# S7-200 Smart to Stepper Drive Communication

S7-200 SMART V2.4/ TIA V15.1

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# 1 Task

Communication between Stepper Drive and a PLC is often required in a diversity of general "Cutting-to-Lenght" applications. Taking reciprocating controlled positioning of an axis for example, communication between a controller（S7-200 Smart）and a Stepper Drive RHINO MOTION CONTROLS RMCS-1106.

## 1.1 Overview of the automation task

In the application, RMCS-1106 Stepper Drive controls a RMCS-1107 Stepper Motor using motion control wizard.

The following figure provides an overview of the automation task:
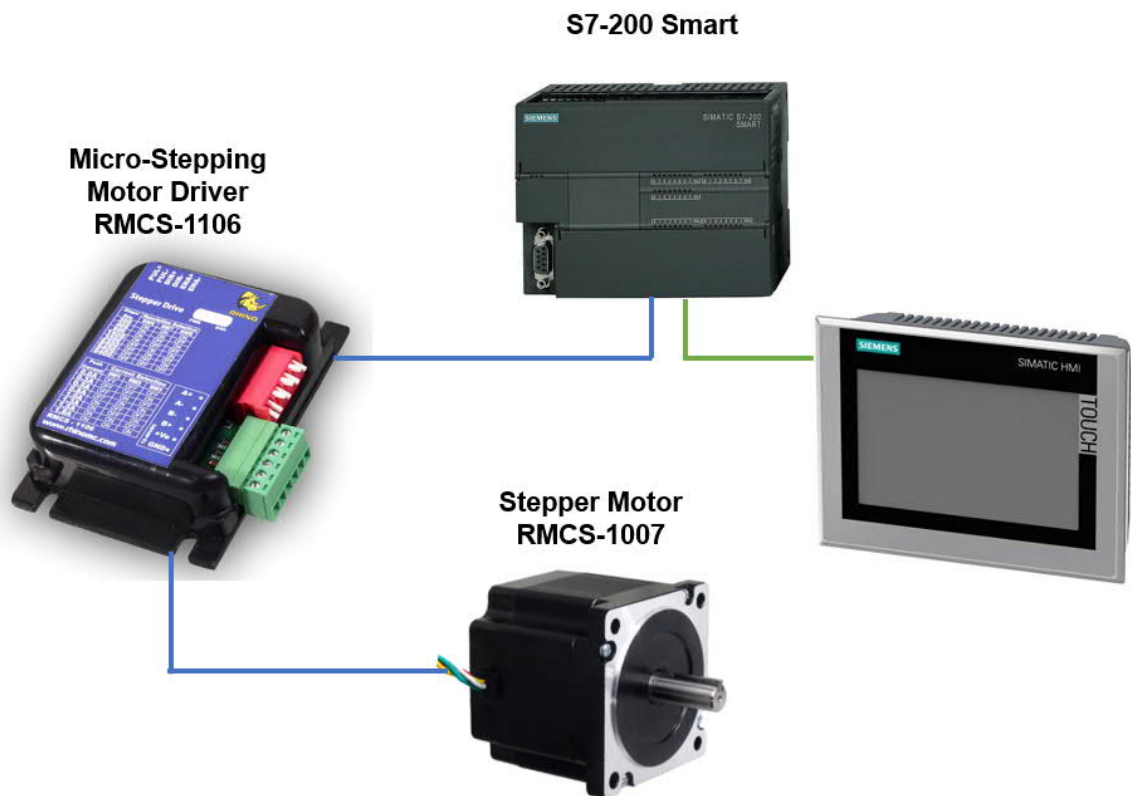
# 2 Automation solution

## 2.1 Hardware and software components used

### 2.1.1 Hardware components

| No. | Component | Order number | Quantity |
|---|---|---|---|
| 1 | SIMATIC S7-200 Smart ST30 | 6ES72881ST300AA0 | 1 |
| 2 | Micro-Stepping Motor Driver (Max. 40Vdc and 2A per phase) | RMCS-1106 | 1 |
| 3 | Stepper Motor 3.75° Step Angle 0.65 Kgcm Torque | RMCS-1007 | 1 |
| 4 | Comfort Panel TP 700 | 6AV2124-0GC01-0AX0 | 1 |
| 4 | Ethernet Cable | | 1 |

### 2.1.2 Software components

User can order these CDs that contain the following software tools:

| No. | Component | Order number | Quantity |
|---|---|---|---|
| 1 | STEP7 Micro/WIN SMART 2.4 | 6ES7288-SW01-0AA0 | 1 |

| Note | Most of the hardware components shown in the table are commercially available in the global market. If unavailable in your country (or region), find an appropriate substitute at your own discretion.

The table lists key hardware components required for this project. Other accessories such as cables and wires, supports, terminal strips, and so on can be purchased separately. |
|---|---|

## 2.2 Setup
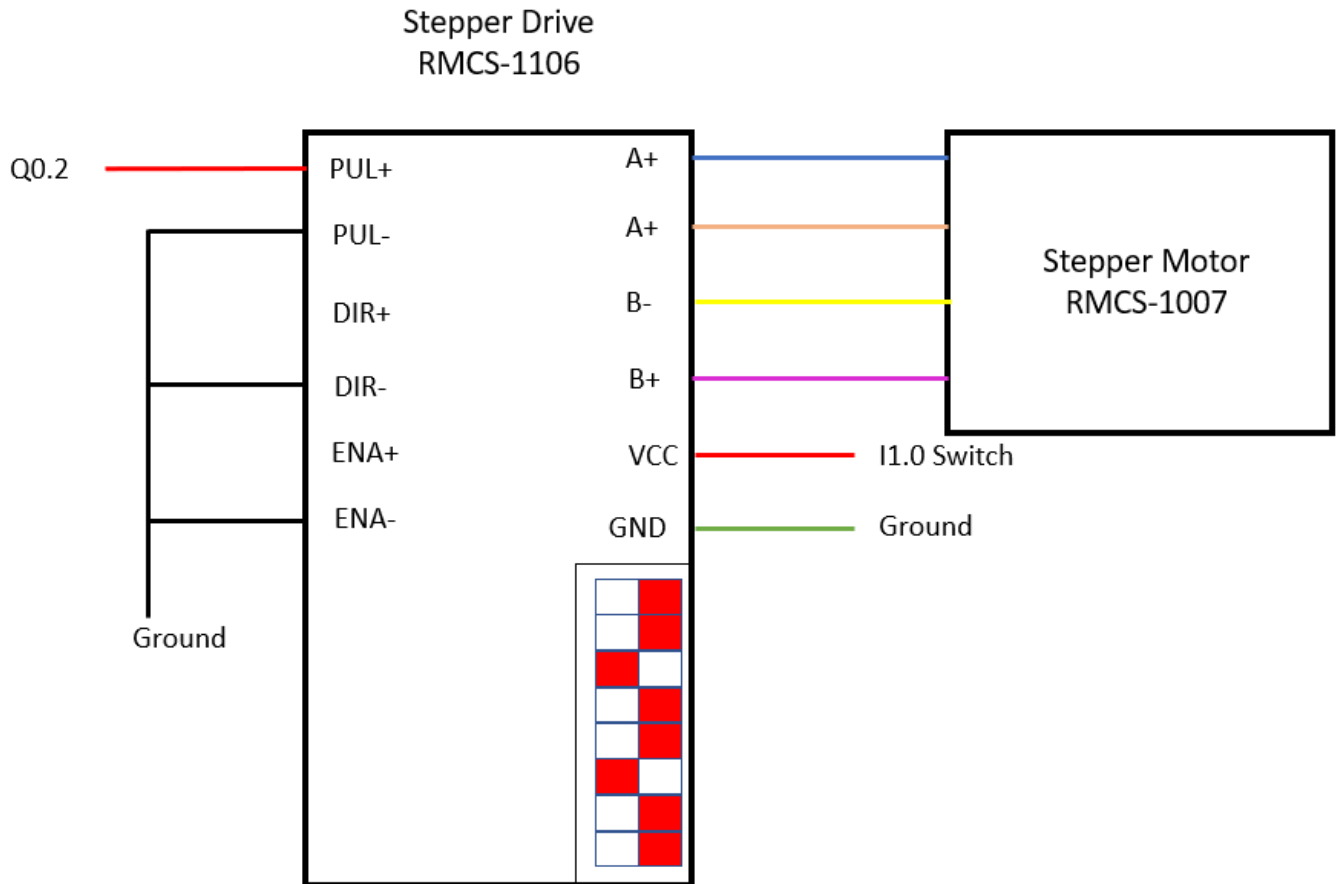
**2.2.1    Figure 2-1 Stepper Motor connection**

| Note | For more detail please refer operating manual of Stepper Drive RMCS-1106 and Stepper Motor RMCS-1007 |
|------|----------------------------------------------------------------------------------------------------|

# 3 Functional mechanisms

## 3.1 Axis Control

The Axis of Motion provides a single pulse train output with integrated direction control and disable outputs. It also includes programmable inputs which allow the CPU to be configured for several modes of operation, including automatic reference point seek. The Axis of Motion provides a unified solution for open loop control of the speed and position for either stepper motors or servo motors.

To simplify the use of motion control in your application, STEP 7-Micro/WIN SMART provides a Motion wizard to configure Axis of Motion and a PWM wizard to configure PWM. The wizards generate motion instructions that you can use to provide dynamic control of speed and motion in your application. For the Axis of Motion, STEP 7-Micro/WIN SMART also provides a control panel that allows you to control, monitor, and test your motion operations.

The motion control built into the CPU uses an Axis of Motion to control both the speed and motion of a stepper motor or a servo motor. Using the Axis of Motion requires expertise in the field of motion control. This chapter is not meant to educate the novice in this subject. However, it provides fundamental information that will help as you use the Motion wizard to configure the Axis of Motion for your application.

For more details refer operating manual section *12.2 Using Motion Control*

## 3.2 Control program

### 3.2.1    AXISx_CTRL subroutine

| LAD / FBD | STL | Description |
|---|---|---|
| AXIS0_CTRL<br>—EN<br><br>—MOD_~<br><br>Done—<br>Error—<br>C_Pos—<br>C_Spe~—<br>C_Dir— | CALL AXISx_CTRL, MOD_EN, Done, Error, C_Pos, C_Speed, C_Dir | The AXISx_CTRL subroutine (Control) enables and initializes the Axis of Motion by automatically commanding the Axis of Motion to load the configuration/profile table each time the CPU changes to RUN mode.<br>Use this subroutine only once in your project per motion axis, and ensure that your program calls this subroutine every scan. Use SM0.0 (Always On) as the input for the EN parameter. |

#### 3.2.1.1 Figure 3-1

| Input/output | Date Type | Value |
|---|---|---|
| MOD_EN | BOOL | I, Q, V, M, SM, S, T, C, L, Power Flow |
| Done, C_Dir | BOOL | I, Q, V, M, SM, S, T, C, L |
| Error | BYTE | IB, QB, VB, MB, SMB, SB, LB, AC, *VD, *AC, *LD |
| C_Pos, C_Speed | DINT, REAL | ID, QD, VD, MD, SMD, SD, LD, AC, *VD, *AC, *LD |

The MOD_EN parameter must be on to enable the other motion subroutines to send commands to the Axis of Motion. If the MOD_EN parameter turns off, then the Axis of Motion aborts any command that is in progress and performs a decelerated stop.

The output parameters of the AXISx_CTRL subroutine provide the current status of the Axis of Motion.

The Done parameter turns on when the Axis of Motion completes any subroutine.

The C_Pos parameter is the current position of the Axis of Motion. Based upon the units of measurement, the value is either a number of pulses (DINT) or the number of engineering units (REAL).

The C_Speed parameter provides the current speed of the Axis of Motion. If you configured the measurement system for the Axis of Motion for pulses, C_Speed is a DINT value containing the number of pulses/second. If you configured the measurement system for engineering units, C_Speed is a REAL value containing the selected engineering units/second (REAL).

- Signal state of 0 = positive
- Signal state of 1 = negative

| Note | The Axis of Motion reads the configuration/profile table only at power-up or when commanded to load the configuration.<br><br>• If you use the Motion wizard to modify the configuration, then the AXISx_CTRL subroutine automatically commands the Axis of Motion to load the configuration/profile table every time the CPU changes to RUN mode.<br>• If you use the Motion control panel to modify the configuration, clicking the Update Configuration button commands the Axis of Motion to load the new configuration/profile table.<br>• If you use another method to modify the configuration, then you must also issue an AXISx_CFG command to the Axis of Motion to load the configuration/profile table. Otherwise, the Axis of Motion continues to use the old configuration/profile table. |
|------|---|

### 3.2.2 AXISx_GOTO subroutine

| LAD / FBD | STL | Description |
|---|---|---|
| AXIS0_GOTO<br>EN<br><br>START<br><br>Pos    Done<br>Speed   Error<br>Mode   C_Pos<br>Abort   C_Spe~ | CALL AXISx_GOTO, START, Pos, Speed, Mode, Abort, Done, Error, C_Pos, C_Speed | The AXISx_GOTO subroutine commands the Axis of Motion to go to a desired location. |

#### 3.2.2.1 Figure 3-2

| Input/output | Date Type | Value |
|---|---|---|
| START | BOOL | I, Q, V, M, SM, S, T, C, L, Power Flow |

| Pos, Speed | DINT, REAL | I, Q, V, M, SM, S, T, C, L |
|---|---|---|
| Mode | BYTE | IB, QB, VB, MB, SMB, SB, LB, AC, *VD, *AC, *LD, Constant |
| Abort, Done | BOOL | I, Q, V, M, SM, S, T, C, L |
| Error | BYTE | IB, QB, VB, MB, SMB, SB, LB, AC, *VD, *AC, *LD |
| C_Pos, C_Speed | DINT, REAL | ID, QD, VD, MD, SMD, SD, LD, AC, *VD, *AC, *LD |

Turn on the EN bit to enable the subroutine. Ensure that the EN bit stays on until the DONE bit signals that the execution of the subroutine has completed.

Turn on the START parameter to send a GOTO command to the Axis of Motion. For each scan when the START parameter is on and the Axis of Motion is not currently busy, the subroutine sends a GOTO command to the Axis of Motion. To ensure that only one GOTO command is sent, use an edge detection element to pulse the START parameter on.

absolute move) or the distance to move (for a relative move). Based upon the units of measurement selected, the value is either a number of pulses (DINT) or the engineering units (REAL).

The Speed parameter determines the maximum speed for this movement. Based upon the units of measurement, the value is either a number of pulses/second (DINT) or the engineering units/second (REAL).

The Mode parameter selects the type of move:

- 0: Absolute position
- 1: Relative position
- 2: Single-speed, continuous positive rotation
- 3: Single-speed, continuous negative rotation

The Done parameter turns on when the Axis of Motion completes this subroutine. Turn on the Abort parameter to command the Axis of Motion to stop execution of this command and decelerate until the motor comes to a stop.

The C_Pos parameter contains current position of the Axis of Motion. Based upon the units of measurement, the value is either a number of pulses (DINT) or the number of engineering units (REAL).

The C_Speed parameter contains the current speed of the Axis of Motion. Based upon the units of measurement, the value is either a number of pulses/second (DINT) or the engineering units/second (REAL).

### 3.2.3 AXISx_GOTO subroutine

| LAD / FBD | STL | Description |
|---|---|---|
| AXIS0_RUN<br>—EN<br><br>—START<br>—Profile    Done—<br>—Abort    Error—<br>C_Profile—<br>C_Step—<br>C_Pos—<br>C_Spe~— | CALL AXISx_RUN, START, Profile, Abort, Done, Error, C_Profile, C_Step, C_Pos, C_Speed | The AXISx_RUN subroutine (Run Profile) commands the Axis of Motion to execute the motion operation in a specific profile stored in the configuration/ profile table. |

### 3.2.3.1 Figure 3-3

| Input/output | Date Type | Value |
|---|---|---|
| START | BOOL | I, Q, V, M, SM, S, T, C, L, Power Flow |
| Profile | BYTE | IB, QB, VB, MB, SMB, SB, LB, AC, *VD, *AC, *LD, Constant |
| Abort, Done | BOOL | I, Q, V, M, SM, S, T, C, L |
| Error, C_Profile, C_Step | BYTE | IB, QB, VB, MB, SMB, SB, LB, AC, *VD, *AC, *LD |
| C_Pos, C_Speed | DINT, REAL | ID, QD, VD, MD, SMD, SD, LD, AC, *VD, *AC, *LD |

Ensure that the EN bit stays on until the Done bit signals that the execution of the subroutine has completed.

Turn on the START parameter to send a RUN command to the Axis of Motion. For each scan when the START parameter is on and the Axis of Motion is not currently busy, the subroutine sends a RUN command to the Axis of Motion. To ensure that only one command is sent, use an edge detection element to pulse the START parameter on.

The Profile parameter contains the number or the symbolic name for the motion profile. The "Profile" input must be between 0 - 31. If not, the subroutine will return an error. Turn on the Abort parameter to command the Axis of Motion to stop the current profile and decelerate until the motor comes to a stop.

The Done parameter turns on when the Axis of Motion completes this subroutine. The Error parameter (Page 695) contains the result of this subroutine. The C_Profile parameter contains the profile currently being executed by the Axis of Motion.

The C_Step parameter contains the step of the profile currently being executed. The C_Pos parameter contains the current position of the Axis of Motion. Based upon the units of measurement, the value is either a number of pulses (DINT) or the number of engineering units (REAL).

The C_Speed parameter contains the current speed of the Axis of Motion. Based upon the units of measurement, the value is either a number of pulses/second (DINT) or the engineering units/second (REAL).

### 3.2.4 Error codes for the Motion instruction

| Error Code | Description |
|---|---|
| 0 | No error |
| 1 | Aborted by user |
| 2 | Configuration error<br>(This error occurs if there is an error in the SDB0 configuration.) |
| 3 | Illegal command |
| 4 | Aborted due to no valid configuration<br>(This error occurs if there is an error in the configuration table.) |
| 5 | Reserved |
| 6 | Aborted due to no defined reference point |
| 7 | Aborted due to STP input active |
| 8 | Aborted due to LMT- input active |
| 9 | Aborted due to LMT+ input active |
| 10 | Aborted due to problem executing motion |
| 11 | No profile block configured for specified profile |
| 12 | Illegal operation mode |
| 13 | Operation mode not supported for this command |
| 14 | Illegal number of steps in profile block |
| 15 | Illegal direction change |
| 16 | Illegal distance |
| 17 | RPS/TRIG trigger occurred before target speed reached |
| 18 | Insufficient RPS active region width |
| 19 | Speed out-of-range |
| 20 | Insufficient distance to perform desired speed change |
| 21 | Illegal position |
| 22 | Zero position unknown |
| 23 | No DI1S output is defined |
| 24 | Reserved |
| 25 | Aborted due to CPU going to stop |
| 26 | Aborted due to expiration of Motion control panel heartbeat |
| 27 to 127 | Reserved |
| 128 | Axis of Motion cannot process this instruction: either the Axis of Motion is busy with another instruction, or there was no Start pulse on this instruction. |
| 129 | Reserved |
| 130 | Axis of Motion is not enabled |
| 131 | Reserved |
| 132 | Reserved |
| 133 | Illegal profile specified. The AXISx_RUN and AXISx_CACHE instructions profile number range must be between 0 - 31. |
| 134 | Illegal mode specified in AXISx_GOTO instruction |

# 4 Commissioning

## 4.1 Setting Motion Control Wizard
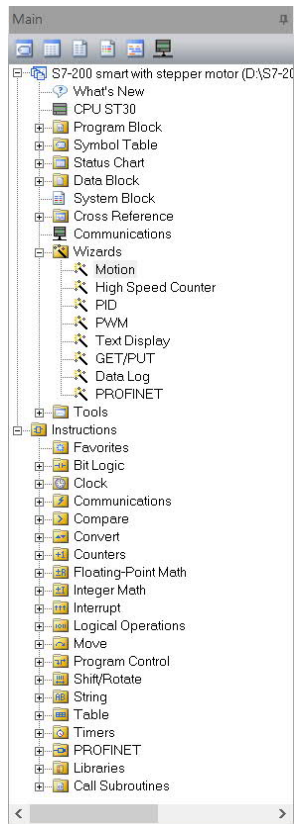
To start the Motion wizard, either click the Tools icon in the navigation bar and then double-click the Motion wizard icon, or select the Tools > Motion wizard menu command.

## Motion Control Wizard

Axes
- Axis 1 (Axis 1)
  - Measurement Syst
  - Directional Control
  - Inputs
  - Outputs
  - Motor Speeds
  - JOG
  - Motor Times
  - Jerk Time
  - Backlash Compensa
  - Reference Point
  - Read Position
  - Profiles
  - Memory Allocation
  - Components
- Mapping
- Completion

### Introduction

This wizard generates motion instructions based on the configuration and profile data you supply. You then place these instructions in your program to provide dynamic control of speed and position in your motion application.

A separate control panel is available to assist you in commissioning and monitoring your motion application.

### Number of Axes

Select axes to configure.

- ☐ Axis 0 (Axis 0)
- ☑ Axis 1 (Axis 1)
- ☐ Axis 2 (Axis 2)

[ < Previous ]  [ Next > ]          [ Generate ]  [ Cancel ]

## Motion Control Wizard

Axes
- Axis 1 (Axis 1)
  - Measurement Syst
  - Directional Control
  - Inputs
  - Outputs
  - Motor Speeds
  - JOG
  - Motor Times
  - Jerk Time
  - Backlash Compensa
  - Reference Point
  - Read Position
  - Profiles
  - Memory Allocation
  - Components
- Mapping
- Completion

### Measurement System

All speeds and distances will be specified by using the following measurement system.

Select measurement system

[ Engineering Units ▼ ]

Specify the engineering units that should be used to configure your motion profiles. All subsequent distances and speeds in this configuration will maintain the selected unit of measurement.

Number of pulses required for one motor revolution
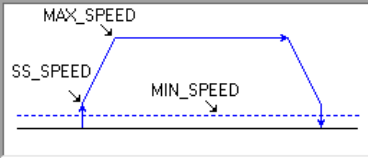
[ 1600 ]

Base unit of measurement

[ mm ▼ ]

One motor revolution produces how many 'mm' of motion?

[ 60.0 ]

[ < Previous ]  [ Next > ]          [ Generate ]  [ Cancel ]

## Motion Control Wizard      ✕

- ☑ Axes
  - ☐ ☑ Axis 1 (Axis 1)
    - ☑ Measurement Syste
    - ☐ Directional Control
    - ☐ Inputs
    - ☐ Outputs
    - ☑ Motor Speeds
    - ☑ JOG
    - ☐ Motor Times
    - ☐ Jerk Time
    - ☐ Backlash Compensa
    - ☐ Reference Point
    - ☐ Read Position
    - ☑ Profiles
    - ☑ Memory Allocation
    - ☑ Components
- ☑ Mapping
- ☐ Completion

This diagram shows the different motor speeds that can be configured.

### Maximum

What is the maximum motor speed for the application (MAX_SPEED)?

`3749.9625` mm/s
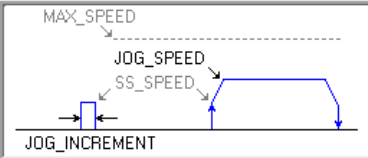
### Minimum

With the value you have entered for MAX_SPEED, the minimum speed (MIN_SPEED) that can be specified in a motion profile is:

`0.75` mm/s

### Start/Stop

What is the Start/Stop Speed for the motor (SS_SPEED)?

`0.75` mm/s

[ < Previous ]   [ Next > ]      [ Generate ]   [ Cancel ]

---

## Motion Control Wizard      ✕

- ☑ Axes
  - ☐ ☑ Axis 1 (Axis 1)
    - ☑ Measurement Syste
    - ☐ Directional Control
    - ☐ Inputs
    - ☐ Outputs
    - ☑ Motor Speeds
    - ☑ JOG
    - ☐ Motor Times
    - ☐ Jerk Time
    - ☐ Backlash Compensa
    - ☐ Reference Point
    - ☐ Read Position
    - ☑ Profiles
    - ☑ Memory Allocation
    - ☑ Components
- ☑ Mapping
- ☐ Completion

The JOG command is used to manually move the tool to a desired location. When the module receives a JOG command for less than 0.5 seconds, it will move the tool a specified distance. Continually issuing the JOG command will result in acceleration to the JOG speed. When the JOG command is terminated, the module will command a decelerated stop.

### Speed

What is the jog speed for the motor (JOG_SPEED)?

`0.75` mm/s

### Increment

Specify the distance that the tool should be moved by a JOG command received for less than 0.5 seconds (JOG_INCREMENT).

`1.0` mm

[ < Previous ]   [ Next > ]      [ Generate ]   [ Cancel ]

## Motion Control Wizard

- ☑ Axes
  - ☐ ☑ Axis 1 (Axis 1)
    - ☑ Measurement Syste
    - ☐ Directional Control
    - ⊞ ☐ Inputs
    - ⊞ ☐ Outputs
    - ☑ Motor Speeds
    - ☑ JOG
    - ☐ Motor Times
    - ☐ Jerk Time
    - ☐ Backlash Compensa
    - ☐ Reference Point
    - ☐ Read Position
    - ☐ ☑ Profiles
      - ☑ Profile
    - ☑ Memory Allocation
    - ☑ Components
- ☑ Mapping
- ☐ Completion

**Profiles**

Create a name and add a comment for each profile you want to use.

| | Name | Comment |
|---|---|---|
| 1 | Profile | |

[Add]  [Copy]  [Delete]  [Move Up]  [Move Down]

[ < Previous ]  [ Next > ]      [ Generate ]  [ Cancel ]

---

## Motion Control Wizard

- ☑ Axes
  - ☐ ☑ Axis 1 (Axis 1)
    - ☑ Measurement Syste
    - ☐ Directional Control
    - ⊞ ☐ Inputs
    - ⊞ ☐ Outputs
    - ☑ Motor Speeds
    - ☑ JOG
    - ☐ Motor Times
    - ☐ Jerk Time
    - ☐ Backlash Compensa
    - ☐ Reference Point
    - ☐ Read Position
    - ☐ ☑ Profiles
      - ☑ Profile
    - ☑ Memory Allocation
    - ☑ Components
- ☑ Mapping
- ☐ Completion

**Profile**

Select the mode of operation for this profile

[ Relative Position  ▼ ]

Profiles configured for Absolute Position and Relative Position allow up to 16 individual steps to be configured. Each step allows you to specify the target speed and position.

| | Target Speed (mm/s) | Ending Position (mm) |
|---|---|---|
| 1 | 10.0 | 20.0 |
| 2 | 2.0 | 8.6 |

[Add]  [Copy]  [Delete]  [Move Up]  [Move Down]

[ < Previous ]  [ Next > ]      [ Generate ]  [ Cancel ]

## Motion Control Wizard

☒ Axes
└─ ☒ Axis 1 (Axis 1)
    ├─ ☒ Measurement Syste
    ├─ ☐ Directional Control
    ├─ ☐ Inputs
    ├─ ☐ Outputs
    ├─ ☒ Motor Speeds
    ├─ ☒ JOG
    ├─ ☐ Motor Times
    ├─ ☐ Jerk Time
    ├─ ☐ Backlash Compensa
    ├─ ☐ Reference Point
    ├─ ☐ Read Position
    ├─ ☒ Profiles
    │  └─ ☒ Profile
    ├─ ☒ **Memory Allocation**
    └─ ☒ Components
☒ Mapping
☐ Completion

### Memory Allocation

Please specify a starting address where the configuration will be placed in the Data Block. The wizard can also suggest an address that represents an unused block of V-memory of the correct size.

[ Suggest ]

VB [ 1113 ] - VB1224 (112 bytes)

[ < Previous ]　[ Next > ]　　　　　[ Generate ]　[ Cancel ]

---

## Motion Control Wizard

☒ Axes
└─ ☒ Axis 1 (Axis 1)
    ├─ ☒ Measurement Syste
    ├─ ☐ Directional Control
    ├─ ☐ Inputs
    ├─ ☐ Outputs
    ├─ ☒ Motor Speeds
    ├─ ☒ JOG
    ├─ ☐ Motor Times
    ├─ ☐ Jerk Time
    ├─ ☐ Backlash Compensa
    ├─ ☐ Reference Point
    ├─ ☐ Read Position
    ├─ ☒ Profiles
    │  └─ ☒ Profile
    ├─ ☒ Memory Allocation
    └─ ☒ **Components**
☒ Mapping
☐ Completion

### Components

The requested configuration consists of the following project components:

| | Component | Description | Gener... |
|---|---|---|---|
| 0 | AXIS1_DATA | Data page with configuration placed at (... | |
| 1 | AXIS1_SYM | Symbol table created for this configuration | |
| 2 | AXIS1_CTRL | Subroutine initialize position module | |
| 3 | AXIS1_CFG | Subroutine reload configuration | ☑ |
| 4 | AXIS1_DIS | Subroutine activate DIS output | ☑ |
| 5 | AXIS1_GOTO | Subroutine go To move | ☑ |
| 6 | AXIS1_LDOFF | Subroutine load reference point offset | ☑ |
| 7 | AXIS1_LDPOS | Subroutine load position | ☑ |
| 8 | AXIS1_MAN | Subroutine manual mode | ☑ |
| 9 | AXIS1_RSEEK | Subroutine seek reference point position | ☑ |
| 10 | AXIS1_RUN | Subroutine run profile | ☑ |
| 11 | AXIS1_SRATE | Subroutine set rate | ☑ |
| 12 | AXIS1_CACHE | Subroutine preloads a profile into cache | ☑ |

Call the initialization and control subroutine AXIS0_CTRL every program scan. The wizard will only generate subroutines that are checked. These subroutines can be used to interface with the built-in motion. Uncheck subroutines you do not want to include.
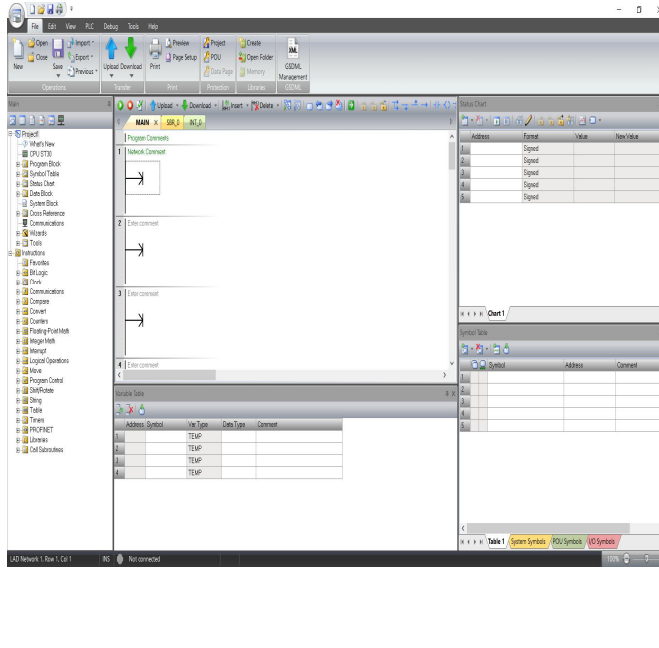
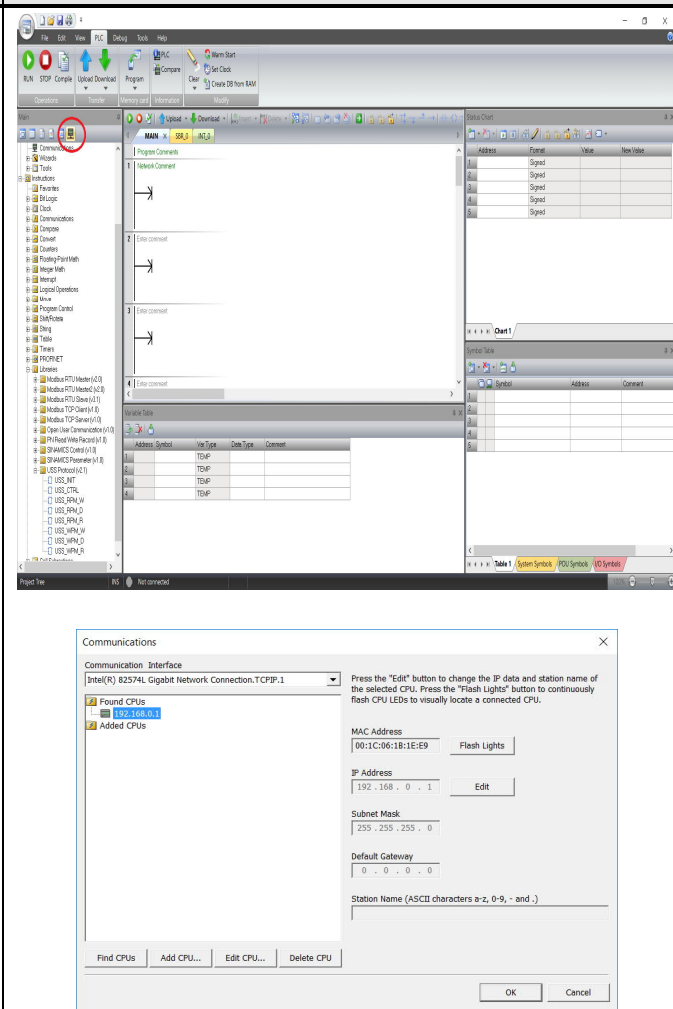[ < Previous ]　[ Next > ]　　　　　[ Generate ]　[ Cancel ]

## 4.2    Downloading the SIMATIC program

This chapter describes the steps for the installation of the example code.

We offer you examples with test code test parameters as a download. The software examples support you during the first steps and tests with your STEP7-Micro/WIN SMART. The enable quick testing of hardware and software interfaces between the products described in the tool.
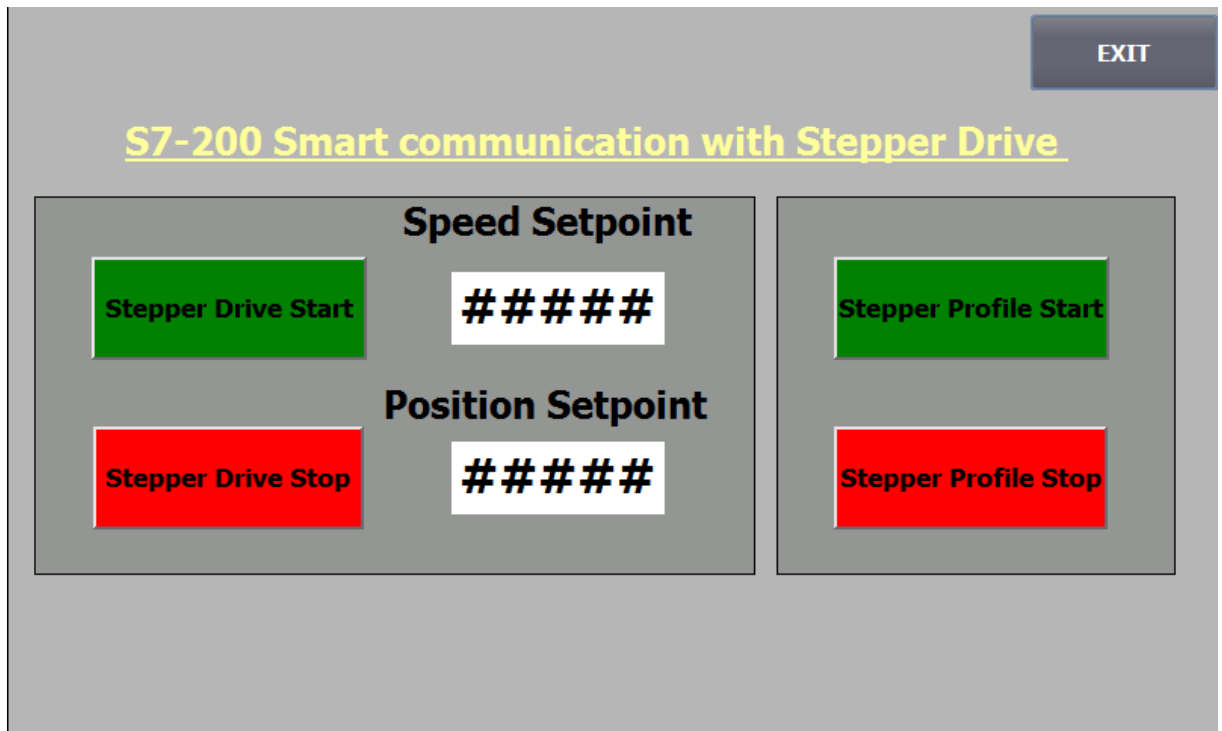
| No. | Action | Remarks |
|-----|--------|---------|
| 1. | Start STEP7-Micro/WIN SMART |  |

| No. | Action | Remarks |
|---|---|---|
| 3. | Call up "Communication". Click "Communication" and select the right "Find PLC". (All types of S7-200 SMART are available.) |  |

# 5    Operation

Here we have HMI screen shown below for controlling the operations i.e.

1)  Controlling with settable position and speed.
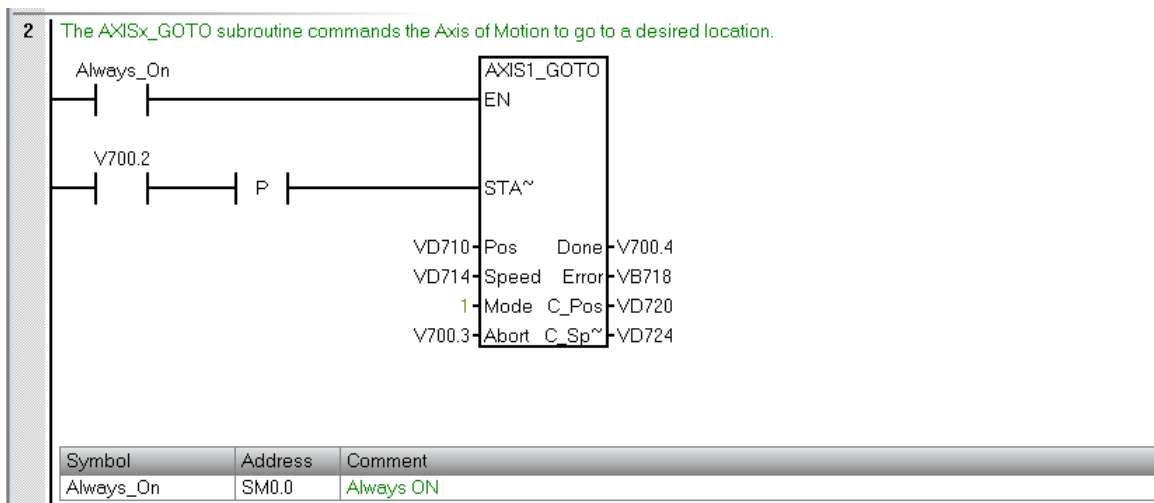
2)  Controlling with 'Profile' function.

## 5.1 Positioning

| Address | Value | Description |
|---------|-------|-------------|
| V700.2 | 1 | Start Positioning |
| VD714 | Entered from HMI | Speed |
| VD710 | Entered from HMI | Position |

### 5.1.1    Table 5-1 Positioning address

When you set the input signals as indicated in the Table 5-1, the status changes are shown as follows:

| 1 | The AXISx_CTRL subroutine (Control) enables and initializes the Axis of Motion by automatically commanding the Axis of Motion to load the configuration |

```
Always_On          AXIS1_CTRL
  | |─┤ ├──────────┤EN

Always_On
  | |─┤ ├──────────┤MOD~

                      Done ├─V700.0
                     Error ├─VB701
                     C_Pos ├─VD702
                     C_Sp~ ├─VD706
                     C_Dir ├─V700.1
```

| Symbol | Address | Comment |
|--------|---------|---------|
| Always_On | SM0.0 | Always ON |

| 2 | The AXISx_GOTO subroutine commands the Axis of Motion to go to a desired location. |

```
Always_On          AXIS1_GOTO
  | |─┤ ├──────────┤EN

V700.2
  | |─┤ ├──┤ P ├───┤STA~

         VD710─┤Pos    Done ├─V700.4
         VD714─┤Speed  Error├─VB718
             1─┤Mode   C_Pos├─VD720
        V700.3─┤Abort  C_Sp~├─VD724
```

| Symbol | Address | Comment |
|--------|---------|---------|
| Always_On | SM0.0 | Always ON |

## 5.2 Profiling

| Address | Value | Description |
|---------|-------|-------------|
| V700.2 | 1 | Start Profiling |
| VB1223 | Entered from HMI | Profile Selection |
| V700.3 | Entered from HMI | Abort |

### 5.1.2 Table 5-2 Profiling address

When you set the input signals as indicated in Table5-2, the status changes are shown as follows:
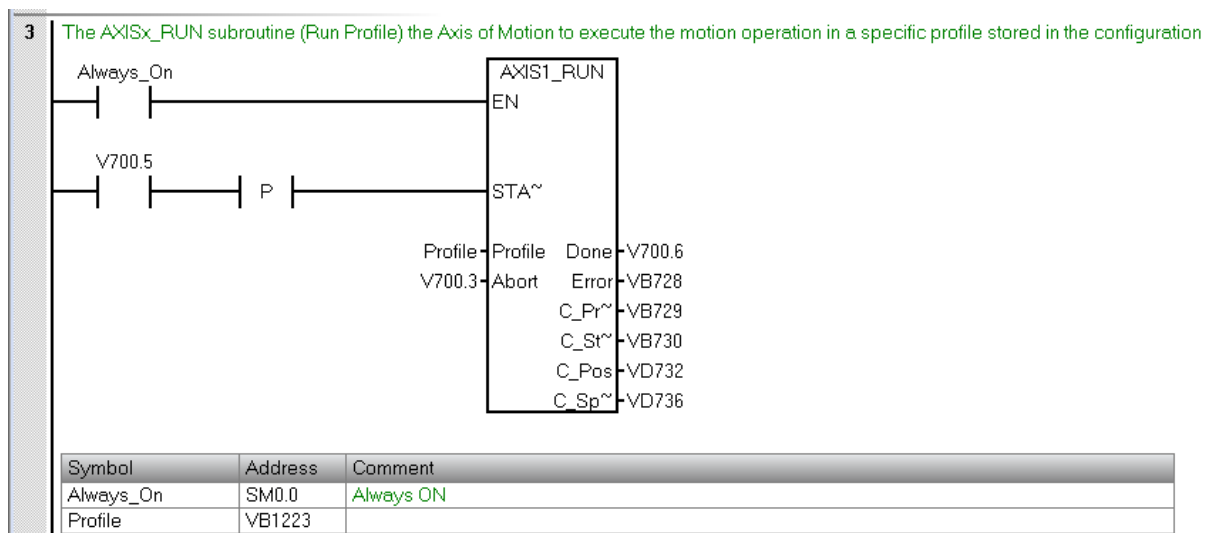
# 6 Appendix

## 6.1 Service and support

**Industry Online Support**

Do you have any questions or need assistance?

Siemens Industry Online Support offers round the clock access to our entire service and support know-how and portfolio.

The Industry Online Support is the central address for information about our products, solutions and services.

Product information, manuals, downloads, FAQs, application examples and videos – all information is accessible with just a few mouse clicks:
support.industry.siemens.com

**Technical Support**

The Technical Support of Siemens Industry provides you fast and competent support regarding all technical queries with numerous tailor-made offers
– ranging from basic support to individual support contracts. Please send queries to Technical Support via Web form:
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- Service programs and contracts

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## 6.2 Application support

Siemens Ltd

RC-IN DI FA TECH SUP

Thane Belapur Road
Thane 400601, India


Pre-sales Support

Email: rginslpresales-fa.in@siemens.com


## 6.3 Links and literature

Table 6-1

|  | Topic | Title / link |
|---|---|---|
| /1/ | Reference to the document |  |
| /2/ | Siemens Industry Online Support | http://support.automation.siemens.com |
| /3/ | Industry Mall-Siemens DE | https://eb.automation.siemens.com/goos/WelcomePage.aspx?regionUrl=/de&language=en |
| /4/ | S7-200 SMART System Manual | https://assets.new.siemens.com/siemens/assets/api/uuid:aa045b50-b9f4-4e46-a4c4-ca882c5f00ec/version:1573480788/s7-200-smart-system-manual-en-us.pdf |
| /5/ | S7-200 SMART website | https://new.siemens.com/in/en/products/automation/systems/industrial/plc/simatic-s7-200-smart.html |


## 6.4 Change documentation

Table 6-2

| Version | Date | Modifications |
|---|---|---|
| V1.0 | 01/2020 | First version |
|  |  |  |
|  |  |  |