Starter-Kit | u-control

Automation Controller (studio)

2666070000 | STARTERKIT-UC20-SL2000-AC

Quick Start Guide for Starter-Kit + u-create studio

Instructions for installation and applying of the Starter-Kit with u-create studio

QSG-Starter-Kit-0001v01

Revision history

Version	Date	Change log
01	08.2020	Draft

Contact

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
32758 Detmold, Germany
T +49 5231 14-0
F +49 5231 14-292083
info@weidmueller.com
www.weidmueller.com

For further support please contact your local sales representative.

Author: w010521

1. Warning and disclaimer

Warning
Controls may fail in unsafe operating conditions, causing uncontrolled operation of the controlled devices. Such hazardous events can result in death and / or serious injury and / or property damage. Therefore, there must be provide safety equipment/ electrical safety design or other redundant safety features that are independent from the automation system.

Disclaimer
This Example / Application Note does not relieve you of the obligation to handle it safely during use, installation, operation and maintenance. Each user is responsible for the correct operation of his control system.
By using this program example / application note prepared by Weidmüller, you accept that Weidmüller cannot be held liable for any damage to property and / or personal injury that may occur because of the use.

Note
The application examples do not represent customer-specific solutions, they are simply intended to help for typical tasks. The user is responsible for the proper operation of the described products. This application example does not relieve you of the obligation of safe use, installation, operation and maintenance. Application examples are not binding and do not claim to be complete in terms of configuration as well as any contingencies.
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Security notes
In order to protect equipment, systems, machines and networks against cyber threats, it is necessary to implement (and maintain) a complete state-of-the-art industrial security concept. The customer is responsible for preventing unauthorized access to his equipment, systems, machines and networks. Systems, machines and components should only be connected to the corporate network or the Internet if necessary and appropriate safeguards (such as firewalls and network segmentation) have been taken.

2. Abstract

The guide contains instructions how to activate the starter kit and connect to the controller. Furthermore, it contains a guide how to setup the controller, create a target and download an application to the controller.

3. Requirements

3.1. Hardware

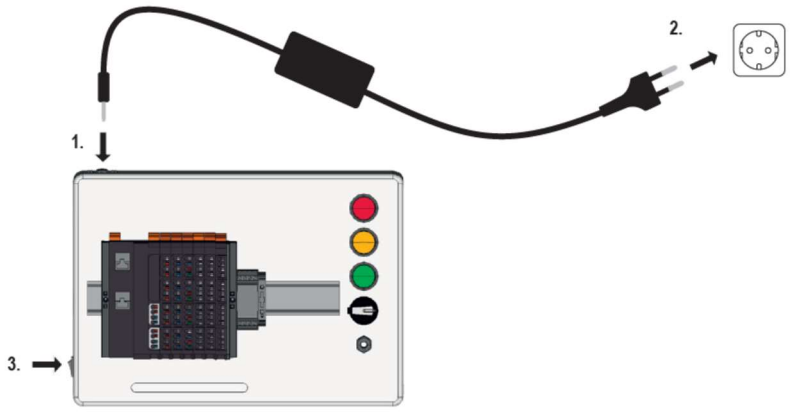
Hardware	Order Number Weidmueller	Comments
STARTERKIT-UC20-SL2000-AC	2666070000	
Engineering PC	--------	
Micro-SD Card	2684400000	

3.2. Software

Software	Order Number Weidmueller	Comments
u-create studio	2660130000	from version 1.20.2 download

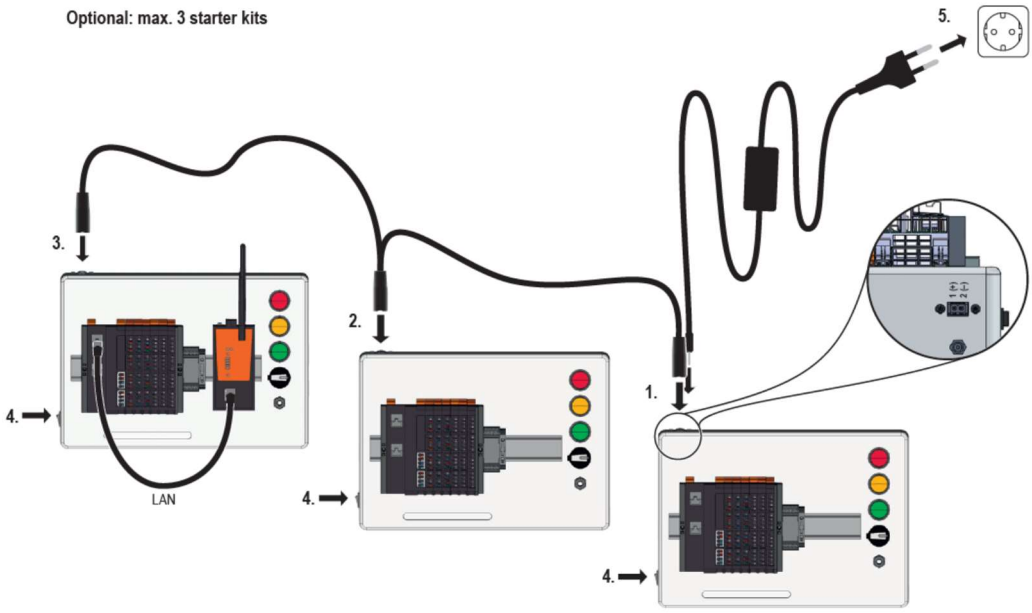
4. Installation of Starter-Kit Hardware

1. Take the Starter-Kit Board and the power supply out of the box and connect the power supply with the board (1) and a power socket (2). Now it is possible to activate the Board with the switch on the left side (3).



2. Take the ethernet cable out of the box and connect the cable between controller port X1 and your ethernet interface at the pc.

3. It is possible to extend the 24V power supply. You can use the orange connector on the backside to connect more devices on the 24V power supply.
   Note: 1(+)
   2(-)



5. Installation of u-create studio Engineering Software

- Always keep your license ticket! The ticket number is mandatory for the license activation as well as for a deactivation and reactivation in case of a device exchange.

- For a description of the specific features and functions of your software license, please refer to the u-create studio user manual. The manual as well as the general license terms of the u-create studio software can be downloaded from www.weidmueller.com/u-create-download.

1. Download the u-create studio installation file from www.weidmueller.com/u-create-download.
2. Unzip the file <u-create-studio_x.y.zip.
3. Start the installation by double click on Setup.exe.
4. After installation please start the software.

6. Activating your u-create studio license

- u-create studio can be used without a license for 30 days (Trial version). At the end of the evaluation period a license is required.

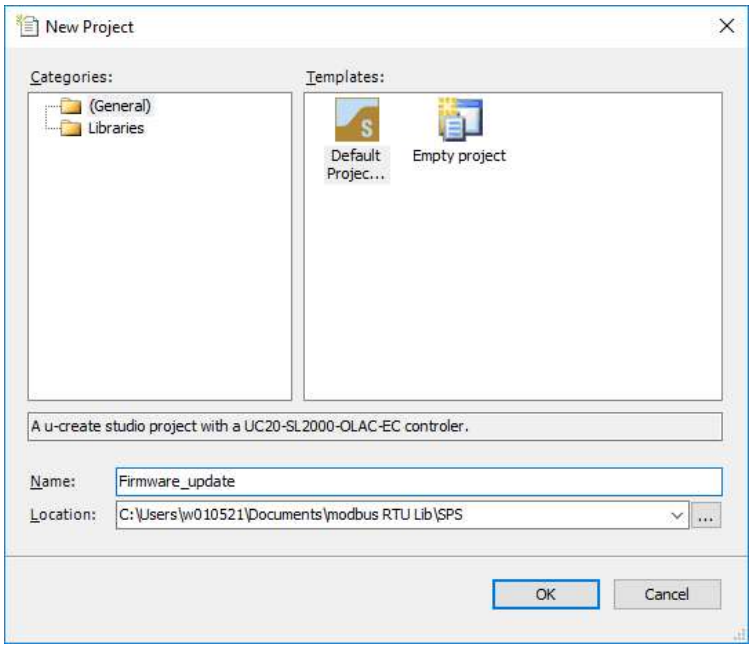
1. Activate your license by entering your ticket number, that you've received after ordering, on the CodeMeter website and follow the instructions. http://lc.codemeter.com/11512-prod/depot/
2. Enter your ticket number. The licensed version will be activated immediately.
3. An overview of your licenses can be found in your CodeMeter ControlCenter. Find it under System-Tray 

7. Create a new target file

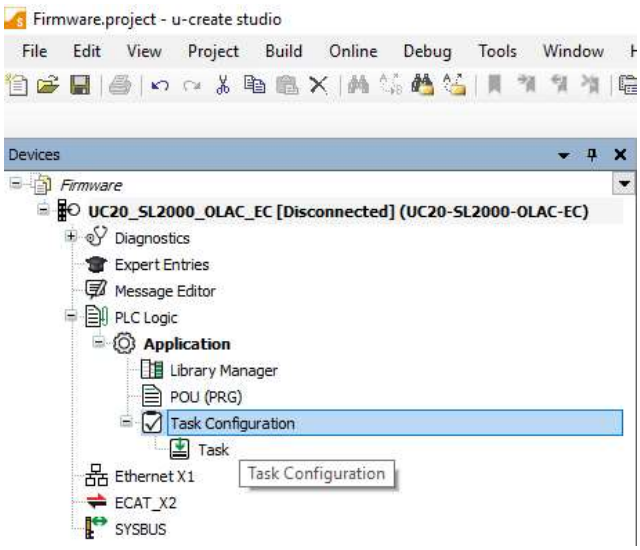
For the first startup of the controller, update the firmware or reset the controller to a fresh new image you have to create a target file and flash this to the controller.

7.1. Open u-create studio LX and create a new project

Open a new project and select the “Default Project…” in the Category “General”. Another possibility is to open a working project.

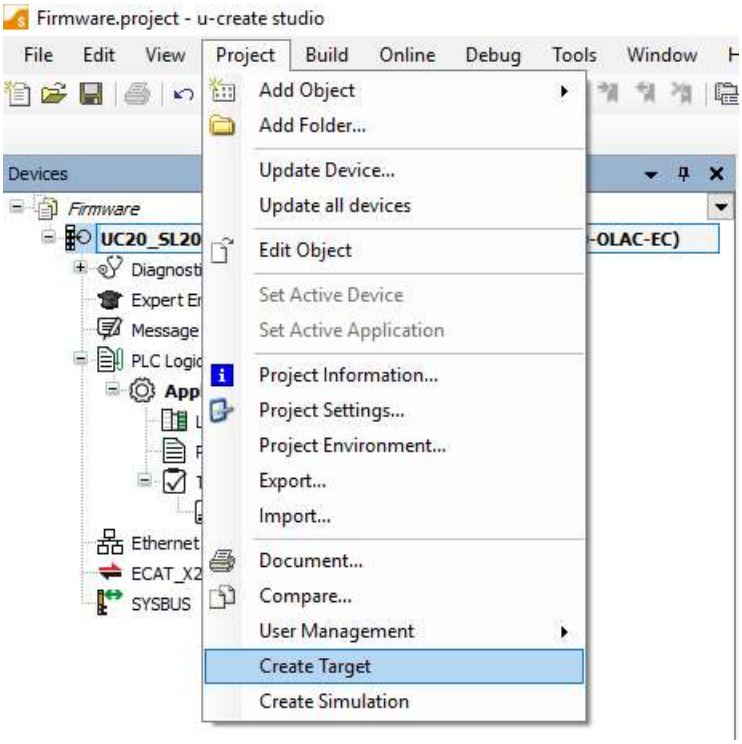


Note: you need a project that contains a “Task Configuration”, otherwise you will get errors during creating the target.

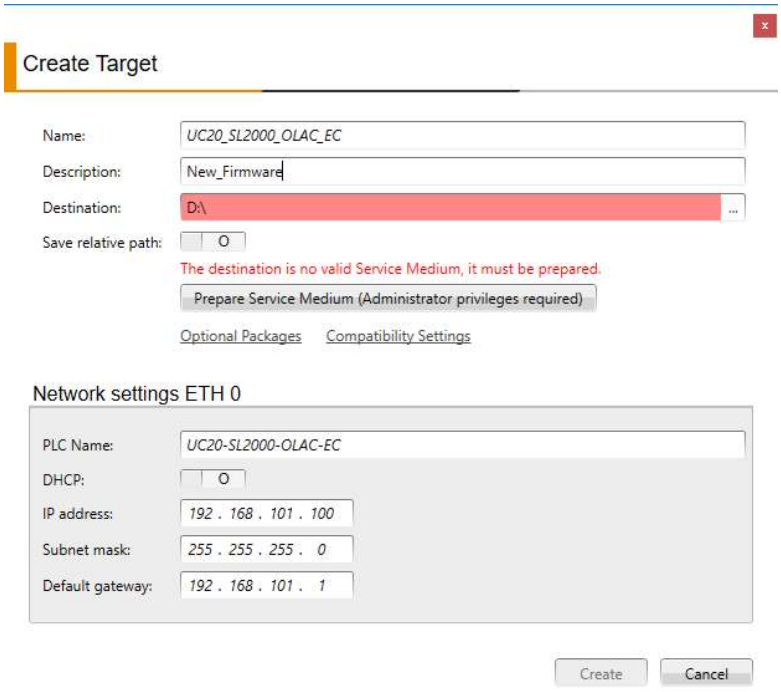


7.2. Start creating target file

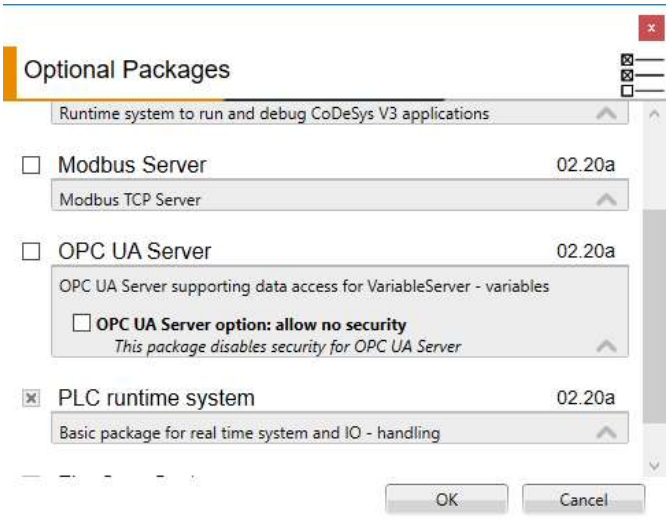
1. Find Project in your toolbar and click Create Target



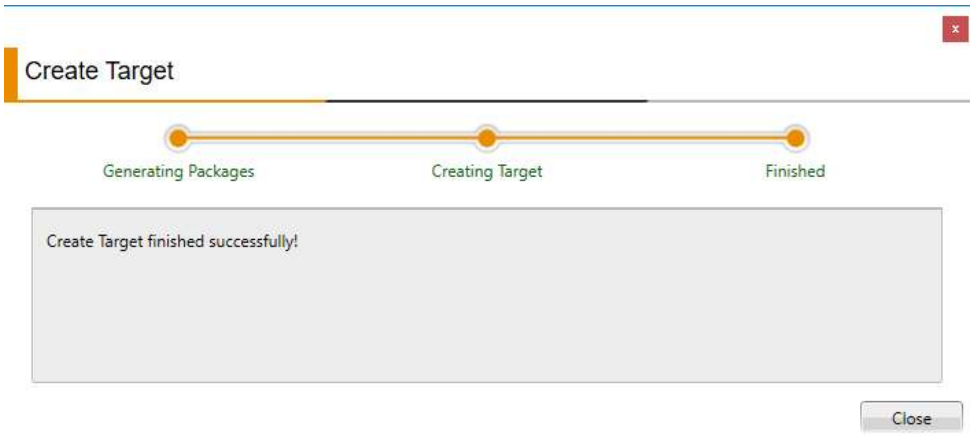
2. Select a Name and destination path (micro SD Card). If your micro SD card isn't a bootable device, you have to create one.



3. You have the possibility to choose optional packages like OPC-UA, Modbus,….



4. Choose your network settings. These are the settings for the X1 port of the controller.
5. Create the target. This will take several minutes.



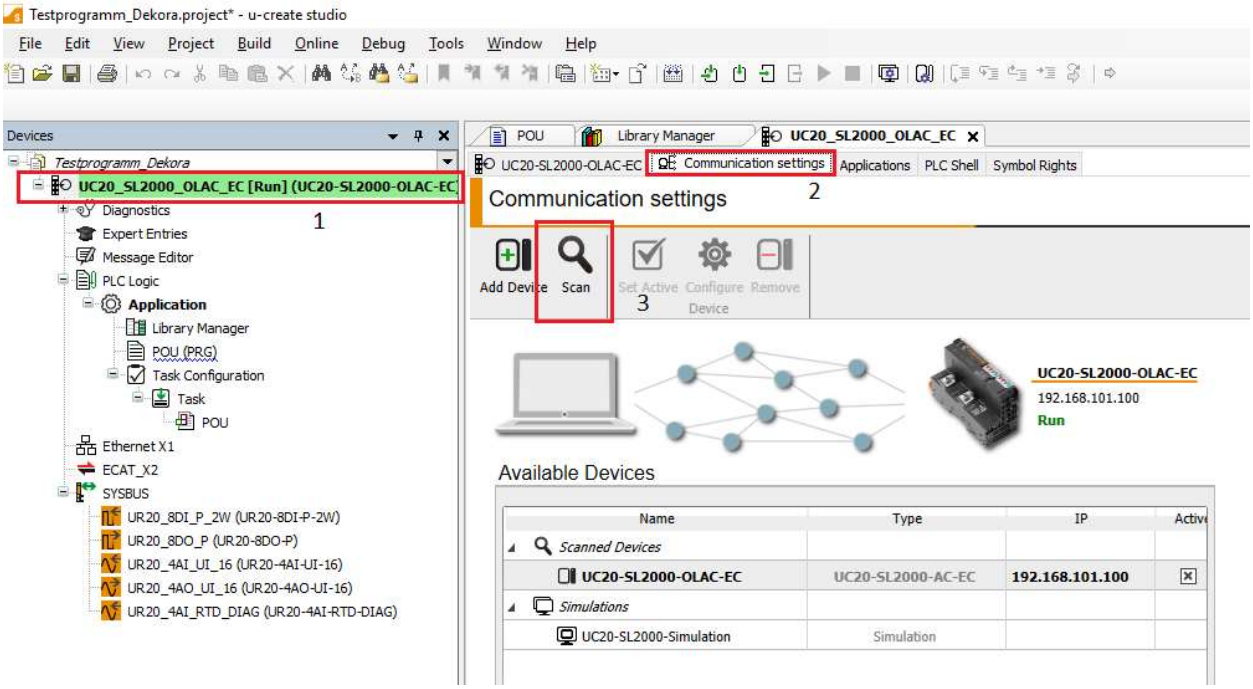
Note: The create target process will create a bootable SD card. This process may need administrator rights. If an error occurs during the create target process please close u-create studio and execute again with administrator rights.

7.3. Flashing firmware on the controller

If create target process was finished successfully, insert micro SD card into your u-control and reboot the device. Orange flashing “RUN led” indicates the installation process. When installation is finished successfully “RUN led” is constantly green. Remove sd card from u-control and restart your controller.

7.4. Final Check

Open u-create studio, double click on the controller and change to the tab communication settings.
Scan the network and activate your controller. You should find your controller at the configured network settings.



8. Setup of controller and activating runtime license via DevAdmin (web interface)

1. Open a web browser and enter the default IP address: http://192.168.101.100/.
   If you changed the IP address during the build target process, choose that address.
2. Enter the default login data:
   Username: Administrator
   Password: tobechanged
3. Change to the tab **Config** and configure the Time, Date and Local settings.
4. Change to tab **Licensing** and activate your runtime or the trial license.
5. Please change the **password** within DevAdmin and keep it protected from unauthorized access.
6. Restart the controller

NOTE:

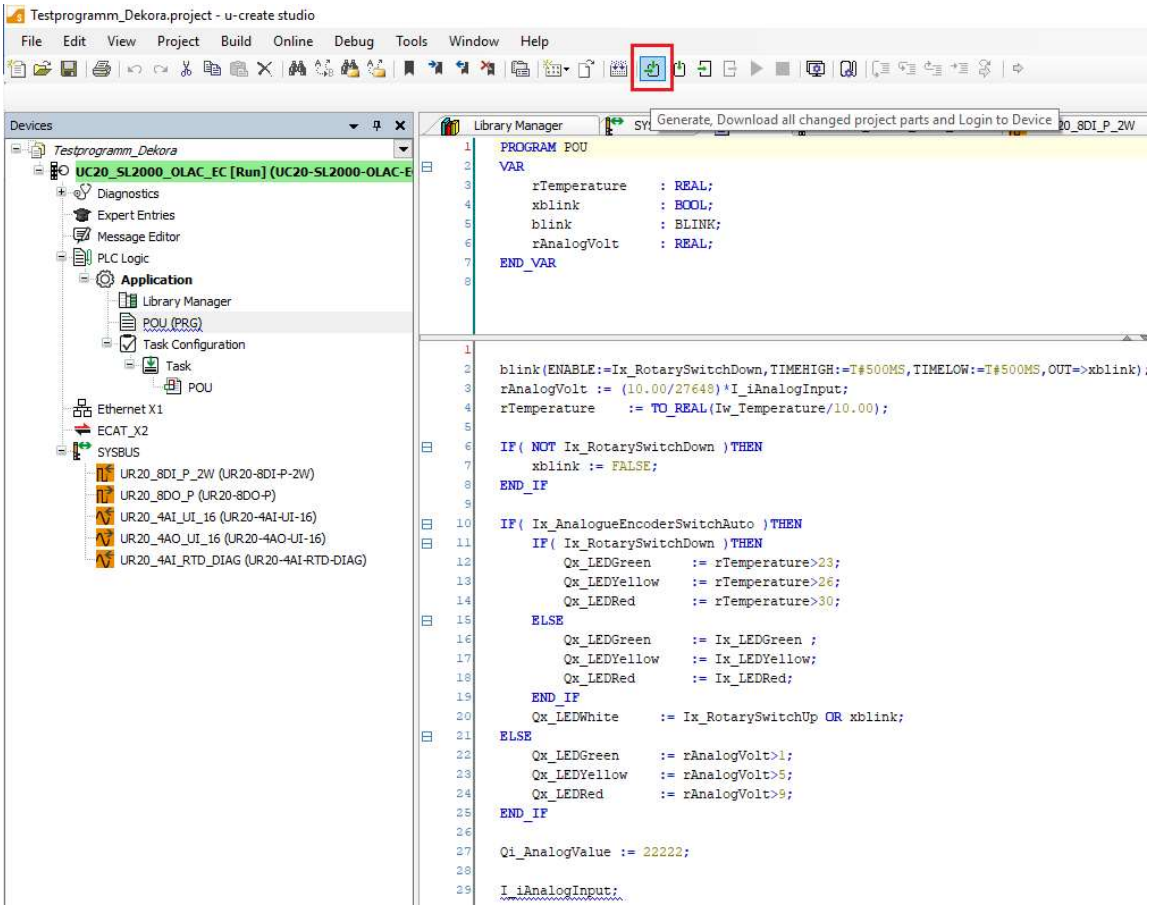
- u-create studio runtime can be used license-free as a trial version for 30 days. At the end of this period a license code is required. Be aware that a runtime license is needed for productive usage. To activate a trial version, click Licensing and then click Activate Trial License.

- A license can only be activated once. After the licensing process the software is bound to the device and can only be used there. In case of a device exchange, you can return the license using the DevAdmin tool for maximum two times. The license can be restored on the new device. After two exchanges Weidmüller has to be contacted.
- For a description of the specific features and functions of your software license, please refer to the u-create studio user manual. The manual as well as the general license terms of the u-create studio software can be downloaded from https://www.weidmueller.com/int/service/u_create_support.jsp.

9. Startup with u-create studio (short overview)

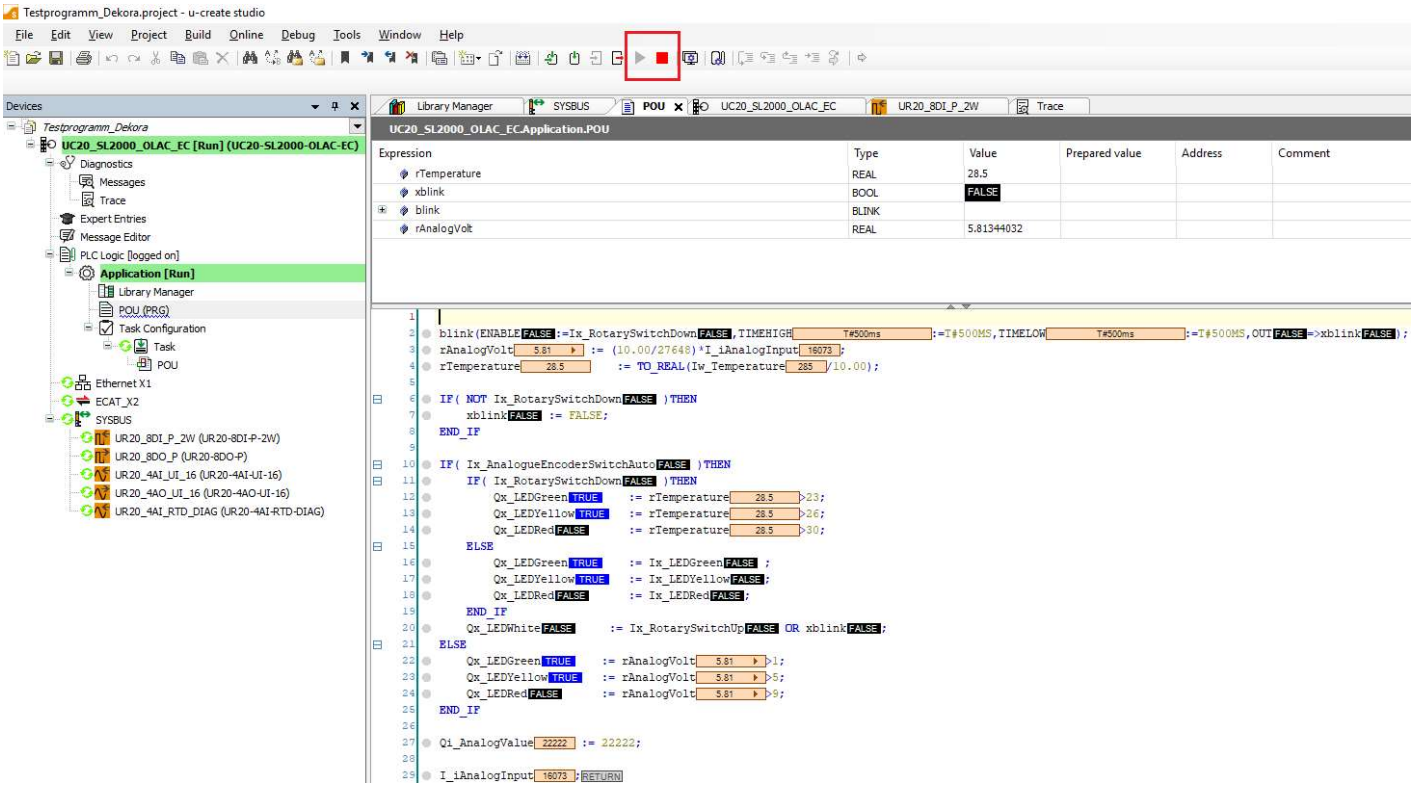
This is only a short overview which steps are necessary to create a working program. The exactly steps how to create the hardware config and an example program are explained in the Quick Start Guide “Creating a Demo Application”.

1. Open a new project and select “Default Project…” in the category “General”. Another possibility is to open an existing project.
2. Scan for your controller device and activate it. Explained in chapter 7.4.
3. Add the hardware modules and devices.
4. Create the IO mapping
5. Create your program code
6. Generate, Download and Login to Device



7. Enter the username and password.
   Username: Administrator
   Password: tobechanged (or your new Password, if changed before)

8. If everything works fine, you are online and now it is possible to start the application (if it isn't already running) and check the program.



10. Further Information

More information, manuals, example projects, Quick start guides, application notes you can find on our website.
https://www.weidmueller.com/int/service/u_create_support.jsp