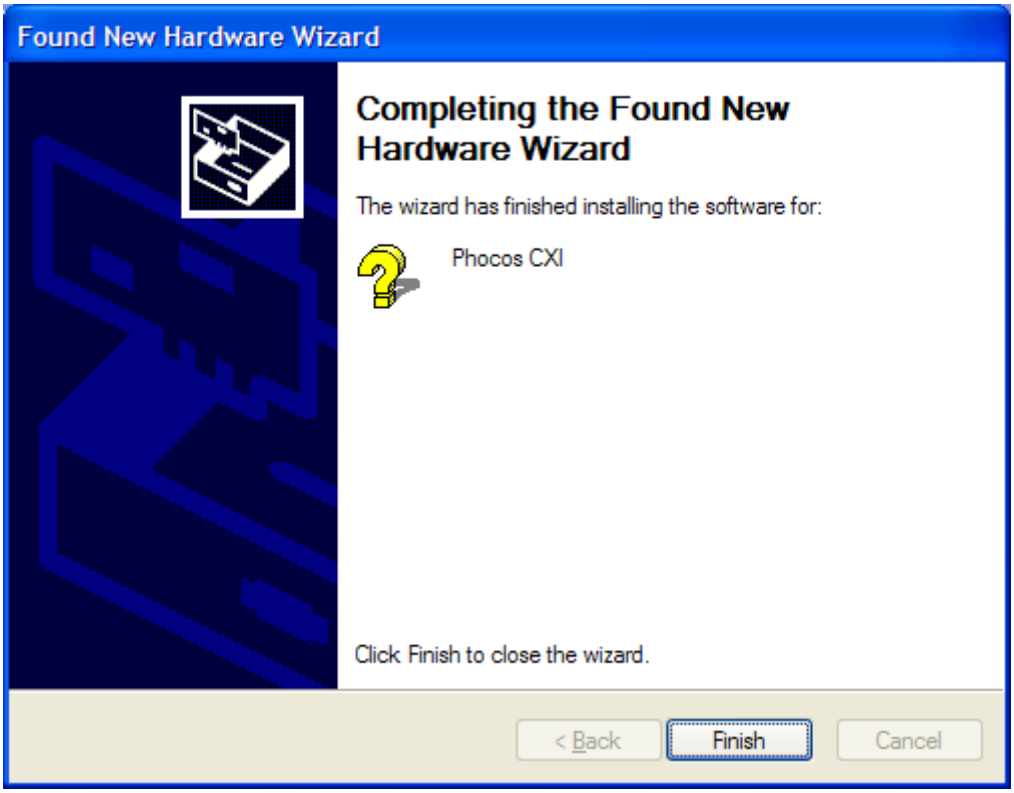


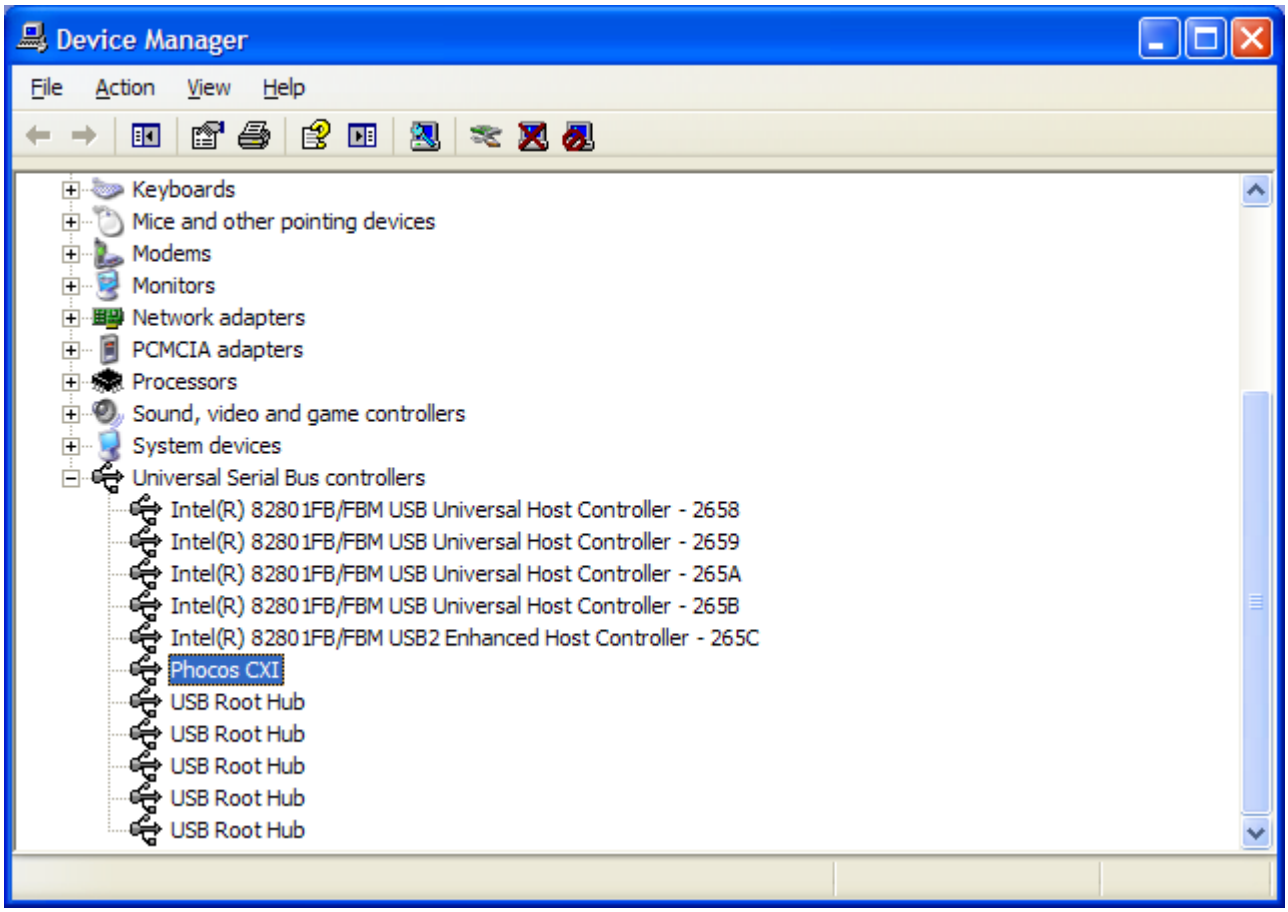
Now the driver would installed:



If the message below appears click on „Continue Anyway“

If the driver is installed correct now the window below will show you the success.





In the Device Manager of your PC you will see now “Phocos CXI” at the group “Universal Serial Bus controllers”

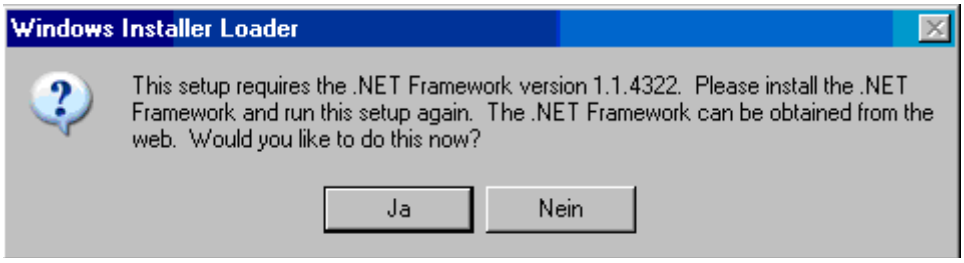
2 MODCOM Installation

Please start the “setup.exe”, then the MODCOM Setup would guide you through the installations steps.

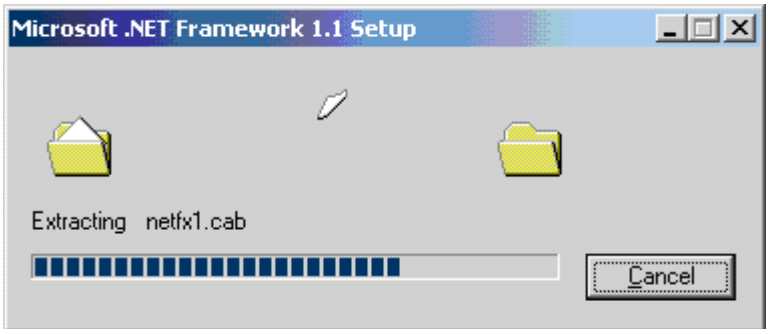
If the Microsoft framework is still installed on your PC, then please go to step2

Step 1: Install the Microsoft .NET Framework

Open setup.exe and you will see the following picture if Microsoft .NET Framework **is not** currently installed on your computer. If Microsoft .Net Framework is already installed, look into step 2 of the installation.

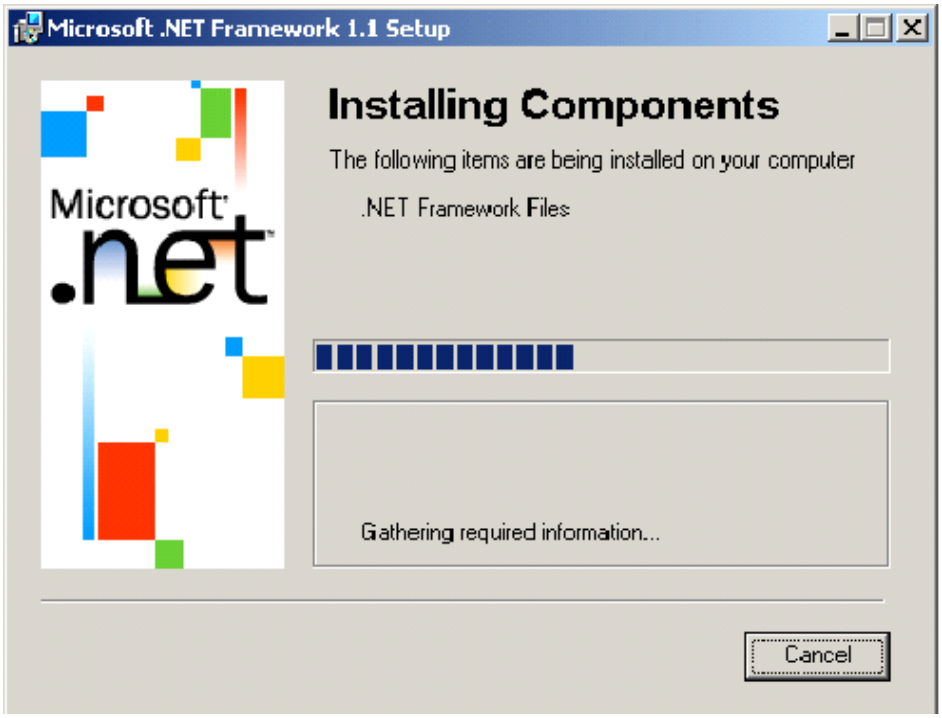


Click to “Yes” and the next window will appear.



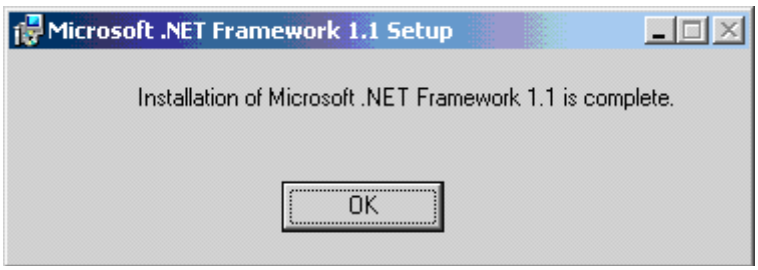
Microsoft .NET Framework installation is executing now.

Click “I agree” if you agree with license terms of Microsoft .NET Framework. Then, click “Install” to continue software installation.



Microsoft .NET Framework setup is installing components now.

Finish of the .NET Framework installation with a message.



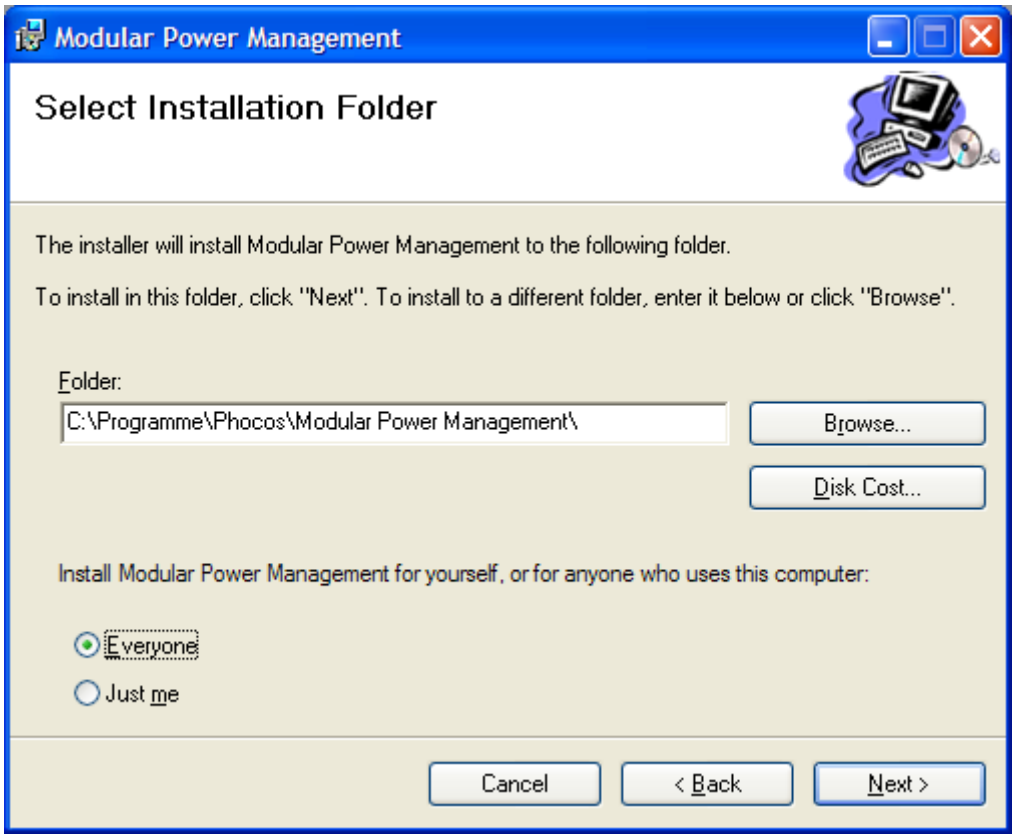
Now the Microsoft .NET Framework is installed on your computer. You must start the setup.exe again to install the Phocos MODCOM software.

Step 2: Install the MODCOM software

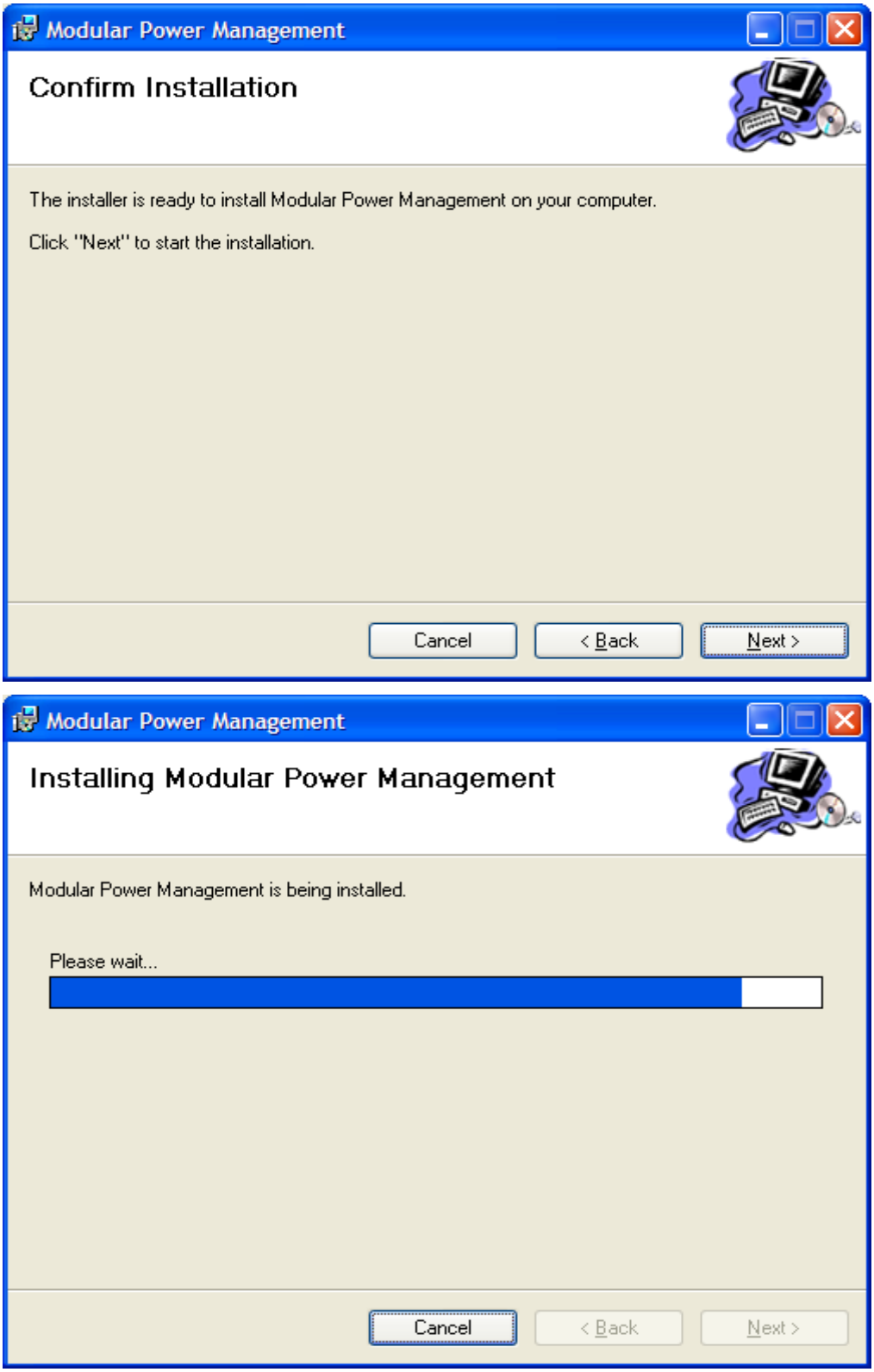
Start the setup again and following the instructions.

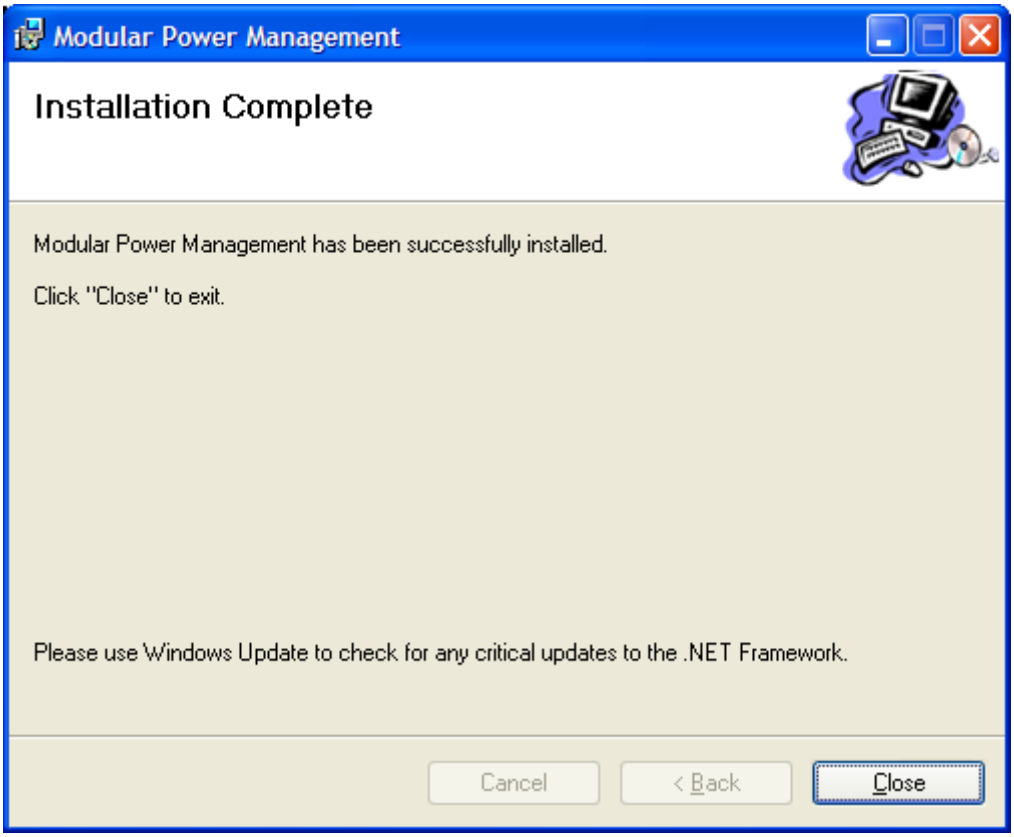
Click on “Next”.

Choose a folder where you want to install the software.



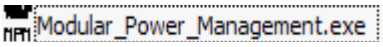
Click on “Next” and the software would installed now.


Modular Power Management
Confirm Installation
The installer is ready to install Modular Power Management on your computer.
Click "Next" to start the installation.
Cancel
< Back
Next >
Modular Power Management
Installing Modular Power Management
Modular Power Management is being installed.
Please wait...
Cancel
< Back
Next >



If the installation was successfully the window above will show you the success.

On the Desktop the following link will shown to you:



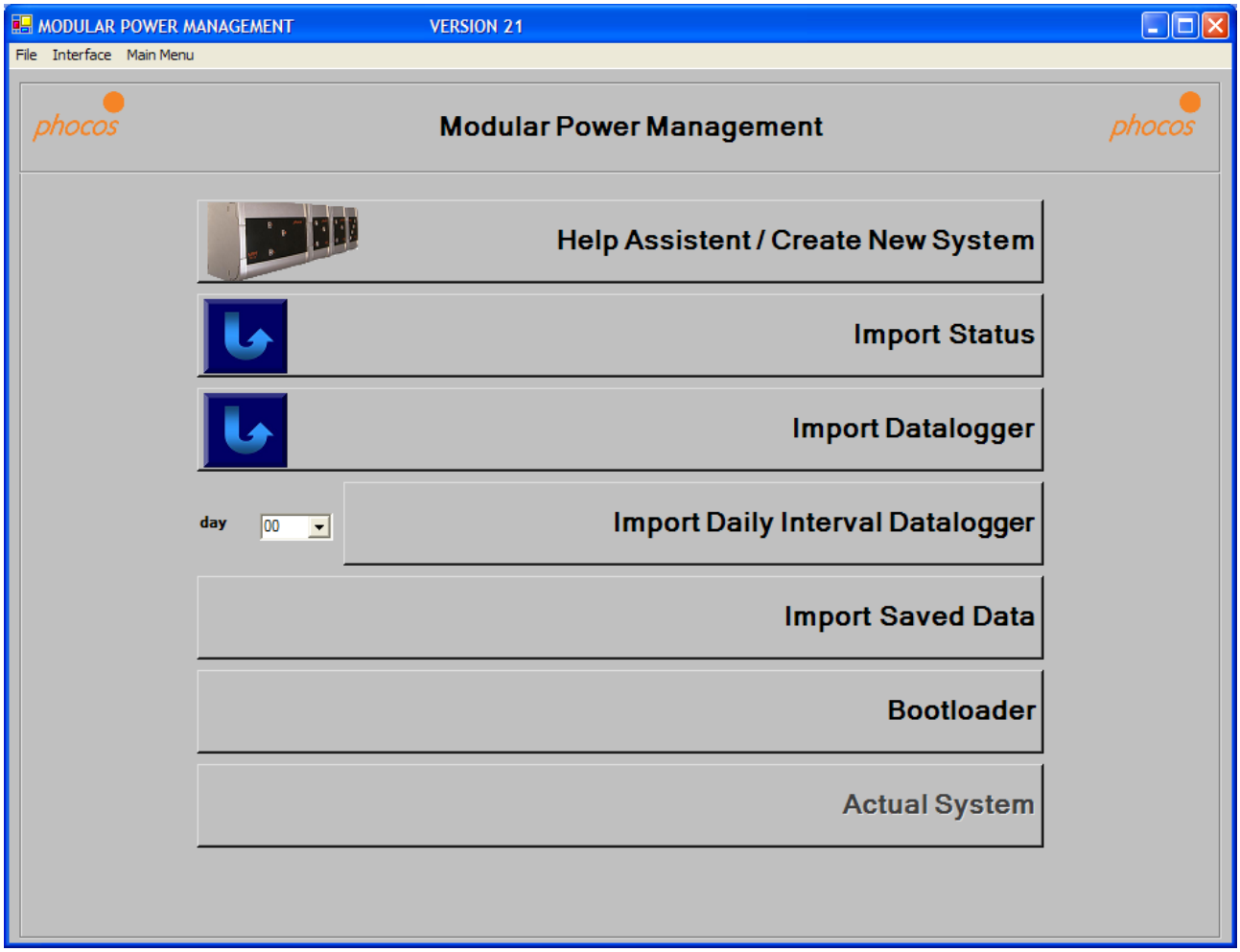
3 The Software

After launching the software click on “START”

3.1 Main Menu

Following possibilities:

- **Help Assistant/Create New System**
  - Helps you to configure your individual system
  - Check the addresses of the devices
- **Import Status**
  - If a MXI (CXI) is connected than click on this button and the software starts to download the actual data of the MCU (actual Status values and Settings)
- **Import Datalogger**
  - Import the daily datalogger (max 91 days)
  - Import the monthly datalogger (the last 10 years)
- **Import Daily Intervall**
  - Import System data which are saved every 15/30 or 60 minutes (depending of the interval setting)
- **Import Saved Data**
  - Here you can save system data or import saved saved data
- **Bootloader**
  - This function is for update the devices with the newest software.
- **Actual system**
  - If you have import data you go again to the overview window.

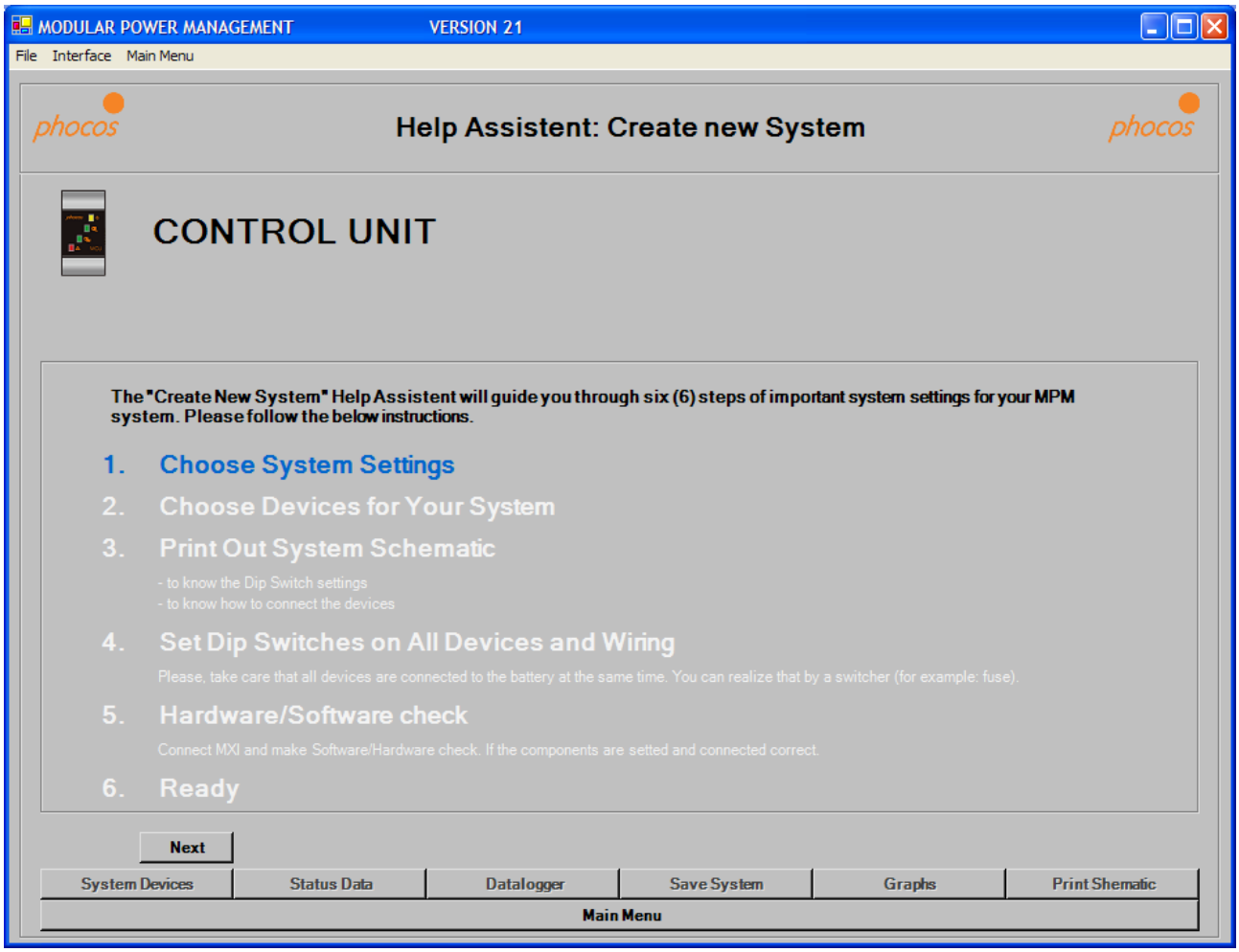

MODULAR POWER MANAGEMENT
VERSION 21
File
Interface
Main Menu
phocos
Modular Power Management
phocos
Help Assistent / Create New System
Import Status
Import Datalogger
day
00
Import Daily Interval Datalogger
Import Saved Data
Bootloader
Actual System

3.1.1 Help Assistent / Create a new System

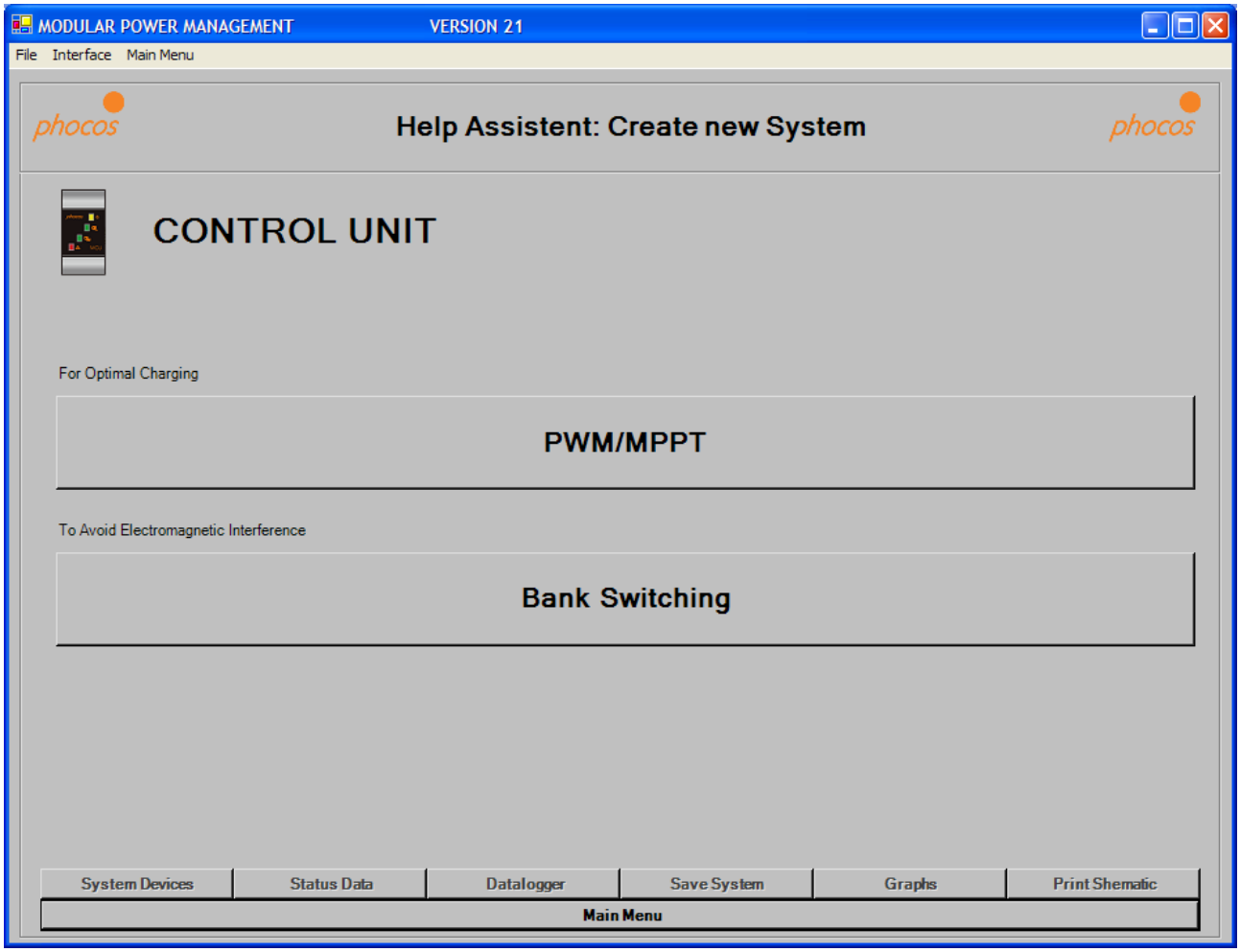
Main Menu: Help Assistant/Create New System (page 13)

If you want to configure a new system this assistant will help you to configure your devices.

The assistant will guide you in following steps to your individual system.



Please click on “Next” at the bottom of the window and the next window will appear.



Decide between "PWM/MPPT" charging or "Bank Switching"

PWM/MPPT:

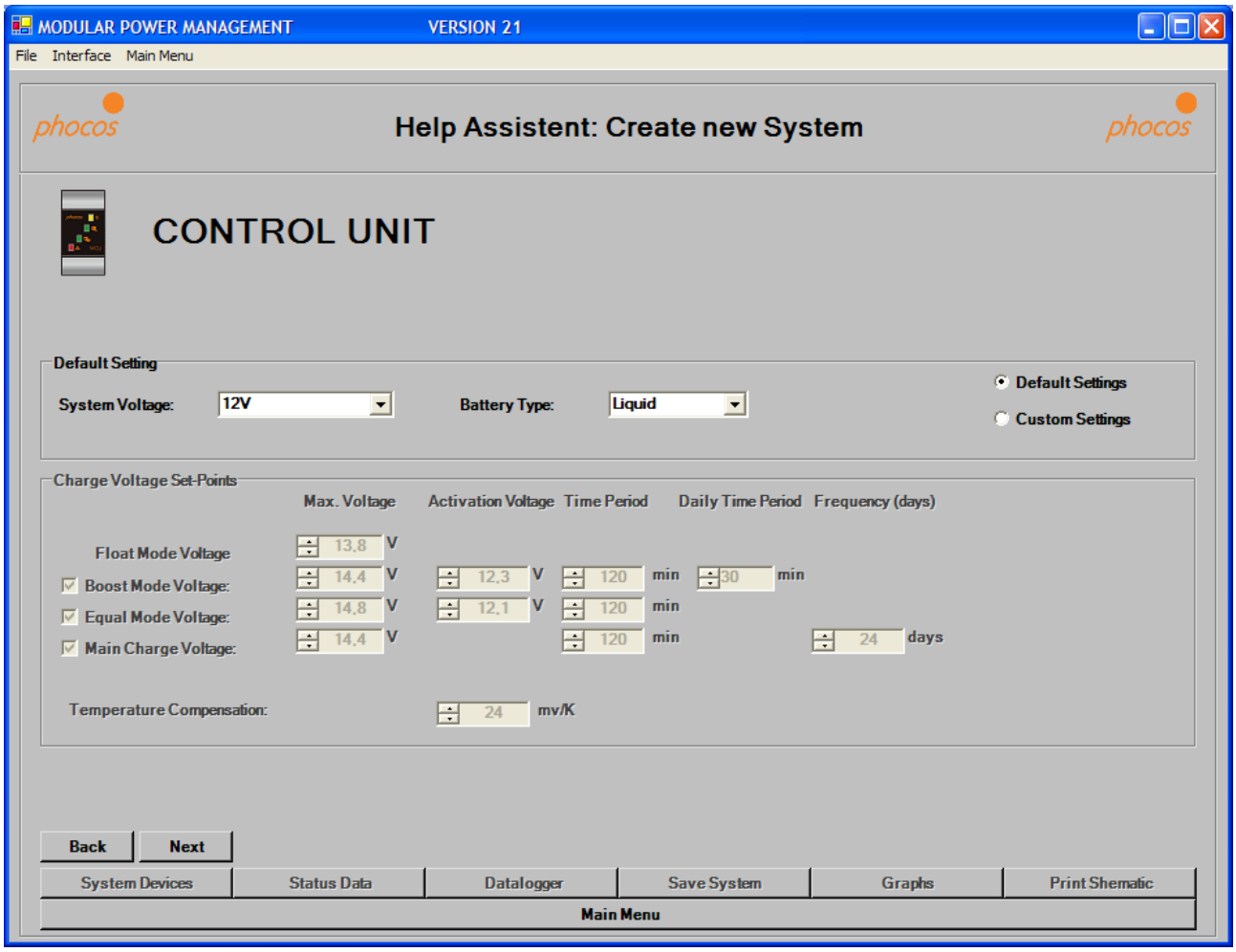
It's for a optimal charging. Choose this menu item if you have no special requirements.

Bank Switching:

If you want to avoid power peaks which causes electromagnetic influences you should choose Bank Switching. This function is only possible if you have only MPS as charger it's not possible by using MPPT's.

Depending of the charging mode you have two different windows for setting the charging voltages:

Choosing: PWM/MPPT



Notice:

This settings you should only change if you are a battery specialist.

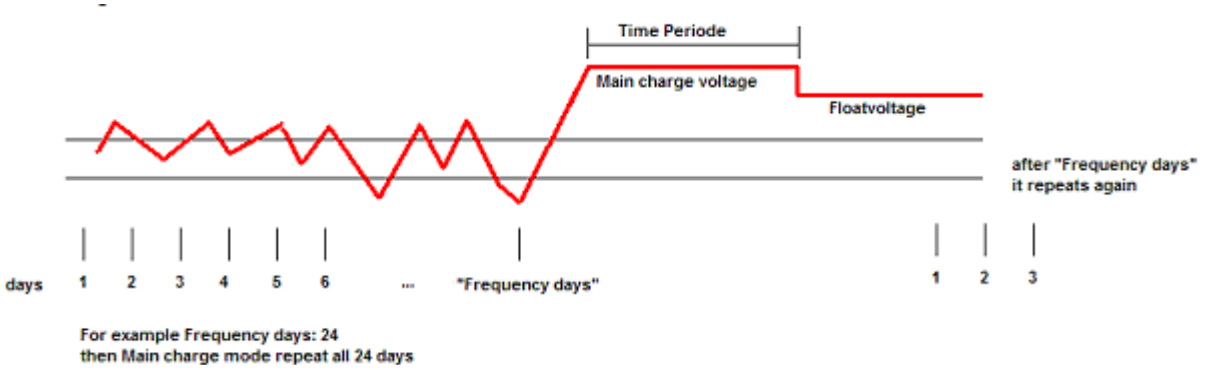
Charging Voltages:

The charging voltages have different priorities. (see next page)

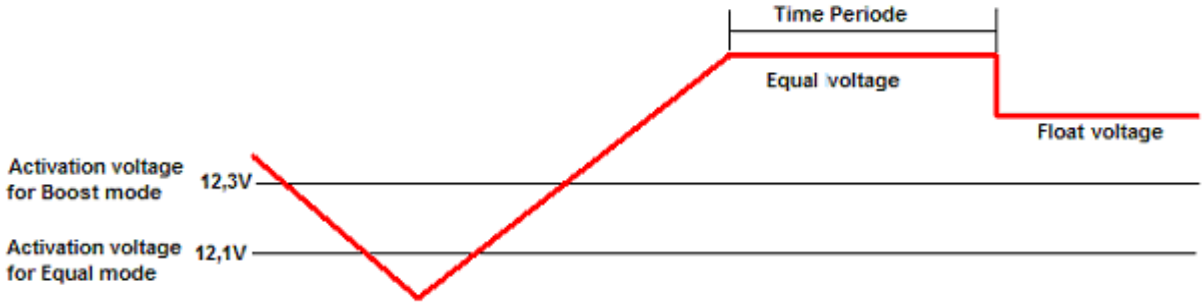
Temperature Compensation:

The Temperature Compensation value is the correction of the charging voltage depending of the temperature of 25°C. The value is the correction of the charging voltages per Kelvin.

Priority1: Main charge voltage

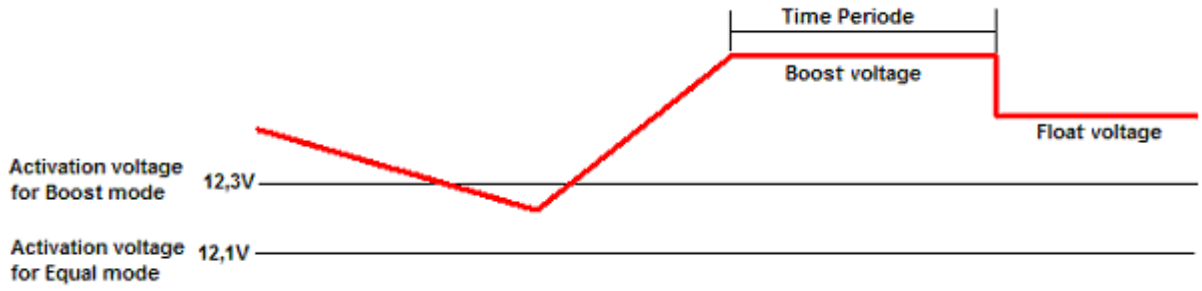


Priority2: Equal Mode:



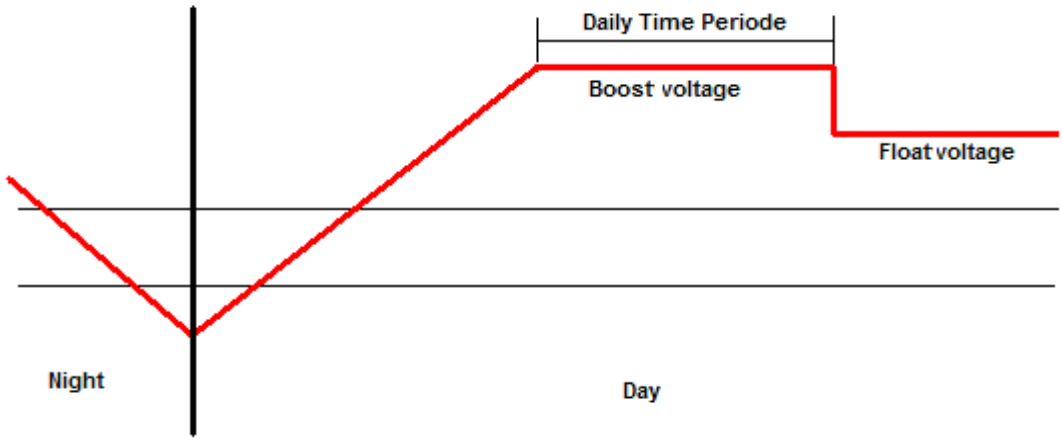
If battery voltage falling below “Activations voltage” of Equal Mode then Equal mode would activated.

Priority3: Boost Mode:



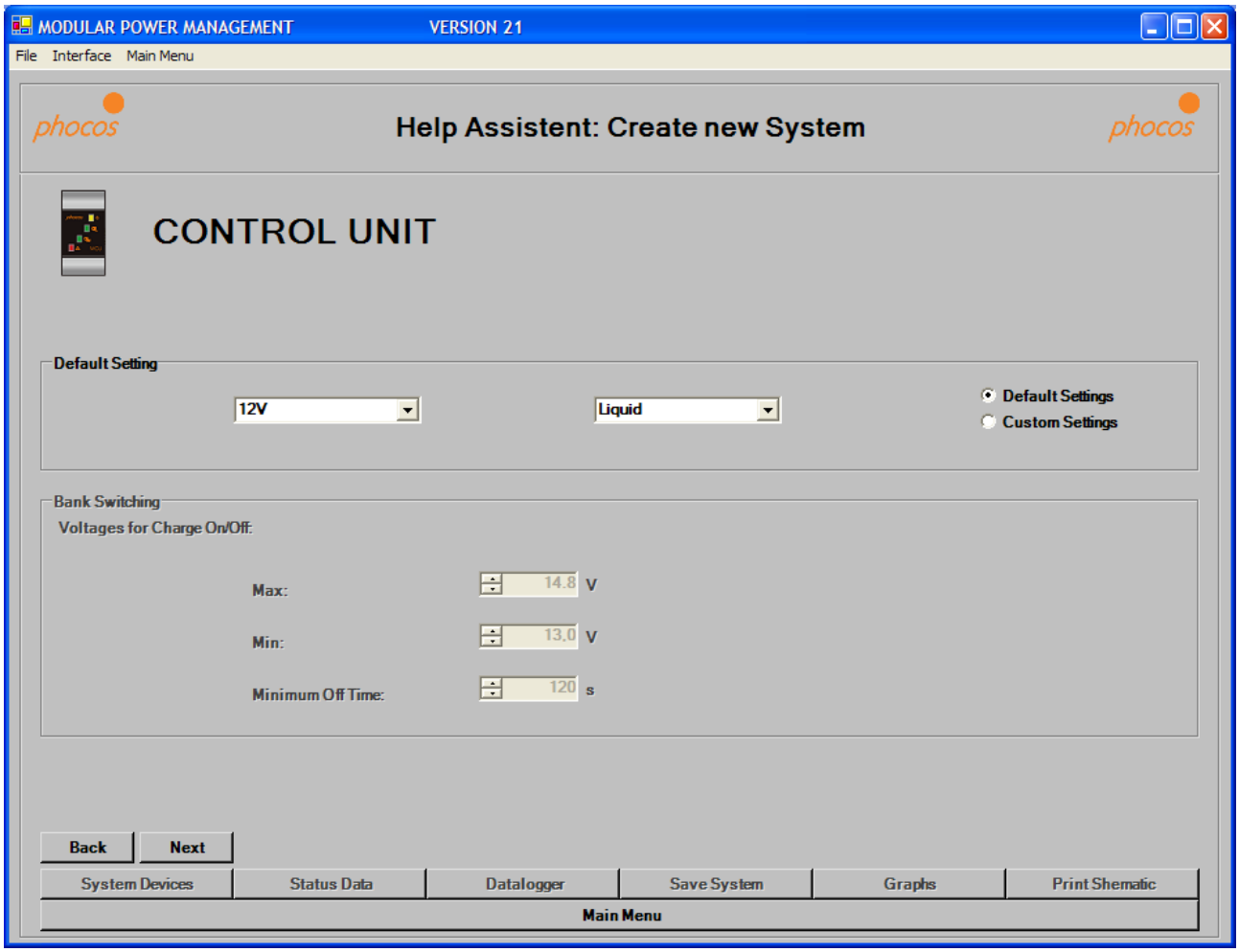
If battery voltage falling below “Activations voltage” of Equal Mode then Equal mode would activated.

Priority4: Daily Boost Mode:



Daily Boost Mode is activated when a new day starts

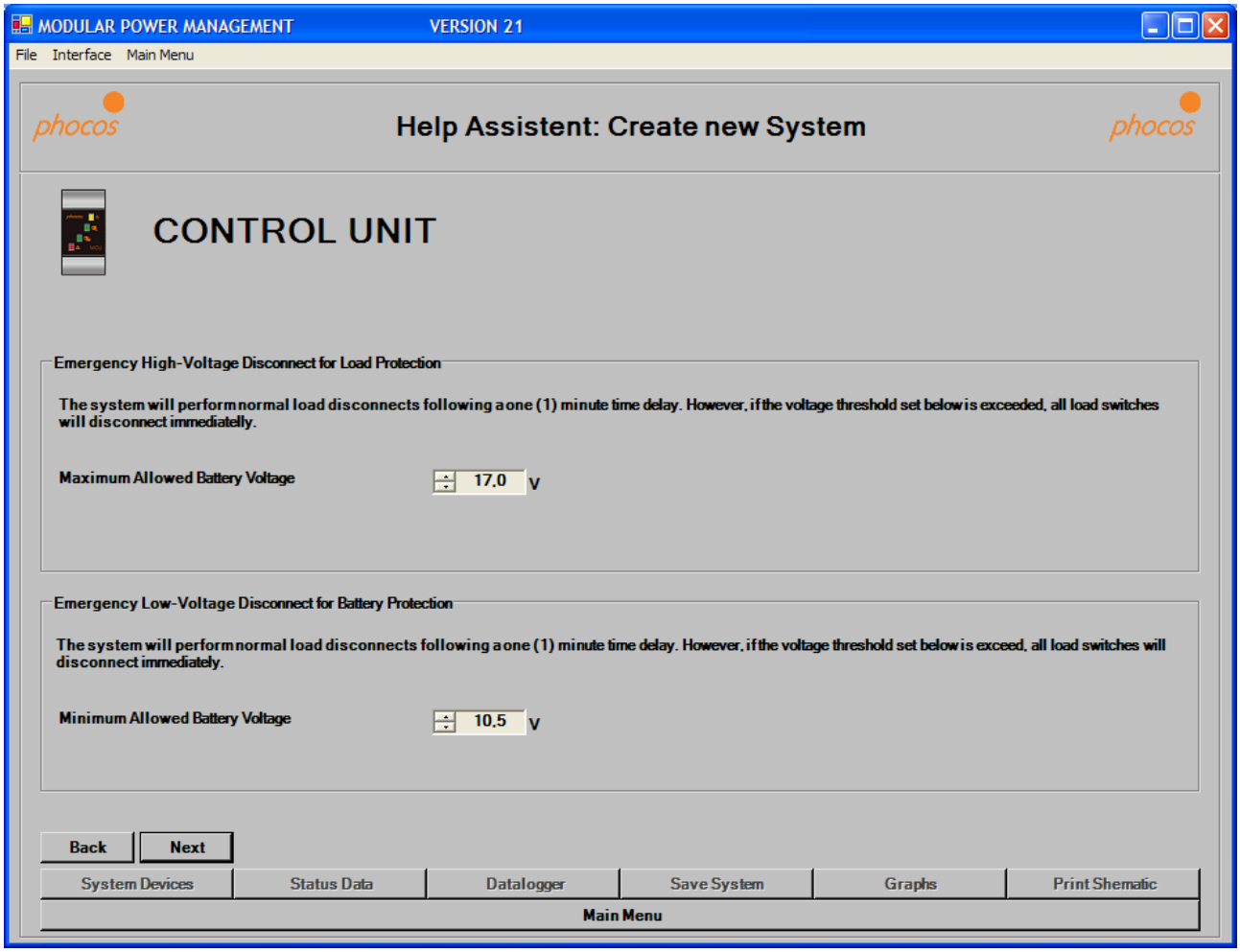
Choosing: Bank Switching



Notice:

This settings you should only change if you are a battery specialist.

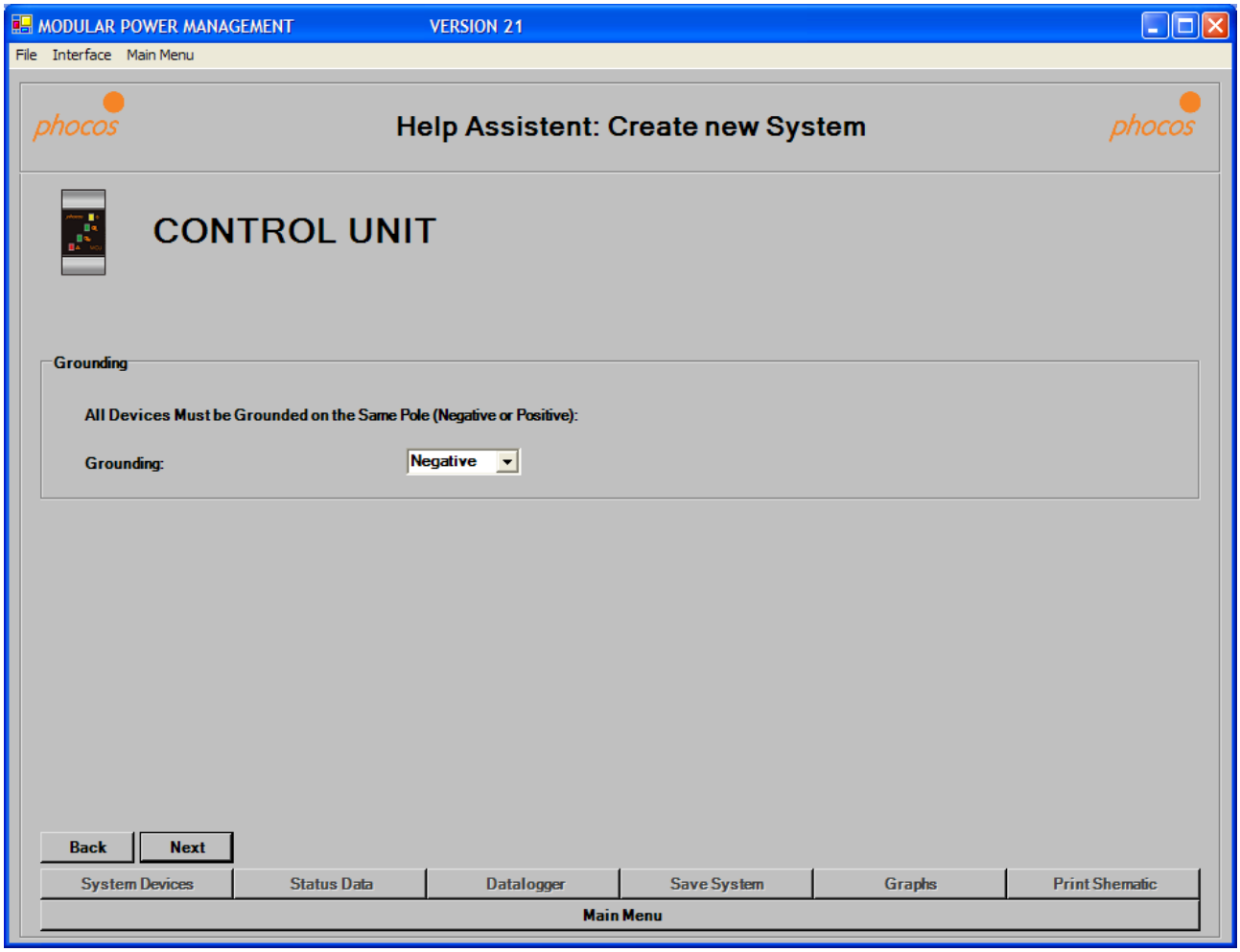
Here you can choose the threshold levels if you use a Bank Switching System.



In this window you could choose the min. and max. allowed voltage in the system.

The max. allowed Voltage to protect your loads. By reaching this voltage all load switches will disconnect the loads immediately from the battery.

The min. allowed Voltage to protect the battery. When the battery voltage falls below this setting the load switches will also disconnect the load immediately.

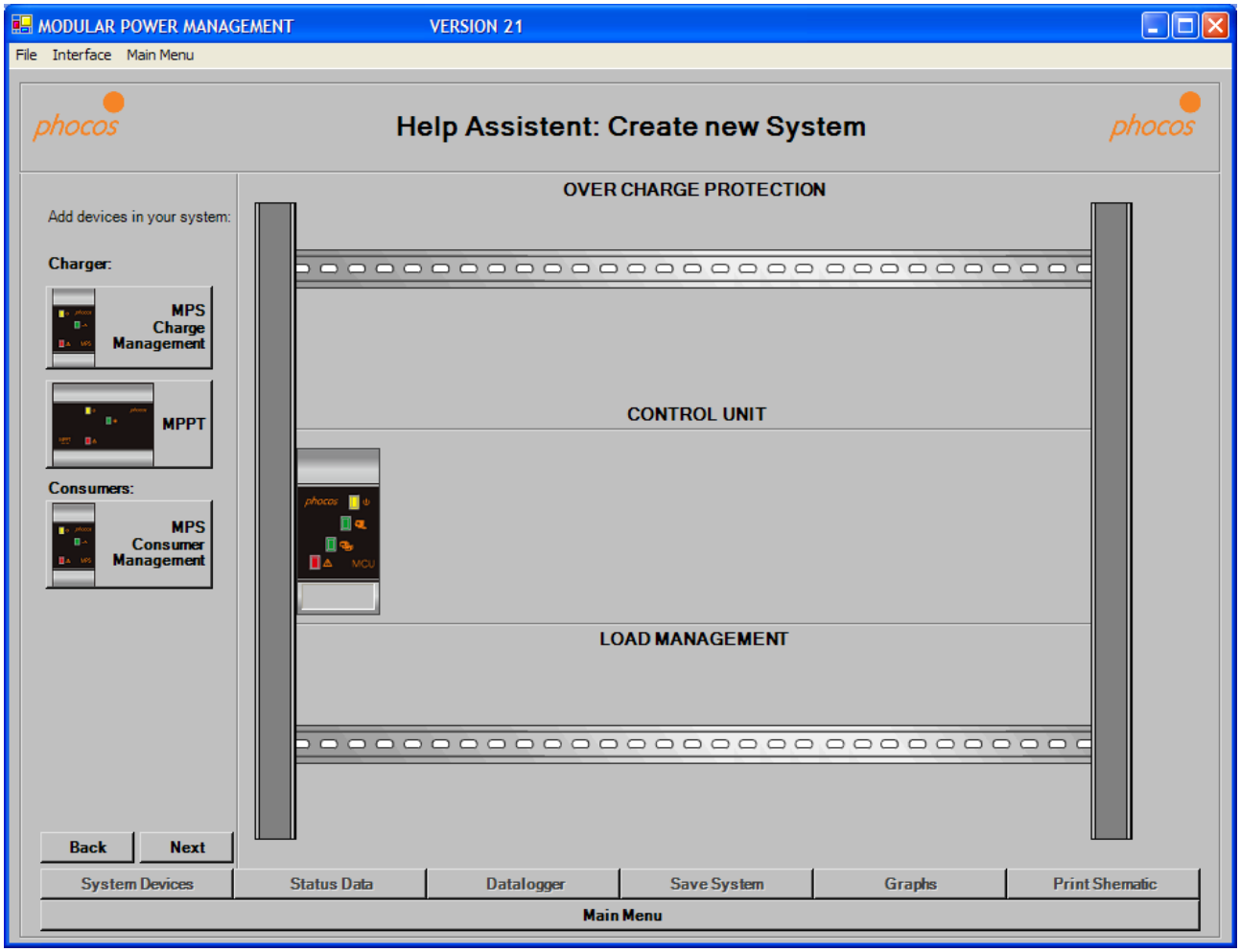


Choose the grounding of the system.

It’s necessary that the software could check if each device is connected correctly.

Notice:

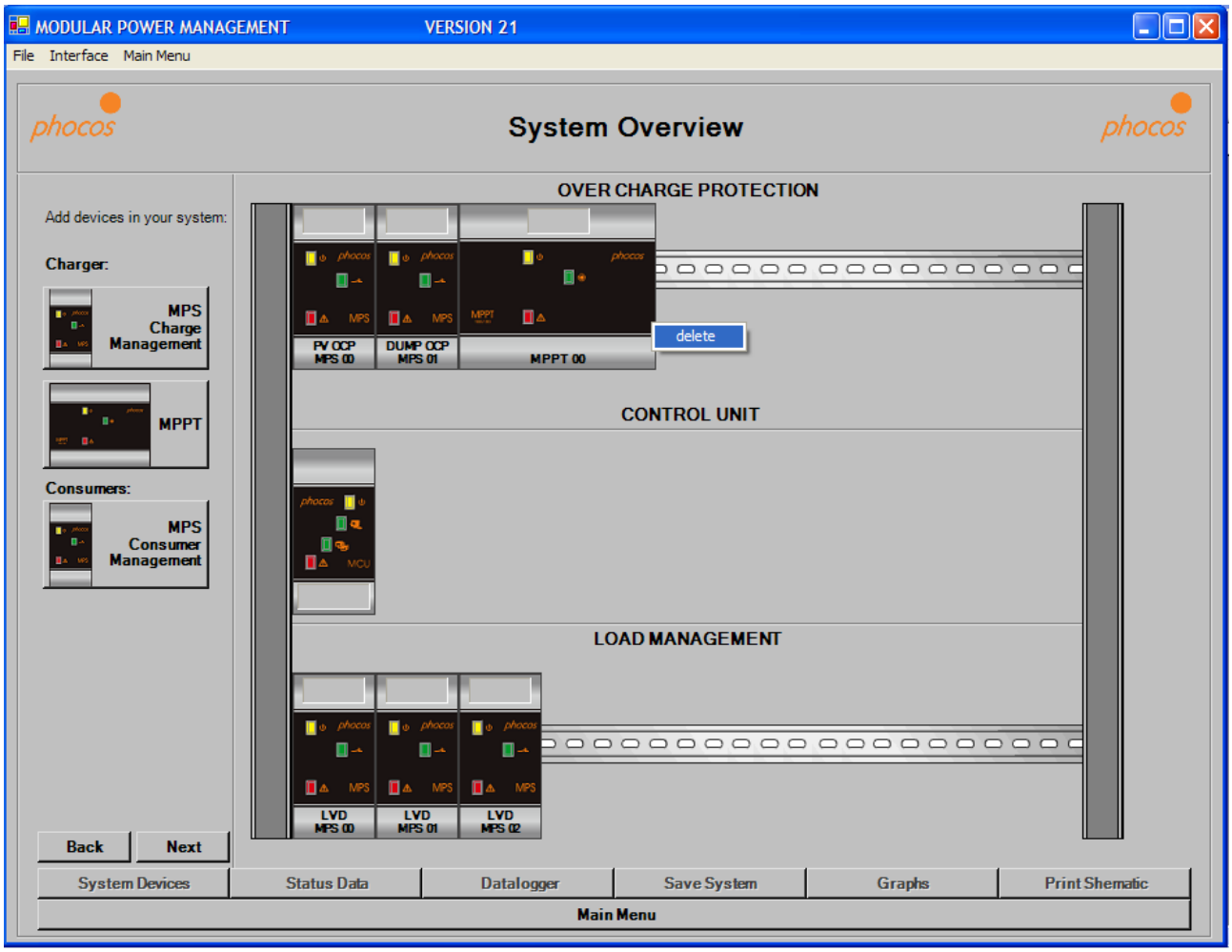
By using MPPT it’s only possible to ground on the negative pole.



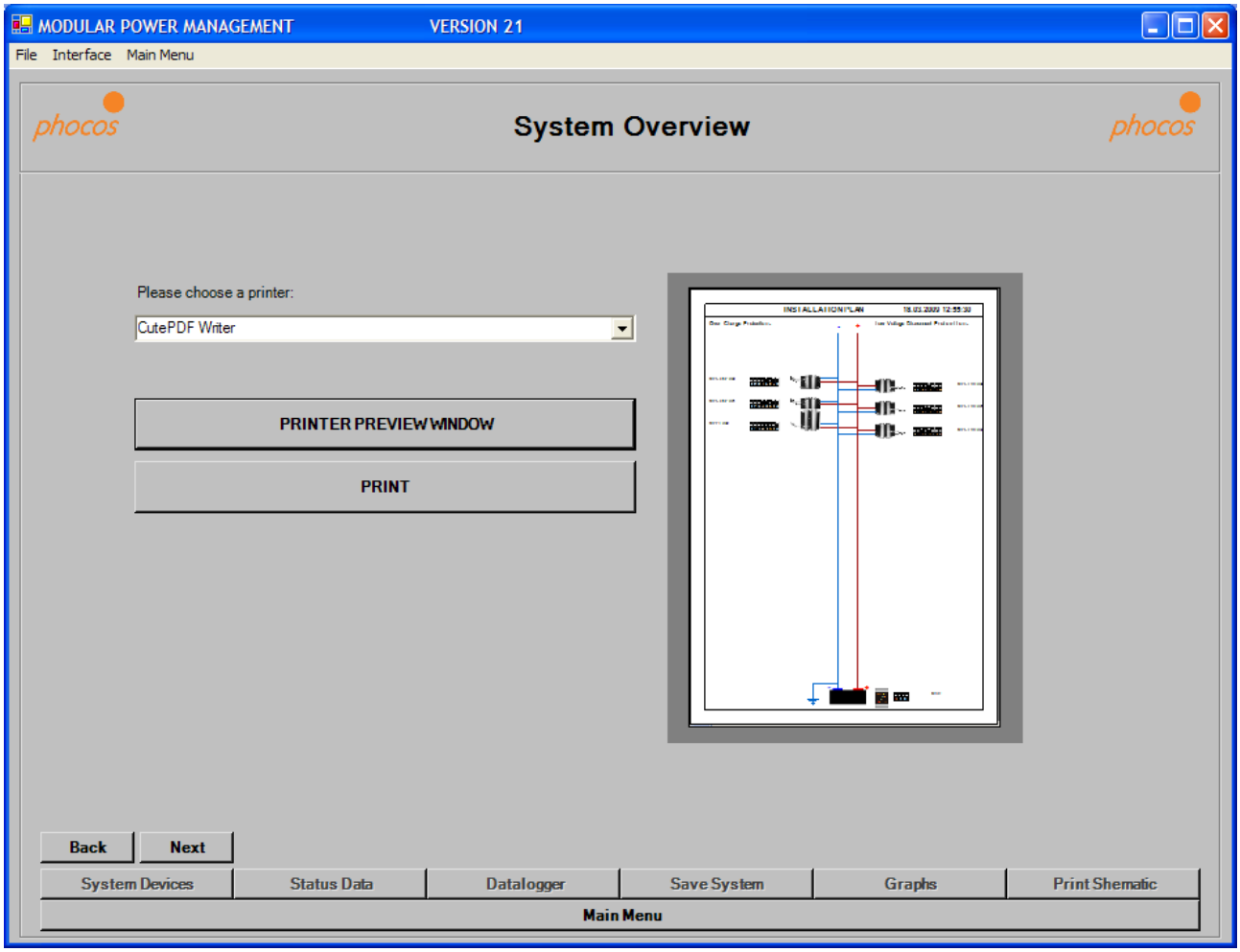
Next step is to add the devices in your system.

Please, click for this on the devices at the right side of the window above. Than you can add the devices.

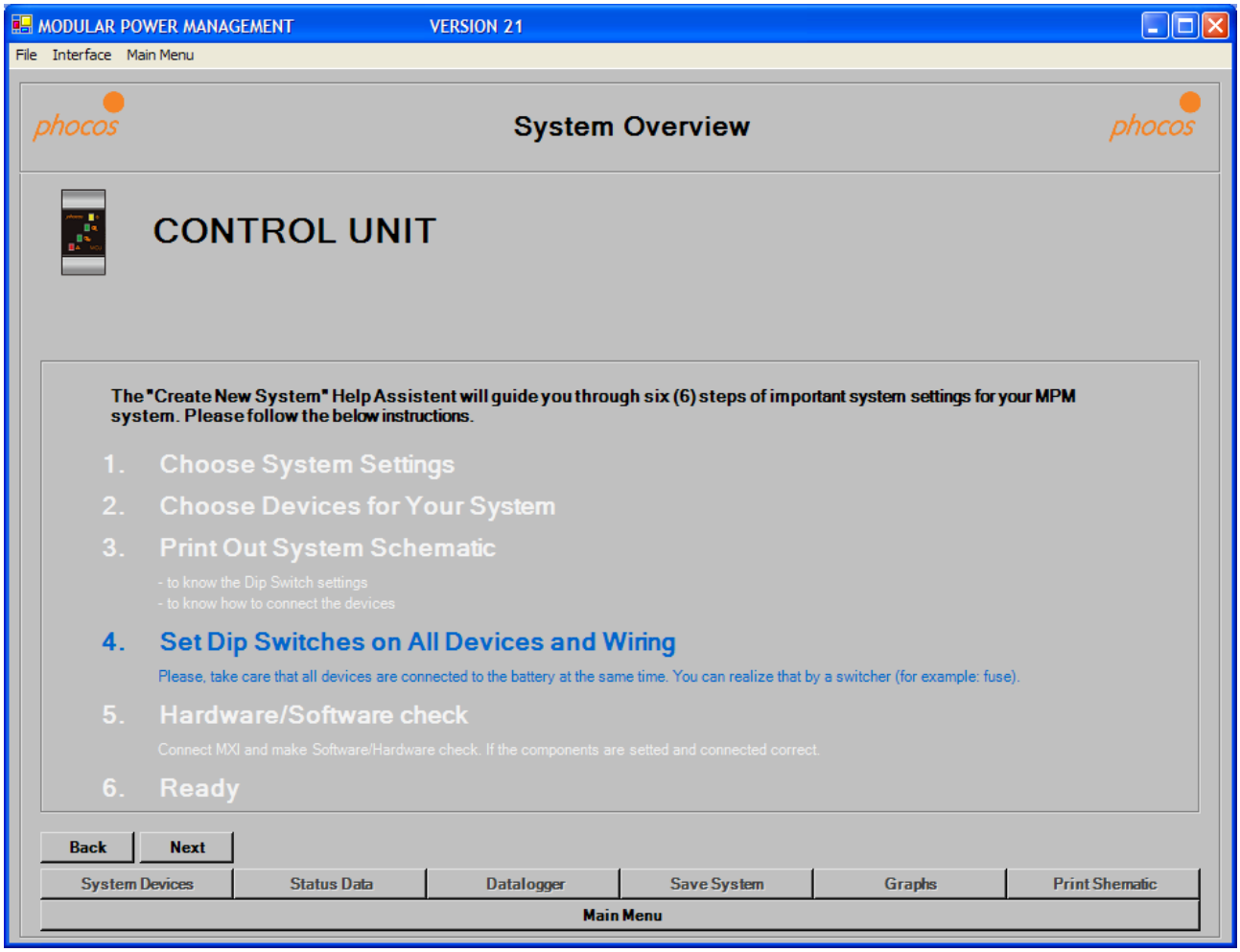
If you want to delete a device click with the right mouse button on it and then on delete at the menu which appears.



Click on “next” if you have all components in your system.



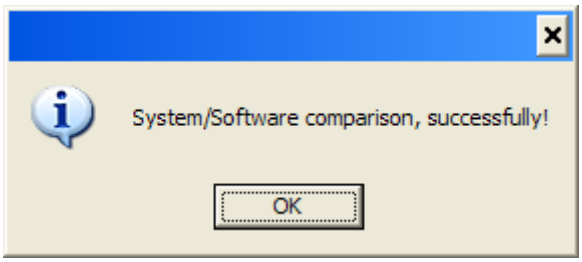
Now you could print out the schematic of your system to know also the Dip Switch settings for the devices.



Now you could make the dip switch setting like the schematic and make the wiring of all components to the battery and the panels respectively Dump loads.

After the wiring is finished you should check again if you have no circuits before you connect it to the battery. Please use a fuse in the battery wire.

Now the software makes a comparison of the components which are really connected.
If it's successfully the following message will shown to you.



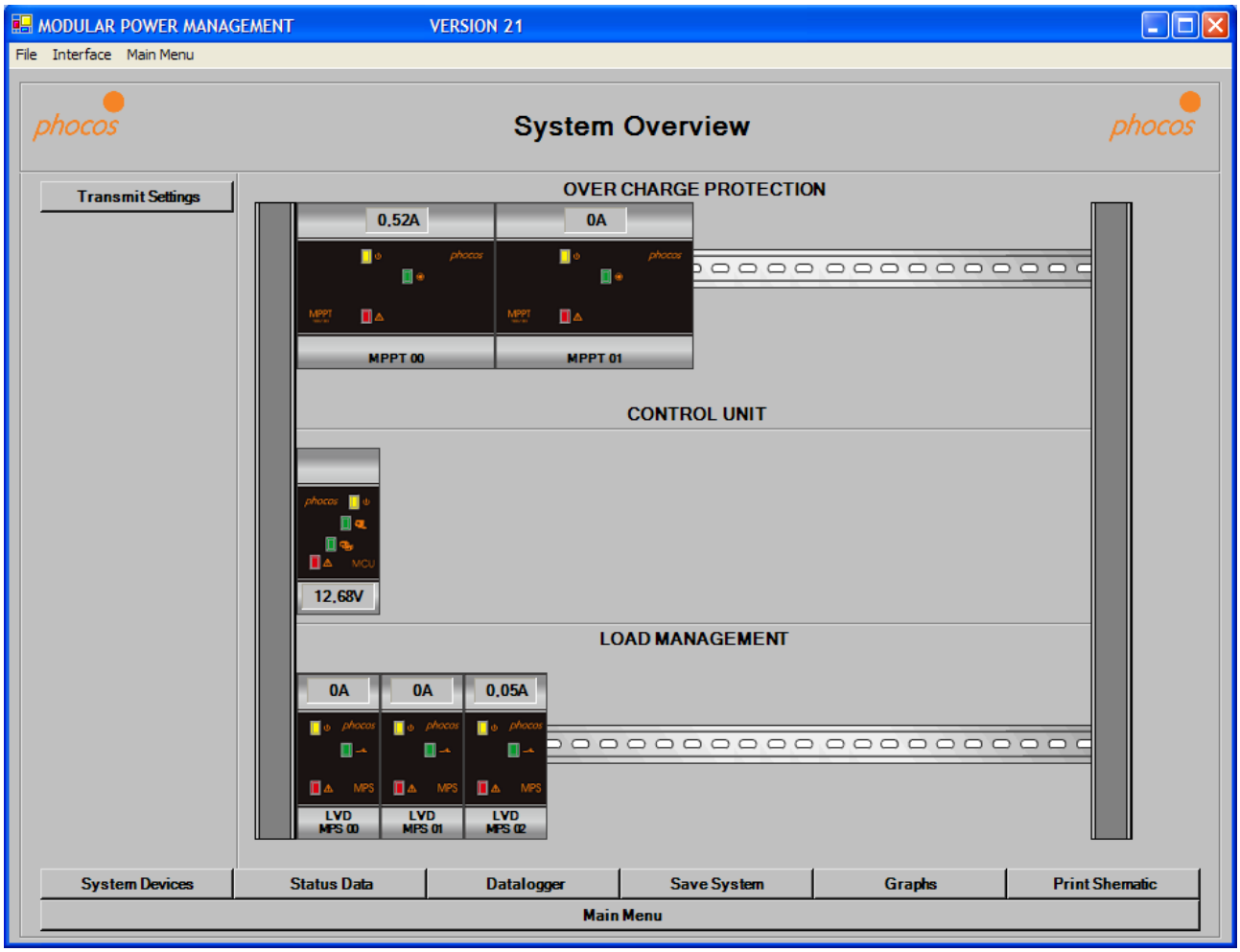
Now the system is configured correct.

Now you could transmit the other settings.

3.1.2 Import Status

If you import the status then the Modcom import the actual status and settings values of the MCU.

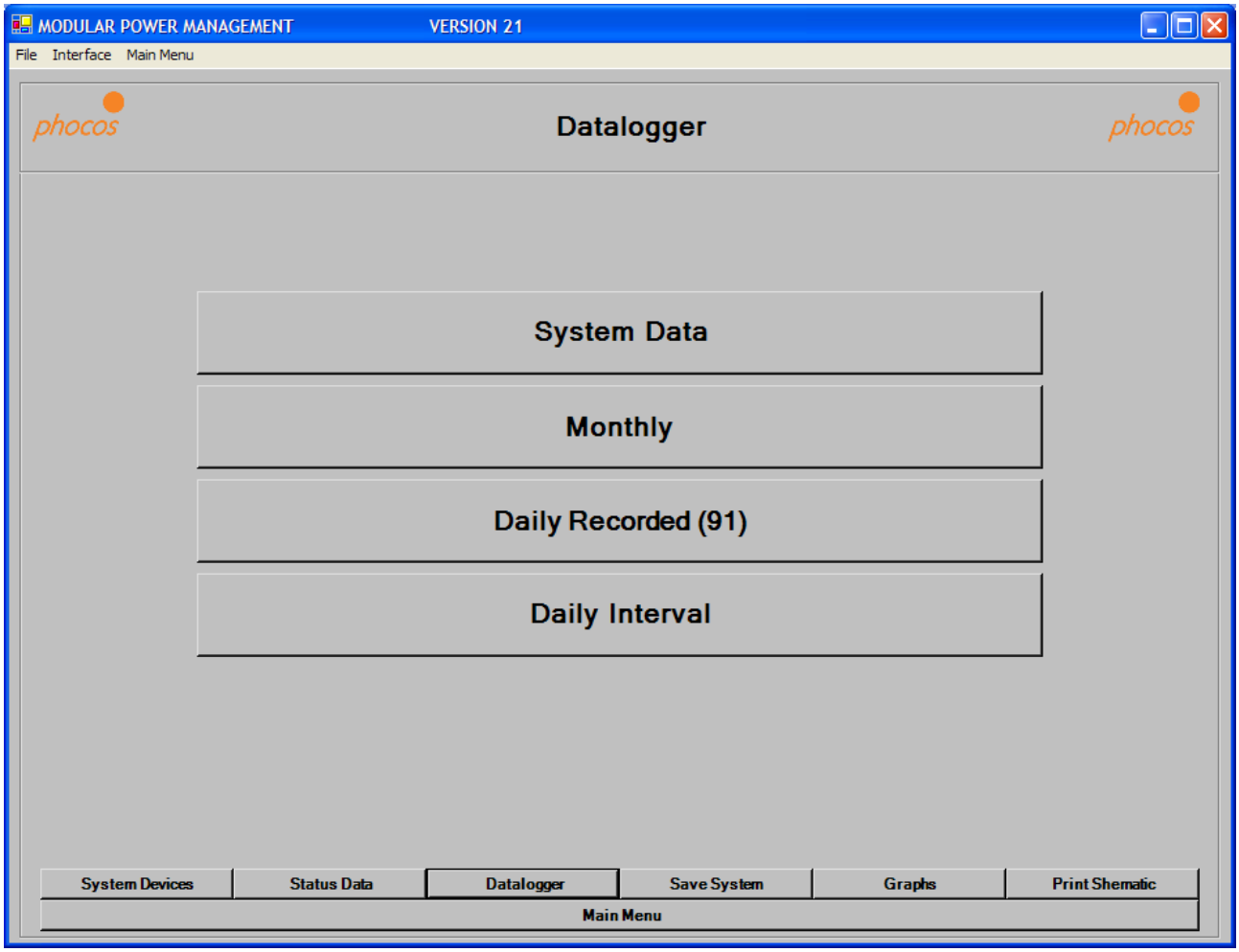
Click on “Import Status” and the MODCOM will catch the actual data from the MCU.



If you click on the devices you can see the actual status values and settings of the devices

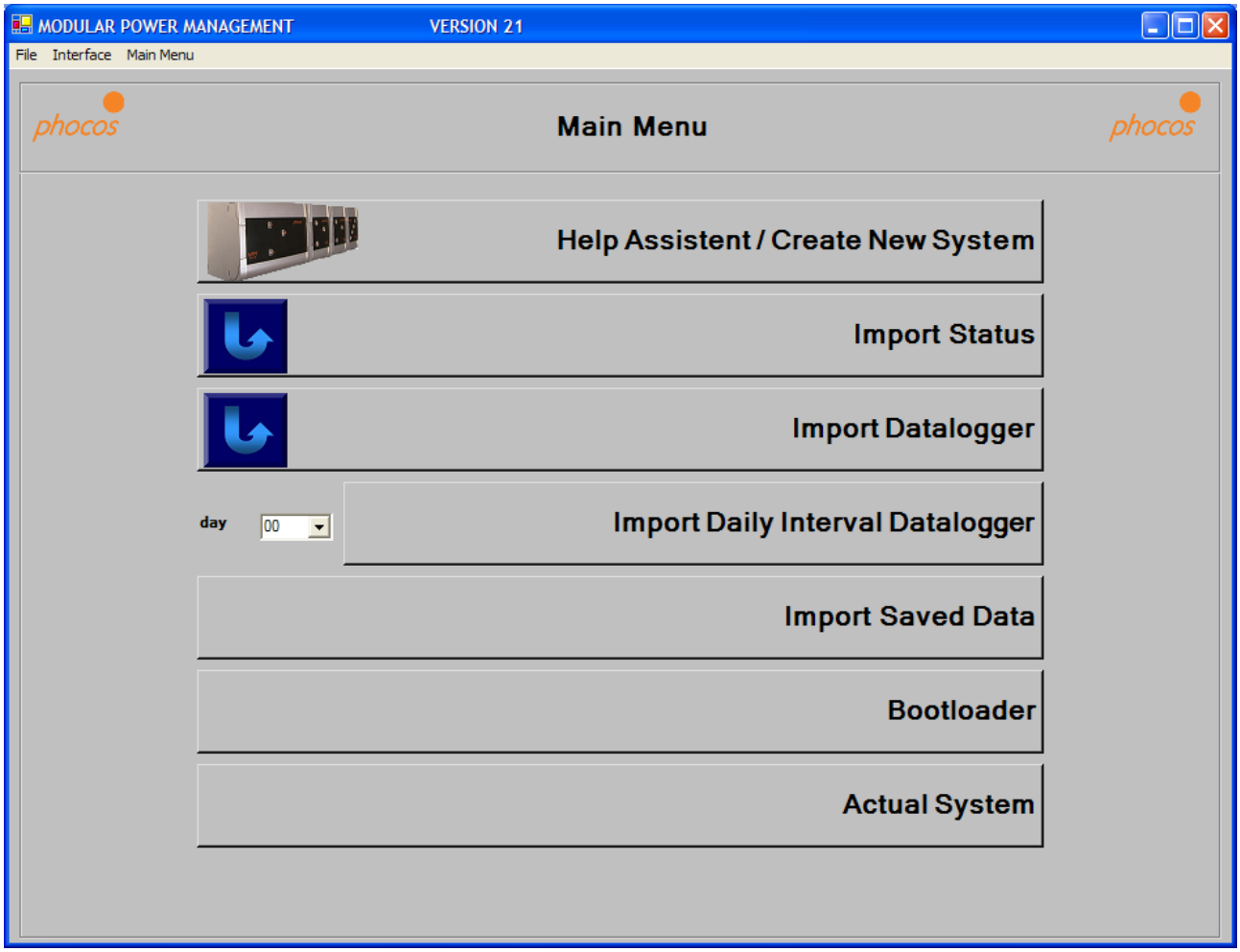
3.1.3 Import Datalogger

If you click on „Import Datalogger“ you will get the monthly and daily saved data of the system.



After data import click on „Datalogger“ at the buttons of the bottom. Then you have the choice between „System Data“, „Monthly“, „Daily Recorded(91)“ and „Daily Interval“

3.1.4 Import Daily Interval Datalogger

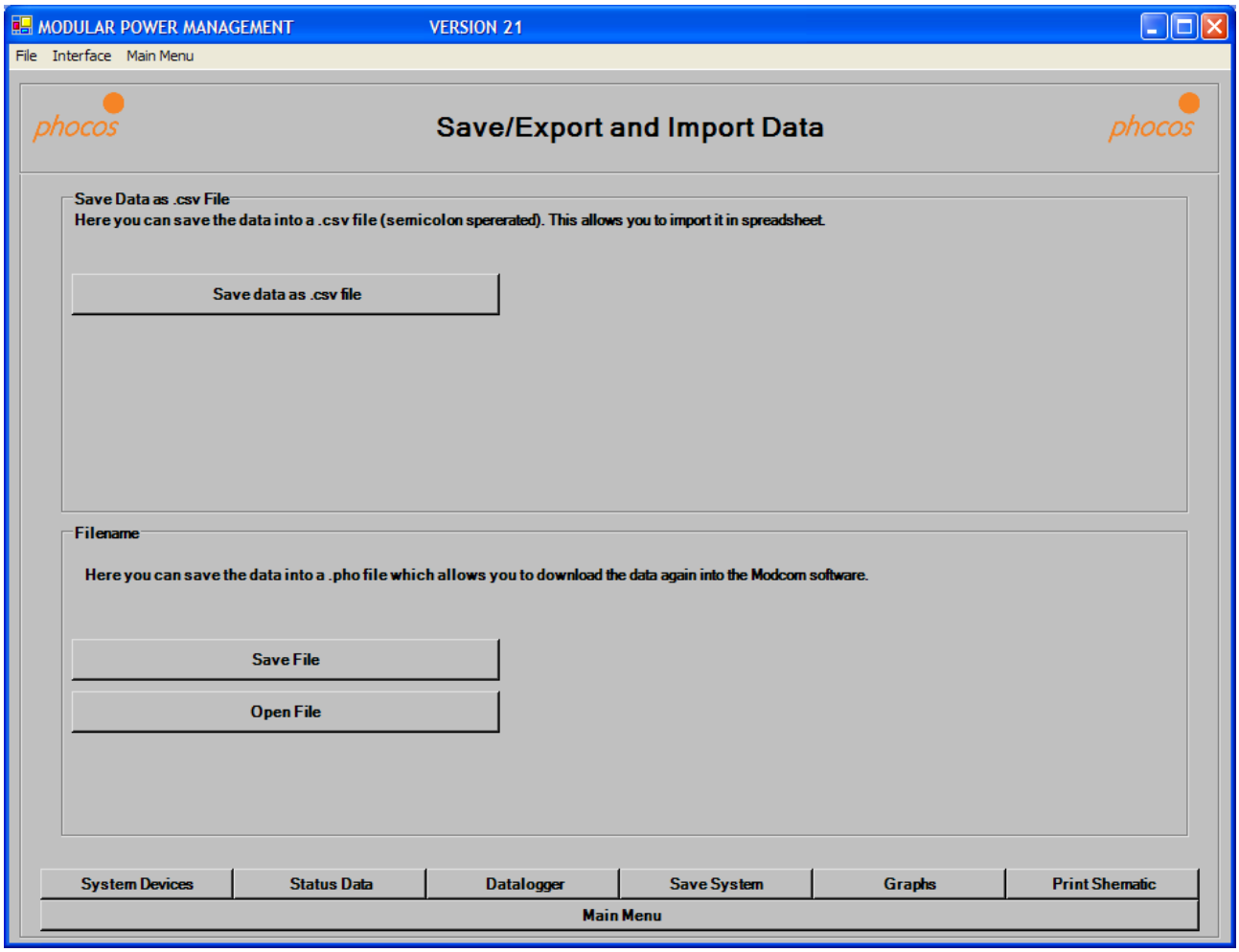


The Daily Interval Datalogger save data all 15, 30 or 60 minutes (depending of the setting) of the last 91 days.

On the drop down menu you can choose the day what you like to import.

3.1.5 Import Saved Data

If you want to save data click on the button „Import Saved Data“ and the following window will open.

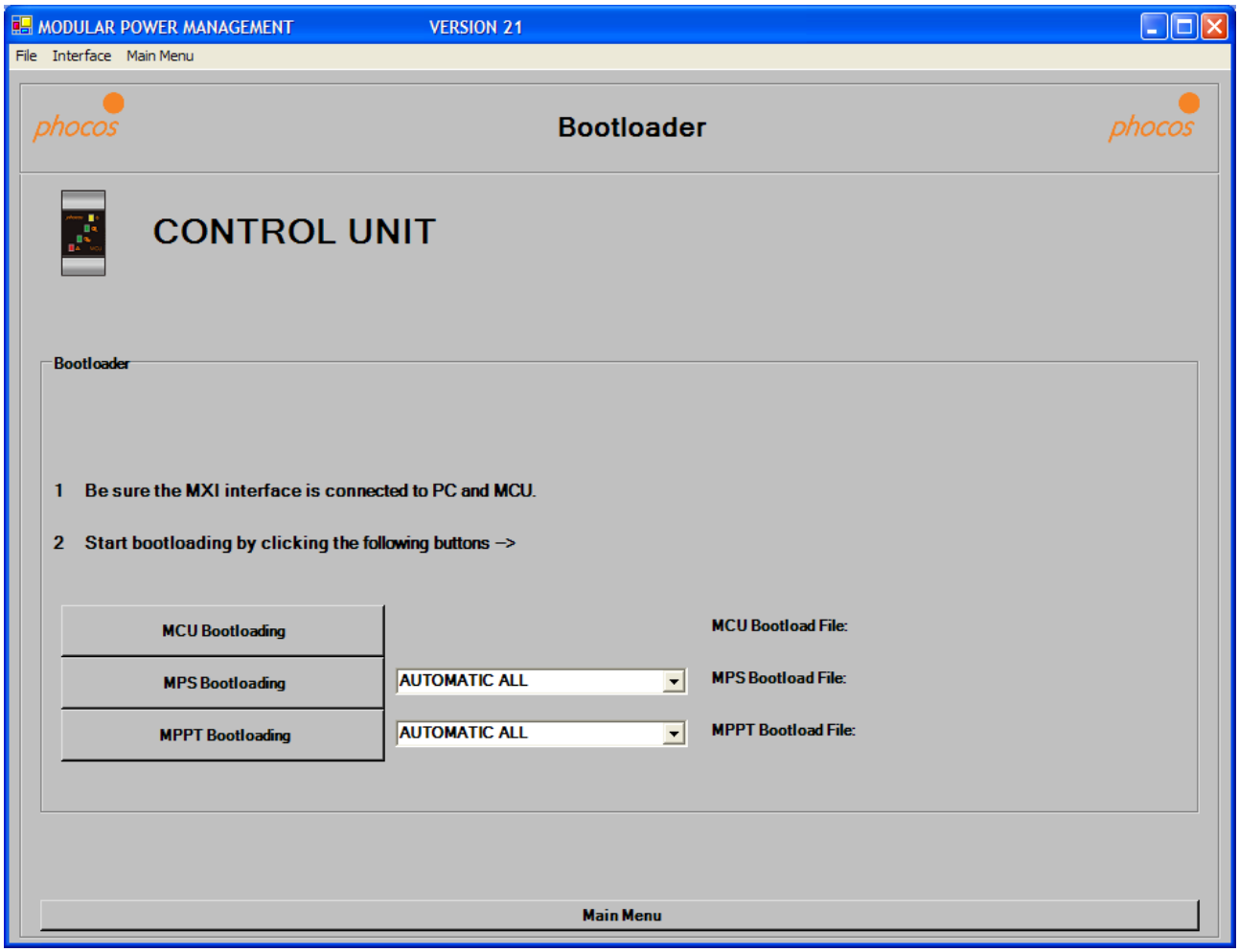


You can save the data as .csv file, then you have the possibility to import the data again into a spreadsheet.

Or you can save it as .pho file. Than you have the possibility to import the data again into the software.

3.1.6 Bootloader

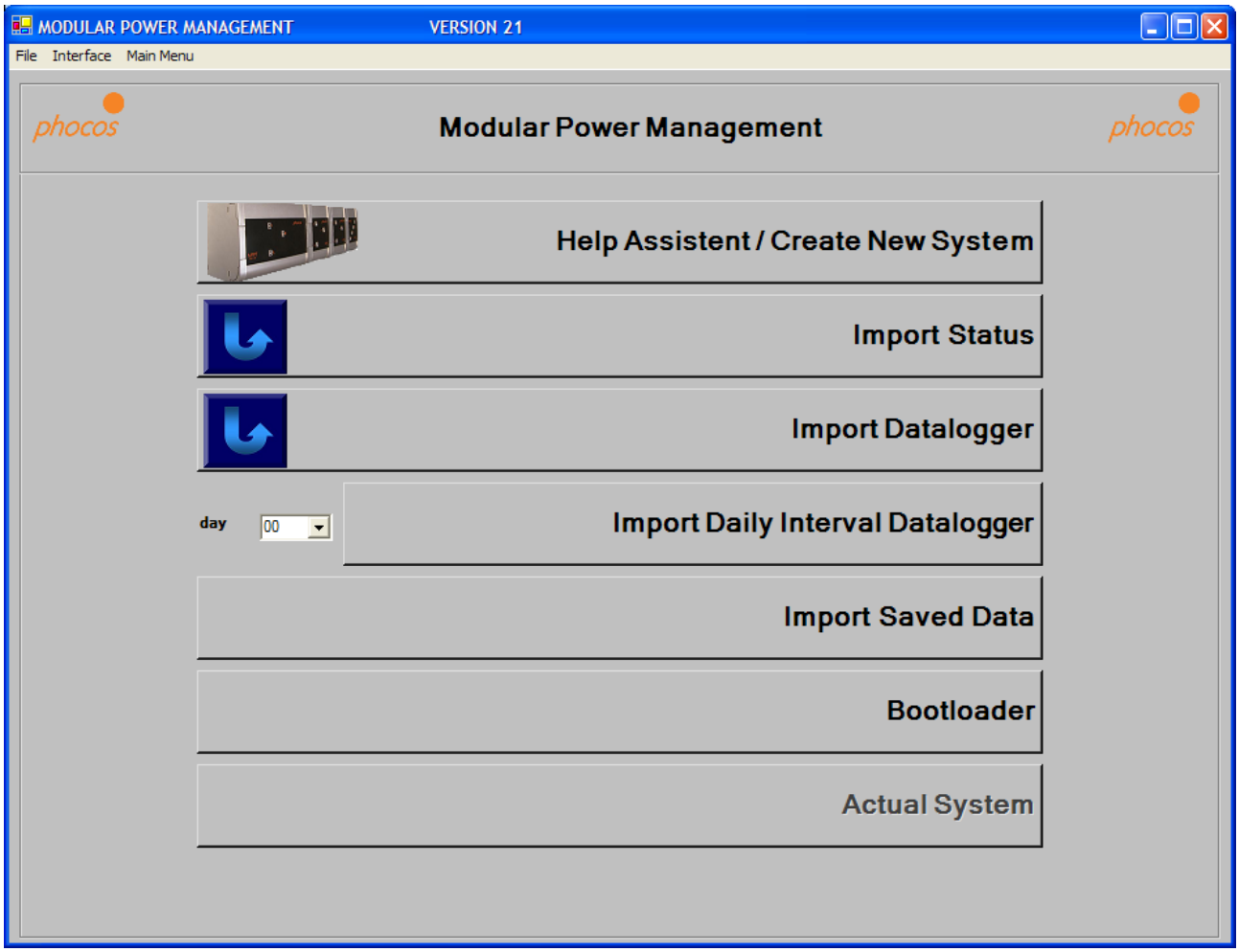
If you have new devices you could get sure if the latest software version is on the devices. For this you have a bootloader.



Please get sure that the MXI is installed correct and connected. Then you can start with bootloading the MCU, than the MPS and then the MPPT by clicking on the accordingly button.

3.1.7 Actual System

If you have imported already data than you can go to the actual overview window when you click on „Actual System“.



4 Technical Support

If you have any questions about the software, please contact:

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info@phocos.com
www.phocos.com