Datasheet for CoDeSys V3

x86 and compatible

Object code generation and runtime system data

Supported C compiler for the runtime system

Different compilers can be used. Please check compatibility with your CoDeSys representative.

Code / data

Maximum code size	Unlimited
Maximum data size	Unlimited
Maximum number of POUs	Unlimited
Maximum size of POUs	Unlimited
Maximum size of variables	Unlimited
Maximum relative jump distance	Unlimited
Minimum memory requirement for the runtime code	300 kB
Recommended memory size for the runtime code	600 kB
Minimum memory requirement for the runtime data	128 kB
Recommended memory for the runtime data	1 MB
Recommended memory size for the application code	1 MB (depends on the application(s))
Recommended data size for the application(s)	1 MB (depends on the application(s))

External functions

C libraries (function reference resolution in the runtime)	Yes

Multitasking

The CoDeSys runtime can run in a multitasking environment either natively with one of the supported OS or with additional specific development.

Programming

Online change	Yes
FPU support	Yes

Debugging

Monitoring	Yes
Forcing	Yes
Trace	Yes
Breakpoints	Yes
Flow control	Not yet implemented
Call stack	Yes
Call stack after exception	Yes

Communication

Serial RS 232	Yes
UDP	Yes
CAN	Yes
USB	Yes
Others	On demand

IEC data types

- All
- 64 bits with external function call (depending on the C compiler)

Performance test

Test project:

LD A
AND B
ST C

1000 IL

Results:

Hardware	Variables	Time
Pentium 4 at 2,8 GHz with Windows XP	BOOL	0,26 us
	BYTE	0,26 us
	WORD	0,26 us
	DWORD	0,26 us
Pentium 3 at 500 MHz with Windows 2000	BOOL	2,09 us
	BYTE	2,09 us
	WORD	2,10 us
	DWORD	1,45 us
Intel Core2 Duo 6600 at 2,4 GHz with Windows XP and Intime	BOOL	0,69 us
	BYTE	0,71 us
	WORD	0,70 us
	DWORD	0,70 us