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1 Disclaimer

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1.2 Nur für Kunden mit Sitz in Deutschland

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Die in diesem Anwendungsbeispiel enthaltenen Dateien beschreiben eine mögliche Anwendung der Steuerung AC500 bzw. zeigen eine mögliche Einsatzart der Steuerung. Sie stellen nur Beispiele für Programmierungen dar, sind aber keine fertigen Lösungen. Eine Gewähr kann nicht übernommen werden.

Der Nutzer ist für die ordnungsgemäße, insbesondere vollständige und fehlerfreie Programmierung der Steuerungen selbst verantwortlich. Im Falle der teilweisen oder ganzen Übernahme der Programmierbeispiele können gegen ABB keine Ansprüche geltend gemacht werden.

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Es gilt materielles deutsches Recht unter Ausschluß des UN-Kaufrechts."

Only for customers with seat in Germany

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The files contained in this application sample are only describing a possible use of the AC 500 control system showing a possible kind of operation of it. These are only examples of the programming features and in no way working solutions. No warranty can be accepted.

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German substantive law shall apply excluding the UN Convention on the International Sale of Goods."

2 Introduction

This document demonstrates how create a CSV file with start and times. A short example, on Monday a engine should be started from 10:00 o' clock until 12:00. On Tuesday, the engine should be started from 6:00 o'clock till 10:00 o'clock. The times can be modified with an FTP client stored on the SD card.

2.1 Hardware and Software requirements



NOTICE

The following configuration is used in this document. The newer version of hardware and software should work, however it should be tested by the user himself.

Hardware	Software
AC500 CPU:PM564 ETH, FW: V2.2	PS501 Control Builder Plus: V2.2
Ethernet cable	FTP client (FileZilla)

3 PLC configuration

This chapter will show you how to configure the different parameters.

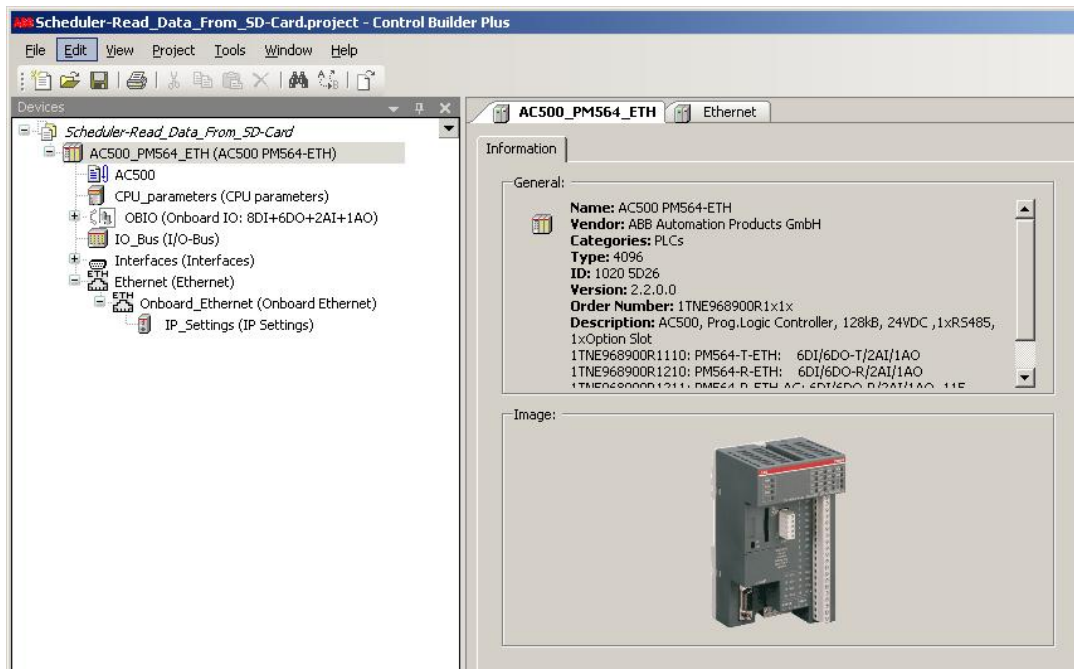
3.1 Control Builder Plus

The PLC program was written with the ABB Control Builder Plus PS501 V2.2



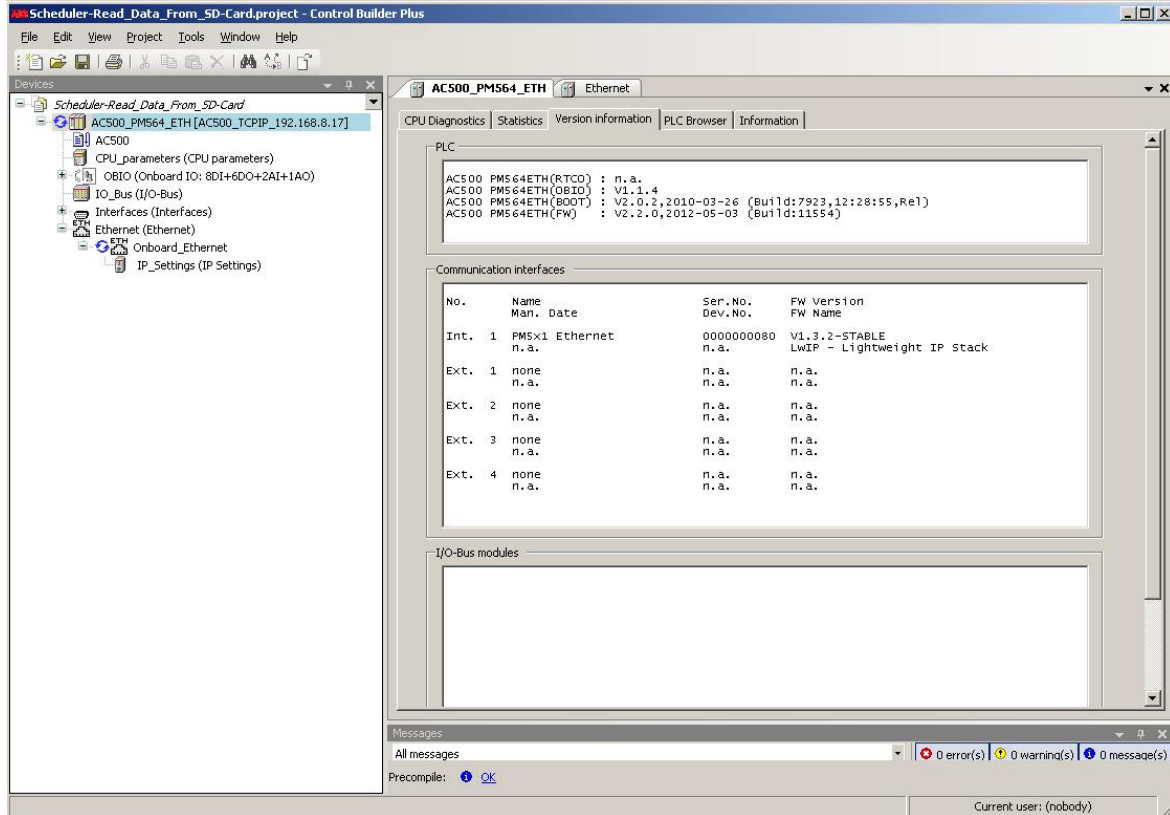
3.2 AC500 PM564-ETH CPU

Using the AC500-eCo CPU PM564-ETH FW: V2.2



3.3 rtsinfo

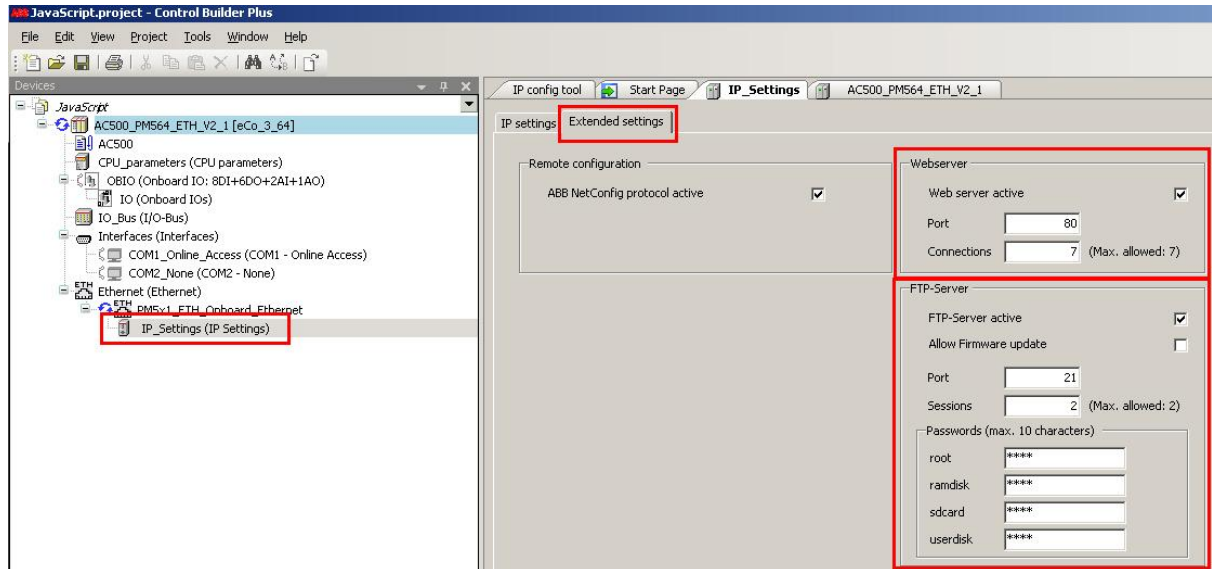
Please use the firmware V2.2 or higher.



3.4 Web server & FTP - Server configuration

Please expand the Communication modules and the Onboard Ethernet and click on IP_Settings. Switch to the tab extended settings. Enable the Web server and the FTP-Server. Please use a minimum of four Connections at the Web server configuration. The port is still 80.

Please be sure that you have entered two sessions in the FTP server settings. Port is default 21. Now, we could set a password for the different users. In this example we used "root" as password for all users.



Please save your settings and create configuration data. You can do that by right click on AC500 and choose "Create configuration data".

Now, please open CoDeSys by double click on AC500.

4 PLC_PRG

The PLC program is given as structure text and FUP in this example. It was written with the actual version of the PS501 Control Builder Plus.

4.1 Program

The whole program is a step chain. At first, a file, called "plan.csv" stored on the SD card(sdcard\plan.csv) will be opened, all datasets will be read. After some transformations, getting the Day of today and reading the time from the PLC, a variable in the PLC_VISU will display if an engine for example will be started.

This is the structure from the CSV file, where the start and stop times were defined.

Monday	Tuesday	Wednesday	Thursday	Friday
11:59	11:50	13:12	11:04	11:05
12:00	11:52	16:12	11:08	11:10

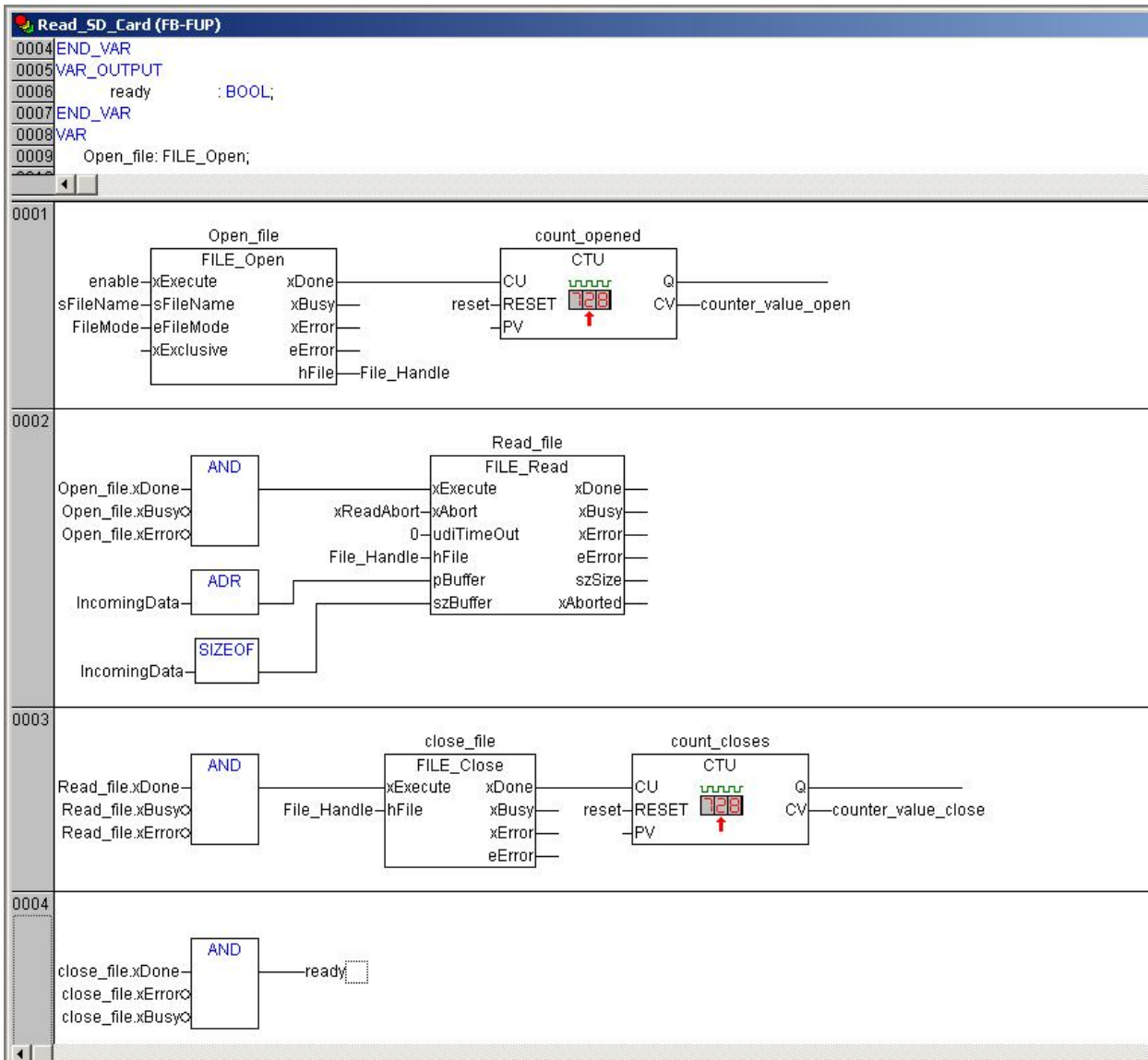
Start

←

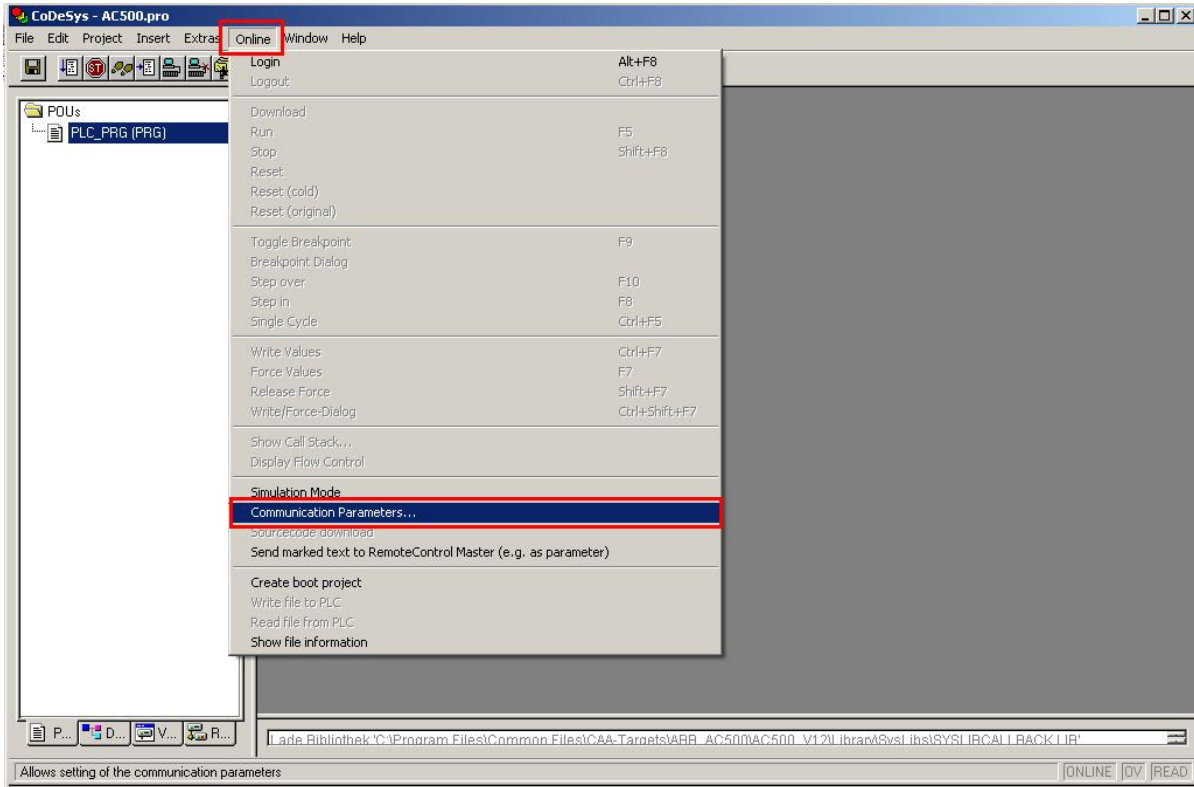
Stop

←

A short example. On every Monday at 11:59 the engine starts. You can see this on the visualization with a green cycle. At 12:00 o'clock the engine stops. This is shown by a red cycle.

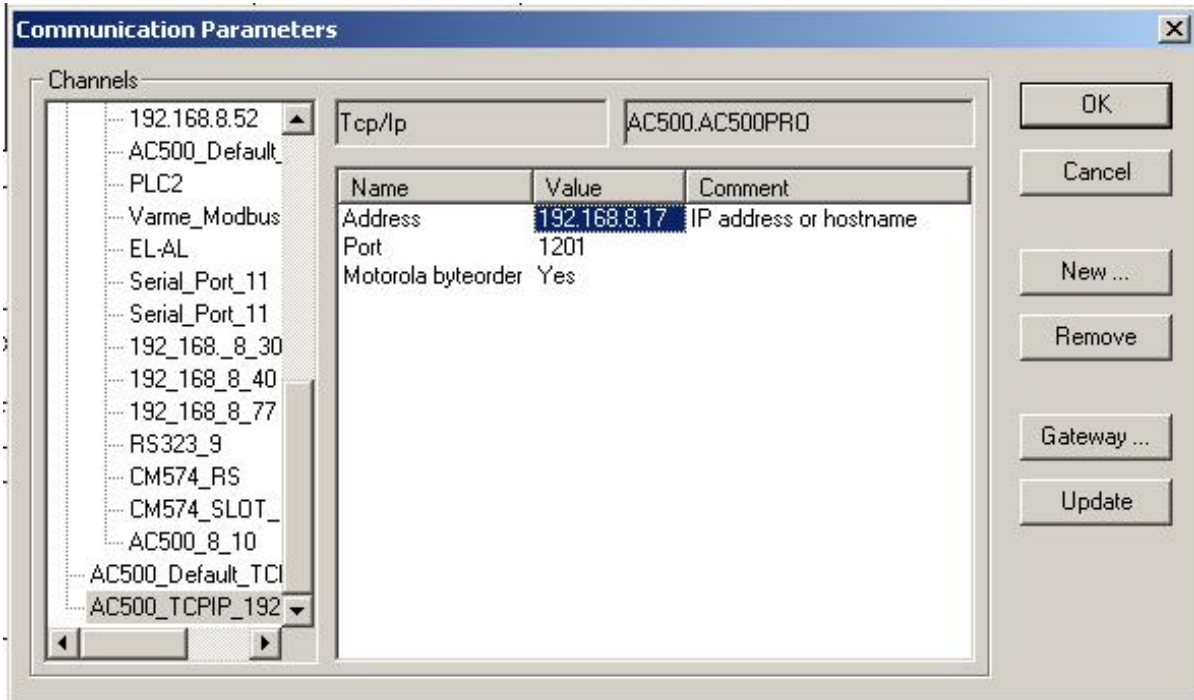


Please choose your configuration data. Go to Online --> Communication Parameters...



When you connect your PLC over Ethernet then insert the following settings:

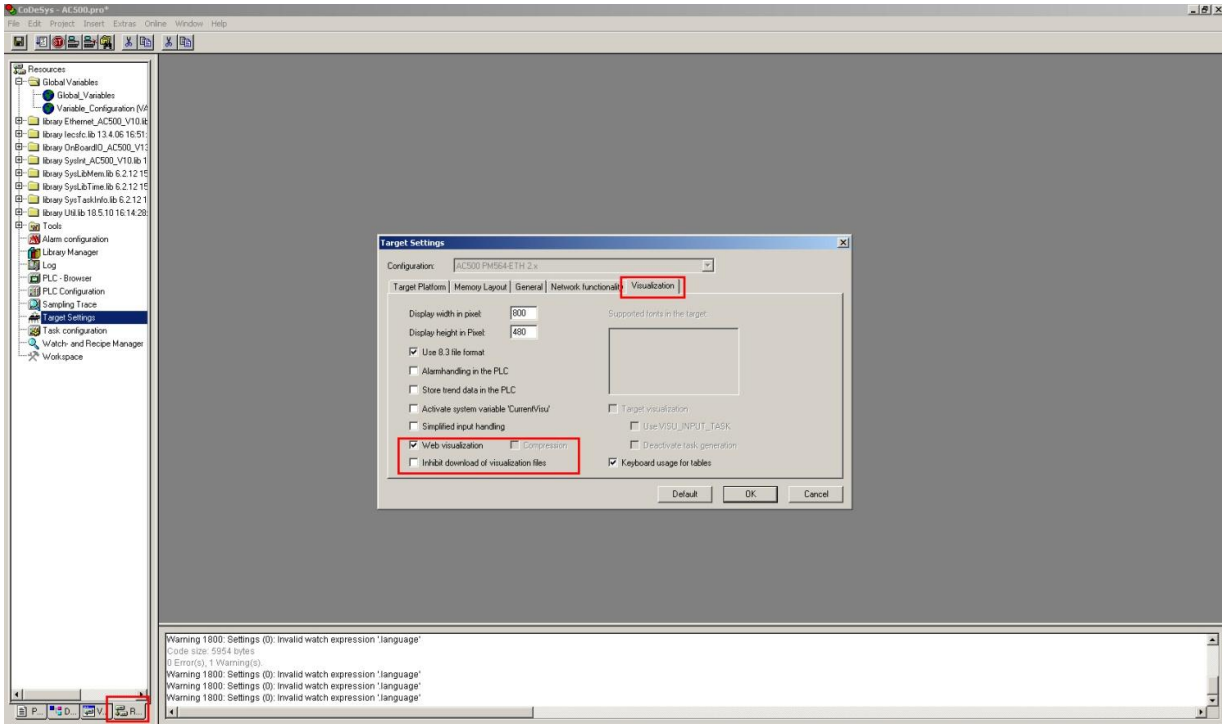
- Address (IP address from the PLC)
- Port (set Port to 1201)
- Motorola byteorder (Yes)



5 Visualization

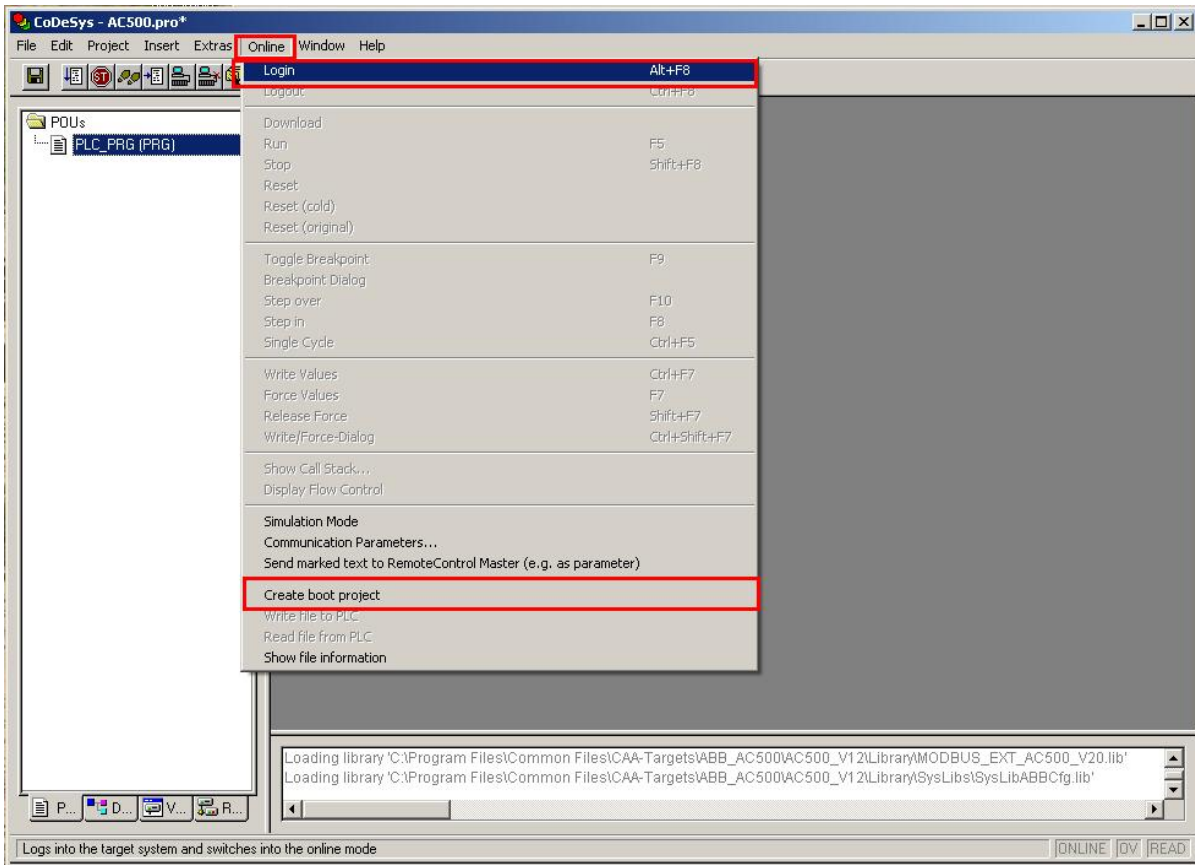
5.1 Visualization settings

Please go to Resources tab on the bottom of the page. Choose Target Settings on the left side. A new window will appear. Please select the Visualization tab and make a cross at the Web visualization. Now, press OK and save your project.



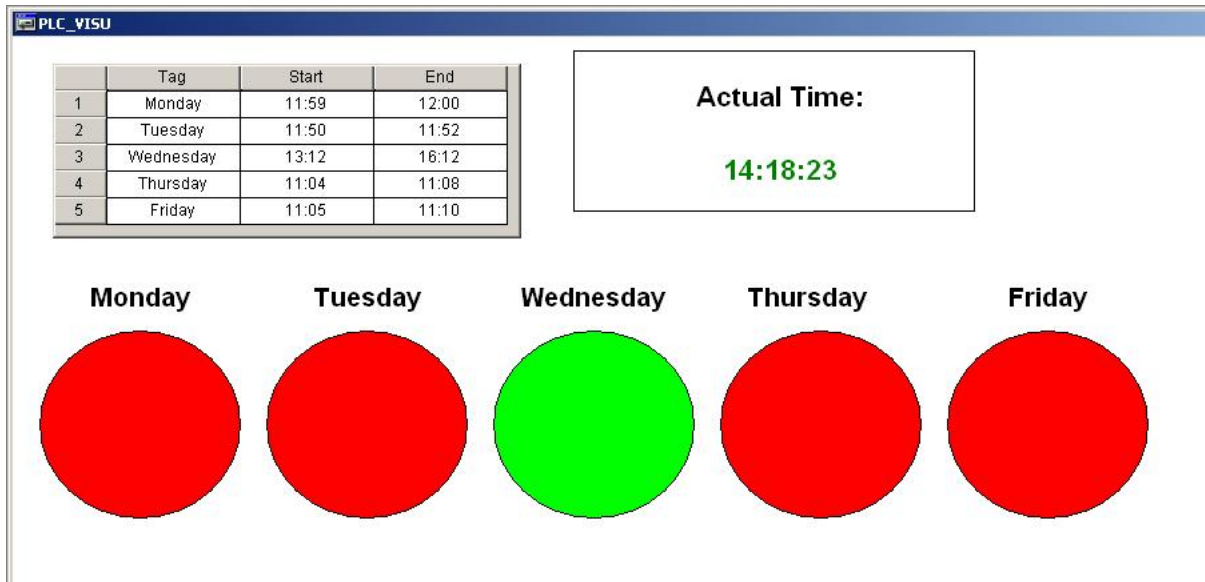
Download your program to the PLC.

Please choose Online --> Login. The whole program and the configuration will be downloaded to the PLC. Now, please create a boot project. You can do that by click on Online --> Create boot project. The LED's on the PLC are flashing until be finished.



5.2 Visualization Overview

This application example includes one visualization.



This picture shows the visualization from the Scheduler Application Example. The table in the left corner is exactly the same as the CSV file stored on your SD card. If you modify the CSV file, all changes will be displayed in the table.

Let's explain this example. Today is Wednesday. The actual time is 14:18. When you have a look in the table you can see the start time: 13:12 and the stop time: 16:12. During the time of 13:12 and 16:12 the cycle is green, this could also be an engine or something else. When the time is over, the cycle changes the colour from green to red.

6 FTP Client

6.1 FTP version

Please use FileZilla as FTP client to connect to your PLC.

You can download it here: <http://www.filezilla.de/download.htm>



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