



TIA Portal V15.1 Parameter Services V 4.3

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1 Foreword

STOBER provides you with numerous Siemens SIMATIC function blocks which make it easier for you to use acyclic communication between the drive controller and controller. To use the function blocks, you only need your PROFINET network to be functional and the parameters you want to use for acyclic communication to be available in the drive controller. Since the SIMATIC function blocks are not subject to any know-how protection, you can customize them to your requirements.

2 User information

For making efficient use of the example projects provided by STOBER, you should be familiar with the PROFINET network technology and the associated Siemens SIMATIC automation systems, particularly programming with the Siemens TIA Portal as well as creating and editing the hardware configuration.

2.1 Timeliness

Check whether this document is the latest version of the documentation. We make the latest document versions for our products available for download on our website:

<http://www.stoeber.de/en/downloads/>.

2.2 Original language

The original language of this documentation is German; all other language versions are derived from the original language.

2.3 Described product

Drive controllers of the SD6 series in combination with the DriveControlSuite software in V 6.4-D or later and associated firmware in V 6.4-D or later, or drive controllers of the SC6 or SI6 series in combination with the DriveControlSuite (DS6) software in V 6.4-D or later and associated firmware in V 6.4-D-PN or later.

2.4 Applicable documentation

This documentation supplements the PROFINET for SD6 or PROFINET for SI6 and SC6 manuals as well as the Drive Based manual. You may use the documentation at hand only in combination with the listed manuals.

2.5 Legal disclaimer

The example projects provided in the STOBER download center for commissioning a PROFINET network consisting of multiple STOBER drive controllers of the 6th generation in combination with a SIMATIC S7-1200 or SIMATIC S7-1500 controller from Siemens are available as a free service.

The examples contain solely the basic procedure for creating a PLC program and are provided without obligation. STOBER assumes no liability for their content, function and applicability in a real-world machine or application.

2.6 Markup of text elements

Certain elements of the continuous text are distinguished as follows.

Important information	Words or expressions with a special meaning
Interpolated position mode	Optional: File or product name or other name
<u>Detailed information</u>	Internal cross-reference
http://www.samplelink.com	External cross-reference

Software and other displays

The following formatting is used to identify the various information content of elements referenced by the software interface or a drive controller display, as well as any user entries.

Main menu Settings	Window names, dialog box names, page names or buttons, combined proper nouns, functions referenced by the interface
Select Referencing method A	Predefined entry
Save your <own IP address>	User-defined entry
EVENT 52: COMMUNICATION	Displays (status, messages, warnings, faults)

Keyboard shortcuts and command sequences or paths are represented as follows.

[Ctrl], [Ctrl] + [S]	Key, shortcut
Table > Insert table	Navigation to menus/submenus (path specification)

2.7 Trademarks

The following names used in connection with the device, its optional equipment and its accessories are trademarks or registered trademarks of other companies:

Windows[®],
Windows[®] 7,
Windows[®] 10,
Windows[®] 11

Windows[®], the Windows[®] logo, Windows[®] XP, Windows[®] 7, Windows[®] 10, and Windows[®] 11 are registered trademarks of Microsoft Corporation in the United States and/or other countries.

PROFIBUS[®],
PROFINET[®]

PROFIBUS[®] and PROFINET[®] are registered trademarks of PROFIBUS Nutzerorganisation e.V., Karlsruhe, Germany.

SIMATIC[®],
TIA Portal[®]

SIMATIC[®] and TIA Portal[®] are registered trademarks of Siemens AG, Munich, Germany.

All other trademarks not listed here are the property of their respective owners.

Products that are registered as trademarks are not specially indicated in this documentation. Existing property rights (patents, trademarks, protection of utility models) are to be observed.

3 STOBER Parameter Services

The STOBER example project for acyclic communication was created with the Siemens Engineering System Totally Integrated Automation Portal (TIA Portal), Version V15 SP1 or DriveControlSuite V 6.4-D and includes the following files:

- SAT_ParamExample_V15_1500.zip15_1
TIA Portal archive for the SIMATIC S7-1500 controller
- TIA_ParamExample_Antriebsregler_V 4.3.ds6
The DS6 project file contains an example configuration for the SI6 drive controller

The example project contains SIMATIC function blocks to communicate parameters of a STOBER drive controller of the 6th generation acyclically between the controller and drive controller.

The function blocks are not protected and can thus be adapted individually.

Scope of functions

The example project includes a SI6 drive controller in double-axis design in combination with the Drive Based application and command operating mode. You can use the SIMATIC function blocks for acyclic communication independently of the configured drive controller and independently of the application and operating mode as long as the parameters that you want to communicate between the drive controller and the controller are available in the drive controller.

To ensure good reuse of the program code, you should use a separate instance of the respective function block for the acyclic communication of each axis.

Only one acyclic access may be made per drive controller at the same time. You can implement this locking via the xLockAcyclic block input/output.

Included function blocks

SIMATIC function block	Description
G6_GetParamAddress_PN [FC1]	Determines the PNU and subindex for acyclic communication from the parameter coordinate.
Read_Acyclic [FB20]	Reads parameters of the DINT, DWORD or REAL data type.
Write_Acyclic [FB21]	Writes parameters of the DINT, DWORD or REAL data type.
Read_Acyclic_String [FB22]	Reads parameters of the STR8, STR16 or STR80 data type.
Write_Acyclic_String [FB23]	Writes parameters of the STR8, STR16 or STR80 data type.
Read_Acyclic_ArrayVariant [FB24]	Reads array parameters of the VARIANT data type.
Write_Acyclic_ArrayVariant [FB25]	Writes array parameters of the VARIANT data type.

Prerequisite – System environment

In order to be able to use the Parameter Services V 4.3 example project, the following system environment is required:

- STOBER SI6 series drive controllers in conjunction with the DriveControlSuite software in V 6.4-D or later and associated firmware in V 6.4-D or later, or

in combination with

- Siemens Totally Integrated Automation Portal (TIA Portal) V15 SP1 automation software
- Siemens SIMATIC S7-1200 controller (firmware version 4.2 or later) or
Siemens SIMATIC S7-1500 controller (firmware version 2.0 or later)

4 Function blocks

4.1 G6_GetParamAddress_PN [FC1]

The G6_GetParamAddress_PN [FC1] function block determines the associated parameter number (PNU) and subindex for acyclic communication from the parameter coordinate. G6_GetParamAddress_PN [FC1] communicates with the drive controllers in the network over the inputs and outputs described below.

Information

The address space for acyclic communication is limited to PNU up to and including 511. PNUs above 511 cannot be reached with acyclic services.

A detailed description of addressing parameters as well as calculating the PNU can be found in the PROFINET manual of the drive controller in question (see the chapter [Detailed information](#) [► 24]).

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none">▪ SD6: 1 – 4▪ SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.

Outputs

Output	Data type	Description
wPNU	WORD	Output of the PNU for addressing the acyclic service.
usiSubIndex	BYTE	Output of the subindex for addressing the acyclic service.
xError	BOOL	Output of a collective signal bit in the event of an error. The cause of the error is not broken down in more detail. In case of error, check the format of the input for sParam.

4.2 Read_Acyclic [FB20]

The Read_Acyclic [FB20] function block enables parameters to be read from the drive controller in DINT, DWORD or REAL format. Read_Acyclic [FB20] communicates with the drive controllers in the network via inputs and outputs described below.

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none"> SD6: 1 – 4 SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.
PNAdr	HW_IO	Hardware identifier of the drive controller. System constants are available in the standard variable table in the TIA Portal for this purpose; select the Device name~HEAD element.
rTimeOutVal	TIME	Tolerated failure time for monitoring the PZD communication in the PROFINET network. Depending on the configured update time, acyclic communication can last seconds. Default value: 5 s.
xReadDWord	BOOL	Starts reading parameters in DWORD or DINT format on a rising edge. The result is available at the dwValue output.
xReadReal	BOOL	Starts reading parameters in REAL format on a rising edge. The result is available in the rValue output.

Outputs

Output	Data type	Description
xBusy	BOOL	Processing is still active, no result is available yet (high level).
xDone	BOOL	Processing has been completed, a result is available (high level).
xError	BOOL	Processing has been completed with errors (high level). The dwErrorID output outputs the associated error code.
xTimeOut	BOOL	Processing was aborted because there was no result within the time rTimeOutVal (high level).
dwErrorID	DWORD	Error code in case of error (xError). The cause may be in the RDREC or WRREC system function blocks or in the respective function block itself (see the chapter Error diagnosis [► 20]).
dwValue	DWORD	Result of xReadDWord. For read jobs via xReadDWord for parameters in REAL format, the result is 0.
rValue	REAL	Result of xReadReal. For read jobs via xReadReal for parameters in DWORD or DINT format, the result is 0.

Inputs and outputs

Input/Output	Data type	Description
xLockAcyclic	BOOL	<p>Access lock for the drive controller: Only one acyclic access is permitted per drive controller at a time.</p> <p>All acyclic accesses (both read and write) of a drive controller should be connected to the same global variable at the function block connection (e.g. xLockDev1).</p>

4.3 Write_Acyclic [FB21]

The Write_Acyclic [FB21] function block enables parameters to be written to the drive controller in DINT, DWORD or REAL format. Write_Acyclic [FB21] communicates with the drive controllers in the network via inputs and outputs described below.

Information

Changes to the parameters are only stored in the non-volatile memory of the drive controller when you finally execute the A00 Save values action.

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none"> SD6: 1 – 4 SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.
PNAdr	HW_IO	Hardware identifier of the drive controller. System constants are available in the standard variable table in the TIA Portal for this purpose; select the Device name~HEAD element.
rTimeOutVal	TIME	Tolerated failure time for monitoring the PZD communication in the PROFINET network. Depending on the configured update time, acyclic communication can last seconds. Default value: 5 s.
xWriteDint	BOOL	Starts writing parameters in DINT format on a rising edge. The value to be transmitted is specified via the diValue input and transmitted in scaled form.
xWriteReal	BOOL	Starts writing parameters in REAL format on a rising edge. The value to be transmitted is specified via the rValue input and transmitted in scaled form.
diValue	DINT	Value to be transmitted for parameters in DINT format.
rValue	REAL	Value to be transmitted for parameters in REAL format.

Outputs

Output	Data type	Description
xBusy	BOOL	Processing is still active, no result is available yet (high level).
xDone	BOOL	Processing has been completed, a result is available (high level).
xError	BOOL	Processing has been completed with errors (high level). The dwErrorID output outputs the associated error code.
xTimeOut	BOOL	Processing was aborted because there was no result within the time rTimeOutVal (high level).
dwErrorID	DWORD	Error code in case of error (xError). The cause may be in the RDREC or WRREC system function blocks or in the respective function block itself (see the chapter Error diagnosis [► 20]).

Inputs and outputs

Input/Output	Data type	Description
xLockAcyclic	BOOL	Access lock for the drive controller: Only one acyclic access is permitted per drive controller at a time. All acyclic accesses (both read and write) of a drive controller should be connected to the same global variable at the function block connection (e.g. xLockDev1).

4.4 Read_Acyclic_String [FB22]

The Read_Acyclic_String [FB22] function block enables parameters to be read from the drive controller in STR8, STR16 or STR80 format. Read_Acyclic_String [FB22] communicates with the drive controllers in the network using the inputs and outputs described below.

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none"> SD6: 1 – 4 SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.
PNAdr	HW_IO	Hardware identifier of the drive controller. System constants are available in the standard variable table in the TIA Portal for this purpose; select the Device name~HEAD element.
rTimeOutVal	TIME	Tolerated failure time for monitoring the PZD communication in the PROFINET network. Depending on the configured update time, acyclic communication can last seconds. Default value: 5 s.
xReadString	BOOL	Starts reading parameters in STR format on a rising edge. The result is available in the sValue output. The transmission format (STR8, STR16, STR80) of the output string is adapted automatically.

Outputs

Output	Data type	Description
xBusy	BOOL	Processing is still active, no result is available yet (high level).
xDone	BOOL	Processing has been completed, a result is available (high level).
xError	BOOL	Processing has been completed with errors (high level). The dwErrorID output outputs the associated error code.
xTimeOut	BOOL	Processing was aborted because there was no result within the time rTimeOutVal (high level).
dwErrorID	DWORD	Error code in case of error (xError). The cause may be in the RDREC or WRREC system function blocks or in the respective function block itself (see the chapter Error diagnosis [► 20]).
sValue	STR	Result of xReadString.

Inputs and outputs

Input/Output	Data type	Description
xLockAcyclic	BOOL	<p>Access lock for the drive controller: Only one acyclic access is permitted per drive controller at a time.</p> <p>All acyclic accesses (both read and write) of a drive controller should be connected to the same global variable at the function block connection (e.g. xLockDev1).</p>

4.5 Write_Acyclic_String [FB23]

The Write_Acyclic_String [FB23] function block enables parameters to be written to the drive controller in STR8, STR16 or STR80 format. Write_Acyclic_String [FB23] communicates with the drive controllers in the network over the inputs and outputs described below.

Information

Changes to the parameters are only stored in the non-volatile memory of the drive controller when you finally execute the A00 Save values action.

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none"> SD6: 1 – 4 SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.
PNAdr	HW_IO	Hardware identifier of the drive controller. System constants are available in the standard variable table in the TIA Portal for this purpose; select the Device name~HEAD element.
rTimeOutVal	TIME	Tolerated failure time for monitoring the PZD communication in the PROFINET network. Depending on the configured update time, acyclic communication can last seconds. Default value: 5 s.
xWriteString8	BOOL	Starts writing parameters in STR8 format on a rising edge. The value to be transmitted is specified via the sValue input.
xWriteString16	BOOL	Starts writing parameters in STR16 format on a rising edge. The value to be transmitted is specified via the sValue input.
xWriteString80	BOOL	Starts writing parameters in STR80 format on a rising edge. The value to be transmitted is specified via the sValue input.
sValue	STR80	Value to be transmitted for parameters in STR80 format. If the length of the string in sValue exceeds the intended length, the string in sValue is truncated from the end.

Outputs

Output	Data type	Description
xBusy	BOOL	Processing is still active, no result is available yet (high level).
xDone	BOOL	Processing has been completed, a result is available (high level).
xError	BOOL	Processing has been completed with errors (high level). The dwErrorID output outputs the associated error code.
xTimeOut	BOOL	Processing was aborted because there was no result within the time rTimeOutVal (high level).
dwErrorID	DWORD	Error code in case of error (xError). The cause may be in the RDREC or WRREC system function blocks or in the respective function block itself (see the chapter Error diagnosis [► 20]).
xLimited	BOOL	The string in sValue is longer than the length to be transmitted and has been shortened.

Inputs and outputs

Input/Output	Data type	Description
xLockAcyclic	BOOL	Access lock for the drive controller: Only one acyclic access is permitted per drive controller at a time. All acyclic accesses (both read and write) of a drive controller should be connected to the same global variable at the function block connection (e.g. xLockDev1).

4.6 Read_Acyclic_ArrayVariant [FB24]

The Read_Acyclic_Array [FB24] function block enables an array parameter to be read from the drive controller in DINT or REAL format. For example, a typical application is reading motion block positions in J13[0..x]. Read_Acyclic_Array [FB24] communicates with the drive controllers in the network using the inputs and outputs described below.

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none"> SD6: 1 – 4 SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.
PNAdr	HW_IO	Hardware identifier of the drive controller. System constants are available in the standard variable table in the TIA Portal for this purpose; select the Device name~HEAD element.
rTimeOutVal	TIME	Tolerated failure time for monitoring the PZD communication in the PROFINET network. Depending on the configured update time, acyclic communication can last seconds. Default value: 5 s.
uiFirstSubIndex	UINT	First array element to be addressed.
uiLastSubIndex	UINT	Last array element to be addressed.
DB_Array	VARIANT	Pointer on the associated values of the array. The array must have the same size as the parameter in the drive controller, even if not all elements are addressed during access.
xReadArrayDint	BOOL	Starts reading array parameters in DINT format on a rising edge.
xReadArrayReal	BOOL	Starts reading array parameters in REAL format on a rising edge.

Outputs

Output	Data type	Description
xBusy	BOOL	Processing is still active, no result is available yet (high level).
xDone	BOOL	Processing has been completed, a result is available (high level).
xError	BOOL	Processing has been completed with errors (high level). The dwErrorID output outputs the associated error code.
xTimeOut	BOOL	Processing was aborted because there was no result within the time rTimeOutVal (high level).
dwErrorID	DWORD	Error code in case of error (xError). The cause may be in the RDREC or WRREC system function blocks or in the respective function block itself (see the chapter Error diagnosis [► 20]).

Inputs and outputs

Input/Output	Data type	Description
xLockAcyclic	BOOL	Access lock for the drive controller: Only one acyclic access is permitted per drive controller at a time. All acyclic accesses (both read and write) of a drive controller should be connected to the same global variable at the function block connection (e.g. xLockDev1).

4.7 Write_Acyclic_ArrayVariant [FB25]

The Write_Acyclic_Array [FB25] function block enables an array parameter to be written to the drive controller in DINT or REAL format. For example, a typical application is reading motion block positions in J13[0..x]. Write_Acyclic_Array [FB25] communicates with the drive controllers in the network over the inputs and outputs described below.

Information

Changes to the parameters are only stored in the non-volatile memory of the drive controller when you finally execute the A00 Save values action.

Inputs

Input	Data type	Description
usiAxisNo	USINT	Number of the axis to be addressed in the drive controller: <ul style="list-style-type: none"> SD6: 1 – 4 SC6, SI6: 1 or 2
sParam	STR	Coordinate of the parameter to be addressed, e.g. E120 or J10[0]. The coordinate is converted internally to the associated PNU including subindex for PROFINET.
PNAdr	HW_IO	Hardware identifier of the drive controller. System constants are available in the standard variable table in the TIA Portal for this purpose; select the Device name~HEAD element.
rTimeOutVal	TIME	Tolerated failure time for monitoring the PZD communication in the PROFINET network. Depending on the configured update time, acyclic communication can last seconds. Default value: 5 s.
uiFirstSubIndex	UINT	First array element to be addressed.
uiLastSubIndex	UINT	Last array element to be addressed.
DB_Array	VARIANT	Pointer on the associated values of the array. The array must have the same size as the parameter in the drive controller, even if not all elements are addressed during access.
xWriteArrayDint	BOOL	Starts writing array parameters in DINT format on a rising edge.
xWriteArrayReal	BOOL	Starts writing array parameters in REAL format on a rising edge.

Outputs

Output	Data type	Description
xBusy	BOOL	Processing is still active, no result is available yet (high level).
xDone	BOOL	Processing has been completed, a result is available (high level).
xError	BOOL	Processing has been completed with errors (high level). The dwErrorID output outputs the associated error code.
xTimeOut	BOOL	Processing was aborted because there was no result within the time rTimeOutVal (high level).
dwErrorID	DWORD	Error code in case of error (xError). The cause may be in the RDREC or WRREC system function blocks or in the respective function block itself (see the chapter Error diagnosis [► 20]).

Inputs and outputs

Input/Output	Data type	Description
xLockAcyclic	BOOL	Access lock for the drive controller: Only one acyclic access is permitted per drive controller at a time. All acyclic accesses (both read and write) of a drive controller should be connected to the same global variable at the function block connection (e.g. xLockDev1).

5 Error diagnosis

5.1 dwErrorID: Error codes

The following table shows the possible error codes for the dwErrorID output.

Error code	Cause	Function block
F00B_0000	The passed pointer does not point to an array.	<ul style="list-style-type: none"> Read_Acyclic_Array Write_Acyclic_Array
F00B_0001	The array passed is not of the UINT data type.	<ul style="list-style-type: none"> Read_Acyclic_Array Write_Acyclic_Array
F00B_0002	The passed array is too small to hold the read parameter contents or ui_LastSubIndex - ui_FirstSubIndex is larger than the passed array.	<ul style="list-style-type: none"> Read_Acyclic_Array Write_Acyclic_Array
F00B_0003	The parameter address is invalid.	All
F00B_0005	Several start signals were created, but no acyclic service was started.	<ul style="list-style-type: none"> Read_Acyclic Write_Acyclic Write_Acyclic_String
F00B_0006	The parameter to be read is not of the STR data type.	<ul style="list-style-type: none"> Read_Acyclic_String
F00B_0007	The index of the array is incorrect. FirstSubIndex too large, LastSubIndex too large, FirstSubIndex > LastSubIndex,	<ul style="list-style-type: none"> Read_Acyclic_Array Write_Acyclic_Array
F00B_0008	More than 1 acyclic service active at the same time	<ul style="list-style-type: none"> Read_Acyclic_Array Write_Acyclic_Array
0000_00xx	Write or read access to the parameter is not possible. For information on the reasons for denial, see RDREC, WRREC: Error codes [► 21] .	All
000B_0000	Write or read access to the parameter is not possible. Check the access level in the drive controller (parameter A10[3]).	All
0 hex – C1 hex	Error codes of the WRREC and RDREC system function blocks (see RDREC, WRREC: Error codes [► 21]).	<ul style="list-style-type: none"> WRREC RDREC

Tab. 1: dwErrorID: Error codes

5.2 RDREC, WRREC: Error codes

The following table shows the possible error codes for the RDREC and WRREC system function blocks.

Error code	Cause
0 hex	Parameter unfamiliar or configuration stopped
1 hex	Access to read-only parameter
2 hex	Access to parameter with value outside the limit
3 hex	Access to unavailable subindex (array parameter)
B hex	User level not reached
11 hex	Parameter may not be changed in the current device state; deactivate release
14 hex	Invalid value within maximum limits; only occurs in the case of selection parameters with a broken definition range
16 hex	One or more incorrect values in the attribute, Number_of_elements, Parameter_number and subindex elements
17 hex	Invalid format specification
18 hex	Contrary value in the Number_of_elements and Number_of_values elements
21 hex	Invalid Request_ID = Service not supported; applies to errors in the header of the request block
A5 hex	Error cannot be specified in more detail
B0 hex	Parameter service currently not possible or valid parameter description not present
B2 hex	Unfamiliar parameter address (parameter or element does not exist)
B3 hex	Read/write access not possible for specified parameter address
B9 hex	Parameter service: Value in definition gap (observe ENUM list)
BA hex	Parameter service: Clash with other values
C0 hex	Parameter service: Error in pre-read function
C1 hex	Parameter service: Error in post-write function; value has already been received

Tab. 2: RDREC, WRREC: Error codes

6 Visualization

The example projects contain a visualization function that makes operation in the evaluation phase of the blocks easier. The visualization can also be called up directly via the user's PC through a simulation without needing available HMI hardware.

The associated procedure is as follows:

1. Use the example project in the form it was downloaded in from the STOBER download center or copy the HMI_1 tree from the example project completely into your own project.
 2. For proper connection to the controller, the PG interface must be configured correctly.
Tools > Settings > Online & diagnostics: Check the configuration settings and correct them if necessary.
 3. Select the HMI_1 tree in the project navigation.
 4. Online > Simulation > Start: Start the simulated display of the image.
- ⇒ Using the buttons and input fields of the visualization function, the block can be filled with values and operated. The states of the inputs and outputs are visualized by the indicator lights.

If a connection cannot be established, check the configuration of the PG/PC interface of your computer:

Start > Control Panel > PG/PC interface: Select the network connection you are using.

7 Appendix

7.1 Abbreviations

Abbreviation	Meaning
DB	Data Block
FB	Function Block
FC	Function Call
I/O	Input/Output
IP	Internet Protocol
OB	Organization Block
PNU	Parameter Number
PROFINET	Process Field Network
PZD	Prozessdaten (process data)
RDREC	Read Record
RxD	Receive data
PLC	Programmable Logic Controller
STRUCT	Structure
TIA	Totally Integrated Automation
TCP	Transmission Control Protocol
TxD	Transmit data
UDP	User Data Protocol
WRREC	Write Record

7.2 Detailed information

The documentation listed below provides you with further relevant information on the 6th STOBER drive controller generation. You can find the current status of the documentation in the STOBER download center at <http://www.stoeber.de/en/downloads/>, if you enter the ID of the documentation in the search.

Title	Documentation	Contents	ID
PROFINET communication – SD6	Manual	Installation, electrical installation, data transfer, commissioning, diagnostics, detailed information	442710
PROFINET communication – SC6, SI6	Manual	Electrical installation, data transfer, commissioning, diagnostics, detailed information	443039
SD6 drive controller	Manual	System design, technical data, project configuration, storage, installation, connection, commissioning, operation, service, diagnostics	442426
Multi-axis drive system with SI6 and PS6	Manual	System design, technical data, project configuration, storage, installation, connection, commissioning, operation, service, diagnostics	442728
PROFIdrive application – SC6, SI6	Manual	Project configuration, configuration, parameterization, function test, detailed information	443270
Drive Based (DB) application	Manual	Project planning, configuration, parameterization, function test, detailed information	442706
Motion commands	Manual	Control and status information, denials and limitations, motion	443349

Additional information and sources that form the basis of this documentation or are referenced by the documentation:

Information concerning PROFINET

You can find general information on PROFINET on the PROFIBUS & PROFINET International (PI) website at <http://www.profibus.com>. PROFINET-specific guidelines, profiles, presentations, brochures and software are available in the corresponding download area.

Information concerning the Siemens TIA Portal

The most important information about the Siemens TIA Portal and additional documents, links and training courses can be found at <http://www.industry.siemens.com/topics/global/en/tia-portal/pages/default.aspx>.

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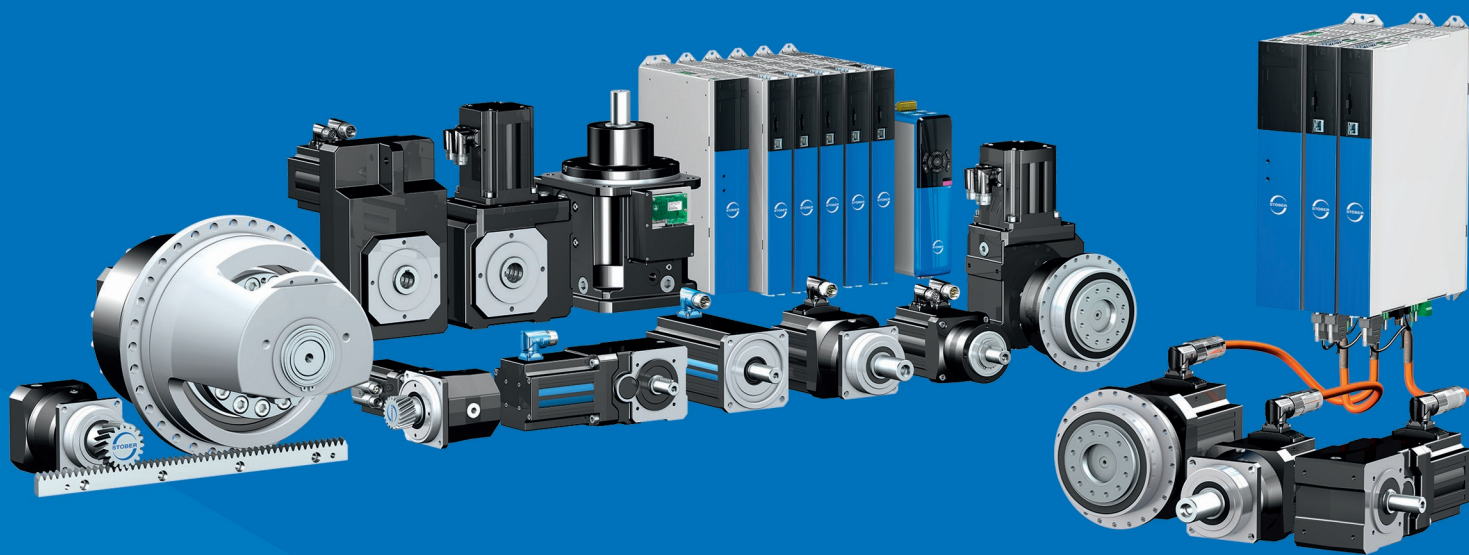
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