# VTWIN - First Project CANopen

❍ Basic procedure at creating a project with connection via CANopen

❍ Example: VT150 with CDD3000, iMotion with CM-CAN2

VTWIN - First Steps

○ Selection of Operator-Panels

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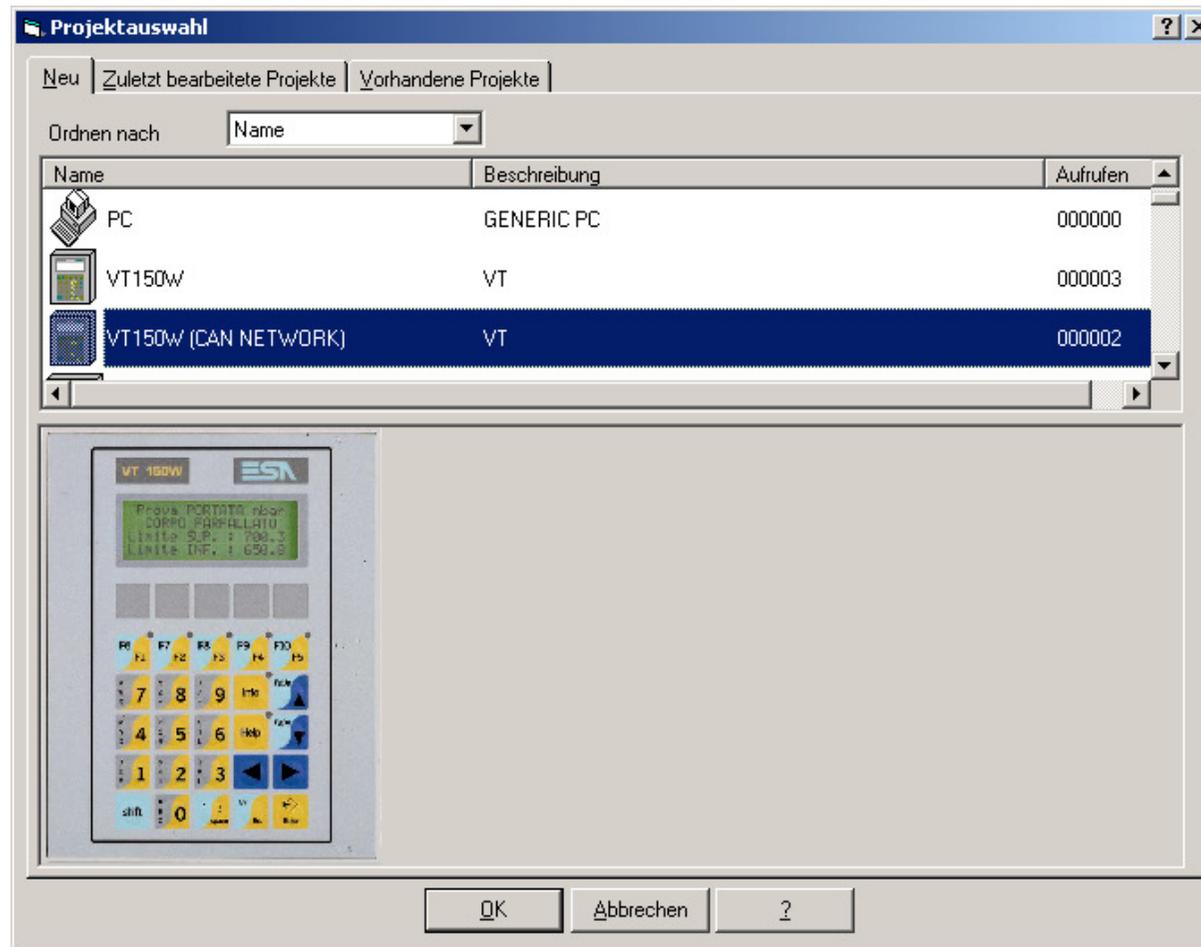
VTWIN - Hardware Configuration

❍ Select CAN-driver via drag & drop

❍ Fieldnet(CAN) shows interface of the panel

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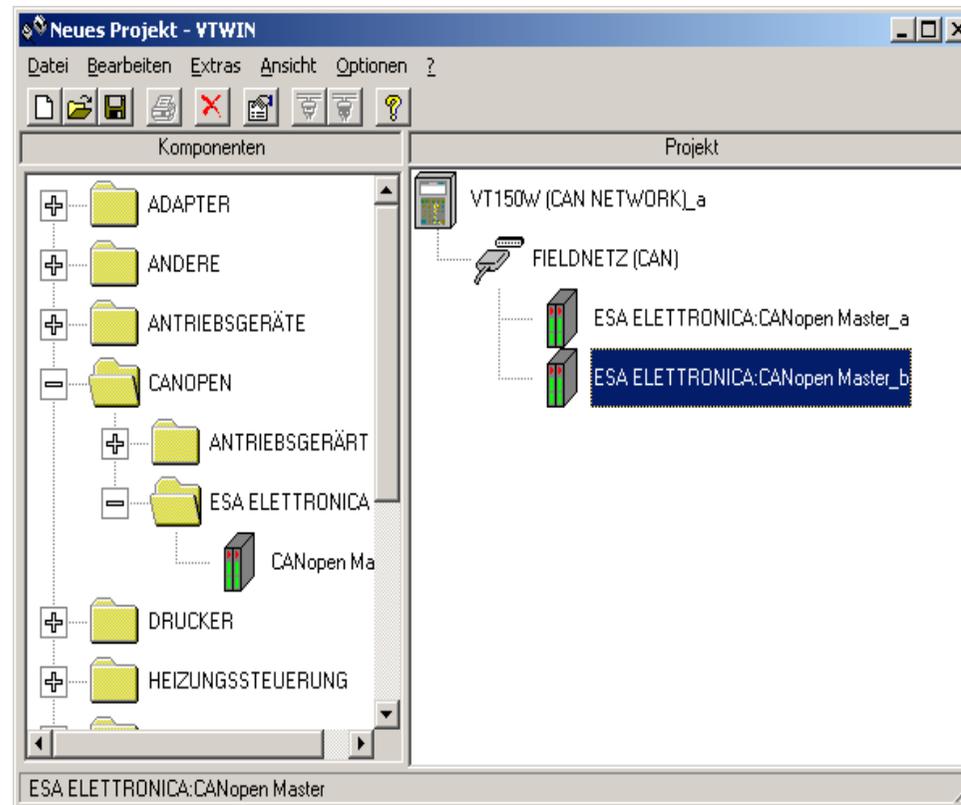
VTWIN - Configuration of Participants

❍ Set Baud rate of interface

❍ Boot-up time is the time after initialising the panel and switching-on until all CAN participants are in the state „operational"

❍ Set the appropriate device address at all participants

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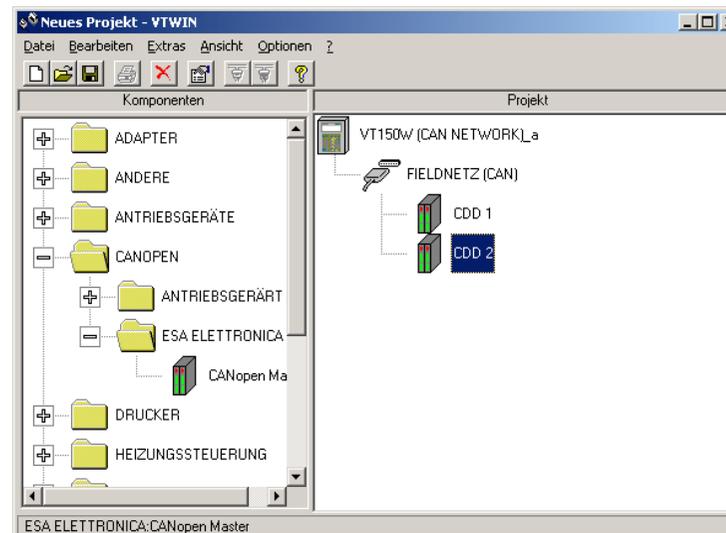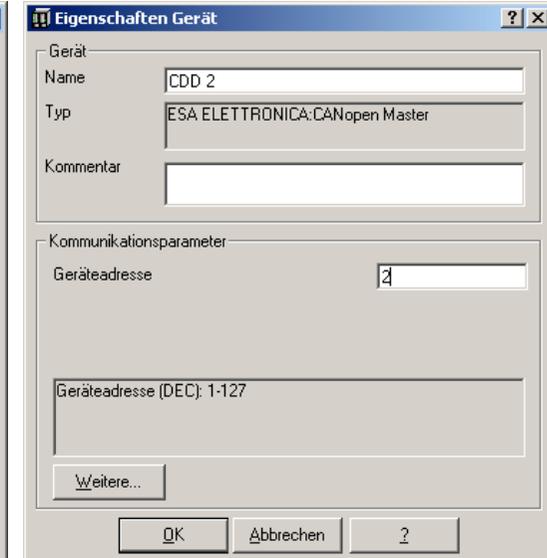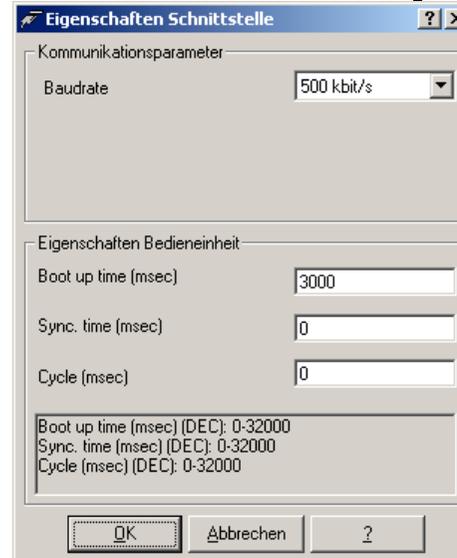
VTWIN - 3. Step

○ Start program surface via double-click to Panel Icon

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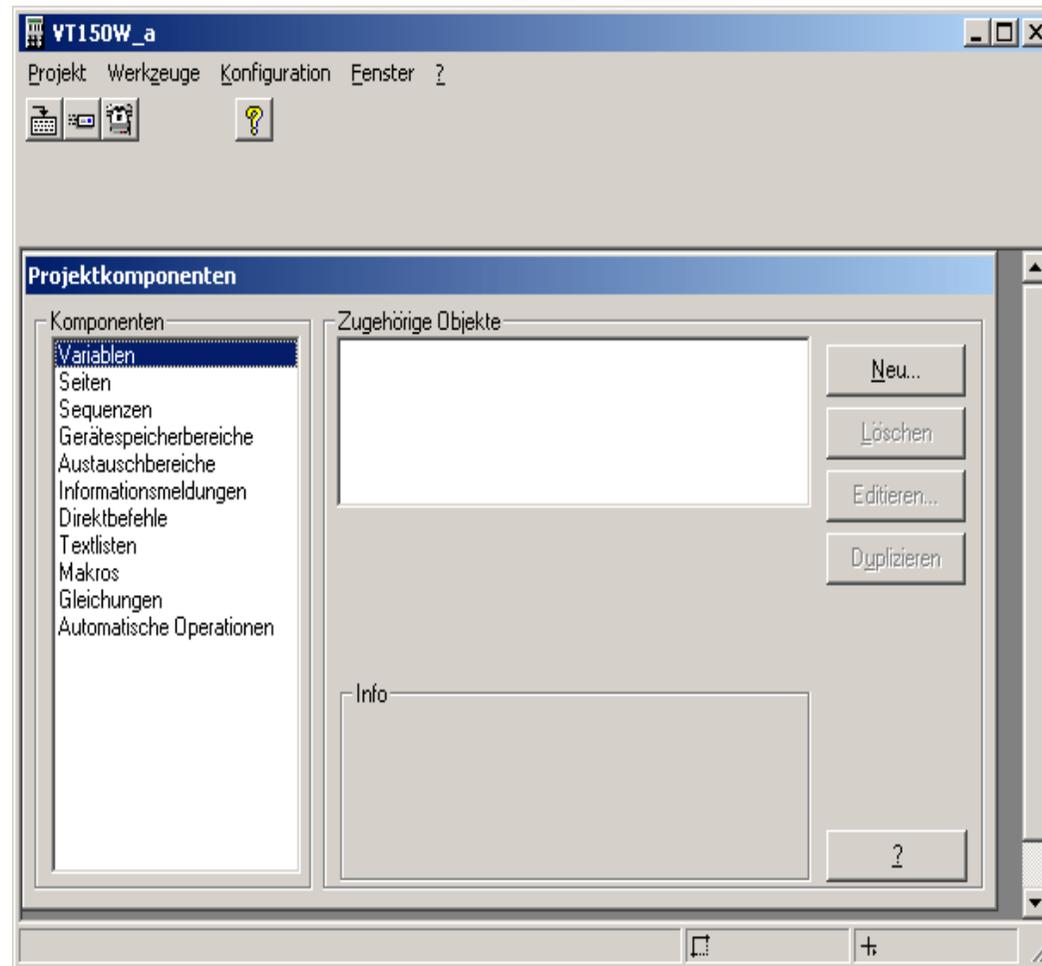
VTWIN - Definition of Variables

- ❍ Print parameter list via DriveManager with stating data types

- ❍ Fix names

- ❍ Select memory location of variables (CDx or internal index)

- ❍ Device data range: Enter parameter access and appropriate data

- ❍ Device address: depending on PDO or SDO-access

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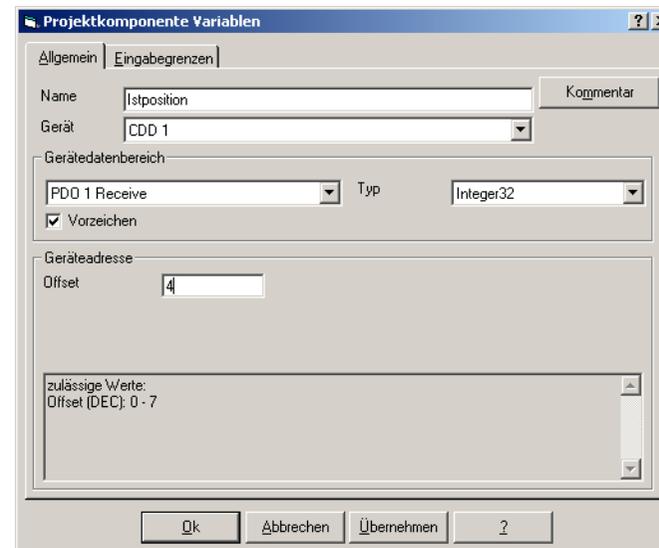
VTWIN - Variable declaration under CANopen

○ Device data range:
Select kind of access -

PDO (control channel),
see definition of control
and status word of CAN-
slaves
 VT -> device = Receive
 Device -> VT = Transmit
or
SDO (Parameter
channel)

○ Select type:
Consider data type at
device parameters
(see parameter list)

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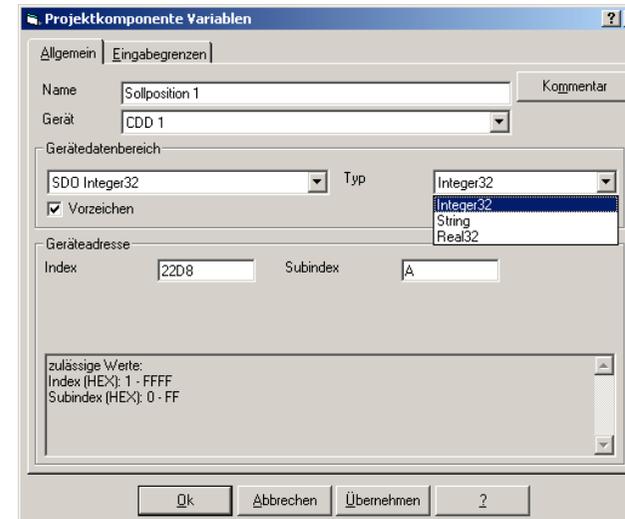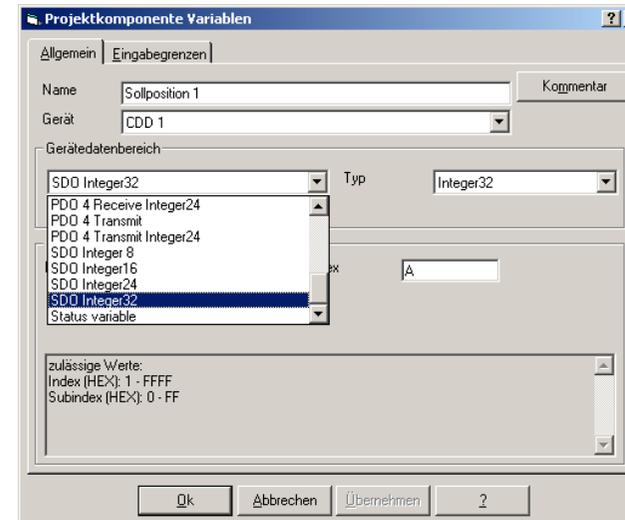
VTWIN - Definition of Variables

○ Apply a field parameter as variable.
Use SDO (Parameter channel) at manufacturer
specific parameters. Parameter number is
built as follows:
<u>2000hex + Parameter number</u>

Example: CDD iMotion-Variable H10
-> Device parameter 728-POVAR, Element 10
-> Index=22D8, Sub index=A
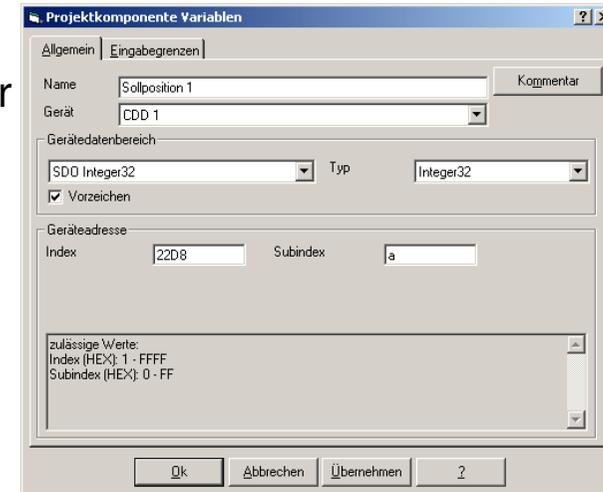
Attention:
At CDA and CDD field parameters and indexes are the same.
At CDB/E/F offset of 1 must be taken into consideration:
   Element 10 -> Index 11
Reason: CANopen defines at field parameters, that element 0 includes always
number of elements of parameters.

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VTWIN - Definition of Variables

○ Limits of input:
Limitation of value range
at <u>input</u> via Panel !

Linear correction:
Scaling of indication values
in the panel

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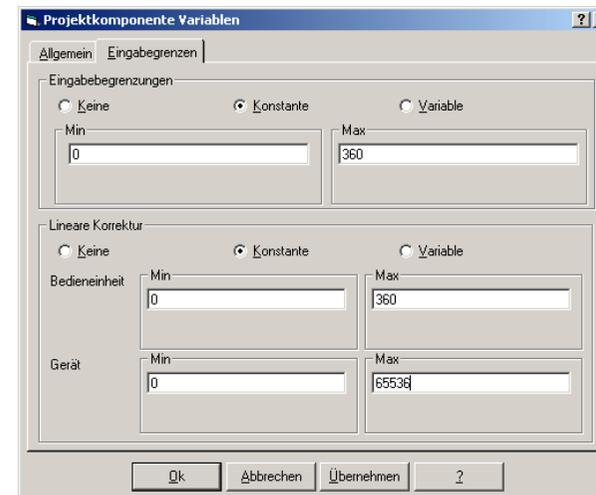
VTWIN - Data types

○ Equivalent table:

VT:	Lust:
INTEGER32 -	INT8, INT16, INT32Q16, USIGN16, FIXPT16,
Real32 -	FLOAT32
STRING -	STRING
INTEGER8 -	USIGN8

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VTWIN - Setting of Pages

❍ Name issue

❍ Actualisation interval

❍ Configuration of the behaviour in edit mode

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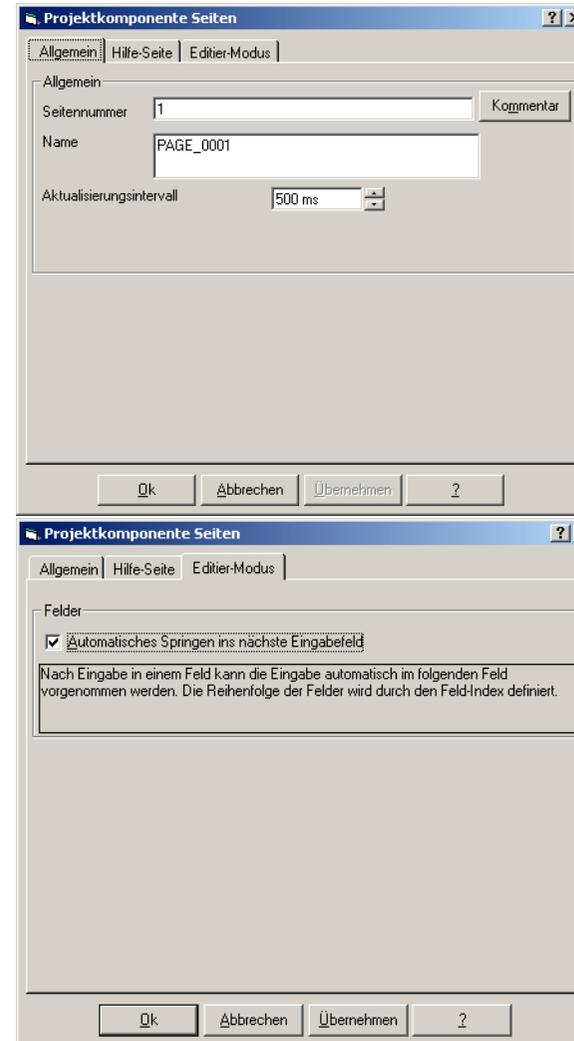
VTWIN - Configuration of Pages

○ AB - includes the text,
multilingual projects
ask for translation
after input is made

○ ### - includes
configured variables
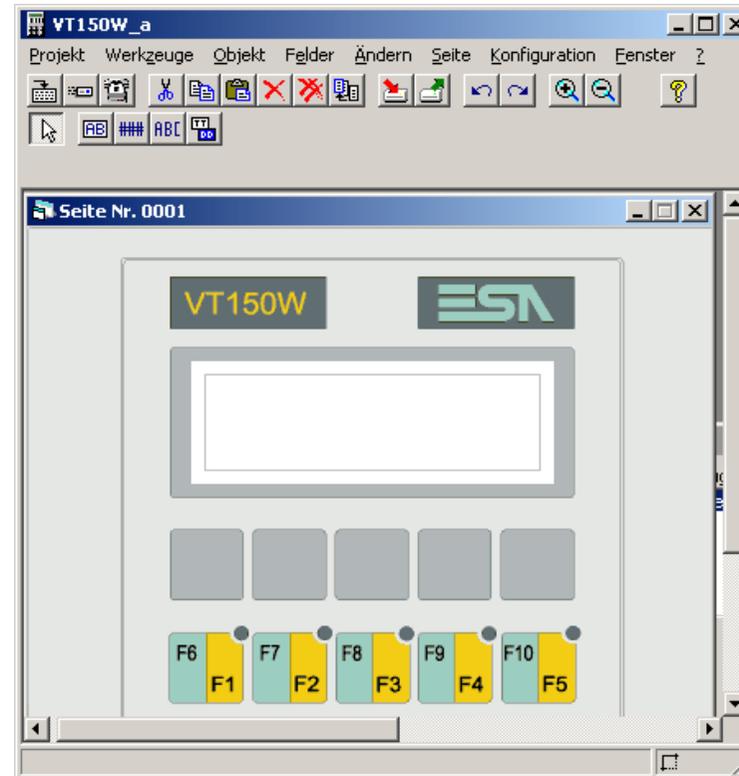
VTWIN - Set-up of Pages

○ Name issue

○ Select variable

○ Configure indication form

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VTWIN - Set-up of Pages

○ Mode
Important: set at
CHANGE DATA, if it
deals with an
indication or
changeable value

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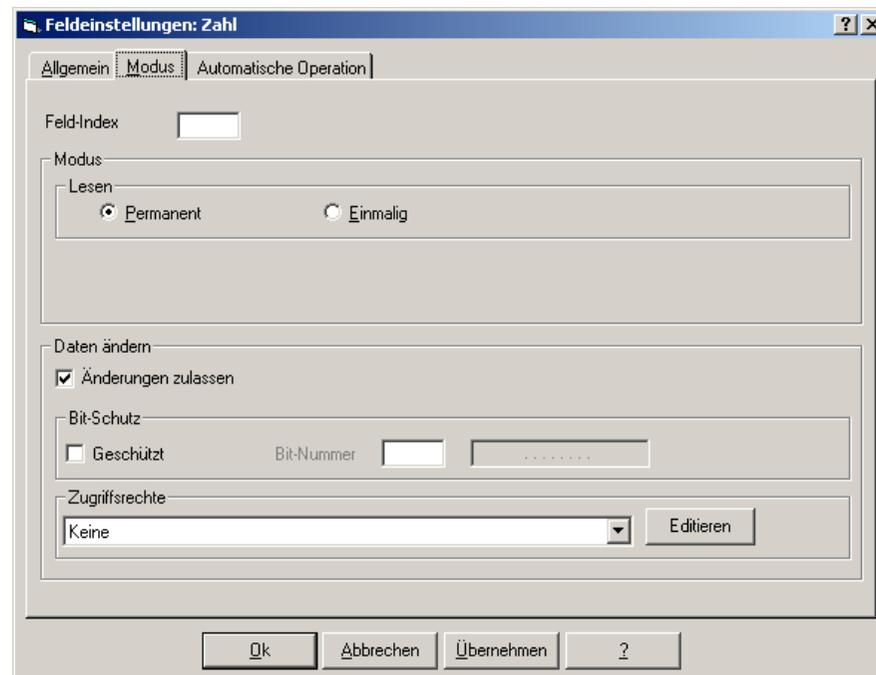
VTWIN - Function Buttons

❍ Selection of possible firmware functions

❍ apply new function parameters (Variable, changed by the function button)

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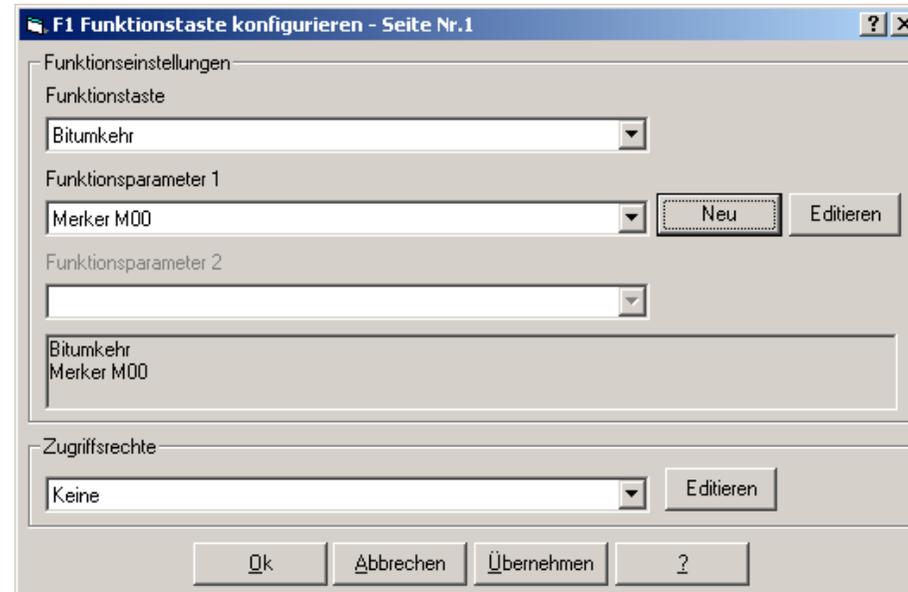
VTWIN - Function Parameter

❍ Function parameter

Compile the Project

○ Select in menu point tools - compile project - start

○ Close compiler after successful finish

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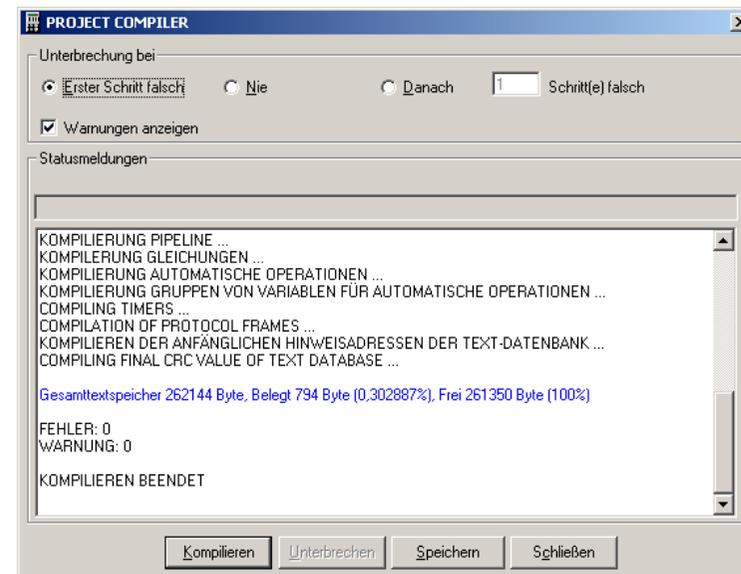
Download the project to the panel

○ Select in menu point tools - transfer project

○ connected panel has be be in program state from the hardware side before starting the download. Procedure depends on the panel, for details see hardware-manual

○ Settings have not to be changed. Surface checks automatically if the firmware in the device suits for the project, if required download starts

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Preparing the panels for download

○ Text-Displays

VT050 - during switching-on the supply voltage press button until writing „Service page" occurs.

VT150 - switch-on panel by pressed [Enter] or press at already switched-on panel
Wait for „BOOT FORCED" indication in both cases

[shift] + [Enter]
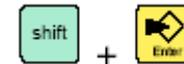
○ Graph-Displays

VT505 / 155 - two diagonal opposite edges, free of settable objects or buttons, press one after the other (one edge must be free in any case)

VT505 TRANSFER PAGE

Main BOOT and RAM check   : OK
Main FIRMWARE check   : OK

*** WAIT FOR BOOT FORCED ***

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