

Pacific Sun

Metis Hyperion S/S2

Pandora Hyperion S/S2

Triton S

9channel LED aquarium lamp with SMT matrix

1 Table of Contents

Contents

1 TABLE OF CONTENTS	2
1.a General	3
1.b Firmware update	3
1.1 Initial start	6
1.2 Daylight settings	8
1.3 Colour settings	10
1.4 PAR Table	11
1.5 Moonlight settings	13
1.6 Custom scenario	14
1.7 Service tab	16

1.a

Connecting to your computer

Pacific Sun lamps are controlled using a Bluetooth connection between doser and your computer. It is highly recommended that you use an external Bluetooth adapter to ensure a strong signal between the doser and your computer. Bluetooth adapter should be USB compatible with Class 1 specification and output power not less than 14dBm-20dBm.

Steps:

- 1) Enable Bluetooth on your computer (or install external USB Bluetooth adapter)
- 2) Initiate the Pairing process between your doser and your computer
Tip! You can do this by going to your **Start** menu, and selecting **Devices and Printers**. Once the window opens, click on **Add a device** button. Your computer will search for all available devices, and will show the available Pacific Sun devices. Select your doser and click on **Next**.
- 3) Select option "**Enter the devices pairing code**", enter "**1234**" as the pairing code, and click on **Next**. You will receive a message stating "This device has been successfully added to this computer".
Tip! All Pacific Sun devices have the default pairing code of "1234".
- 4) You will see the lamp in your "Device list" now.
Tip! You can view your Device list by navigating to your **Start** menu, and selecting **Devices and Printers**.
Right click on the discovered lamp and click on **Properties**
- 5) Click on the **Services** tab, and take note of the COM port that was assigned to your doser
Tip! You can increase the transfer rate between your lamp and your computer by clicking on the **Hardware** tab, selecting your COM port, and clicking on **Properties**. In the new dialog, click on the **Port Settings** tab, and change the value of "Bits per second" field to **19,200**. Click **OK** and then **OK** again.

Using the software

Installation

From CD

- 1) Insert the CD into your CD-ROM drive
- 2) Go to **My Computer** or **Computer**, and double click on Pacific Sun CD to explore the contents of the disk
- 3) Double click on **Setup.exe** and follow the prompts on screen

From Web

- 1) Download the software
- 2) Extract the files to a local folder using the RAR Lab WinRAR unpacking tool
- 3) Browse through the extracted files, locate **Setup.exe** and run it

Tip! You can also run the software by browsing through the installation disk / extracted folder, and double clicking on the Pacific Sun application.

Starting the software

The installation creates a shortcut to Pacific Sun software in your **Start** menu. Click on **Start**, and run the Pacific Sun software from there.

Connecting to your doser

To control your lamp, you will need to connect it to your computer first. (see *Connecting to your computer* for further help with this)

- 1) Start the software
- 2) Select the **COM port** for your lamp from the drop down, select **Bluetooth** in the second drop down, and click on **Connect**
Tip! You can also type the COM port in manually in the drop down
Tip! Refer to *Connecting to your computer* to find the COM port for your lamp
- 3) If software is unable to connect to doser at first, try a couple more times – you can also try moving closer to the doser for better signal between the doser and your computer

Once the connection is successfully established, the software will display some basic information regarding your actual doser settings. Information displayed varies in different versions of software.

General information about Pacific Sun lamps firmware upgrade procedure

Caution: Switching off the power supply during updating process may damage your lamp CPU. Recommended distance between the lamp and the computer that you are using to update firmware is between 1-2 meters. If you are using a laptop with bluetooth module built-in, please use an external USB bluetooth module for better signal strength.

Bluetooth module Class 1 is strongly recommended.

Uploading wrong firmware may damage your firmware and void your warranty. The damage may require returning the doser to our service department to restore its original functionality. If you need more advanced support please contact with our service@pacific-sun.eu directly.

1. b

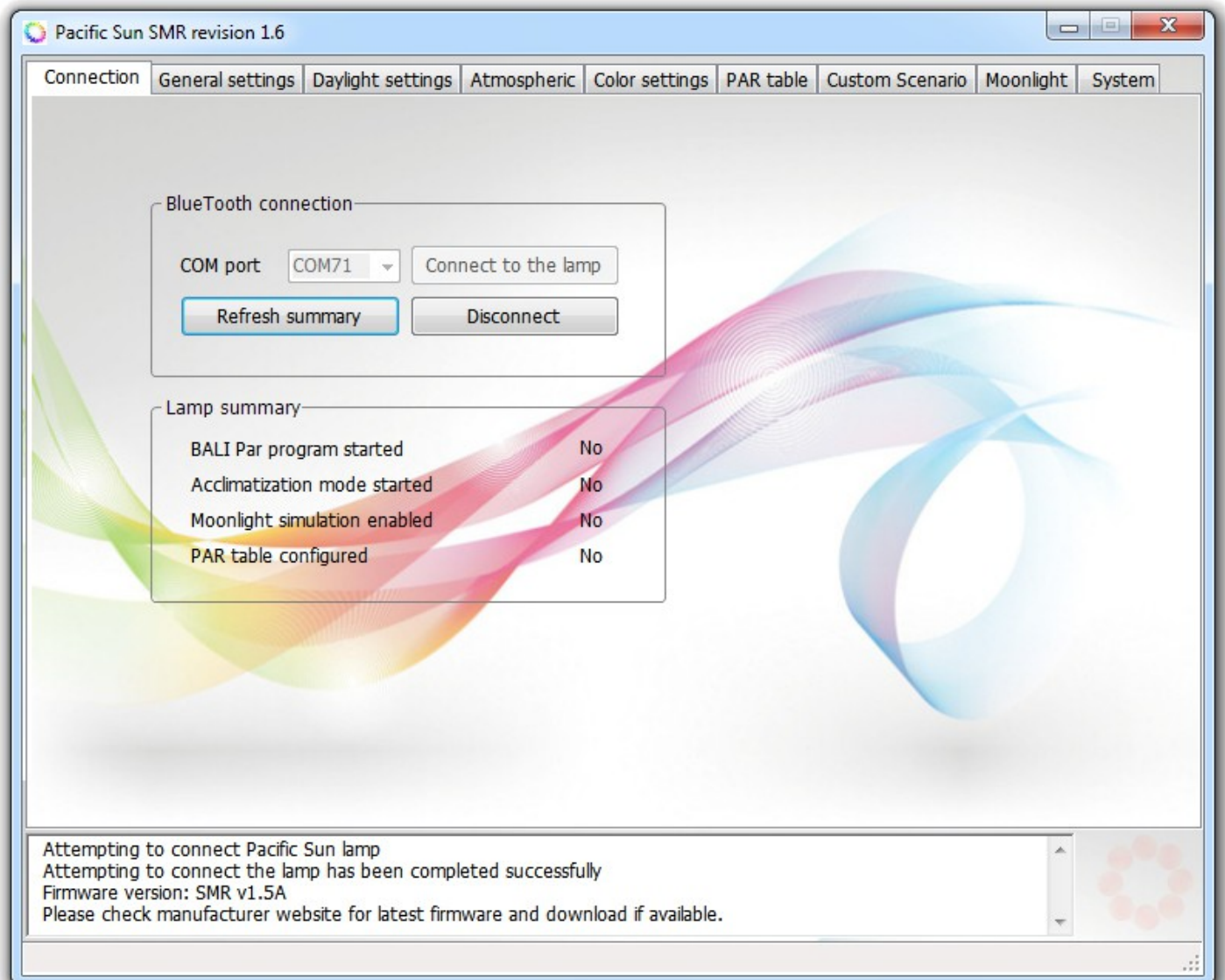
Firmware update process:

Download the application and firmware on to the computer that you will be using to update your lamp firmware. If you already have the Pacific Sun software installed on your computer – uninstall it and download the newest version available on www.pacific-sun.eu If you need technical support, email service@pacific-sun.eu for further help.

Bluetooth protocol:

Check on which **COM** port your loser is installed. You can check this via Navigation Panel (in Winows) – Bluetooth Manager – **COM** ports. **During pairing procedure please use code „1234“.**

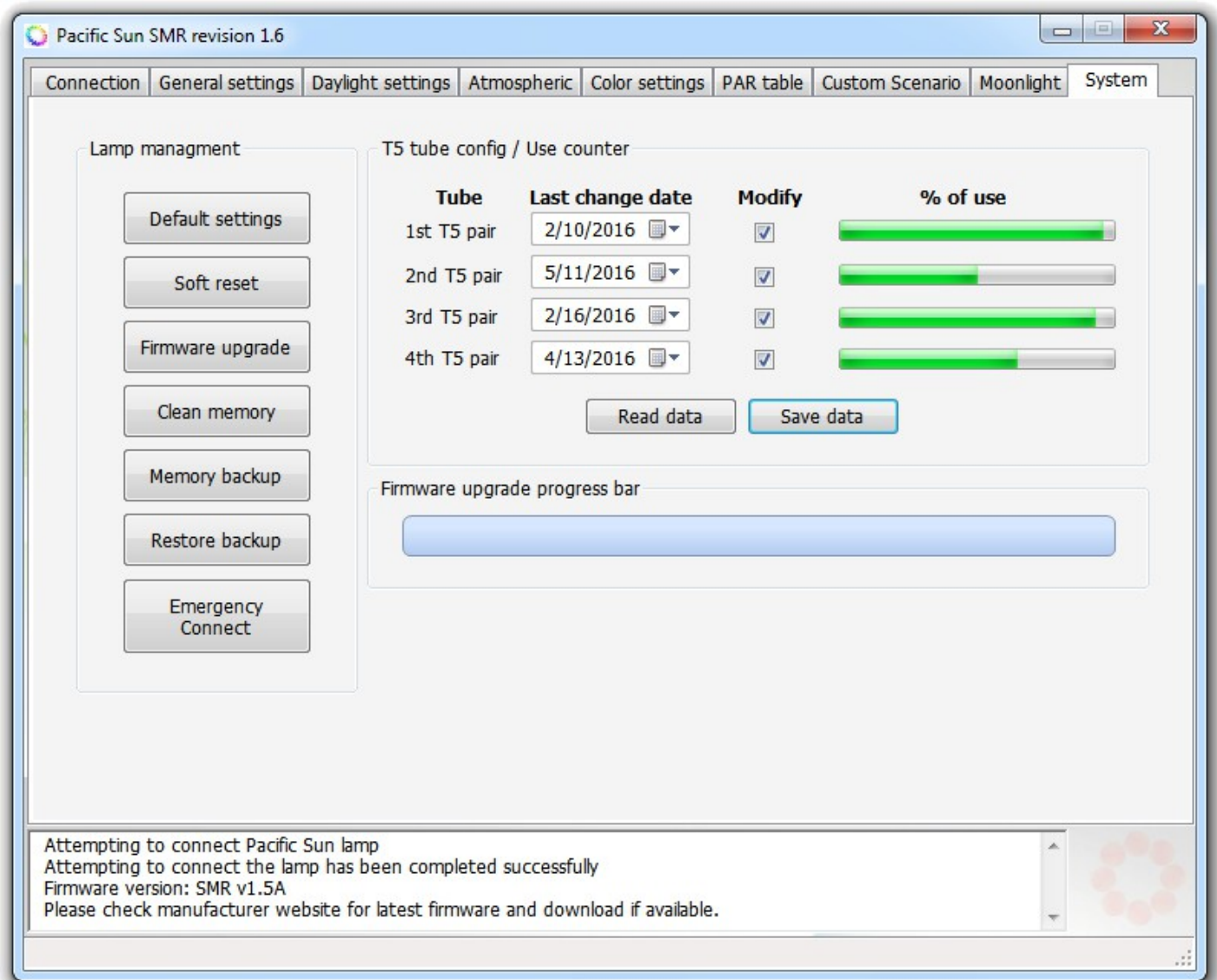
Select the appropriate **COM port** – and click **Connect** button.



Click **Connect to the lamp** button.

Within a few seconds your computer should establish connection with your lamp (you will see „Transmission Status Connected”in the Status window.)

Next, select the **System tab**



Click Firmware Upgrade – and select the firmware for your type of lamp (firmware file extension is .bin).

Your lamp’s firmware is being updated. When the process is completed, you will see „Firmware updated” displayed in the status window.

If the error occurs during transmission of the CRC and the firmware will not load properly - lamp will go to safe mode.

The screen appears:

Memory Erased. Upload firmware.

This means that the transmission process is not finished successfully.

To restore full functionality of the lamp you must perform the following steps:

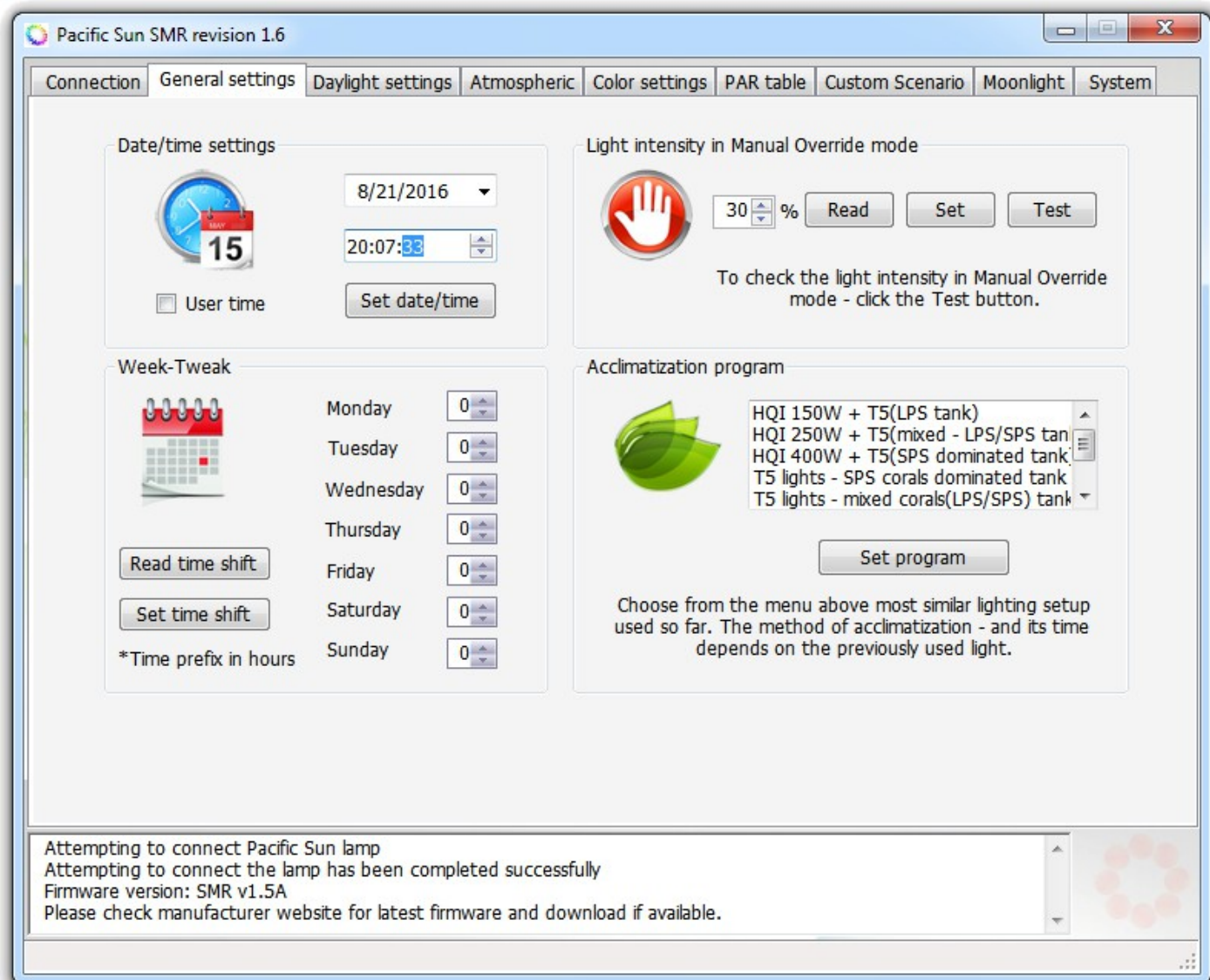
- Reduce the distance between the lamp and the computer to an absolute minimum - or use an external BlueTooth module.
- restart the lamp by disconnecting it for a few seconds after the voltage
- re-run the application, select the correct COM port (do not press on Connect to the lamp!)
- go to the Service Tab - click Firmware upgrade - and then select the correct firmware for your lamp

At this point, the firmware update process should start - the status bar will show the current progress update.

If you need additional information - please contact our service:

service@pacific-sun.eu

1.1 Initial start



Set your local date and time in the **Date/time settings** fields.

Select your lamp model in the Software initialization field and confirm your selection clicking Save Settings button.

Week-Tweak

Very often it happens that at the weekend we have the ability (and willingness) longer sit watching our aquarium .. However, it also often happens that in the late evening, when social life in our house is just beginning, the light in the aquarium "fades" and the only view we can enjoy the moonlight. To enable the "extension" - or "offset" the time of the lamp at the weekend for a few hours ahead - it was written-Tweak Week program. How does it work?

Let's take an example: "standard" we have set the lamp on the east side at 10 am and the west (the start time of sunset) at 18:00. Time of sunrise / sunset set to 2 hours. So - at 20.00 ends in "day". If you want to watch the Saturday and Sunday, not expanded our aquarium of light - is set for those days Time Shift for example, (-3).

This means that for a tube that, in those days, the time is "withdrawn" for 3 hours. So - if you've east began at 10 - so now the light "thinks" that it is 7 am and the actual east starts at 13:00 (real time) and sunset at 21:00 and runs until 23:00 ...

Next so the "day" lasts the same - but "slightly" later it started .. Monday everything is back to "normal" - and we have the opportunity to enjoy a weekend in our aquarium simply "more" ...

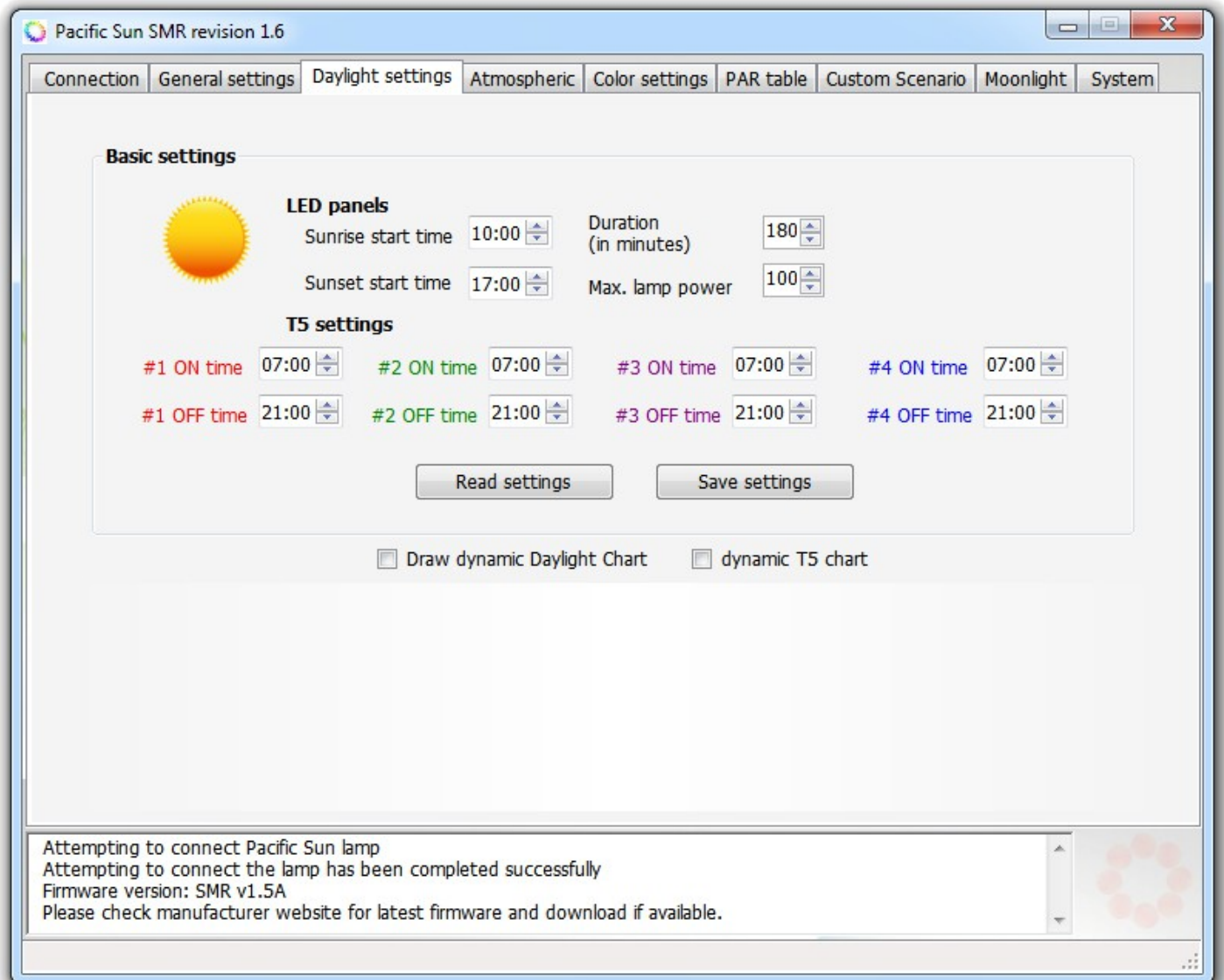
Light Intensity in Manual Override mode – here you can check and select the intensity of light your lamp will emit while operating in the Manual Override mode.

Acclimatization program

Specifically implemented acclimatization program - used to acclimate corals to LED lighting. Based on user-defined existing lighting computer automatically selects the initial power output and color of light from the lamp, and the interval, which is changed every day

lamp power, allowing corals in a gradual get used to new sources of light (as amended by the spectrum of light) and to its intensity. The computer controls the power and change the color of light in the range from 15 to almost 90 days (range automatic - depending on the acclimation). This option eliminates the situation of "overexposure" aquarium and coral bleaching, which is a very common symptom in the transition from other type of lighting(t5/hqi) to LEDs . At the end of the acclimation program automatically switches off and the lamp goes to the mode previously set, such as Basic Mode or Par Table.

1.2 Daylight settings



Here you can configure basic settings for your lamp.

Sunrise start time – the beginning of sunrise simulation

Sunset start time – the beginning of sunset simulation

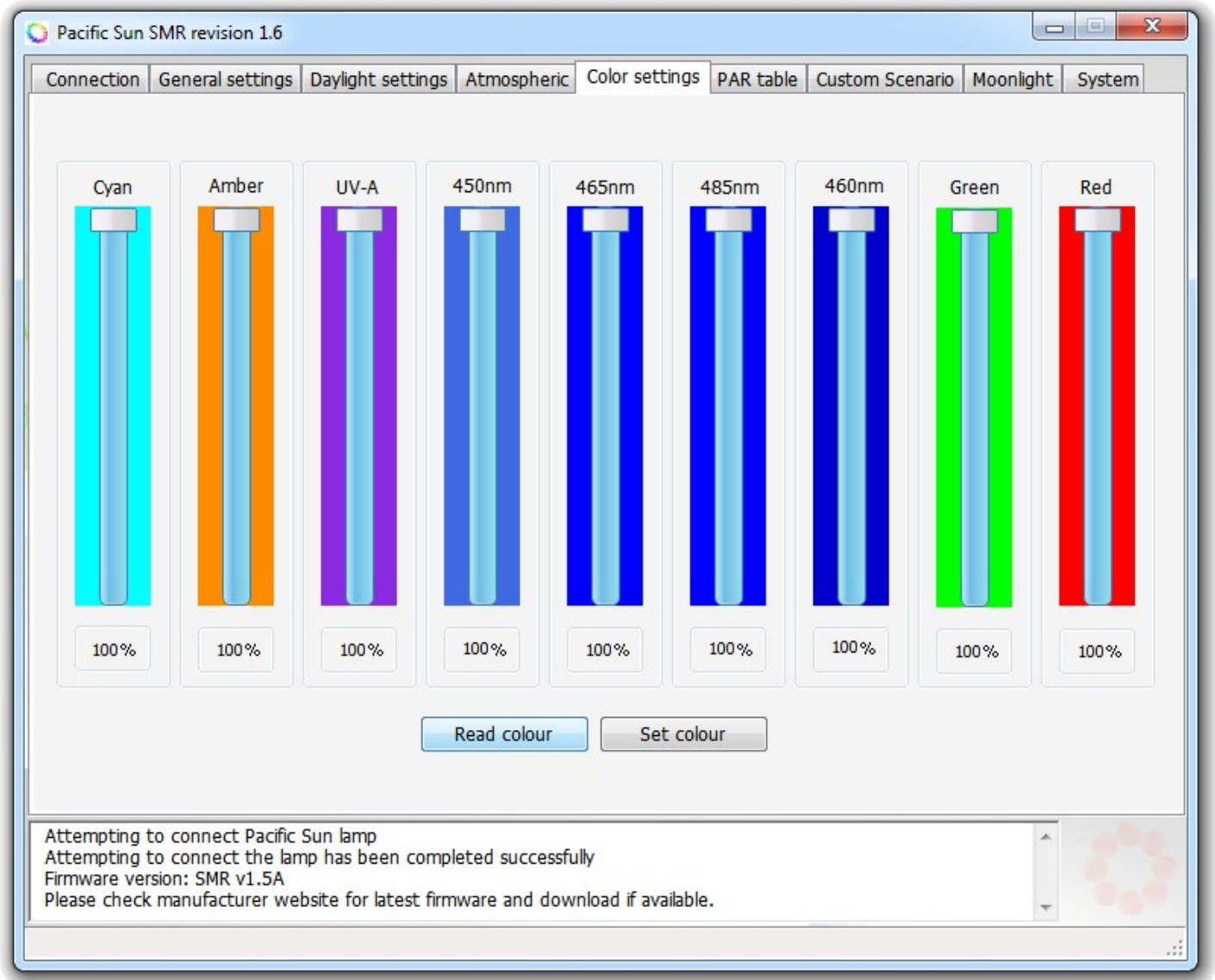
Duration – duration of sunrise/sunset

Max. lamp power – maximum power (between the end of sunrise simulation and the beginning of sunset simulation)

Smooth light transitions – defines how fast changes occur in the color of light in the performance of individual lines PAR table. Enabling this option will result in a smooth transition between colors without sudden jumps.

T5 lighting - This option is available only for lamps with T5 lighting(Pandora Hyperion R2) . You can select the T5 lighting switch on/off time

1.3 Colour settings

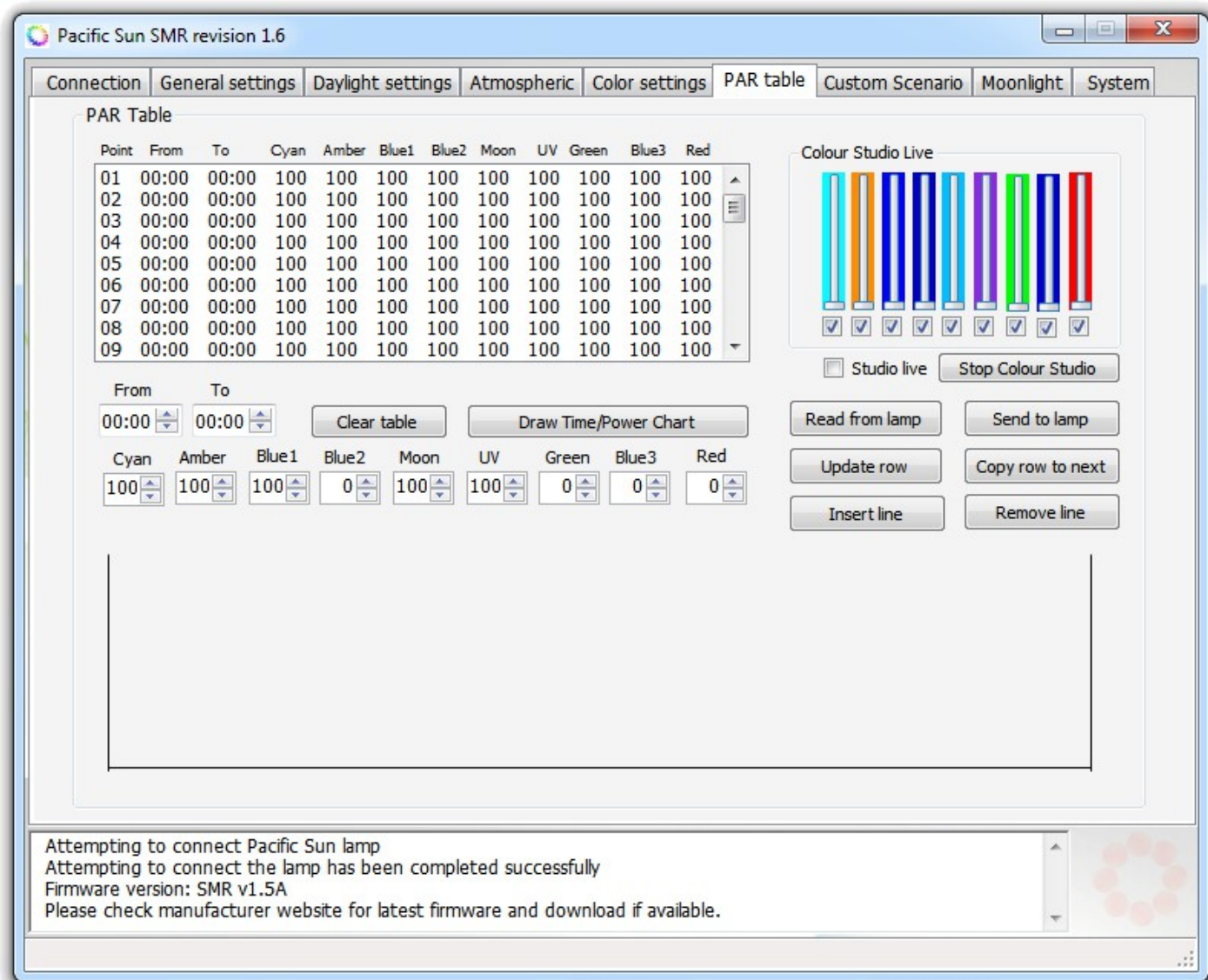


A setting powers of each channel can attempt to recreate such as the spectrum of light emitted by fluorescent T5 favorite sets.

Probe colour – load actual lamp settings

Set colour – save spectrum settings to lamp memory

1.4 PAR table



Advanced simulation of day light.

With **Linear PAR simulation** option switched on – your lamp will gradually switch from Basic light settings to more advanced simulations selected in the PAR table (without short flash between mode changing).

First, set the hours of sunset/sunrise in **Daylight tab**.

Adjusting the individual parameters in PAR table, you can influence the intensity and colour of light for multiple time-periods.

For example:

Select the duration of sunrise from 10.00 a.m. to 10.30 a.m. in the first row of the PAR table. Next, adjust the intensity of selected light colours e.g. White 6%, Blue 1 10%, Orange 75% etc.

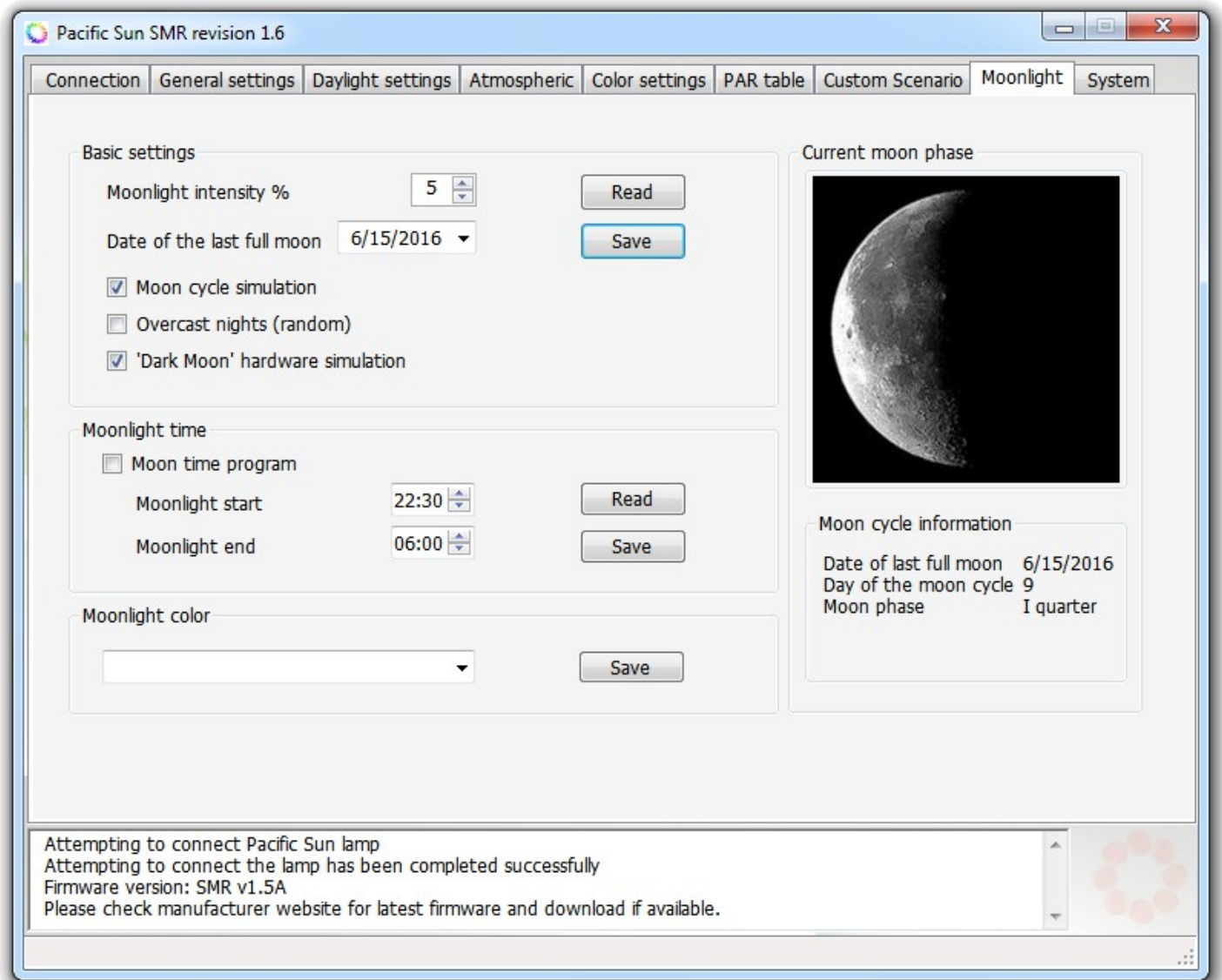
Click **Update Row** button and the table settings will be updated (selected Row)

Next, select subsequent time-period in the second row of the PAR table, e.g. from 10.30 to 11.45 and adjust light intensity for this period e.g. White 10%, Blue 10% and click Update to save your settings.

This feature allows you to adjust colour temperature in various time-periods – you can simulate „warm” sunrise (adjusting only White colour and adding some reds/orange) and „cold” sunset (adjusting Blue colour with violet).

Table PAR is quite powerful tool to create your own lighting programs: you have the ability to set independent power for each channel at different times of the day (and night). In addition, you can generate a graph showing changes in light intensity for each channel during the day. To set the color of light in a "live" - use "Colour Studio Live", by which we you able to "live" watch how it will look like a light in each time interval and modify them as needed and recognition. And then you can update the record in a table. This sounds quite complicated - but really - in fact within a few minutes you will be able to do this is automatically. Especially that the application itself fills the necessary fields in the table as the start time for the next "record" in the table, etc.

1.5 Moonlight settings



To set night light and moonlight simulation.

Basic settings

Moonlight intensity % - to set moonlight intensity (with maximum intensity for full moon)

Date of the last full moon – to set the date of the last full moon. The preset date is 2011-09-12(date of the actual full moon)

Moon cycle simulation – to switch on/off moonlight simulation

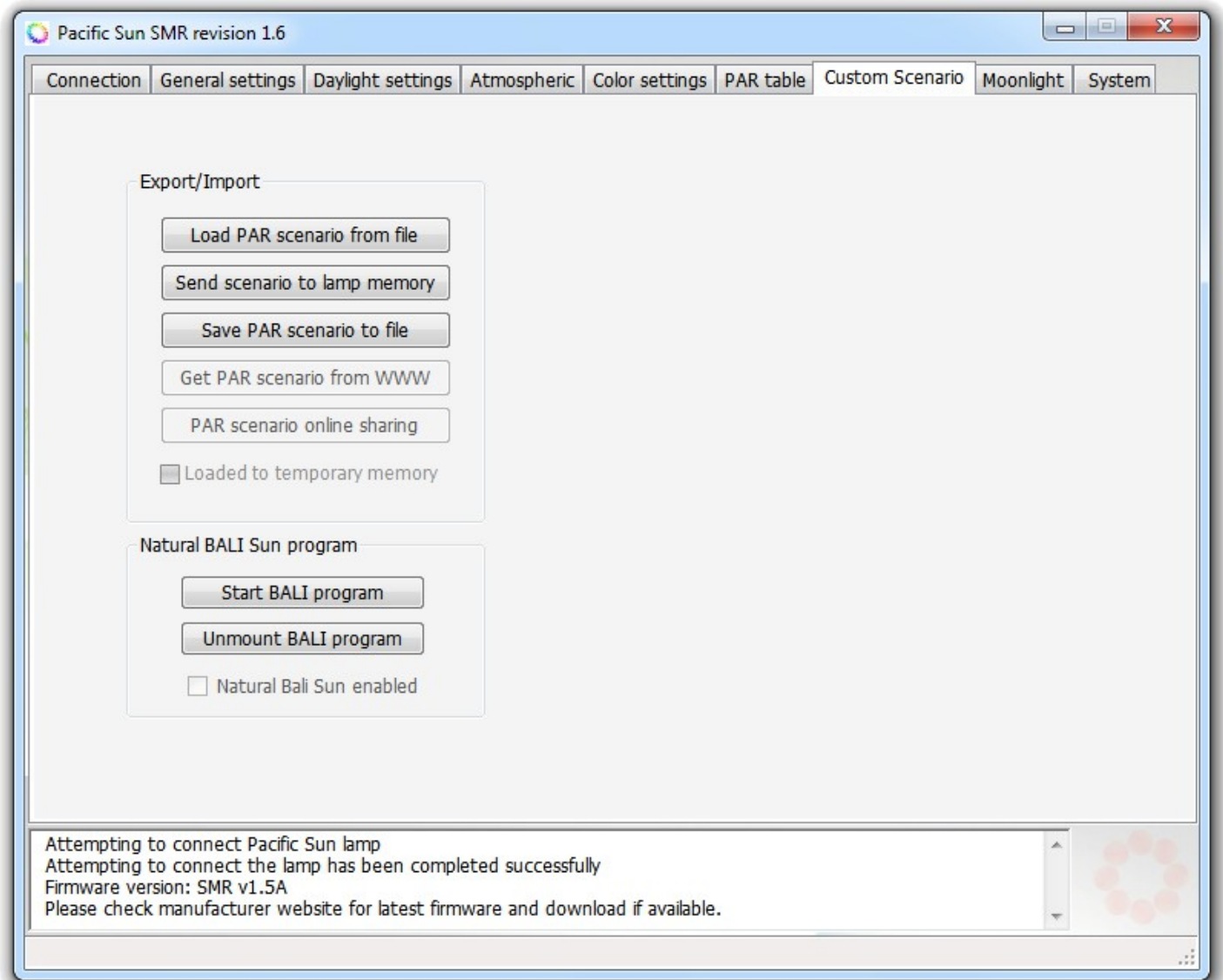
With moonlight simulation switched off – you will get constant, invariable intensity selected via Moonlight intensity option.

With moonlight simulation switch on – light intensity will be gradually changing following the natural moon cycle (Current moon phase displays the current moon phase simulated by the lamp).

Moonlight channel colour settings – customer can choose which LED channel will be used to moonlight simulation.

Moonlight time - – there can be set time for moonlight sunrise and sunset.

1.6 Custom scenario



It is used for upload / grabbing lighting programs sent by the other users or shared at the library on-line scenarios. At the moment there is program Hawaii, which is characterized by beautiful, natural-looking sunset and the changing light during the day (reflecting the passing of the day the clouds in the sky), etc.

Export/Import

Load scenario from file – uploads a chosen lighting scenario file on your lamp's temporary memory, e.g a scenario sent by other user.

Before uploading new lighting scenario to your lamp's temporary memory, we recommend saving the previous scenario, using Save Scenario to file (in case you would like to return to the previous settings).

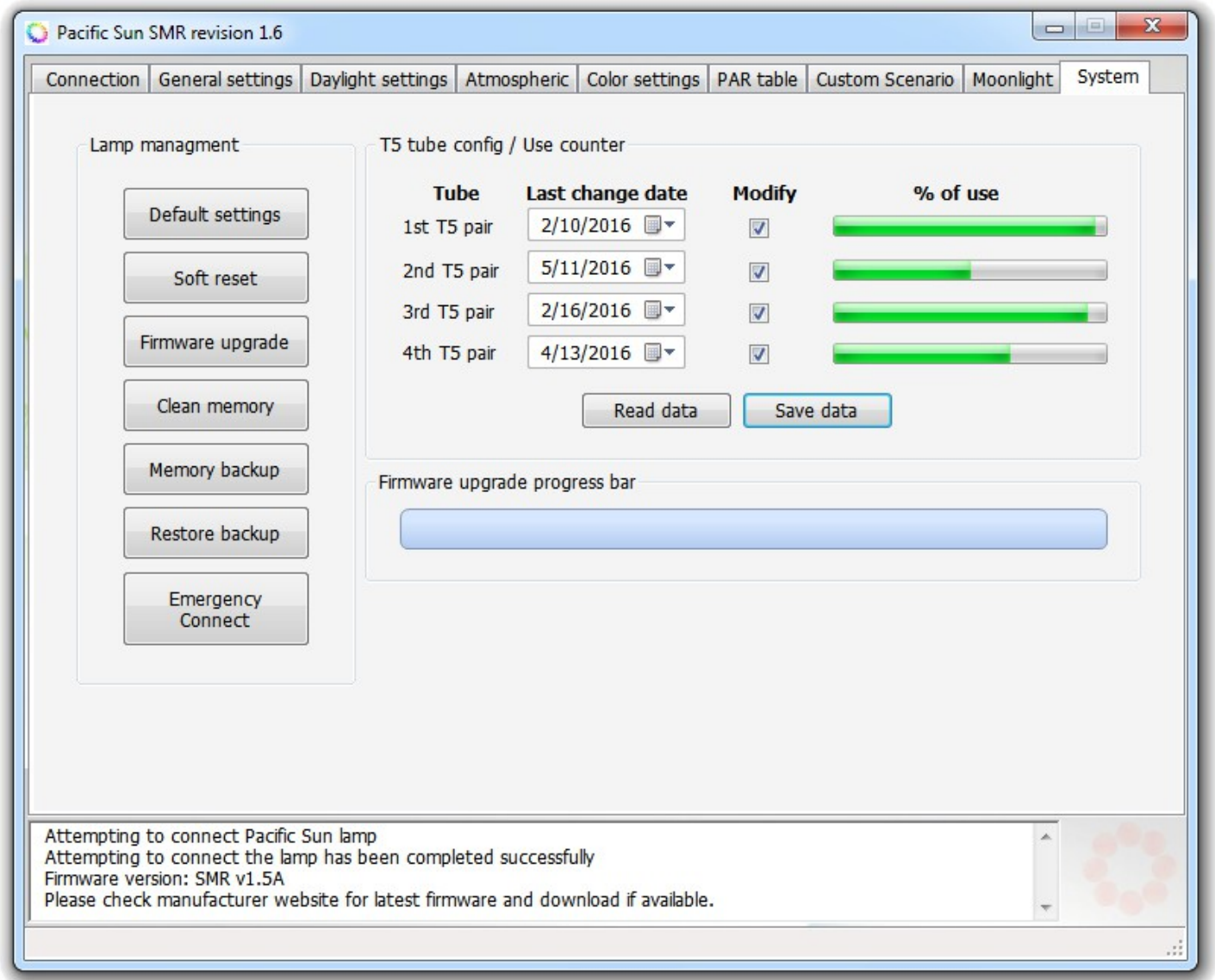
Send scenario to lamp memory – configures your lamp with the settings of your chosen scenario uploaded in your lamp's temporary memory.

Save PAR scenario to file – saves a chosen PAR scenario as a backup copy or to share it with other users.

Get PAR scenario from WWW – used to browse PAR scenarios database available on the Pacific Sun server.

PAR scenario online sharing – sending PAR scenarios from lamp's memory to the Pacific Sun server.

1.7 Service tab



Buttons description:

Clean memory – deletes the content of your lamp's memory including firmware – without the firmware your lamp will not work properly and you will have to upload the appropriate firmware. Dont use it without Pacific Sun Service confirmation!.

Default settings – restores preset default settings (power, sunrise/sunset time etc.)

Firmware upgrade – to update firmware

Soft reset – to safely reset firmware