

# CM574-RS

Coupler Communication and CPU  
Coprocessor

# CM574-RS - Serial Communication Module Module for Advanced Applications



- CM574-RS can be used as a separate Sub-CPU with RUN / STOP state coupled with the PM5xx CPU's RUN / STOP
- Four additional CM574 Coupler modules, powerful in one system
- Programmable with standard PS501
- Two serial communication lines

# CM574-RS - Serial Communication Module

- Two independent serial communication lines RS232 / RS485



| Protocol      | Description  | COM1/ COM2 |
|---------------|--|------------|
| Online access | Online access for CoDeSys via serial driver        | x          |
| Modbus        | Modbus RTU, master or slave                        | x          |
| ASCII         | Any protocol with Function block COM_SEND, COM_REC | x          |
| SysLibCom     | Support for SysLibCom.lib library blocks           | x          |
| Multi         | Switch between two protocols                       | x          |
| CS31 bus      | CS31-bus master                                    | x          |

- Up to 4 communication modules on terminal base
- Freely programmable with PS501
- Programmable LED indication (LED\_SET)

# CM574-RS - Serial Communication Module

## User Program Size and Operands

| Parameter / CPU                                  | CM574-RS                    |
|--|-----------------------------|
| Available from PS501 version<br>firmware version | PS 501 V2.x<br>CM574 V2.0.2 |
| User program (code)                              | 256 kB                      |
| Number of POUs                                   | 1024                        |
| Number of tasks                                  | 3                           |
| Floating point processor                         | no                          |
| Global and local variables: VAR or VAR GLOBAL    | 128 kB                      |
| Addressable flag area: VAR AT %Mx.y              | 128 kB                      |
| Persistent area: VAR AT %Rx.y                    | 0 kB                        |
| Inputs %I  | 4 kB                        |
| Outputs %Q                                       | 4 kB                        |
| FLASH for user data                              | 2 x 64 = 128 kB             |

# CM574-RS - Serial Communication Module Coming up



- CS31 bus
  - Communication on COM1 and/or COM2 used directly in CPU PM5xx.
  - Communication on COM1 and/or COM2 used in CPU CM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and acyclic data exchange
- Programming and online access
  - Direct
  - Routing

# CM574-RS - Serial Communication Module Coming up



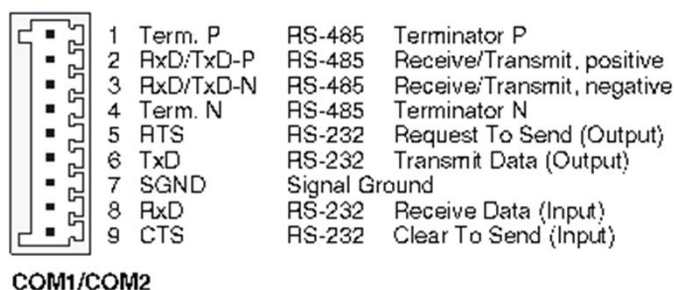
- CS31 bus
  - Communication on COM1 and/or COM2 used directly in CPU PM5xx.
  - Communication on COM1 and/or COM2 used in CPU CM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and acyclic data exchange
- Programming and online access
  - Direct
  - Routing



# CM574-RS - Serial Communication Module

## CS31 Bus - Technical Data

- Communication: RS485 ( twisted pair, with shield)
- Protocol: CS31- Bus (Master / Slave)
- Number slave units: maximal 31 modules
- Maximal length: 500 m (2000 m by repeaters)
- Transmission rate: 187,5 KBaud
- CS31 connexion on COM1 and/or COM2



# CM574-RS - Serial Communication Module Coming up

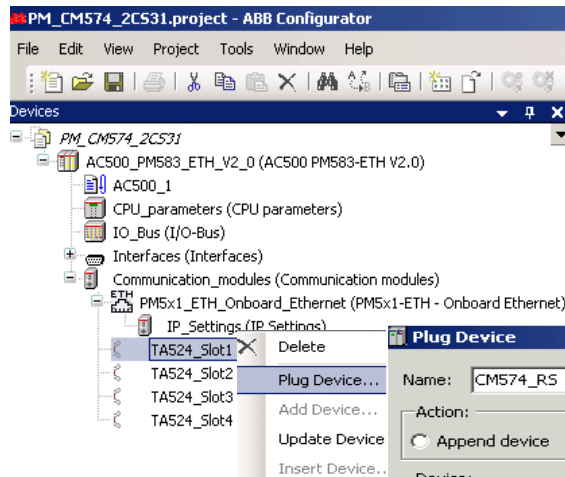


- CS31 bus
  - Communication on COM1 and/or COM2 used directly in CPU PM5xx.
  - Communication on COM1 and/or COM2 used in CPU CM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and acyclic data exchange
- Programming and online access
  - Direct
  - Routing



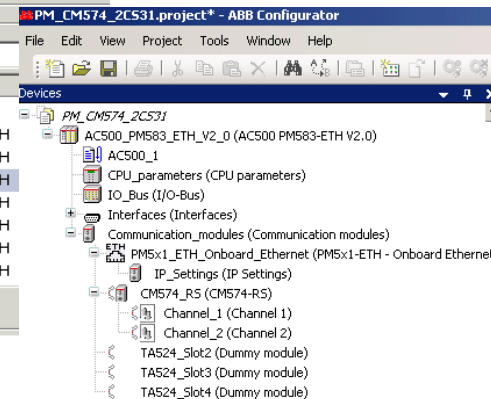
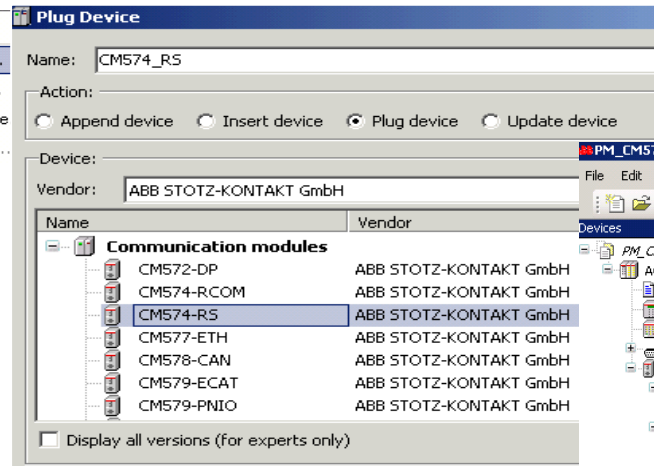
# CM574-RS - Serial Communication Module CS31 Bus signal directly use in CPU PM5xx. (1)

Open ABB Configurator :



- Create new project with CPU (PM5xx)

- Plug CM574-RS on slot extension.



# CM574-RS - Serial Communication Module CS31 Bus signal directly use in CPU PM5xx. (2)

- Plug CS31-bus for COM1 or COM2.

The image shows a screenshot of the SIMATIC Manager software interface. On the left, the 'Devices' tree is expanded to show the 'CM574\_RS (CM574-RS)' module. Underneath, 'Channel\_1 (Channel 1)' is selected, and a context menu is open with the 'Plug Device...' option highlighted. An orange arrow points from this menu option to the 'Plug Device' dialog box on the right. The dialog box shows the name 'COM1\_CS31\_Bus' and the action 'Plug device' selected. Below, a table lists the protocols to be plugged:

| Name                    | Vendor                 | Version |
|-------------------------|------------------------|---------|
| <b>COM1 - Protocols</b> |                        |         |
| COM1 - CS31-Bus         | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| Channel 1               | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |

Below this, another 'Plug Device' dialog box is shown for 'COM2\_CS31\_Bus', with a similar table for 'COM2 - Protocols' showing 'COM2 - CS31-Bus' and 'Channel 2'.

# CM574-RS - Serial Communication Module CS31 Bus signal directly use in CPU PM5xx. (3)

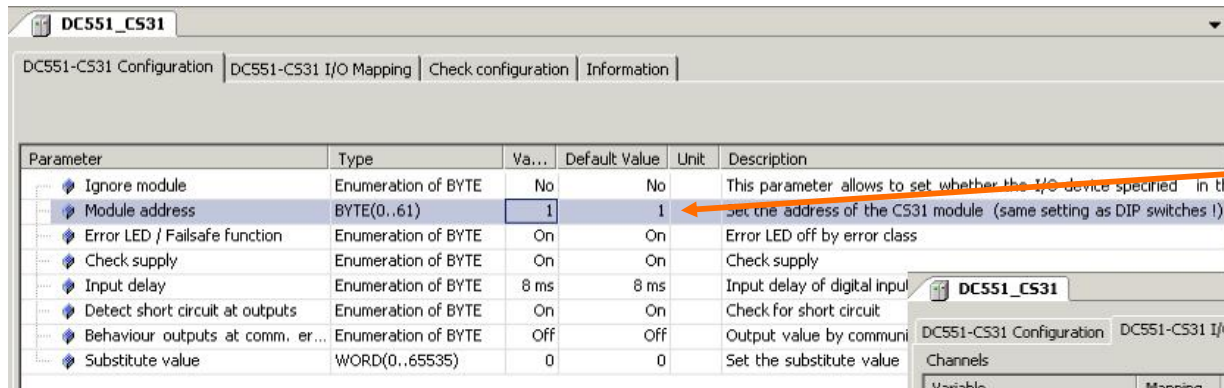
- Add remote slave modules (DC551/CI592)

The screenshot shows the SIMATIC Manager interface. On the left, the 'Devices' tree is expanded to show the 'COM1\_CS31\_Bus (COM1 - CS31-Bus)' under the 'CM574\_RS (CM574-RS)'. A context menu is open over this bus, with 'Add Device...' selected. On the right, the 'Add Device' dialog box is open. The 'Name' field contains 'DC551\_CS31'. The 'Action' section has 'Append device' selected. The 'Vendor' is set to 'ABB STOTZ-KONTAKT GmbH'. A table of available devices is shown below, with 'DC551-CS31' selected.

| Name               | Vendor                        | Version        |
|--------------------|-------------------------------|----------------|
| <b>CS31 Slaves</b> |                               |                |
| CI590-CS31         | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| CI590-CS31 2FC     | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| CI592-CS31         | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| CI592-CS31 2FC     | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| <b>DC551-CS31</b>  | <b>ABB STOTZ-KONTAKT GmbH</b> | <b>2.0.0.0</b> |
| DC551-CS31 2FC     | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| Other module       | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |

# CM574-RS CS31 BUS signal directly use in CPU PM5xx. Configuration ABB Configurator.

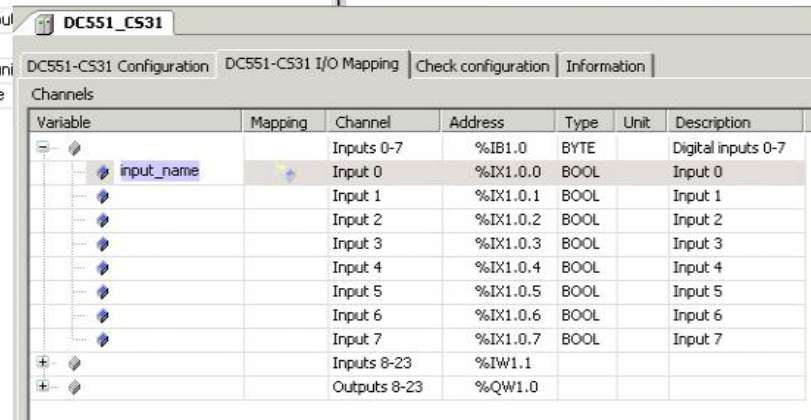
- Configure module, channels and rename Signal.



DC551\_CS31

DC551-CS31 Configuration | DC551-CS31 I/O Mapping | Check configuration | Information

| Parameter                        | Type                | Va... | Default Value | Unit | Description   |
|----------------------------------|---------------------|-------|---------------|------|---|
| Ignore module                    | Enumeration of BYTE | No    | No            |      | This parameter allows to set whether the I/O device specified in th |
| Module address                   | BYTE(0..61)         | 1     | 1             |      | Set the address of the CS31 module (same setting as DIP switches !) |
| Error LED / Failsafe function    | Enumeration of BYTE | On    | On            |      | Error LED off by error class  |
| Check supply                     | Enumeration of BYTE | On    | On            |      | Check supply  |
| Input delay                      | Enumeration of BYTE | 8 ms  | 8 ms          |      | Input delay of digital input  |
| Detect short circuit at outputs  | Enumeration of BYTE | On    | On            |      | Check for short circuit   |
| Behaviour outputs at comm. er... | Enumeration of BYTE | Off   | Off           |      | Output value by communi   |
| Substitute value                 | WORD(0..65535)      | 0     | 0             |      | Set the substitute value  |



DC551\_CS31

DC551-CS31 Configuration | DC551-CS31 I/O Mapping | Check configuration | Information

Channels

| Variable   | Mapping | Channel      | Address  | Type | Unit | Description        |
|------------|---------|--------------|----------|------|------|--------------------|
|            |         | Inputs 0-7   | %IB1.0   | BYTE |      | Digital inputs 0-7 |
| input_name |         | Input 0      | %IX1.0.0 | BOOL |      | Input 0            |
|            |         | Input 1      | %IX1.0.1 | BOOL |      | Input 1            |
|            |         | Input 2      | %IX1.0.2 | BOOL |      | Input 2            |
|            |         | Input 3      | %IX1.0.3 | BOOL |      | Input 3            |
|            |         | Input 4      | %IX1.0.4 | BOOL |      | Input 4            |
|            |         | Input 5      | %IX1.0.5 | BOOL |      | Input 5            |
|            |         | Input 6      | %IX1.0.6 | BOOL |      | Input 6            |
|            |         | Input 7      | %IX1.0.7 | BOOL |      | Input 7            |
|            |         | Inputs 8-23  | %IW1.1   |      |      |                    |
|            |         | Outputs 8-23 | %QW1.0   |      |      |                    |

# CM574-RS CS31 BUS signal directly use in CPU PM5xx. Configuration in ABB Configurator.

- ADD additional module

The screenshot shows the 'Devices' tree on the left and the 'Add Device' dialog box on the right. The 'Devices' tree is expanded to show the 'DC551\_CS31\_1 (DC551-CS31)' module. The 'Add Device' dialog box is open, showing the 'Name' field set to 'DC532' and the 'Action' set to 'Append device'. The 'Device' field is empty, and the 'Vendor' is set to '<All vendors>'. A table of available devices is shown below, with 'DC532' selected.

| Name  | Vendor                 | Version |
|-------|------------------------|---------|
| CD522 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DA501 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DC522 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DC523 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DC532 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DC561 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DI524 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |
| DI561 | ABB STOTZ-KONTAKT GmbH | 2.0.0.0 |

- Repeat this action for all module

# CM574-RS CS31 BUS Configuration in CoDeSys

- All variables are create automatically in CoDeSys .

The screenshot displays the CoDeSys software interface for configuring an AC500\_1 project. The left pane shows the 'Resources' tree, which includes 'Global Variables' and 'Communication\_modules'. Under 'Communication\_modules', there is a folder '1\_CM574\_RS' containing 'COM1\_CS31\_Bus' and 'COM2\_CS31\_Bus'. 'COM1\_CS31\_Bus' contains 'DC551\_CS31\_1' and 'DC551\_CS31\_2\_Module\_Mapping'. 'COM2\_CS31\_Bus' contains 'DC551\_CS31\_2\_Module\_Mapping'. The right pane shows the project tree for 'AC500\_1', which includes 'CPU\_parameters', 'IO\_Bus', 'Interfaces', 'Communication\_modules', 'PM5x1\_ETH\_Onboard\_Ethernet', 'IP\_Settings', 'CM574\_RS', 'COM1\_CS31\_Bus', 'DC551\_CS31\_1', 'DC532', 'DC551\_CS31', 'COM2\_CS31\_Bus', 'DC551\_CS31\_2', and 'TA524\_Slot2', 'TA524\_Slot3', 'TA524\_Slot4'. Orange arrows indicate the mapping of variables from the left pane to the right pane.

# CM574-RS CS31 configuration

## Coming up

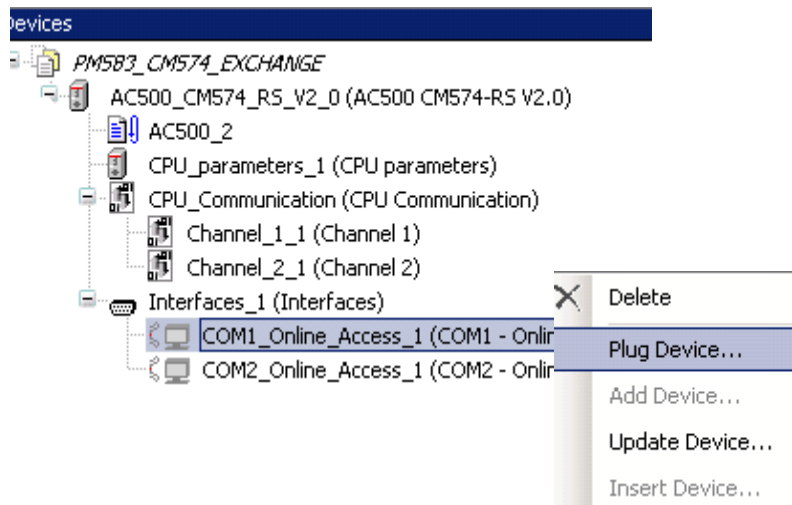


- CS31 bus
  - Communication in COM1 and COM2 Use signal directly in CPU PM5xx.
  - Communication in COM1 and COM2 Use signal in CPU PM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and Acyclic data exchange
- Programming and online access
  - Direct
  - Routing

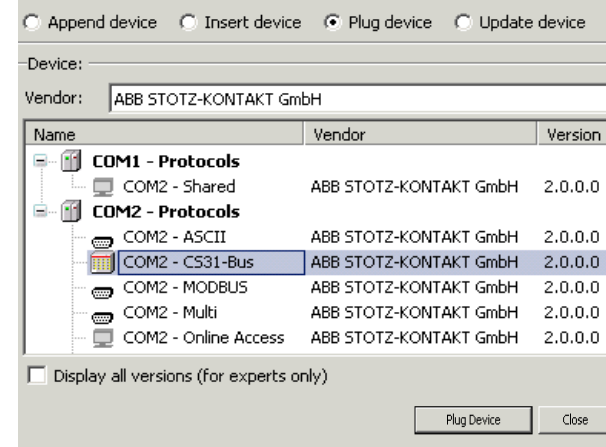
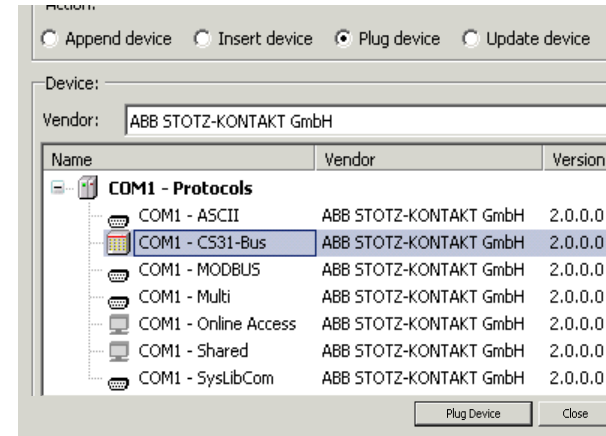


# CM574-RS CS31 BUS Configuration in ABB Configurator

- Create new project with CPU CM 574



- Select CS31-bus for COM1 and/or COM2.



# CM574-RS CS31 BUS Configuration in ABB Configurator

- Add Slaves module (DC551 or CI592)

The screenshot shows the ABB Configurator interface. On the left, a tree view displays the configuration structure for 'PMSB3\_CM574\_EXCHANGE'. The 'COM1\_CS31\_Bus (COM1 - CS31-Bus)' is selected, and a context menu is open with 'Add Device...' highlighted. On the right, the 'Add Device' dialog box is shown, with the 'Name' field set to 'DC551\_CS31'. The 'Vendor' is 'ABB STOTZ-KONTAKT GmbH'. A table of available devices is displayed below, with 'DC551-CS31' selected.

| Name               | Vendor                        | Version        |
|--------------------|-------------------------------|----------------|
| <b>CS31 Slaves</b> |                               |                |
| CI590-CS31         | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| CI590-CS31 2FC     | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| CI592-CS31         | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| CI592-CS31 2FC     | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| <b>DC551-CS31</b>  | <b>ABB STOTZ-KONTAKT GmbH</b> | <b>2.0.0.0</b> |
| DC551-CS31 2FC     | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |
| Other module       | ABB STOTZ-KONTAKT GmbH        | 2.0.0.0        |

# CM574-RS CS31 BUS Configuration in ABB Configurator

- Configure module, channels and rename Signal.

DC551\_CS31

DC551-CS31 Configuration | DC551-CS31 I/O Mapping | Check configuration | Information

| Parameter                        | Type                | Va... | Default Value | Unit | Description   |
|----------------------------------|---------------------|-------|---------------|------|---|
| Ignore module                    | Enumeration of BYTE | No    | No            |      | This parameter allows to set whether the I/O device specified in th |
| Module address                   | BYTE(0..61)         | 1     | 1             |      | Set the address of the CS31 module (same setting as DIP switches !) |
| Error LED / Failsafe function    | Enumeration of BYTE | On    | On            |      | Error LED off by error class  |
| Check supply                     | Enumeration of BYTE | On    | On            |      | Check supply  |
| Input delay                      | Enumeration of BYTE | 8 ms  | 8 ms          |      | Input delay of digital inputs                                       |
| Detect short circuit at outputs  | Enumeration of BYTE | On    | On            |      | Check for short circuit   |
| Behaviour outputs at comm. er... | Enumeration of BYTE | Off   | Off           |      | Output value by com   |
| Substitute value                 | WORD(0..65535)      | 0     | 0             |      | Set the substitute va   |



DC551\_CS31

DC551-CS31 Configuration | DC551-CS31 I/O Mapping | Check configuration | Information

Channels

| Variable   | Mapping | Channel      | Address  | Type | Unit | Description        |
|------------|---------|--------------|----------|------|------|--------------------|
|            |         | Inputs 0-7   | %IB1.0   | BYTE |      | Digital inputs 0-7 |
| input_name |         | Input 0      | %IX1.0.0 | BOOL |      | Input 0            |
|            |         | Input 1      | %IX1.0.1 | BOOL |      | Input 1            |
|            |         | Input 2      | %IX1.0.2 | BOOL |      | Input 2            |
|            |         | Input 3      | %IX1.0.3 | BOOL |      | Input 3            |
|            |         | Input 4      | %IX1.0.4 | BOOL |      | Input 4            |
|            |         | Input 5      | %IX1.0.5 | BOOL |      | Input 5            |
|            |         | Input 6      | %IX1.0.6 | BOOL |      | Input 6            |
|            |         | Input 7      | %IX1.0.7 | BOOL |      | Input 7            |
|            |         | Inputs 8-23  | %IW1.1   |      |      |                    |
|            |         | Outputs 8-23 | %QW1.0   |      |      |                    |

- Repeat this action for all module

# CM574-RS CS31 BUS Configuration in CoDeSys

- I/O data in CM574 CoDeSys program

The screenshot displays the CoDeSys software interface for an AC500\_2 project. The left-hand pane shows the project tree with the following structure:

- AC500\_CM574\_RS\_V2\_0 (AC500 CM574-RS V2.0)
  - AC500\_2
    - CPU\_parameters\_1 (CPU parameters)
    - CPU\_Communication (CPU Communication)
    - Interfaces\_1 (Interfaces)
      - COM1\_CS31\_Bus (COM1 - CS31-Bus)
      - DC551\_CS31 (DC551-CS31)
      - COM2\_CS31\_Bus (COM2 - CS31-Bus)
      - CI590\_CS31 (CI592-CS31)

The central workspace shows a file explorer with the following structure:

- Resources
  - Global Variables
    - Interfaces\_1
      - COM1\_CS31\_Bus
        - DC551\_CS31\_Module\_Mapping
        - COM2\_CS31\_Bus
          - CI590\_CS31\_Module\_Mapping

The right-hand pane displays the configuration for two module mapping files:

**DC551\_CS31\_Module\_Mapping**

```
0001 VAR_GLOBAL
0002 SLAVE_1_COM1_INPUT0 AT %IX1000.0 : BOOL; (*Input 0*)
0003 SLAVE_1_COM1_INPUT1 AT %IX1000.1 : BOOL; (*Input 1*)
0004 SLAVE_1_COM1_INPUT2 AT %IX1000.2 : BOOL; (*Input 2*)
0005 SLAVE_1_COM1_INPUT8 AT %IX1002.0 : BOOL; (*Input 8*)
0006 SLAVE_1_COM1_INPUT9 AT %IX1002.1 : BOOL; (*Input 9*)
0007 SLAVE_1_COM1_INPUT16 AT %IX1003.0 : BOOL; (*Input 16*)
0008 SLAVE_1_COM1_OUTPUT15 AT %QX1000.6 : BOOL; (*Output 14*)
0009 SLAVE_1_COM1_OUTPUT15 AT %QX1000.7 : BOOL; (*Output 15*)
0010 SLAVE_1_COM1_OUTPUT15 AT %QX1001.7 : BOOL; (*Output 23*)
0011 END_VAR
```

**CI590\_CS31\_Module\_Mapping**

```
0001 VAR_GLOBAL
0002 SLAVE_1_COM2_INPUT0 AT %IX2000.0 : BOOL; (*Input 0*)
0003 SLAVE_1_COM2_INPUT1 AT %IX2000.1 : BOOL; (*Input 1*)
0004 SLAVE_1_COM2_INPUT2 AT %IX2000.2 : BOOL; (*Input 2*)
0005 SLAVE_1_COM2_ANA_IN0 AT %IW1001 : INT; (*Analog input 0*)
0006 SLAVE_1_COM2_ANA_IN1 AT %IW1002 : INT; (*Analog input 1*)
0007 SLAVE_1_COM2_OUTPUT8 AT %IX2010.0 : BOOL; (*Input 8*)
0008 SLAVE_1_COM2_OUTPUT9 AT %IX2010.1 : BOOL; (*Input 9*)
0009 SLAVE_1_COM2_ANA_OUT0 AT %QW1000 : INT; (*Analog output 0*)
0010 SLAVE_1_COM2_ANA_OUT1 AT %QW1001 : INT; (*Analog output 1*)
0011 END_VAR
```

# CM574-RS CS31 configuration

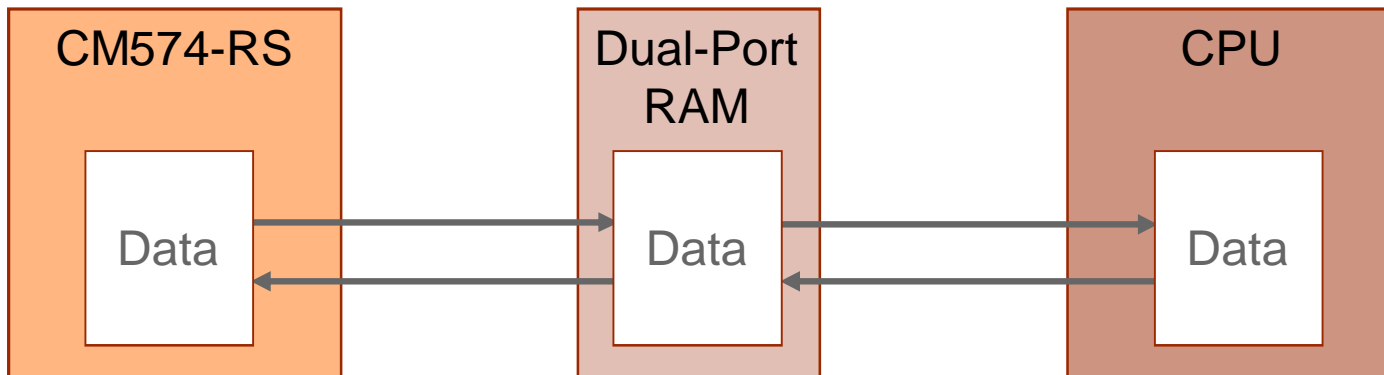
## Coming up



- CS31 bus
  - Communication in COM1 and COM2 Use signal directly in CPU PM5xx.
  - Communication in COM1 and COM2 Use signal in CPU PM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and Acyclic data exchange
- Programming and online access
  - Direct
  - Routing

# CM574-RS Serial Communication Module Communication with AC500 CPU

Communication between CM574-RS and CPU is supported by a dual-Port RAM



Data can be transferred:

- Cyclically via input/output operands
- Acyclically via Function Blocks
- Directly by use of characters (from version V2.x )

# CM574-RS CS31 configuration

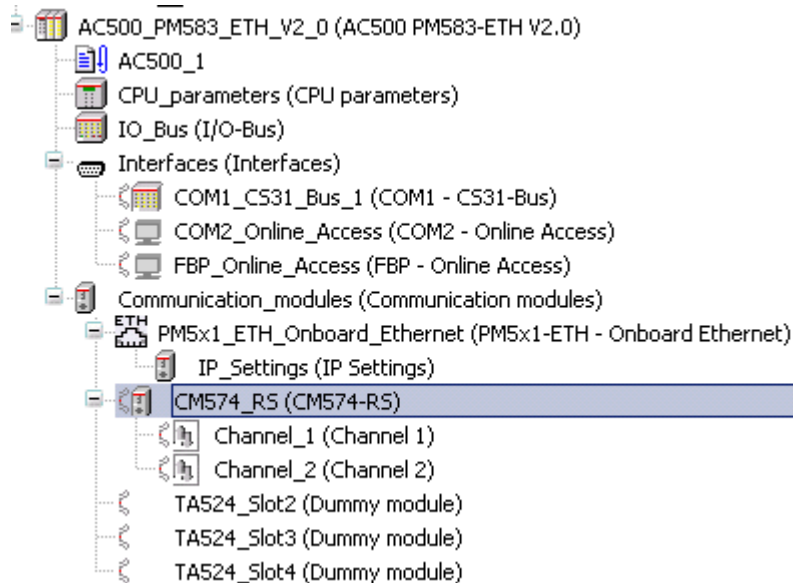
## Coming up



- CS31 bus
  - Communication in COM1 and COM2 Use signal directly in CPU PM5xx.
  - Communication in COM1 and COM2 Use signal in CPU PM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and Acyclic data exchange
- Programming and online access
  - Direct
  - Routing



# CM574-RS Serial Communication Module Configuration in the AC500 CPU Project

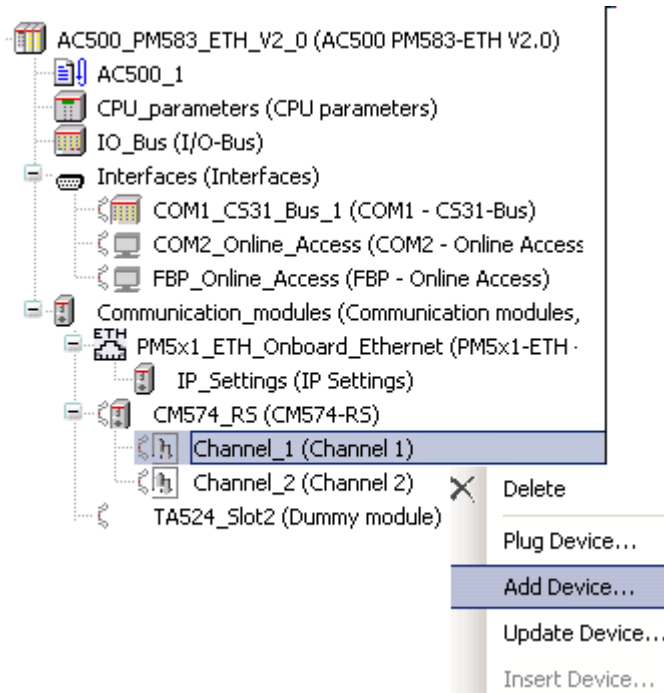


The screenshot shows the 'CM574\_RS' configuration dialog box, Information tab. The table below lists the parameters for the serial interface configuration.

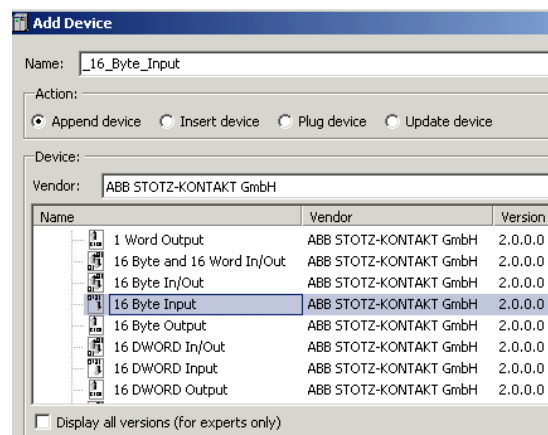
| Parameter           | Type                | Value | Default Value | Unit | Description                               |
|---------------------|---------------------|-------|---------------|------|---|
| Run on config fault | Enumeration of BYTE | No    | No            |      | Launch PLC program by configuration fa... |
| Min update time     | DWORD(0..20000)     | 10    | 10 ms         | ms   | Min update time                           |
| Enable debug        | Enumeration of BYTE | On    | On            |      | Enable debug functions on coupler         |
| Watchdog            | WORD(0..60000)      | 400   | 400 ms        | ms   | Watchdog time                             |

1. Insert the coupler into PLC Configuration (tab "Resources")
2. Double-click on PLC Configuration
3. Right-click on "TA524\_Slot1"
4. Select "Plug Device"
5. Select "CM574-RS"

# CM574-RS Serial Communication Module Configuration for Cyclical Data Exchange in CPU Project



- Define of input/output modules for cyclical data exchange
- Maximal 32 modules
- 2 channels possible
- Maximal 500 bytes per channel
- No obligatory assignment between channel and COMx



# CM574-RS Serial Communication Module Input/Output Assignment in CPU Project

Input and output assignment for the CM574-RS

|                     |           |        |               |        |
|---------------------|-----------|--------|---------------|--------|
| CPU communication:  | %IB0 ..   | %IB999 | and %QB0 ..   | %QB999 |
| Of this: Channel 1: | %IB0      | %IB499 | and %QB0 ..   | %QB499 |
| Channel 2:          | %IB500 .. | %IB999 | and %QB500 .. | %QB999 |

| Channel   | Coupler inputs in slot x |          |          | Coupler outputs in slot x |          |          |
|-----------|--------------------------|----------|----------|---------------------------|----------|----------|
|           | %IBx.y                   | %IWx.y   | %IDx.y   | %QBx.y                    | %QWx.y   | %QDx.y   |
| Channel 1 | %IBx.499                 | %IWx.249 | %IDx.124 | %QBx.499                  | %QWx.249 | %QDx.124 |
| Channel 2 | %IBx.999                 | %IWx.499 | %IDx.249 | %QBx.999                  | %QWx.499 | %QDx.249 |

- The module addresses are created automatically
- It should be verified if the last module exceeds the highest possible address



# CM574-RS CS31 configuration

## Coming up

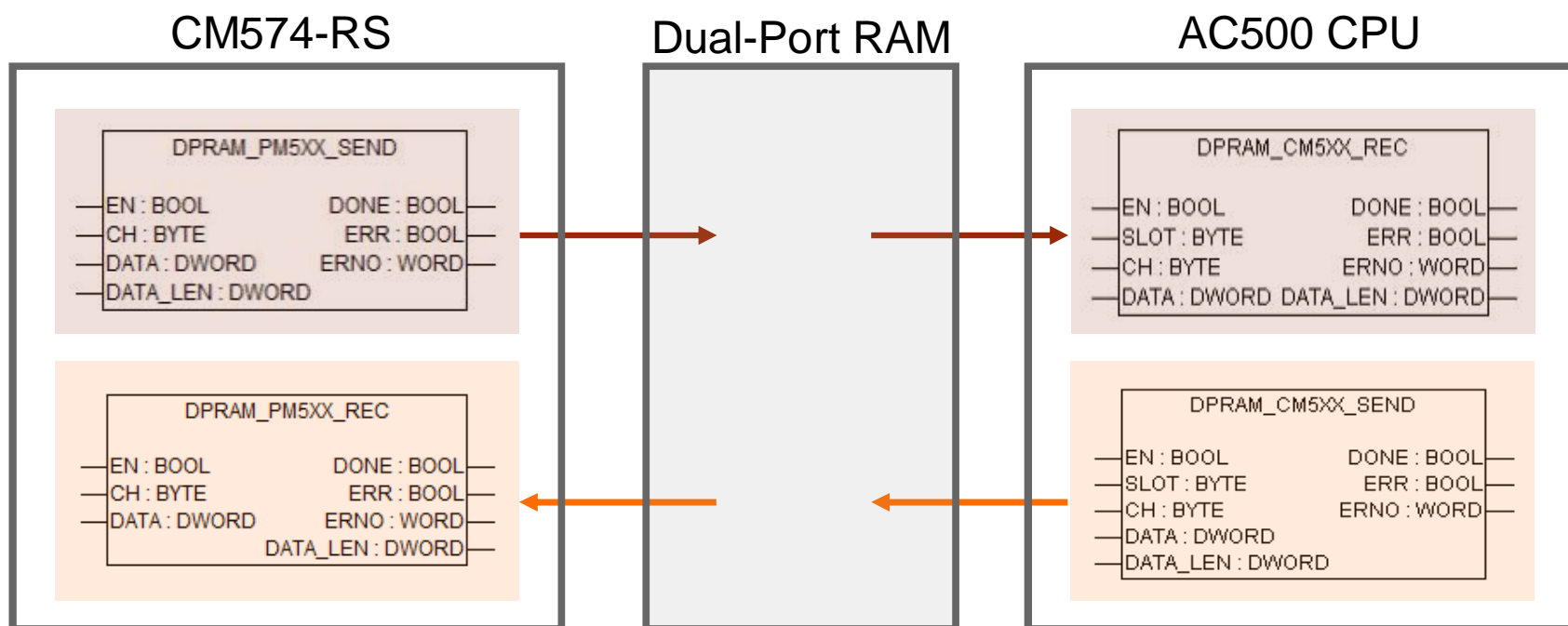


- CS31 bus
  - Communication in COM1 and COM2 Use signal directly in CPU PM5xx.
  - Communication in COM1 and COM2 Use signal in CPU PM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and Acyclic data exchange
- Programming and online access
  - Direct
  - Routing

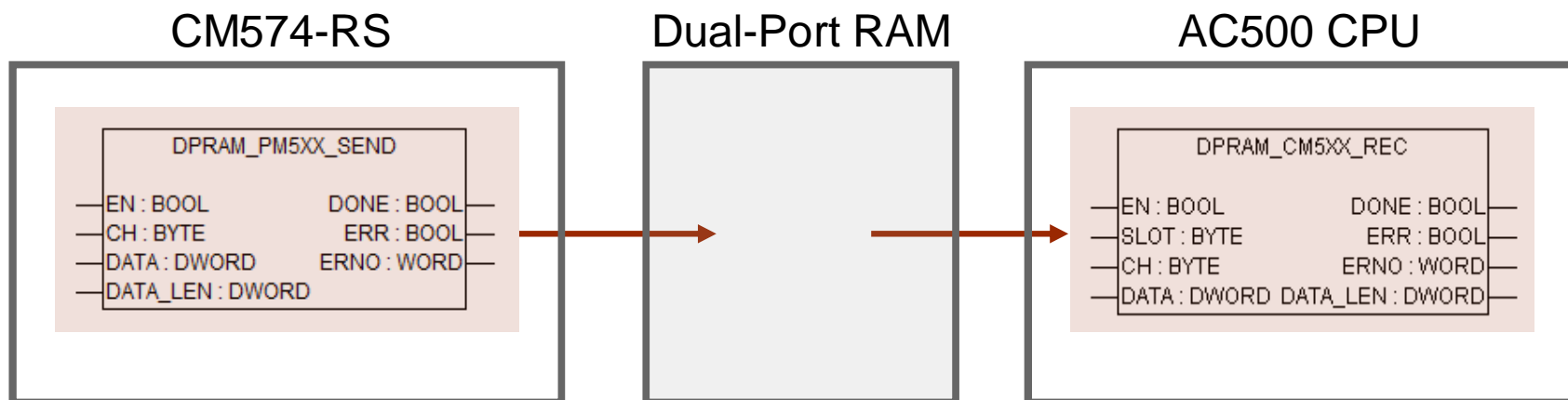
# CM574-RS Serial Communication Module

## Acyclic Data Exchange (1)

- Create 2 projects: 1 with CPU PM5xx and coupler CM574 and 1 with CPU CM574.
- Acyclic data exchange is used mainly for command transfer for own protocols
- The transfer is provided by Function Blocks



# CM574-RS Serial Communication Module Acyclic Data Exchange (2)



EN :        Enabling send data by  
              FALSE/TRUE edge

CH:        Number of channel 1 or 2

DATA:      Address for sent data via  
              ADR block

DATA\_LEN: Length of data to be sent in  
              bytes

EN:        Enabling block processing

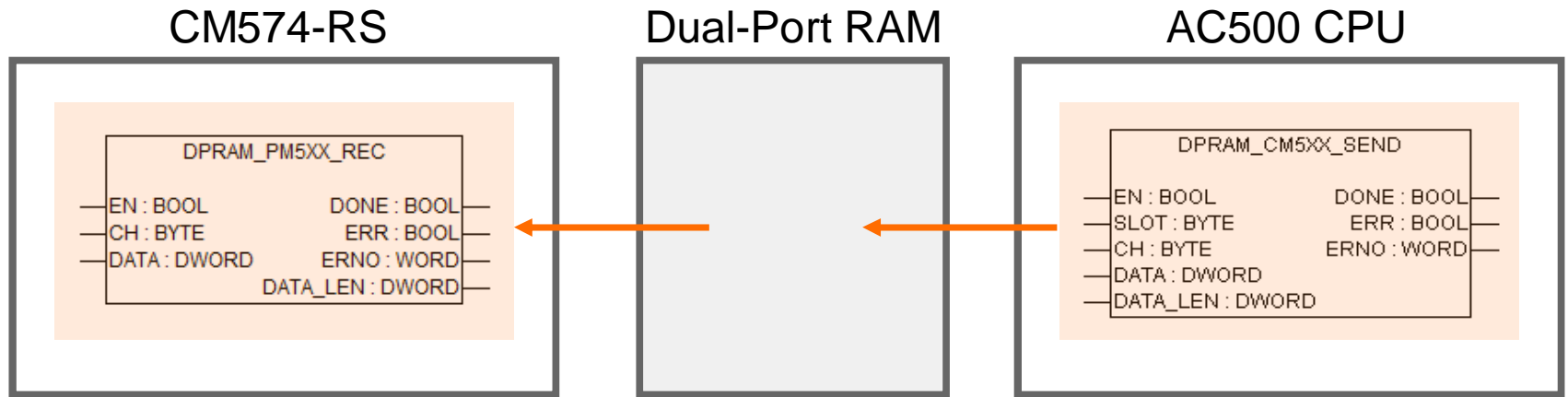
SLOT: Slot number of the assigned  
          communication module (1...4)

CH:        Number of channel 1 or 2

DATA: Address for received data via  
          ADR operator



# CM574-RS Serial Communication Module Acyclic Data Exchange (3)



EN: Enabling block processing  
 CH: Number of channel 1 or 2  
 DATA: Address for received data via  
 ADR operator

EN : Enabling send data by  
 FALSE/TRUE edge  
 SLOT: Slot number of the assigned  
 communication module (1...4)  
 CH: Number of channel 1 or 2  
 DATA: Address for sent data via ADR  
 block  
 DATA\_LEN: Length of data to be sent in bytes

# CM574-RS CS31 configuration

## Coming up



- CS31 bus
  - Communication in COM1 and COM2 Use signal directly in CPU PM5xx.
  - Communication in COM1 and COM2 Use signal in CPU PM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and Acyclic data exchange
- Programming and online access
  - **Direct**
  - Routing

# CM574-RS Serial Communication Module Programming and Online Access



## Direct access

- Online access corresponds to serial driver “Serial (RS232)”
- Interface settings apply as for the CPUs
- Programming cable with the source pin assignment as the TK502

# CM574-RS CS31 configuration

## Coming up

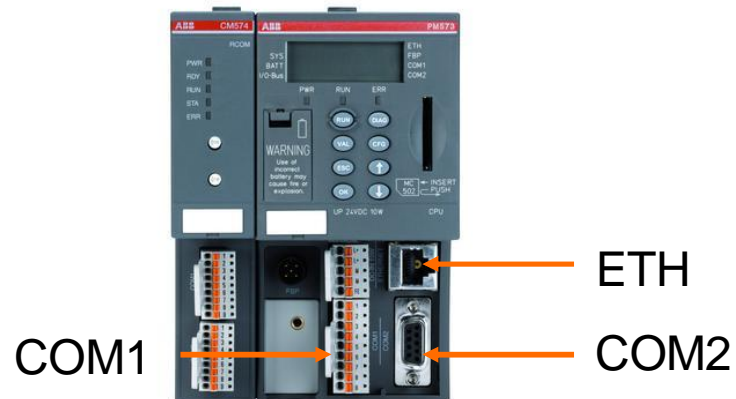


- CS31 bus
  - Communication in COM1 and COM2 Use signal directly in CPU PM5xx.
  - Communication in COM1 and COM2 Use signal in CPU PM574
- Data exchange
  - Configuration and cyclic data exchange
  - Configuration and Acyclic data exchange
- Programming and online access
  - Direct
  - Routing

# CM574-RS Serial Communication Module Programming and Online Access

## Access via AC500 CPU (routing)

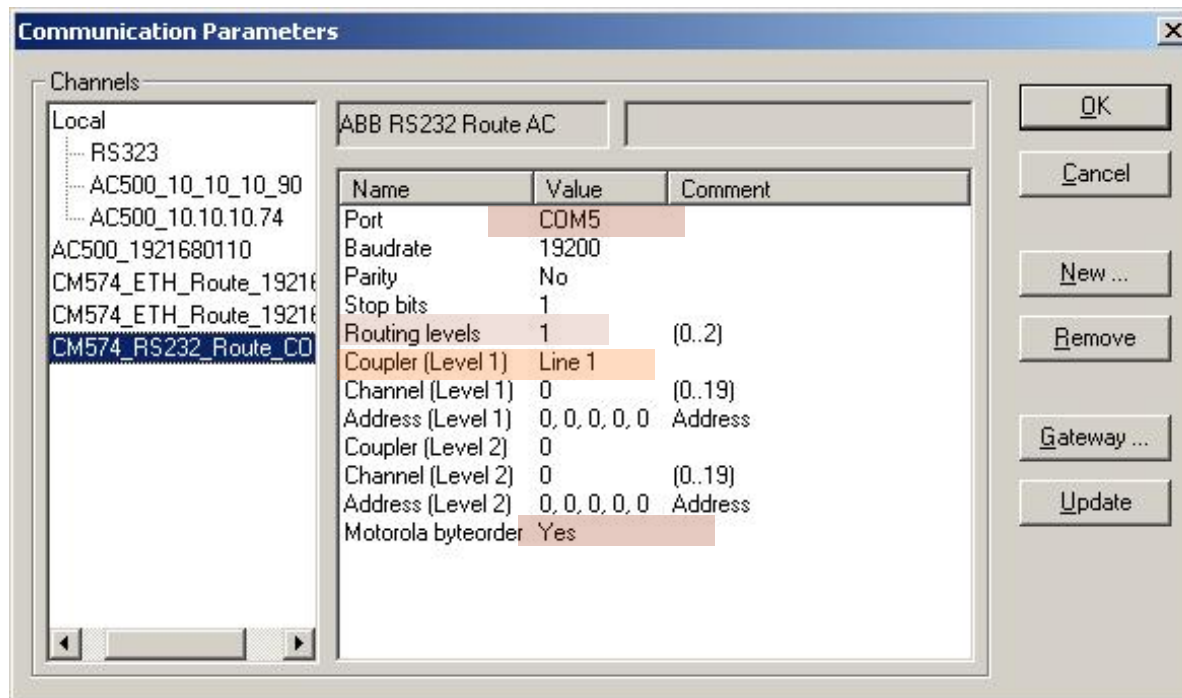
- Online access via serial driver interface by use of “ABB RS232 Route AC”
- Online access via Ethernet by use of driver “ABB Tcp/IP Level2 AC”



# CM574-RS Serial Communication Module Programming and Online Access

## Access via AC500 CPU (routing)

- Connect to CPU PM5xx and download program in CM 574
- ABB RS232 Route AC driver



PC serial port number

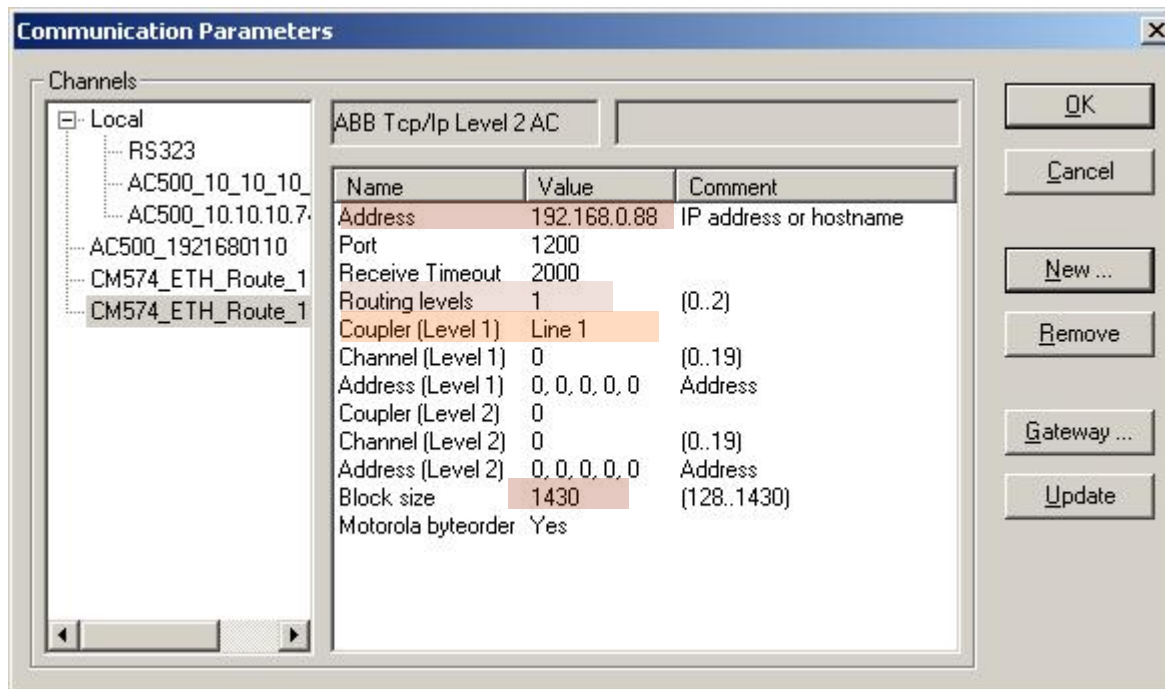
Select "1"

Slot number (1..4)

# CM574-RS Serial Communication Module Programming and Online Access

## Access via AC500 CPU (routing)

- Connect to CPU PM5xx or CM577 and download program in CM 574
- ABB TCP/IP Level2 AC



IP address

Select "1"

Slot number (1..4)

Block size 1200

# CM574-RS Serial Communication Module

## Cross-References to Documentation

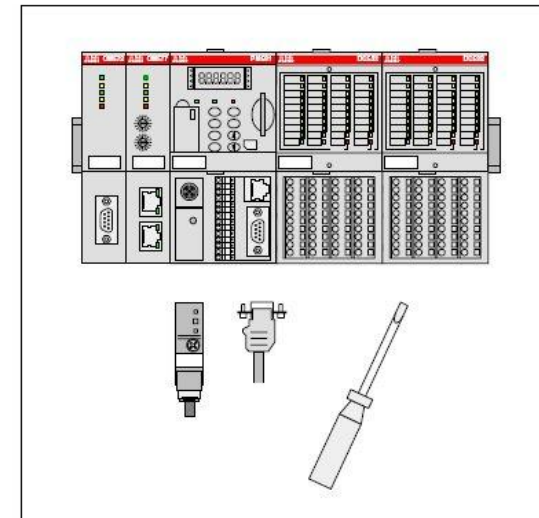
1. ABB configurator Help\Configuration of AC500 Specific Devices and Busses\CM574-RS - Programmable Serial Communication Module
2. CoDeSys Help\Target System\AC500\System Technology\System Technology of the AC500 Communication modules\The Serial Communication Module
3. CoDeSys Help\Target System\AC500\Hardware AC500\Function Block Libraries AC500\Internal System Library

System Description

**AC500**

Scalable PLC  
for Individual Automation

Hardware





Power and productivity  
for a better world™

