

OPT04

Your First Application

TN-016
rev. 2



cybroTech

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1 Introduction

In the following chapters a detailed guide of a first project with OPT04 color touch screen is presented. It is assumed that the reader has the CyPro development tool and EasyBuilder 500 software already installed and is familiar with both, but no programming skill is required to follow the instructions.

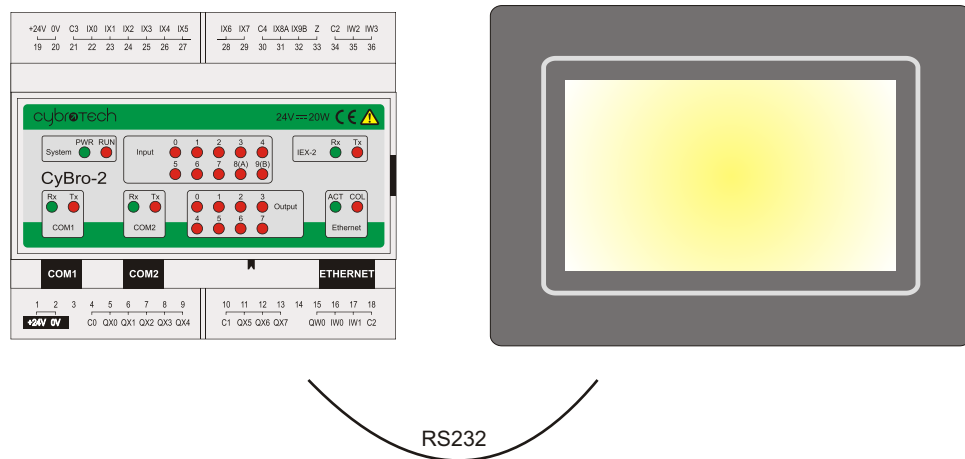
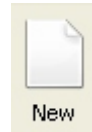


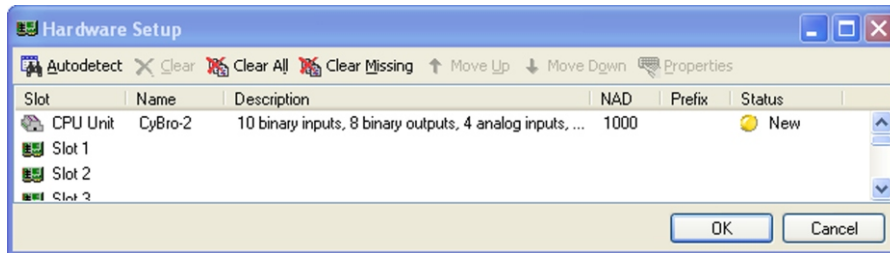
Figure 1: First OPT04 application

2 CyPro development tool

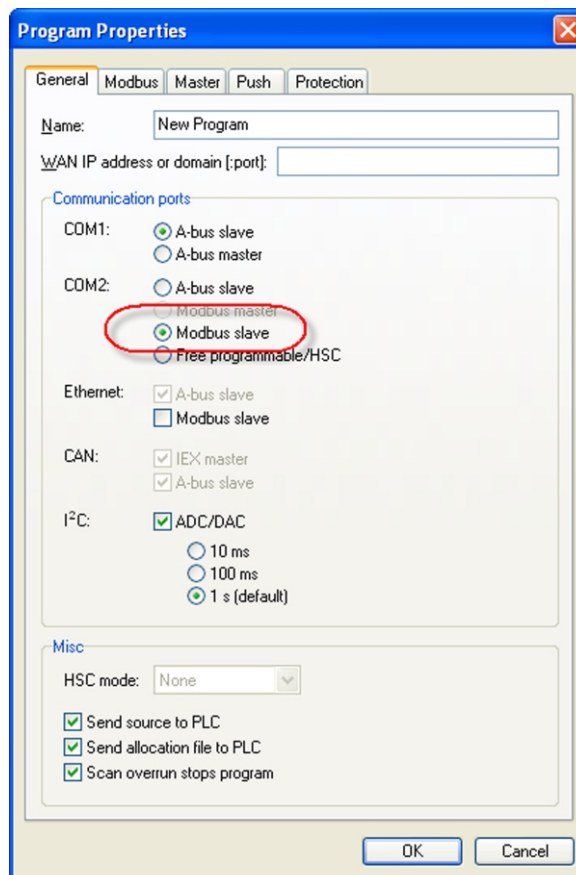
1. Start a **New** project in CyPro development tool.



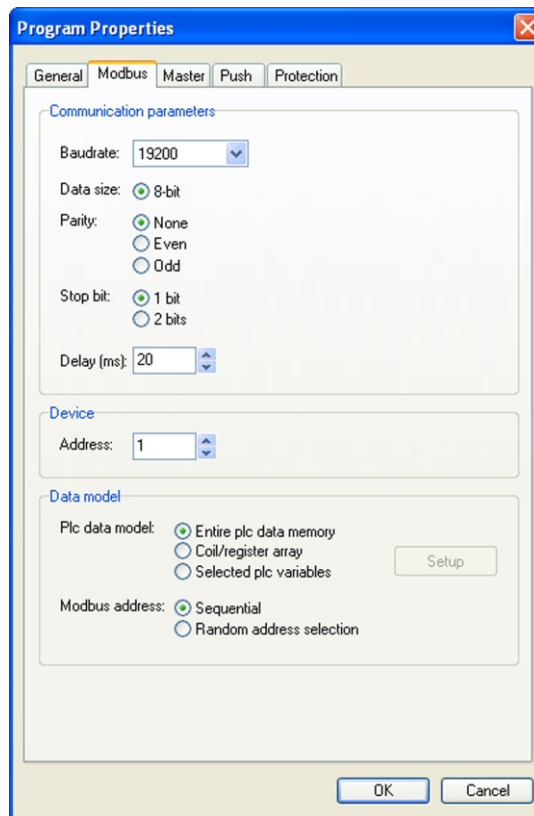
2. **Autodetect** the connected CyBro-2 controller. (Use CyPro User Manual for more information.)



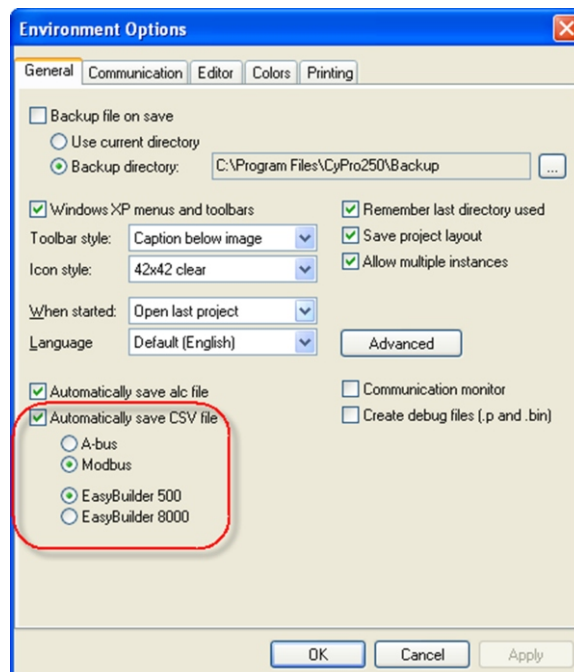
3. OPT04 and CyBro-2 can communicate by using Modbus protocol. Open **Program** -> **Configuration** and under **General** tab check **Modbus slave** for COM2 port.



Additional Modbus setting can be found under **Modbus** tab, but for our example the default settings will suffice.



4. Go to **Tools -> Environment Options...** and under **General** tab check **Automatically save CSV file, Modbus** and **EasyBuilder 500**. Click **OK** to confirm the settings.

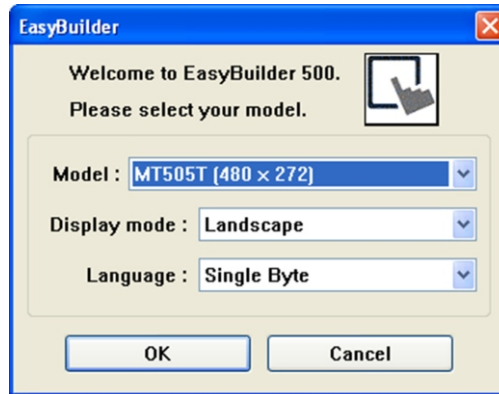


5. **Load** the application to CyBro-2.

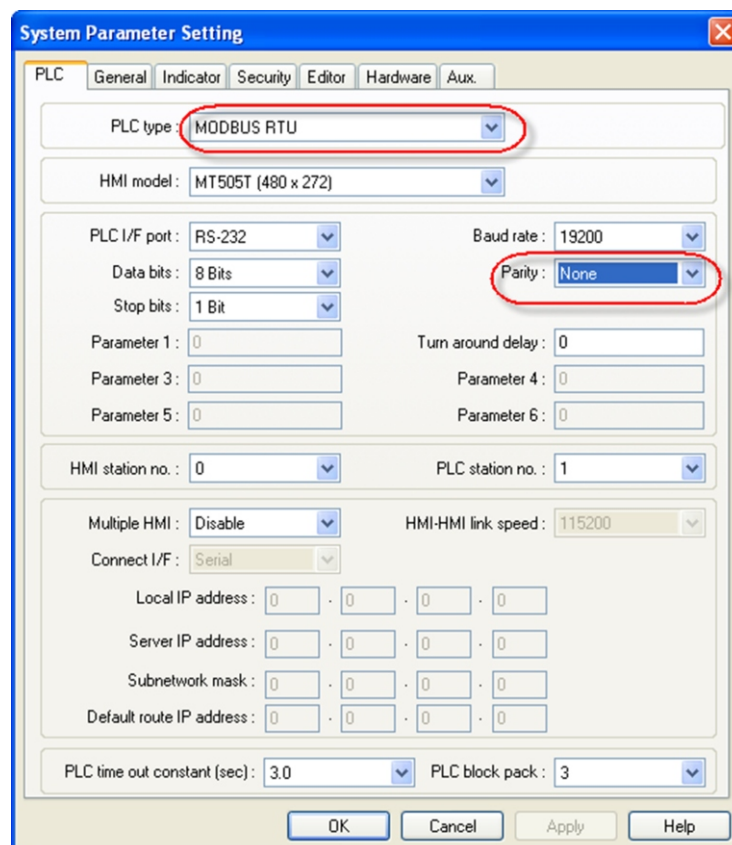
6. **Save** the project (e.g.: "OPT04 Demo.cyp") and **Exit** CyPro.

3 EasyBuilder 500

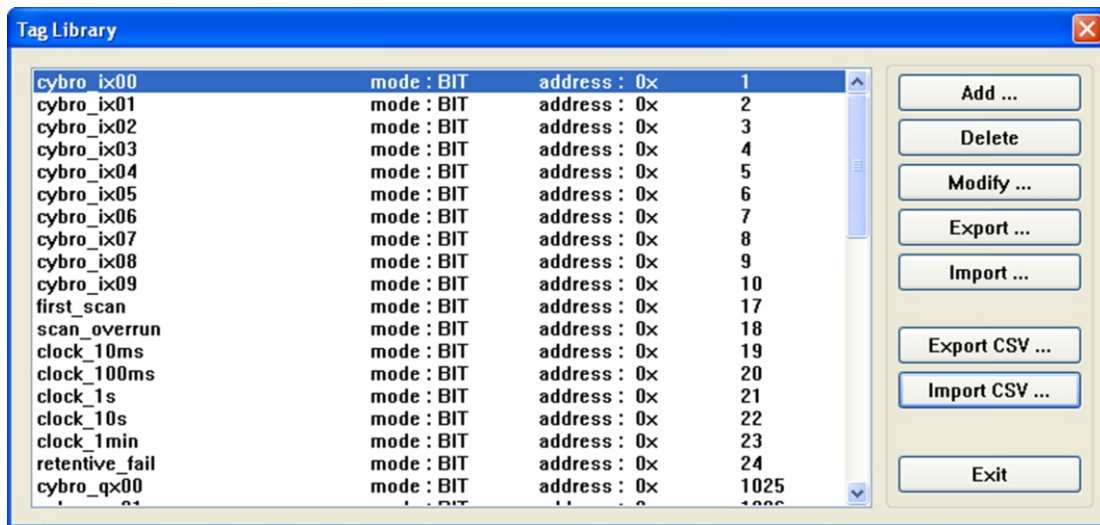
7. Start a **New** project in EasyBuilder 500 development tool and choose **MT505T** as the panel **Model**.



8. Go to **Edit** -> **System Parameters...** and under **PLC** tab set **MODBUS RTU** as PLC type and **Parity** to **None**; all other settings can be at the default value.



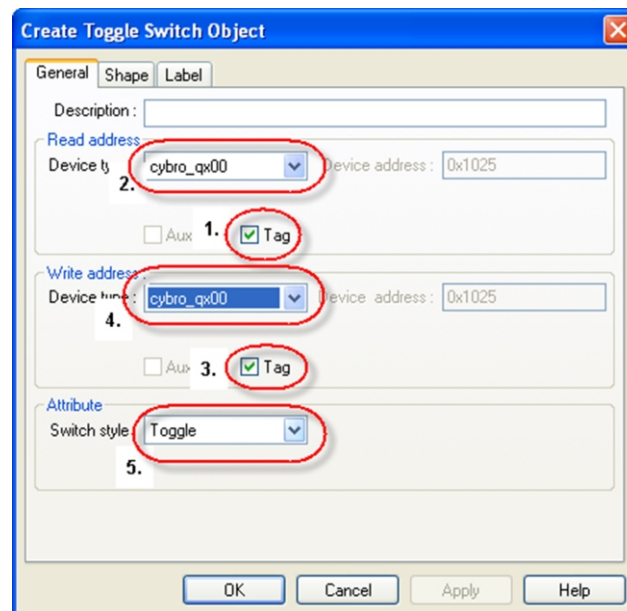
9. Go to **Library** -> **Tag...** and in the opened window import tags by clicking on **Import CSV...** button, locating and selecting the "OPT04 Demo.csv" file that was created in chapter 2. Successfully completed operation should produce a library window as shown below.



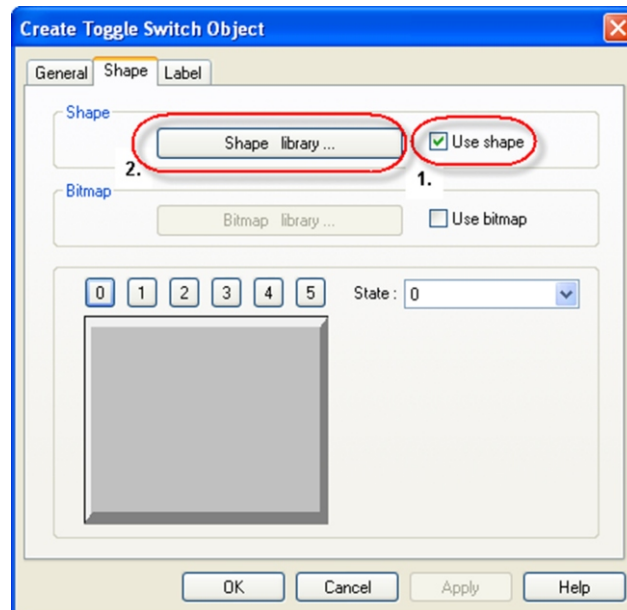
10. Click on **Exit** to close the Tag Library window.

11. In the main EasyDesigner view select the default window **WINDOW_001** if not already selected.

12. Create a new **Toggle switch** object on this window. This switch will control CyBro-2 output QX0.



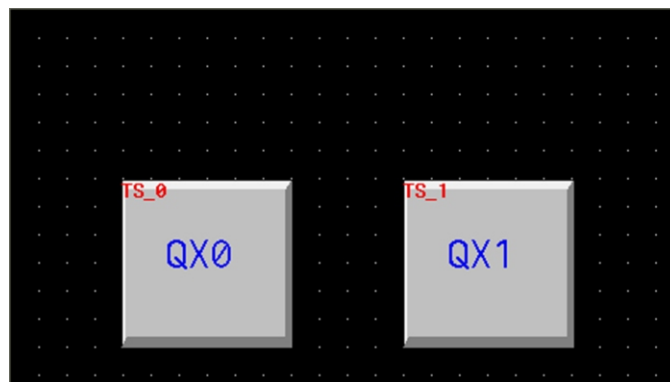
13. Under **Shape** tab check the **Use shape** and then click on the **Shape library...** and choose one of the pre-defined button shapes.



14. Under **Label** tab type "QX0" (without the " ") as the **Content**. Click **OK** to confirm the settings and to create the switch object.

15. Place the created object on the WINDOW_001.

16. Repeat step 12 through 15 and create another switch that will control CyBro-2's output QX1.



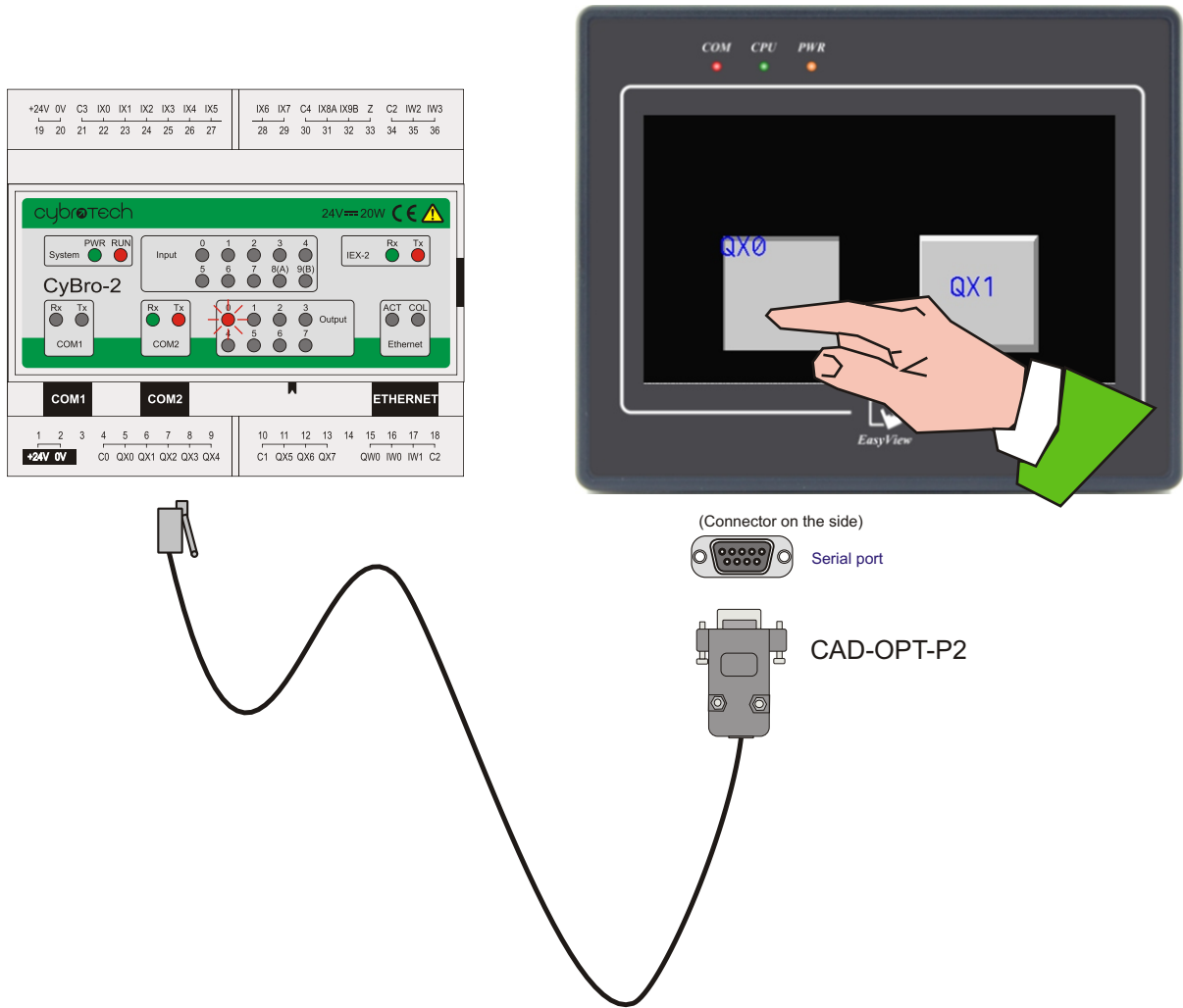
17. Increase the size of both switches.

18. **Save** the project ("OPT04 Demo.epj").

19. **Compile** the project.

20. Connect the OPT04 to the PC via serial COM port and **Download** the compiled files.

21. Using CAD-OPT-P2 communication cable connect the panel to COM2 port of CyBro-2 controller and test the operation by pressing switches on the OPT04.



4 Included files

Note: To access files, open **Attachments** tab in PDF viewing program, select file and press **Save**.

CyPro 2.5.2 application files:

- * *OPT04 Demo.cyp*
- * *OPT04 Demo.alc*
- * *OPT04 Demo.csv*

EasyBuilder 500 application files:

- * *OPT04 Demo.epj*
- * *OPT04 Demo.eob*