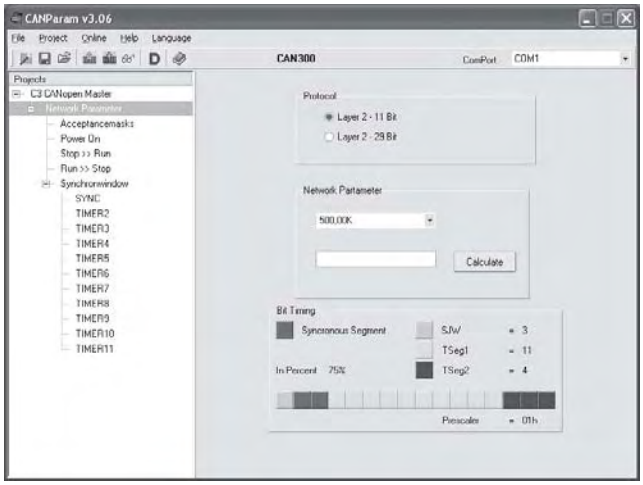
CAN Software

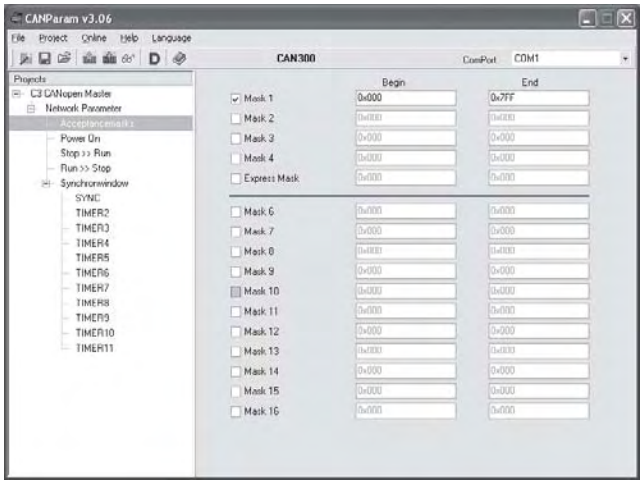
Parameterization Tool CANParam

The CAN modules are parameterized on the PC using the CANParam parameterization tool (contained in the 800-600-1AA11 and 800-600-1LZ11 software packages). That makes setting the communication parameters easy. The parameterization of a module can be stored in a project on the PC.

The CAN modules support both the protocol format CAN 2.0A (11 bit) and CAN 2.0B (29 bit).

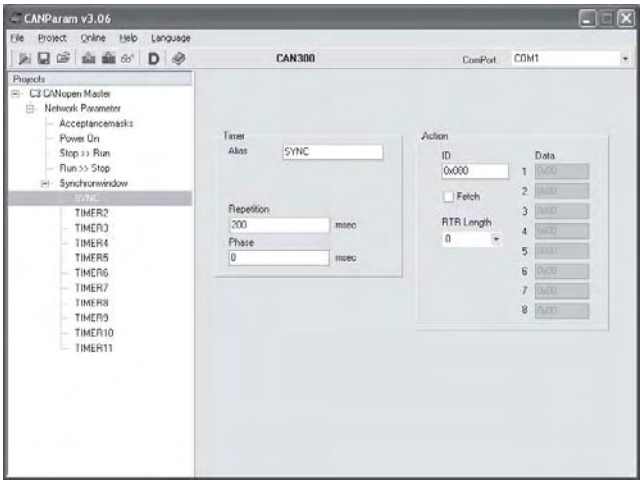


The CAN modules contain acceptance masks. These masks can be used to enable or disable various telegram IDs for reception. Express masks filter high-priority CAN telegrams so that they can be forwarded directly to the PLC.

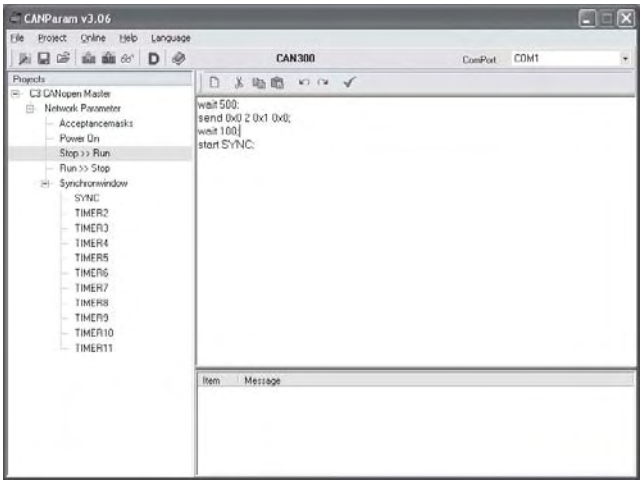


For time-dependent events, such as the SYNC telegram in the case of CANopen, up to 11 timers (CAN 300) or 16 timers (CAN 400) are available in the CAN modules up to a resolution of 1ms. Each timer can transmit any CAN telegram. The timers can be started, stopped, and changed from the PLC.

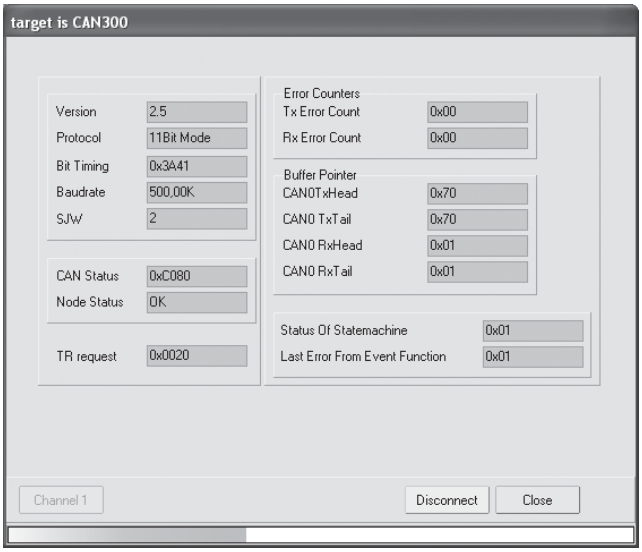
The timer 0 can also be used for synchronized transmission of CAN telegrams. It defines the time window in which *all* data will be transmitted synchronously.



CAN telegrams can be transmitted or timers started via freely programmable scripts on certain events such as „Power ON“ or „PLC Stop -> Run“.



An integrated diagnostic function facilitates troubleshooting on commissioning of the module.



Handling blocks

The CAN module is entered in the hardware configuration of the programming software as a CP-module (CAN 300) or a FM-module (CAN 400) and addressed in the STEP7[1)] program via handling blocks.

For the CAN modules, handling blocks are available for layer 2 communication, for CANopen Master (DS301 V4) or for the LENZE system bus. If CAN modules are to be used as a CANopen Slave, data handling functions are available for the profiles DS401 (IO modules) and DS420 (Corrugator). Further profiles can be set up on request.

Function scope of layer 2 data handling function:

Block	Function
FC 60 CANSEND	Transmit CAN telegram
FC 61 CANRCV	Read CAN telegram from the module
FC 63 CANSYNCSEND	Transmit CAN telegram to a timer

Various CAN protocols in 11bit or 29bit mode can be implemented with the handling blocks for layer 2.

Function scope of the CANopen Master data handling function:

Block	Function
FC 40	Initialization (restart)
FC 41	Read SDO
FC 41	Transmit SDO
FC 42	SDO block download
FC 42	SDO block upload
FC 43	Spontaneous receive (NMT,PDO)
FC 44	Transmit PDO
FC 45	Request PDO
FC 47	Nodeguarding/Heartbeat
FC 48	Network management
FC 49	Cycle
DB-PDO	Received PDO data
CAN-DB	Management DB

Function scope of the LENZE system bus data handling function:

Block	Function
FC 50 LCANINIT	Initialization (restart)
FC 51 LCANPARA	Transmit and read parameter data
FC 52 LCANPDO	Transmit process data
FC 54 LCANLAY2	Transmit Layer 2 telegram
FC 58 LCANNMT	Network management functions
FC 59 LCANCYCL	Cyclic communication
DB-PDO	Received PDO data
CAN-DB	Management DB

Ordering Data

CAN handling blocks	Order-No.
Handling blocks for CAN CD with parameterization software „CANParam“, handling blocks „Layer 2“ and „CANopen“	**800-600-1AA11**
LENZE-handling blocks for CAN CD with parameterization software „CANParam“, handling blocks „Layer 2“ and „LENZE-Systembus“	**800-600-1LZ11**
CANopen Slave handling blocks	**on request**
CAN Trainig Course (see page 68)	**400-600-CAN01**

Table software packages:

Content	800-600-1AA11	800-600-1LZ11
CANParam V2.x	X	X
Layer 2 handling blocks	X	X
CANopen Master data handling	X	-
LENZE system bus data handling	-	X
CANopen Slave data handling	on request	-
Manuals as PDF	X	X

One copy of each software package must be purchased.

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