Shared Memory Communication

This example shows how data can be exchanged between a CODESYS controller and other processes by means of shared memory.

Product description

In the sample project, data from a CODESYS controller is shared with other processes by means of shared memory. The CODESYS package includes additional implementation examples in C (Linux), C# (Windows), and C++ (Windows).

The CODESYS package includes the following examples:

SharedMemoryExampleExt.project

The project uses shared memory to read and write data with the `SysShm` library. The `DataExchange` structure is used for data exchange. Values from shared memory is read to the variable `deInstRead`. The variable `deInstWrite` is used for writing values to shared memory. The values of `deInstWrite` are changed in each cycle. The values of both variables are displayed in the visualization.

The following examples read the value of `deInstWrite` and write to the variable `deInstRead`:

SharedMemoryCLinux

C program for Linux to read and write data be means of shared memory

SharedMemoryWinCpp

C++ program for Windows to read and write data be means of shared memory

SharedMemoryWinCSharp

C# program for Windows to read and write data be means of shared memory

SharedMemoryExampleExt.project/SyncExample:

The application `SyncExample` shows how data can be read and written synchronously via shared memory.

SynchronizationExample:

C++ program for Windows for synchronized reading and writing of data via shared memory. In this example the data exchange is done by the application `SyncExample`.

Screenshots

General information

Vendor:

CODESYS GmbH
Memminger Strasse 151
87439 Kempten
Germany

Support:

https://support.codesys.com

Item:
Shared Memory Communication
Item number:
000077
Sales:

CODESYS Store
https://store.codesys.com

Included in delivery:
CODESYS package with CODESYS sample project, C example for Linux, and C# and C++ examples for Windows

System requirements and restrictions

Programming System	CODESYS Development System V3.5.16.0
Runtime System	CODESYS Control V3.5.16.0
Supported Platforms/ Devices	All Note: Use the project "Device Reader" to find out the supported features of your device. "Device Reader" is available for free in the CODESYS Store.
Additional Requirements	• gcc compiler for compiling the Linux example • Visual Studio 2015 for compiling the C#- and C++ examples
Restrictions	-
Licensing	-
Required Accessories	-

Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact sales@codesys.com.

Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.