Installationsanleitung ctrlX & Factory I/O

ctrlX installieren und einrichten

- 1. Installation von ctrlX WORKS 1.18.1 oder höher
- 2. Virtual Control mit den folgenden Settings anlegen:

Devices > VirtualControl-1					en • ③ rexroth
VirtualControl-1					
ctrlX WO	RKS				A Basics Extended
Device overview Find the ctrlX CORE hardwa hardware. Go to documentation	are in the network or add a ctrlX COREvi	tual and develop your applications - even without	Device-centered e Navigate to the ctrUX CORE of engineering.	engineering r ctrix COREwirtual homepage and start	tetwork adapter
1 item Name	State	Туре	IP addresses	ی Actions	+ Redear ansistation: Instel® Handware Accelerated Execution Manager \checkmark © Rear longs writing
VirtualControl-1	Online	ctrlX CORE ^{virtual}	192.168.1.1	D 2 1	Uner Image 3go114ge.user.qcow2
					Save Cancel * Required Information

3. Virtual Control starten und mit Klick auf "Virtual Control-1" einloggen

CtrUX WORKS × Control Contro Control Control Control Control Control	Devices Devices				ev~ ⊙ rexroth
	Device overview	5d a ctrlx COREvirtual and develop your applications - even		Device-centered engineering Navigate to the ctrlX CORE or ctrlX COREstrutual homepage as	
	1 item				+ 0
	Name VirtualControl-1	State	Type ctriX COREvirtual	IP addresses	Actions
Open VirtuelCon	trol 1 page- https://[fe80-dcad-beff-fe00-1]/				

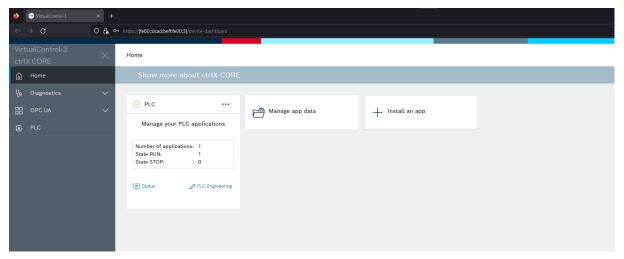
4. Einloggen mit: Be

enutzer:	boschrexroth	
enutzer:	boschrexroth	

Passwort: boschrexrot	h
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	the ctrlX CORE ^{virtual} is limited to perative usage is not intended.	development, evaluation and	
Login			
Username * boschrexro	oth		
Password *			0
		Logi	n

5. Auf "Install an app" klicken



6. PLC und OPC-UA App von lokalem Verzeichnis installieren → Dateien im heruntergeladenen Demo Ordner

Installed apps								
OPC UA Server CtrlX	1.12.5 OPC UA Server Provide data to an OPC UA Client	Uninstall	PLC CtriX	1.18.2 PLC Develop and run PLC applications	Uninstall			

7. Unter Server Settings "NONE Mode" aktivieren & Änderungen speichern

Name	Endpoint url	Active sessions	Status	Actions		Catura	Conve			
						Setup	Serve	er.		
Server	opc.tcp://VirtualControl-3:4840	0	RUNNING	I	~	Certificat	Endpoi	nt Ses	sion Sub	scription
						Port number 4840				
						Allow usage of Yes	seprecated se	curity polici	les	\sim
						Security Co	nfigurati	ons		
						Policy	Mode None	Sign	Sign and Encrypt	Action
						NONE	\checkmark			ø
						BASIC256 SHA256		н.		ø
					1	AES128_S HA256_R5 AOAEP				ø
						AES256_S HA256_RS APSS				ø
						User Token	Configu	rations		
						Туре	Policy		Action	
						ANONYMO US	NONE		Ð	
						USERNAM E	NONE		Ð	
						USERNAM E	AES256 HA256 APSS		ø	

8. PLC von "Operating" auf "Service" setzen

VirtualControl 3 ctrIX CORE	Home		1 🖻 A	in * 🕐	rexroth
A Home		▷ 0;			~
lga Diagnostics ∨ DD OPC UA ∨	⊙ PLC ···· → Install an app	□ Se ⊗ Se			
Qu 90	Mange your FLC applications Number of optications: 1 Manage your FLC applications: 1 <				
 Settings About 					

- 9. Schaltfläche "Install an app" öffnen
- 10. OPC UA Server auswählen

11. Schaltfläche "Disable" aktivieren

VirtualControl-3 ctrUX CORE	Settings > Apps	Service - Q 🖻 R EN - 🕐 rexroth
â Home	Apps	
Usgnostics V B onc UA V C PLC The app will be disabled, the reenabled and updated and	Construction Provide data to as OPP: UA Cleant Construction @ Uninstall Construction @ Uninstall And existend from the system. If can be: time: Generated data is net tool.	×
	The OPC UX Server app provides a Landactized communication according to the OPC UNited Architecture (OPC UX) standard, As OPC UX server, the cttlX COTE provides all device data such as PLC, Motion Control Toppher with the OPC UX Client app, a standardized machine to machine (MXM) communication is possible.	and system information to all connected OPC UA clients.
Settings		
About About		

12. Auf "Enable" klicken, damit die Änderungen übernommen werden

VirtualControl-3 ×	Settings > Apps	App "rewroth-opcua-sorver" disabled successfully ×	Service 🗸 🗘 🖻 A EN 🔹 🕐 rexroth
	Apps		
	OPC UA Server 1.12.5		×
	Enable 👻 Uninstall		
	Enables this app		
	Enables to slapp		
	The OPC UA Server app provides a standardized communication according to the OPC U Together with the OPC UA Client app, a standardized machine-to-machine (M2M) commu	iffed Architecture (OPC UA) standard. As OPC UA server, the ctrDX CORE provides all device data such as PLC, Motion Contro mication is possible.	l and system information to all connected OPC UA clients.
③ Settings			
① About			

Auf der nächsten Seite folgen die Einstellungen im ctrlX PLC-Projekt.

Einstellungen im ctrlX PLC-Projekt:

1. "Scan Network" \rightarrow Aktives Device suchen und mit IP-Adresse einloggen

Device X					
Communication Settings Applications Backup and Restore Files Log PLC	Settings PLC Shell Users and Groups	Access Rights Symbol Rights	Elicensed Software Metrics	Task Deployment Sta	tus 🕕 Information
Scan Network Gateway - Device -					
Ctrix-PLC-Gateway Ctrix-PLC-Gateway IP-Address: Iocalhost Port: 1217	VirtualControl-1 (active) Device Name: VirtualControl-1 Device Address: 0332.5001 Target ID: 1001 0081 Target Type: 4056 Target Vendor: Bosch Rexroth AG Target Version: 0.0.3.0	► ▼			

2. "Allow anonymous login" aktivieren:

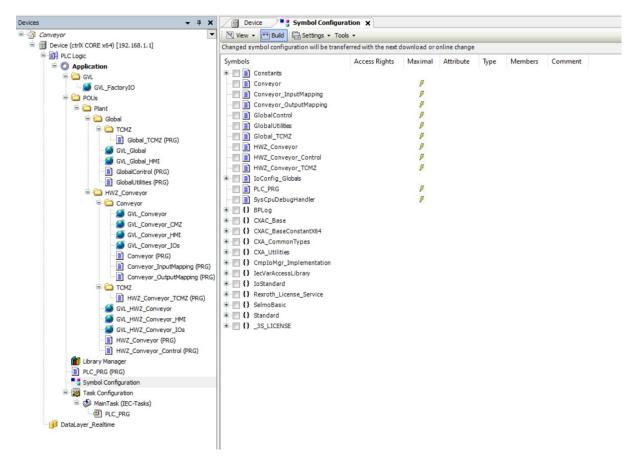
ChUsets AlexanderSchlager/Selmo Technology GmbH/SELMO 0 File Edit View Project Build Online Debug Tex	Imparisation - Dokumentel/Selmo PM/Uemos/strill/Conveyor/strill/Conveyor project - strill P	A PLC Engineering		- <i>B</i> ×
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Devices v # X	Conversion (republicacións)	601_Pactory00 🍡 Synhol Configuration 🖉 Device: 🗙 👔 Conveyor, DubystReaging 🖓 601_Conveyor		
8 (2) Conveyor (* 8 (2) Denice (192,163.1.1)		A C Shell - Uners and Groupe - Access Rights - Symbol Rights - 🕴 Livensed Software Netrice - Task Deployment - Steiner 🕕 Information		
 Composition that is a second se	Start Helmes + Deney +	Image: control image		
C State Street	Tour device can be secured, Learn more	OK Cancel		
Messages - Total Demor(t), Owaming(t), Omessage(t)				- 7 ×
- 0 0 e	emantis) 💁 O sværningski 🕒 O messaget(s) 🗙 🕷			Preject Direct Postion
			Seven all Laponauth interface 0 € 8 = Records √	Se (Sg. Anjacose (nater) 🔇 er 😹
_	Bibliothek instal ense Service, 0. 1.0.0 (Bosch Re		Rexroth_License_Service	0.1.0.0
4. Selm	o Bibliothek inst	tallieren		

🗐 📃 Selmo Basic = Selmo Basic, 3.0.3.13 (Selmo Technology GmbH)

SelmoBasic 3.0.3.13

(Die Bibliothek Dateien finden Sie im heruntergeladenen Demo Ordner.)

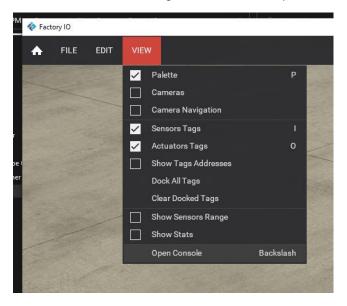
5. Im Register "Symbol Configuration" auf "Build" klicken:



Weiter zu den Einstellungen von Factory I/O auf der nächsten Seite.

Einstellungen Factory I/O:

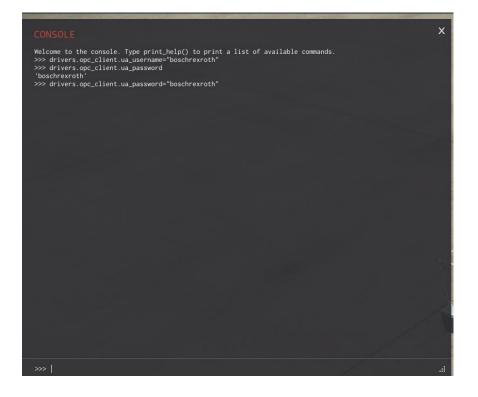
1. Unter dem Register "VIEW" "Open Console" auswählen



2. Benutzername ändern für OPC-UA Anmeldung: drivers.opc_client.ua_username="boschrexroth"



3. Passwort ändern für OPC-UA Anmeldung: drivers.opc_client.ua_password="boschrexroth"



4. Über Host Name den Server suchen: opc.tcp://virtualcontrol Folgende Einstellungen müssen getroffen sein:

Server Host Name opc.top://virtualcontrol-3 BROWSE SERVERS OPC Server ctrtX OPC UA Server @ Control (UA) ttrtX OPC UA Server @ Control (UA) BROWSE BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryIO			
opc.tcp://virtualcontrol-3 BROWSE SERVERS OPC Server ctriX OPC UA Server @ Control (UA) Items/Nodes BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryI0	Server		
BROWSE SERVERS OPC Server dtriX OPC UA Server @ Control (UA) ✓ Items/Nodes ✓ BROWSE ✓ Limit 32 Filter names that start with: No filter Filter names that contain: ✓ GVL_FactoryI0 ✓	Host Name		
OPC Server ctrlX OPC UA Server @ Control (UA) Items/Nodes BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryI0	opc.tcp://virtualcontrol-3		
strik OPC UA Server @ Control (UA) Items/Nodes BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryI0	BROWSE SERVERS		
Items/Nodes BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryI0	OPC Server		
BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryI0	ctrlX OPC UA Server @ Control (UA)	~	
BROWSE Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryI0			
Limit 32 Filter names that start with: No filter Filter names that contain: GVL_FactoryIO	Items/Nodes		
32 Filter names that start with: No filter Filter names that contain: GVL_Factory10	BROWSE		
32 Filter names that start with: No filter Filter names that contain: GVL_Factory10	Liesit		
Filter names that start with: No filter Filter names that contain: GVL_Factory10			
No filter Filter names that contain: GVL_FactoryIO			
Filter names that contain: GVL_FactoryIO			
GVL_FactoryI0	No filter		
, 	Filter names that contain:		
DEFAULT	GVL_FactoryIO		
DEFAULT			
	DEFAULT		

Weiter in Virtualcontrol

1. Freigabe des jeweiligen UPC-UA Clients unter "Settings" & "Certificates & Keys" nach dem erstmaligen Anmeldeversuch (Selmo Studio und FactoryIO)

VirtualControl.3 ctrIX CORE	Settings				service 🗸 🛱 R EN + 🕐 rexroth
읍 Home 및s Diagnostics ∽ 맘 OPC LIA ∽	manage appe	Licenses Marage beenses			
E PLC	Backup & Restore Back up and realizes the strick CORE	Ge Data Layer Edit los level data rodes	Date & time Set date and time	(i) Information System informations and elefennic type plate	Scheduler Manage basis and imme
	Setup Save and transfer sectorys and resources	C Shutdown Shutdows and relocat	U Storage Marage and semonalizemedia		
	Certificates & Keys Manage certificates and lasys	R Users & Permissions Manage sames, permissions			
	Hosts Manage host table	Network Diagnostics Analyse network problems	Network Discovery Manage network discovery sensities	Network Interfaces	Proxy Manage procy settings
	SSH Set up terminal access				
Settings					
① About					

2. Service "OPC UA Server" auswählen

VirtualControl 3 × ctrlX CORE	Settings > Certificates & Keys		Service - D 🖻 A EN - O	rexroth
🛱 Hame	Certificates & Keys			
q_2 Diagnostics \sim				
🗄 OPC UA 🗸 🗸	6 items			=
B PLC	Service	Description		
	Data Layer	Stores keys that are used for secure Data Layer communication (curveMQ)		
	Web Server	Manage webserver and token validation credentials		
	Network security	Keys and certificates required for client and server-side authentication		
	SSH	Manage the SSH host keys		
	OPC UA Server	Stores keys and certificates for the OPC UA Server		
	Setup	Authentication keys required for autorun		
Settings				
About About				

3. Als vertrauenswürdig "Trusted" markieren

VirtualControl-3 ctrlX CORE	×	Settings > Certificates & Keys > OPC UA Server				Service 🗸 🛱 🕺	en • 🕐 🕇	exroth
A Home		OPC UA Server						
Us Diagnostics	~							
D OPC UA	~	Certificates Keys						
B PLC		3 items						1
		Name	Category	Issued for	Valid from (UTC)	Valid until (UTC)	Renewal	Actions
	L	resroth-opcua-server2048.der	Own	Common name: strbt OPC UA Server @ Control Organization: Bosch Rexroth AG	2023-03-13 08:50:04	2122-02-17 08:50:04	not configured	
		76783D41D1FE44E69A797C9E1D1D224958692E83.c	de Trusted	Common name: Selmo.Core	2022-11-27 23:00:00	2042-11-27 23:00:00	n.a.	
	L	8FEA6ADB7315DF4977F62EE653C045609EF7EB79.d	e Trusted	Common name: UaExpert@SO-NB-SCHLAGER Organization: Selmo	2022-11-28 14:26:26	2027-11-27 14:26:26	n.a.	
Settings								
About								

OPC-UA Settings im Selmo Studio:

Target System		
Select Target System:		
Bosch ctrlX COREvirtual	~	
Target OPC UA Settings	;	
OPC Server Address:		
opc.tcp://virtualcontrol-3		
OPC Server Security Policy:		
None	~	
OPC Server Security Mode:		
None	*	
OPC Username:		
boschrexroth		
OPC Password:		
•••••	0	
Test OPC connection		

Anmeldedaten:

Passwort: boschrexroth

OPC Server Address: den verwendeten Virtual Control angeben