

Application example for using an RCCA-A without HMI

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Preconditions

To understand this example, the following components are required: RCCA-A with current firmware (V1.0.21 or newer) GSMDL file for the TST RCCA, Siemens S7-1200 PLC, Siemens TIA Portal development environment not older than version V15. TST FUF2/FU3F with activated RCCA functionality and activated parameter P.804 = 1.

To simplify the interaction between PG, PLC and RCCA, the use of an Ethernet switch is recommended. The address range of the adapter used in the PG must be set to 192.168.0.xxx/24.

Hardware configuration

Create a new project and add your control unit to the project. A Siemens S7-1212F DC/DC/DC is used in the example. A safety PLC is not necessarily required for communication via an RCCA-A. The only requirement is the support of ProfiNet.




If you have already integrated the GSDML into your project, select the hardware variant "TST-RCCA A" from the hardware catalogue under "Other field devices" -> "PROFINET IO" -> "I/O" -> "FEIG ELECTRONIC GmbH" -> "Door control" and add it to your project.

Establish the ProfiNet connection between the control unit and RCCA under "Network view".

Program blocks

Tags

To simplify the subsequent wiring, create a variable table with the control flags for open, stop and close commands in a suitable flag area.

Default tag table				
		Name	Data type	Address
1		m_Open	Bool	%M100.0
2		m_Stop	Bool	%M100.1
3		m_Close	Bool	%M100.2

Example library

Open "Feig RCCA V1.1" under "Global libraries" and copy "Module" and "PLC data types" from the templates to the appropriate place in your project.

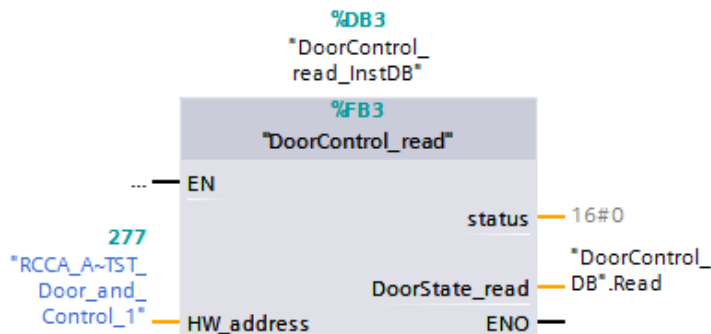
Program sequence

The programme is processed cyclically in OB1 of the control programme.

Create a sequence according to the scheme: Read data, edit commands, write data.

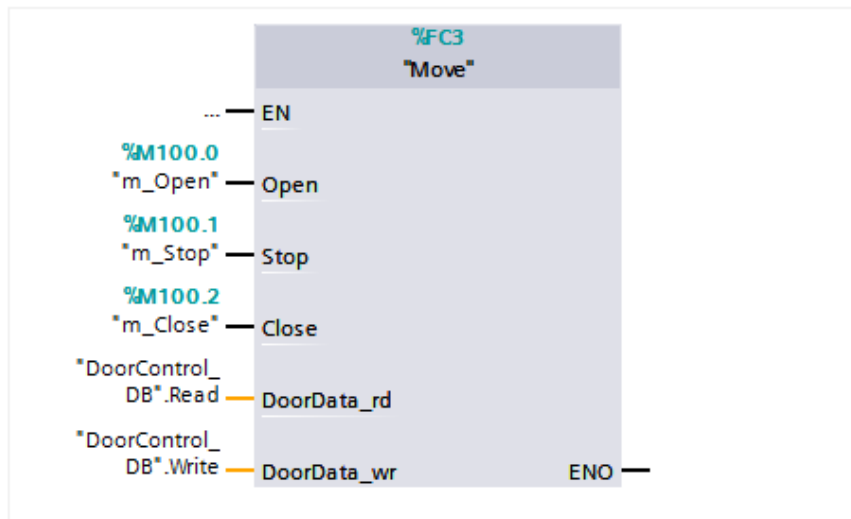
▼ **Network 1: Read door data**

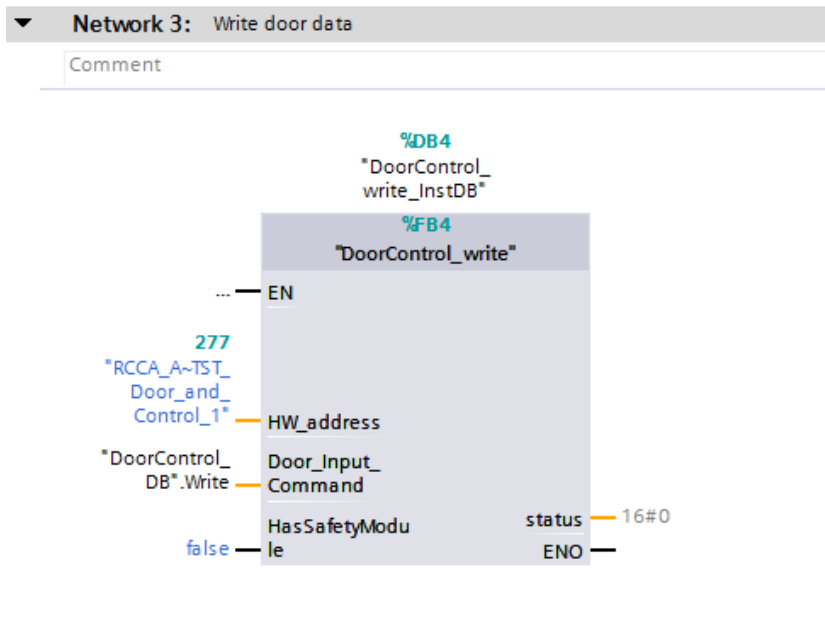
Comment



▼ **Network 2: Process move command**

Comment





The hardware address of the module "RCCA_A~TST_Door_and_Control_1" can be found in the PLC variables under "Standard variables".

Watch and control

Now translate and transfer the hardware configuration and control programme. Create a new monitoring table under "Monitoring and force tables", open it and add the control flags m_open, m_stop and m_close to it.

The door control unit now accepts movement commands via the force table.

S7-1200_RCCA_A ▶ PLC_1 [CPU 1212FC DC/DC/DC] ▶ Watch and force tables ▶ Watch table_1

	i	Name	Address	Display format	Monitor value	Modify value	
1		"m_Open"	%M100.0	Bool		FALSE	<input checked="" type="checkbox"/>
2		"m_Stop"	%M100.1	Bool		FALSE	<input checked="" type="checkbox"/>
3		"m_Close"	%M100.2	Bool		FALSE	<input checked="" type="checkbox"/>

All other available door control information can be called up via the DB "DoorControl_DB".