Platform MX6 Software option S107 CODESYS EtherNet/IP Scanner

1 Identification

Identification	
Option ID	S107
Order number	S-05000309-0000
Short name	CODESYS EtherNet/IP Scanner
Brief description	With this software option, it is possible to integrate EtherNet/IP based slave devices (Adapter) into the IO image.
Revision ID document	V3.0

2 System requirements and restrictions

System requirements and restrictions								
Supported platforms and devices	Berghof PLC devices of the MX6 Platform (e.g.: MCs, CCs, DCs) Additional information regarding availability and compatibility can be found in options sec- tion of the product catalog.							
Firmware	MX6-PLC from version 1.16.0, CODESYS from 3.5 SP10 Patch 1							
Additional requirements	 Ethernet port 							
Restrictions	_							



3 Product description

This software option activates the license for the in CODESYS integrated Ethernet/IP scanner (master) for the device. The EtherNet/IP scanner expansion is based on the implementation of the company 3S for CODESYS.

With the EtherNet/IP configurator, the CODESYS development system supports the project planning of EtherNet/IP Networks. The configurator allows to parameterize the EtherNet/IP network and that the EtherNet/IP adapter (slave) is integrated into the application. Data can be exchanged with the connected adapters through the IO image. An acyclic access on remote Adapters is possible with the supplied service library.

For full documentation of the different Ethernet/IP Scanner and Adapter configuration menus please check the CODESYS Online help under:

https://help.codesys.com/webapp/_enic_f_scanner;product=core_EthernetIP_Configuration_Editor;version=3.5.15.0

4 Technical data

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Compatibility

Combination with Ethernet/IP scanner possible

5 Quick Start Guide

With this illustrated quick start guide it is possible to create a functional Ethernet/IP Scanner within a few minutes.

5.1 Preparatory tasks

In the web configuration of the PLC the "Static" mode for the ETH1 interface in the "Network Configuration menu" has to be selected. The ETH0 interface can't be in the same subnet while using Ethernet/IP. Save the configuration and reboot the PLC to activate the settings.

	Network Con	figuration
Configuration	COMMON	
CAN Time and Date Display	Hostname	270011200-00035
<u>FTP-Server</u> <u>SSH-Server</u> WEB-Server	DNS Server 1 DNS Server 2	0.0.0.0
Users SVC Config	ETHO	
Reset Config	Mode:	static 👻
System Info	IPAddress	169.254.255.35
Licenseinfo Screenshot	NetMask	255.255.255.0
<u>Update</u> Reboot	Gateway	0.0.0.0
PLC-Manager	ETH0:1	
<u>Control</u> <u>Config</u> <u>Application Info</u> Application Files	Mode:	inactive 👻
Font Files	ETH1	
Diagnostics		
<u>PLC Log</u> System Log	Mode:	static 🗸
<u>Ethernet</u> CAN	IPAddress	192.168.1.1
Storage System Dump	NetMask	255.255.255.0
<u>system bump</u>	Gateway	0.0.0.0
	ETUA.A	

5.2 Addition of the ethernet adapter

At first an ethernet adapter has to be integrated into the CODESYS project, through the CODESYS function "Add Device" by right clicking on the PLC-Device in the devices window in CODESYS.

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			[🗊	Add Device					
evices		- ₽ X	ΙΓ.						
Untitled 1			"	vame:					
🖻 👚 Device	(Berał	nof MX6 Control)	l í	Action:					
⊨≣ļ PLO	*	Cut		Append device) Plug de	evice 🔘 U	pdate device		
÷.0	₿ <mark>₽</mark> ₽	Сору	r						
	e.	Paste		String for a fulltext search	<all vendors=""></all>				
	\times	Delete		Name	/endor			Description	
	æ	Properties		Miscellaneous Fieldbuses					
	*::	Add Object 🕨	E CANbus						
	6	Add Folder	B - Brot EtherCAT						
		Add Device		Ethernet Adapter					
		Update Device		3.5.15.0	Ethernet Link.				
	n° .	Edit Object		EtherNet/IP					
		Edit Object With		Home&Building Automation					

5.3 Configuration of the ethernet adapter

With a double click on the newly added Ethernet adapter you can open the configuration. Set the Ethernet interface and IP settings same as configured in the webinterface.

Devices 🗸 🗸 🗶	Ethernet 🗙					
🖃 🎒 Untitled1 💽						
Device (Berghof MX6 Control)	General	Interface: eth1				
PLC Logic						
Application	Ethernet Device Parameters	IP Address 192 . 168 . 1 . 1				
📶 Library Manager	Chatura	Subnet Mask 255 . 255 . 255 . 0				
PLC_PRG (PRG)	Status					
🖹 🎆 Task Configuration	Ethernet Device I/O Mapping	Default Gateway 0 . 0 . 0 . 0				
🖮 🍲 MainTask		Adjust Operating System Settings				
PLC_PRG	Ethernet Device IEC Objects					
Ethernet (Ethernet)						
	Information					

5.4 Addition of the Ethernet/IP Scanner

After that the Ethernet/IP Scanner can be added under the ethernet adapter.

Devices			• 7	×						
Untitled 1				•						
🖮 📺 Device (Berghof MX6 Cont	trol)									
⊟ In PLC Logic			1	Add D	evice					\times
🖹 🧔 Application				_						
👘 Library Manag	ger		N	lame						•••
PLC_PRG (PR	G)			Action						
🖃 🔛 Task Configur	ration			Appe	end device 🔘 Insert device 🔵 P	lug dev	vice 🔿 U	Ipdate device		
🗏 📚 MainTask										
	PRG			String for	r a fulltext search		Vendor	<all vendors=""></all>		\sim
Ethernet (Ethernet)	ж	Cut		Name		Ven	dor		Version	Description
	Ba .	Copy		🖃 🗊 e	Fieldbuses					
	A	Paste		.	⊖ EtherNet/IP					
	N Delete				😐 👄 EtherNet/IP Local Adapter					
	\cap				😑 👄 EtherNet/IP Scanner					
		Refactoring	•	L	🛄 EtherNet/IP Scanner	3S -	Smart Sof	tware Solutions GmbH	3.5.15.20	EtherNet/IP S
	Ę,	Properties			Modbus					
	See	Add Object		±,	Profinet IO					
	223	Add Object								
		Add Folder								
		Add Device								
		Insert Device								

5.5 Configuration of the Ethernet/IP Scanner

With a double click on the newly added Ethernet/IP Scanner, you can open the configuration. The only option available is to reestablish connections to Ethernet/IP adapters automatically.

5.6 Addition of the Ethernet/IP Adapter

By using the "Add Device" function on the Ethernet/IP Scanner it is now possible to add your Ethernet/IP Adapters (devices). Please be aware that your Ethernet/IP Adapater will only be shown in the device list the hardware description file (EDS) has been installed in CODESYS.



5.7 Configuration of the Ethernet/IP Adapter

With a double click on the newly added Ethernet/IP Adapter, you can open the configuration. Check that the IP of the Ethernet/IP Adapter is set the same as the actual device and check the Keying Options.

Devices 👻 🕈 🗙	Universal_Robot 🗙		
Untitled 1 Untitled 1 Device (Berghof MX6 Control)	General	Address Settings	
i - O Application	Connections	IP address 192 . 168 . 0 . 2	EtherNet/IP [*]
- ibrary Manager - i PLC_PRG (PRG)	Assemblies		
	User-Defined Parameters	Electronic Keying Keying Options	
EtherNet_IP_Scanner.IOCycle	Log	Compatibility check	
	EtherNet/IP I/O Mapping	Strict identity check Check device type 43	
	EtherNet/IP IEC Objects	Check vendor ID 1399	
□ I Ethernet (Ethernet) □ III EtherNet IP_Scanner (EtherNet/IP Scanner)	Status	Check product code	
Universal_Robot (Universal Robot)	Information	Check major revision 1	
		Restore Default Values	

Repeat the adding and configuration of Ethernet/IP Adapters until the device configuration in CODESYS matches the real hardware configuration which is connected to the PLC. When this is done download the project onto the PLC and start the application.

Your contact partner can be reached under:

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