

Global Drive *Control*



Inverter operation, parameterisation and diagnostics

Global Drive Control | software package

In modern production plants, drive systems are increasingly taking on production process technology functions in addition to their actual drive tasks.

Global Drive Control (GDC) is an easy-to-use and transparent tool which can be used to operate, parameterise and diagnose drive tasks.



Its features include:

- ▶ Quick and easy commissioning of the drive by means of the short setup function
- ▶ Simple operation even for inexperienced users, thanks to extensive help functions
- ▶ User-friendly diagnostics options via various monitor windows and oscilloscope functions
- ▶ Easy drive connection via RS232/485, optical fibres or the system bus

Scope of functions

Global Drive Control

- ▶ Short setup
- ▶ Monitor windows
- ▶ Dialogue windows for technology functions*
- ▶ Oscilloscope function*
- ▶ Function block editor*
- ▶ Diagnostics
- ▶ GD Loader

Global Drive Control easy

- ▶ Short setup
- ▶ Monitor windows
- ▶ GD Loader

*On 9300 servo inverters and ECS

Software | for all drives

Frequency inverters

The Global Drive range of frequency inverters provides you with the right inverter for every application:

- ▶ 8200 vector – the compact, flexible frequency inverter. Ideal for a variety of applications thanks to its large speed and torque setting ranges – power range up to 90 kW.
- ▶ 8200 motec – the robust, versatile motor frequency inverter with IP 65 protection, for direct mounting onto the geared motor or wall mounting – power range up to 7.5 kW.
- ▶ starttec motor starter – the electronic motor starter with IP 65 protection is easily accessible, as it can be mounted either on a wall or on a motor. Any standard fieldbus system can be used for communication – power range up to 4 kW.



8200 vector



8200 motec



starttec motor starter

Servo inverters

As an intelligent drive system, the 9300 range of servo inverters provides you with the right inverter for every application – power range up to 75 kW.

- ▶ 9300 Servo
- ▶ 9300 Servo position controller
- ▶ 9300 Servo cam profiler
- ▶ 9300 Servo register controller

... or as a frequency inverter for operation with or without feedback

- ▶ 9300 vector – power range up to 400 kW.



9300 servo inverter

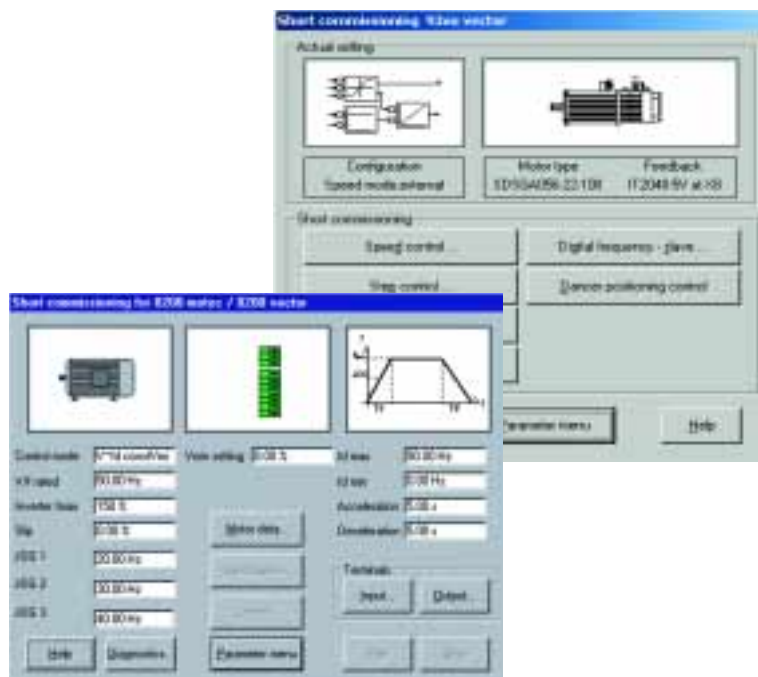
ECS servo system

Servo drives with high dynamics, capable of withstanding high overloads and particularly suited to multi-axis applications with high dynamics and drive performance – power range up to 13.8 kVA.



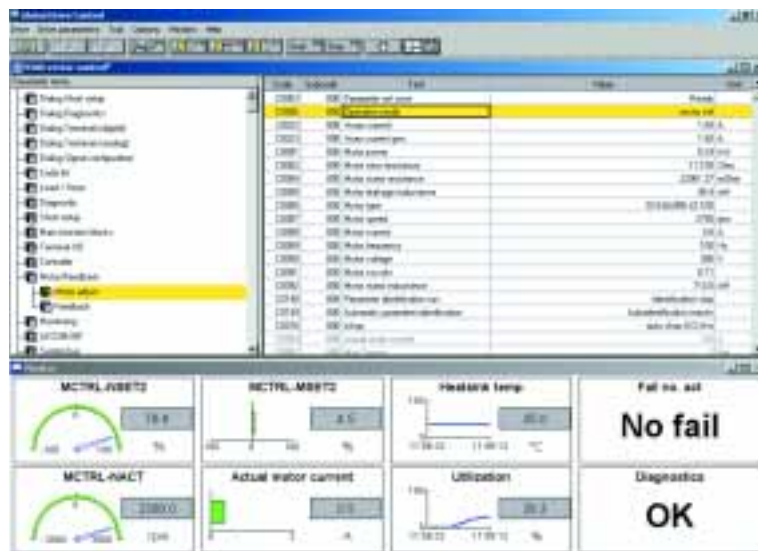
ECS servo system

Short setup | Frequency inverters Servo inverters



The short setup function allows the whole drive to be commissioned quickly and easily, by means of self-explanatory dialogues. A menu associated with the inverter, in which all the operating parameters necessary for the drive train are entered, appears automatically.

An extensive inverter-specific help function containing more detailed descriptions of the individual parameters can be called up at any time.



Global Drive Control Diagnostics

Up to eight inverter values can be displayed simultaneously in the monitor window. Users can define the display mode for the values and switch, for example, between pointer instrument and bar chart display.

Dialogue monitors can also be called up for the 8200 vector and 8200 motec. These show the status of input and output terminals and various bus modules, thereby enabling users to access an overview of all drive data during commissioning, which in turn simplifies troubleshooting and shortens commissioning times.

Commissioning | technology functions for 9300 servo inverters and ECS

A range of technology functions for solving specific drive tasks is available for Global Drive servo inverters.

No programming knowledge is required to commission and adapt these functions.

Various dialogue windows facilitate this work.

- ▶ Complex motion tasks can be divided into multiple simple part motions.

The CamManager tool is included in order to facilitate easy management of all data and supports the creation of up to 48 motion profiles and data for up to 48 cam groups for each drive control.

Examples

▶ Position control

- Programming consisting of simple program blocks
- Positioning program documentation for every block

▶ Cam

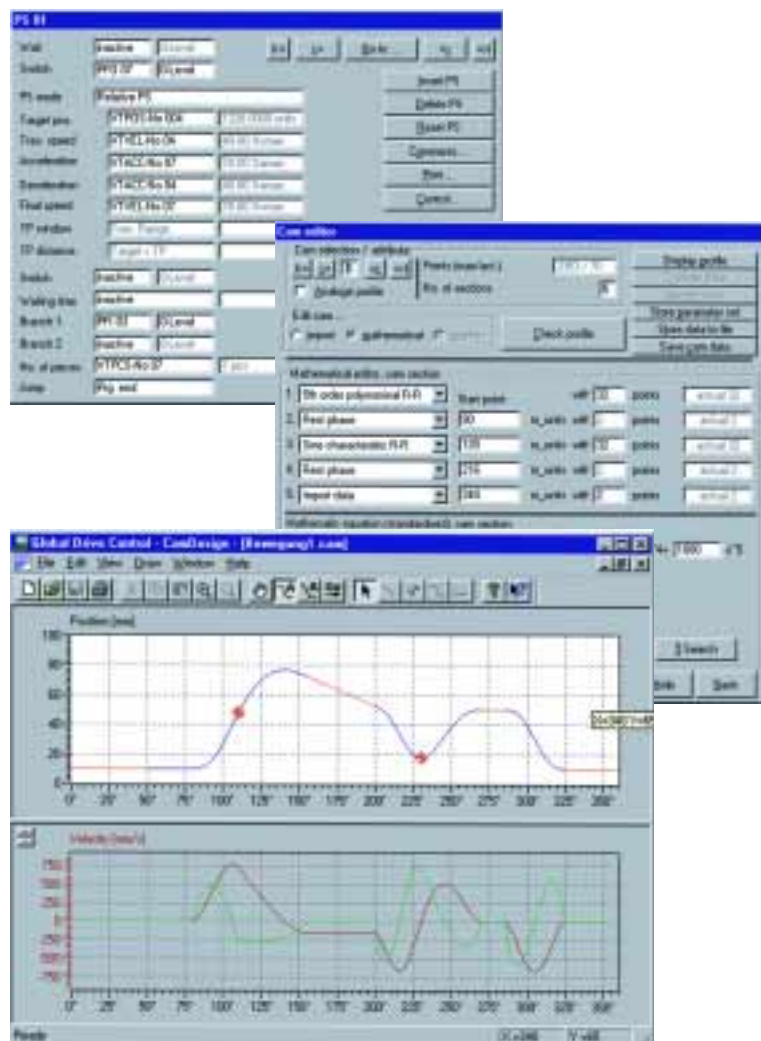
- Basic cam data
- Curve import
- Mathematical curve description
- Curve display in graph format

CamDesigner

You can create and optimise motion profiles and cam groups for electronic cams quickly and intuitively using the CamDesigner.

Whether importing data from a CAD or entering profiles directly, CamDesigner supports the user during every stage of the creation of motion profiles. In CamDesigner, motion profiles can be entered very easily using the mouse.

- ▶ Only the relevant parts of the motion profile need to be entered.
- ▶ Very easy to obtain an overview of the motion profiles of other tools



Configuration | for 9300 servo inverters and ECS

More easy-to-use dialogues are available in GDC for configuring Global Drive servo inverters.

The inverter functions are displayed as a function block structure which is automatically generated on completion of short setup. The individual function blocks represent related functional units with inputs and outputs.

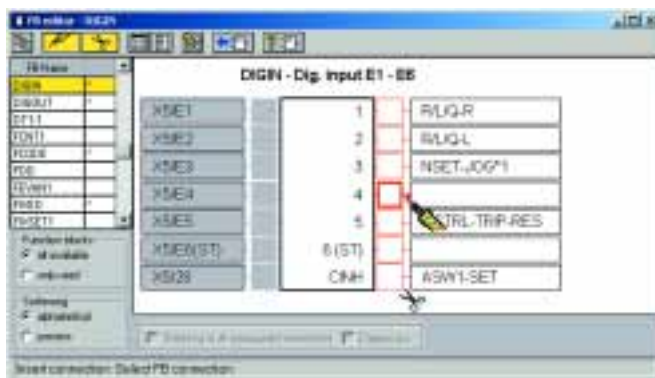
The function block editor contained in GDC is used to configure the servo inverters and no knowledge of programming is required.

Function block examples

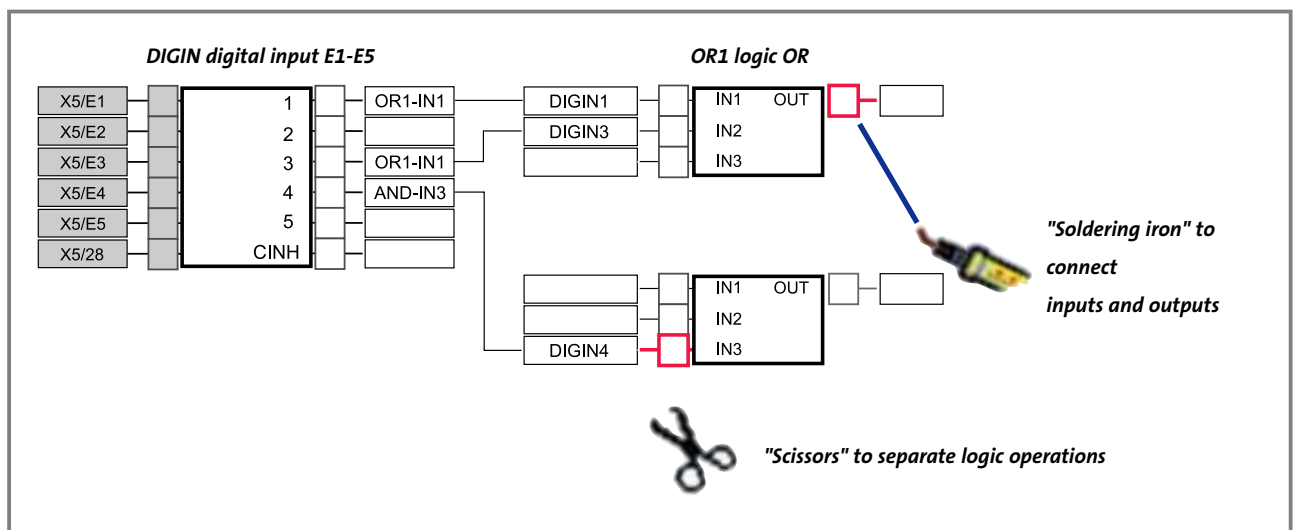
- ▶ **Logic operations**
 - AND, OR, NOT
- ▶ **Interface functions**
 - Digital inputs/outputs
 - System bus
 - Fieldbus modules, e.g. INTERBUS, PROFIBUS
- ▶ **Mathematical functions**
 - Arithmetic operations
- ▶ **Drive functions**
 - Brake logic, position control, motor control, electronic gearbox

Advantages

- ▶ Easy to use
- ▶ No programming knowledge required
- ▶ Extensive function block library with online help



How it works



Oscilloscope functions | for 9300 servo inverters and ECS

In large systems, it can be difficult to determine, for example, the speeds and torques of individual drives. However, if precise values are known for these variables when commissioning the machines, the commissioning process can be greatly simplified.

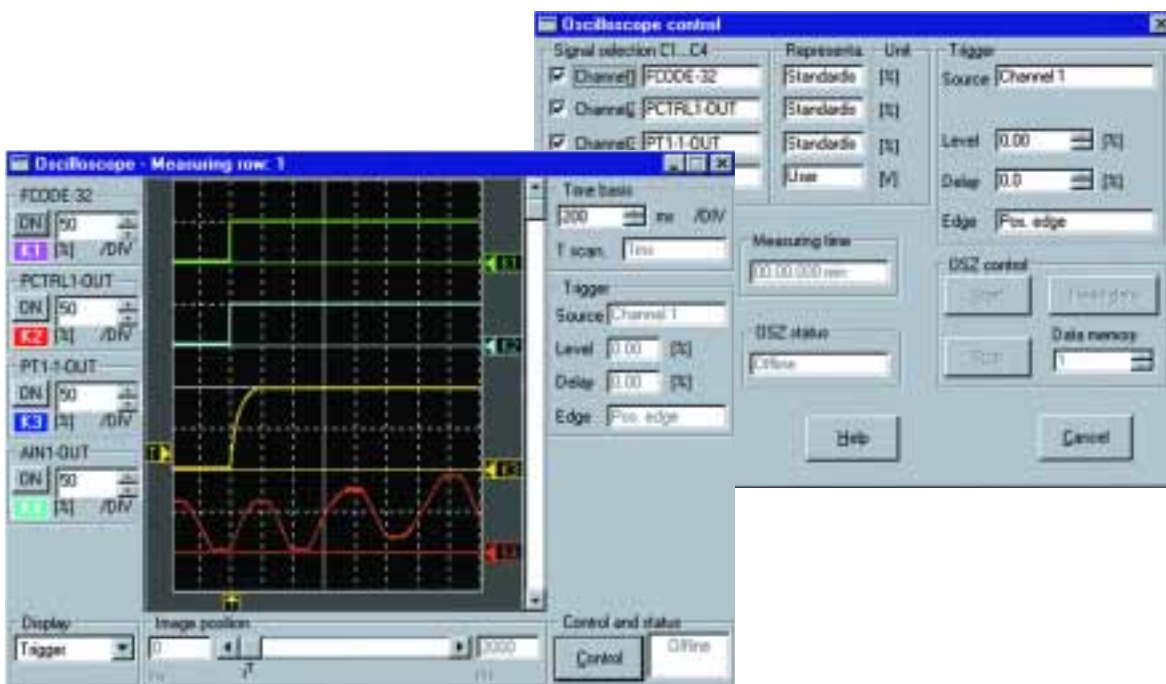
The integrated oscilloscope functions in GDC eliminate the need to connect and install complex measuring instruments – the drive controller itself is a comprehensive measuring instrument for measuring all variables associated with the drive.

Advantages

- ▶ Exact detection of drive-specific process variables without the need for additional measuring instruments
- ▶ No need to install temporary measuring sensors in the system
- ▶ User-friendly documentation for fine tuning control loops
- ▶ Easy maintenance and troubleshooting

Features

- ▶ Measurement of any analog signal
- ▶ Measurement on up to four independent channels simultaneously
- ▶ Triggering on any digital or analog signal
- ▶ Pre-triggering and post-triggering
- ▶ Cursor and magnification function for measurement analysis
- ▶ Variable scan rate
- ▶ Simple comparison of measurements by means of the superimposition function
- ▶ Loading, saving, annotation and printing of measurements



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"The world is our marketplace. We develop and manufacture internationally. Wherever you are in the world, we are nearby."



"We will provide you with exactly what you need – perfectly co-ordinated products and solutions with the right functions for your machines and installations. That is what we mean by 'quality'."



"Take advantage of our wealth of expertise. For more than 50 years we have been gathering experience in various fields and implementing it consistently and rigorously in our products, motion functions and preprepared solutions for industry."



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