Application note: Control Builder M Creating a new project and configuring the hardware 800xA

After the installation and the first steps it's necessary to create a new project in Control Builder M. In this application note is described how to open and save a new project and to configure all connected extension modules to the 800M controller. The second part of this manual is how to update the firmware of the connected extension modules. In the last chapter will be explained how to use the integrated webserver and how to find the connected slaves.



This document is the first out of three documents. In the second application note "Application Note Connecting a Profinet slave to the 800xA" is described how to configure a Profinet network and how to insert slaves with an example of connecting an UMC100.3 democase via PNQ22 Profinet module. The third document "Application Note Connecting a Profibus slave to the 800xA" includes the configuration of a Profibus network and an example how to connect a UMC100.3 democase via PDP32.0 communication plug.

Creating a new project

- 1. Open Control Builder M
- 2. Click on the icon inside the Control Builder M to open a new project.







- 3. Choose the used controller (800M) and define the project name.
- 4. Press "OK"



5. The Control Builder M opens a project tree, filled with all standard menus and a predefined controller. Please check if it fits to the used controller, otherwise press with a right click on the controller and select the new one with "Replace Unit...".



6. The IP address will be set with a right click on "Controller 1" -> "Properties" -> "System Identity". Afterwards apply the changes by clicking on "OK"



7. The same IP address from "Controller 1" has to be set at "Ethernet port 1".



8. Please check if in the Hardware Library every used extension module is available (in our case Profibus module Cl854A and Profinet module Cl871). If one module is not available click with a right click on "Hardware" -> "Insert Library" and look for the correct library. If there more than one library for one device, always select the newest version.



9. With a right click on "Hardware 800M" -> "Insert Unit" the extension modules can be added to the hardware configuration (NOTE: When asking for the position you have to count from the controller! Communication modules will be connected on the left side of the controller and I/O extension modules on the right side. For each type of extension module (communication and IO) the first device next to the controller starts with position 1. In this example the Profinet module is on position 1 and the Profibus module on position 2.



Firmware update of Communication module

- 1. Change to online mode inside the Control Builder M (800M controller must be connected via Ethernet to the computer).
- 2. With a right click on "Controller_1 (173.20.0.211)" select "Remote System".
- 3. Select "Show downloaded items"



4. Select the application of the controller and delete it by clicking on "Remove Selected Applications".

		Downloa	ded Items		
item identity: Source Code	173.20. Report	0.211			
ontroller configur	ation				
Name	State	Compilation date	Compiling station	Signature	Remarks
Controller_	1 Active	2016-01-26-10:29:54.416	173.20.0.15	1931387471	
pplications					
Name	State	Compilation date	Compiling state	on Signature	Remarks
				R8923583	10
		ng 2016-01-26-10:29:54.34	+0 173.20.0.15	K8923583	10
Remove Selec			6 175.000.15	R8923583	
Remove Selec			1/3.000.13	K8923363	

- 5. Afterwards click on "Show Firmware Information" inside the window "Remote System"
- 6. Inside the window of the module which shall be updated choose the new version (select the newest library) and make a tick at "Download".
- 7. With the button "Download Firmware for Selected Units" the download will be started.

Firm	ware						
Pos	Unit	Name	Version	Date	New version	Down	load
0	PM864	FW864	6.1.0.2	12/23/2015	FW864 6.1.0.2 2015-12-23 (BasicHwLib 6.1-0)	~	
1	CI871	CI871FW	4.0-6	12/22/2015	CI871FW 4.0.6 (CI871PROFINETHWLib 3.0-18)	~	
2	C1854	FWCI854A	5.75-0	5/20/2015	FWCI854 (A)05.75-00/(B)06.01-29 (CI854PROFIBUSHwLib 2.11-40)	×	C
3	C1871	C1871FW	4.0-6	12/22/2015	CI871FW 4.0.6 (CI871PROFINETHWLb 3.0-18)	~	•
4	-		-			~	
5	-	-	-				
6	-	-				~	
7	-	-	-	-		~	
8	-		-			~	
9	-	-		-		~	
10	-		-			~	
11	-		-			~	
12	-	-	-				
Rem	arks			Purchase	Firmware for Selected Upta Refresh Close	Help	

8. Follow the instructions of the installation wizard.

Using the integrated Webserver of 800M controller

- 1. Activate the online connection between the computer and the 800M controller.
- 2. With a right click on the controller click on "Enable Web Server"
- 3. Open the Internet Explorer and type in the IP-address of the controller



4. The Internet Explorer will ask for the credentials. These will be: username: "service" and password: "ABB800xA" for standard and can be changed online.



5. After the login the communication module can be selected in "Cex Slot" and with the "LifeList" all connected (and powered) devices are displayed.

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🖕 🕘 173.20.0.211	
The web server will be disabled in 3 hours and 56 minutes II Default password is set, please change it II	
Service Diagnosis for CI Modules	Vers. 02.06-01
[Create service may [Charge password]	
Cex slot Slot 1 : Cl871 Co	
Name MAC IP Slot 1 CI871 png22-fbp.01 00:24:59:03:13:8f 192:168:1.10	
Errormemory Remaining storage: 31776 Bytes LifeList Set Devicename	
Get LMM by name Get LMM by ARID Let Device bink Journal Buffer CPU Load	
CurrentTime General Status Debug	

After 4 hours the server will be disabled automatically and has to be enabled manually again.

Version History

Version	What	Who	When
V1	Initial Document	Sebastian Koll	05.04.2016

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