The CoDeSys System Libraries

Overview, Last update: 29/09/2006, as from CoDeSys V2.3.7.0

Library	Functionality	integrated in LZS CoDeSys SP....				
		RTE	32bit full	32bit emb.	16bit	8bit
SysLibCallback.lib	Activating of defined callback functions for runtime events	X	X	X 1)	X 4)	-
SysLibCom.lib	Serial communication with a target system	X	X	X 2)	- 3)	-
SysLibDir.lib	Managing a file directory system on the target system	X	X	X	-	-
SysLibDirect.lib	Accessing variables by indices, by which they are referenced in the runtime system	-	X	- 3)	-	-
SysLibDPV1Hilscher.lib	Acyclic Profibus DPV1, Class 1, Write- and Read-Services for data transfer between Master and Slaves.	8)	8)	8)	8)	8)
SysLibEvent.lib	Synchronizing and controlling the processing of two (IEC-)tasks	-	X	-	-	-
SysLibFile.lib	Handling of a file system on the target system	X	X	X	-	-
SysLibFileAsync.lib	Handling of a file system (asynchronous access) on the target system	X	X	-	-	-
SysLibFileStream.lib	Functions for handling file streams, corresponding to the appropriate ANSI C functions	-	X	-	-	-
SysLibGetAddress.lib	Function for retrieving the start address of a data segment	X	X	-	-	-
SysLibIECTasks.lib	Special functions for the handling of IEC-tasks (see also SysLibTasks.lib)	-	X	-	-	-
SysLibInitLibrary.lib	Initialization of an external library, which is available as an obj-file on the development system	-	X 2)	X	-	-
SysLibInt.lib	Applying the interrupt-handler on a function	-6)	X	- 3)	-	-
SysLibMem.lib	Memory management	X	X	- 3)	- 3)	-
SysLibPciCards.lib	Accessing a Pci card plugged to the Plc	X	X	-	-	-
SysLibPlcConfig.lib	Information on the PLC Configuration by reading the corresponding structures in the runtime system.	-	X	-	-	-
SysLibPlcCtrl.lib	Controlling the PLC referring retain variables and watchdog	-	X	- 3)	- 3)	-
SysLibPorts.lib	Communication with external hardware devices via the port addresses, e.g. realtime clock, graphic controller etc.	X	X 5)	X 2)	-	-
SysLibProjectInfo.lib	Reading the project information	-	X	X	- 3)	
SysLibRtc.lib	Reading the realtime clock of the computer	-	X	- 3)	- 3)	-

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		RTE	32bit full	32bit emb.	16bit	8bit
SysLibSem.lib	Creating and using semaphores for task synchronization	-	X	-	-	-
SysLibShm.lib	Creating and accessing a Shared Memory	X7)	X	X 2)	-	-
SysLibSockets.lib	Accessing sockets for communication via TCP/IP and UDP	X	X	X	-	-
SysLibSocketsAsync.lib	Asynchronous accessing of sockets for communication via TCP/IP and UDP	-	X	-	-	-
SysLibSymbols.lib	Function for getting the address of a symbol during run time.	-	X	-	-	-
SysLibStr.lib	Functions for string handling (copy, compare, etc.)	-	X	- 3)	- 3)	-
SysLibTasks.lib	Task handling (see also SysLibIECTasks.lib)	-	X	-	-	-
SysLibTime.lib	Additional functions for reading the realtime clock (see also SysLibRtc.lib); required for the viewing of the task time evaluation in the taskconfiguration of CoDeSys	X	X	X 2)	- 3)	-

Note 1) Only the events EVENT_AFTER_READING_INPUTS, EVENT_BEFORE_WRITING_OUTPUTS, EVENT_START, EVENT_STOP, EVENT_BEFORE_RESET, EVENT_AFTER_RESET, EVENT_DEBUG_LOOP.

Note 2) Must be programmed according to the respective operating system within the scope of an adaptation.

Note 3) Realization in runtime system is possible

Note 4) Only the events EVENT_START, EVENT_STOP, EVENT_DEBUG_LOOP.

Note 5) Only for X86

Note 6) Realized via SysLibCallback

Note 7) Only physical SHM on cards

Note 8) Supported by runtime systems running with Hilscher-card driver; please contact 3S-Smart Software Solutions GmbH for exact information.