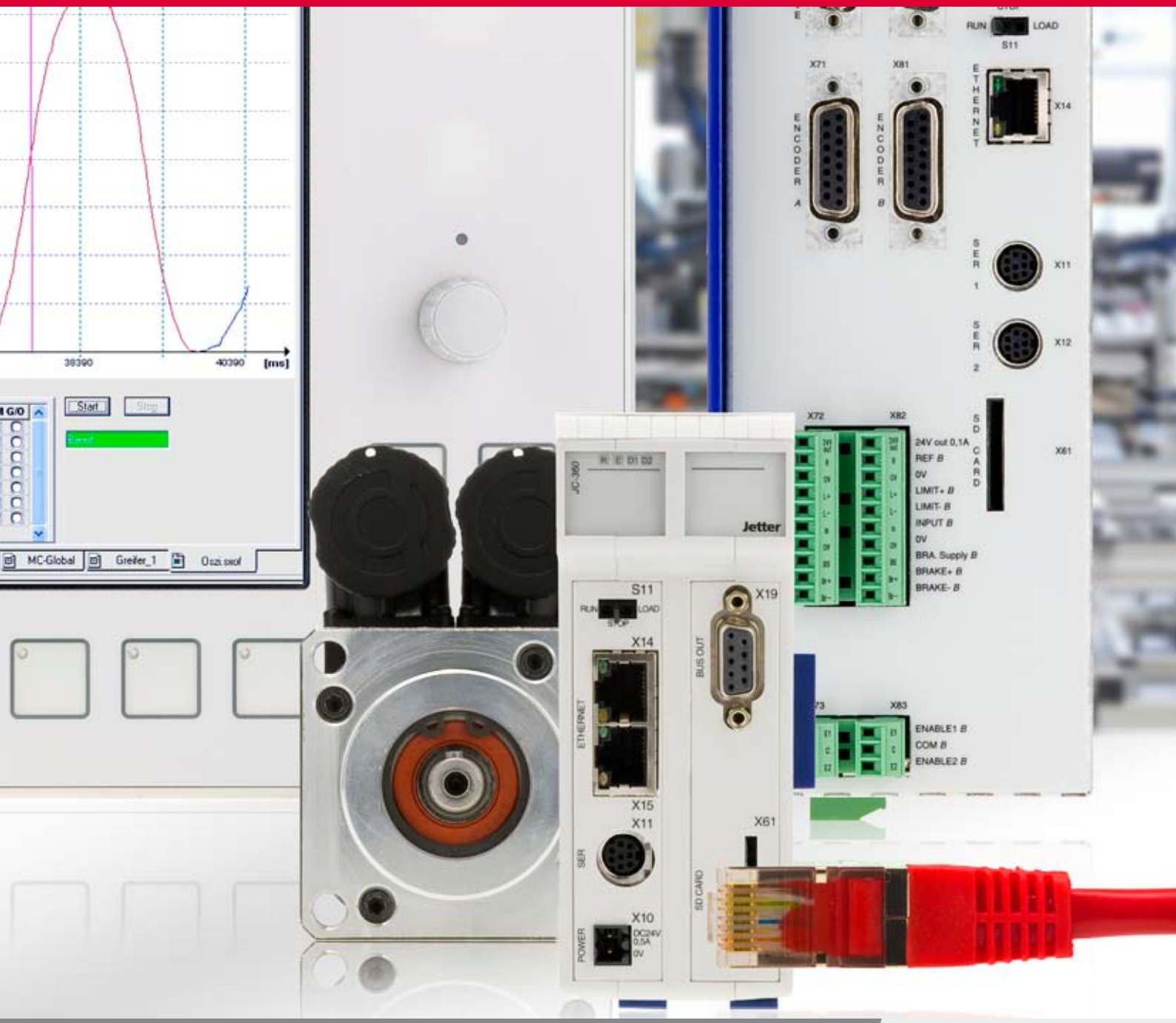
A Technology by Jetter AG

JetWeb

\\ Efficient Automation Solutions



One System and One Language

for the Full Range of Automation

Jetter

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Company

For more than 25 years Jetter AG have been deeply involved with automation technology. You too can enjoy the benefits of the company's far-reaching experience. Thousands of Jetter control solutions have been implemented for a varied range of applications in the fields of mechanical and plant engineering and also building automation.

From the outset Jetter technology has been characterized by the integration of all automation functions in one system and one programming language. This saves users unnecessary software and hardware interfaces, enabling simpler and more efficient results.

With JetWeb Jetter has succeeded in integrating drive and communications technology seamlessly into the control system. Technology functions and path control can be just as conveniently programmed as conventional control functions.

Jetter AG was the first company in the world to focus on consistent and universal networking with Ethernet-TCP/IP and the use of web technologies.

The Mobile Automation division has been developing and manufacturing HMIs and control systems for mobile applications such as agricultural machinery, municipal vehicles, railway vehicles and fire engines for many years.

Futronic, the control systems manufacturer acquired by Jetter in 2006, mainly serves machine and plant manufacturers in the glass production sector. A second area of the company's expertise is a comprehensive range of services in the engineering, control cabinet planning and construction sectors as well as programming and commissioning of machines.

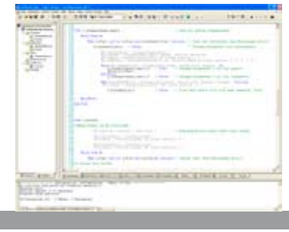
**(left to right) Günter Eckert, Head of Finance and Manufacturing;
Martin Jetter, CEO;
Andreas Kraut, Head of Technology and Sales**

Product Overview

Controlling

From page 10

Controllers in a wide range of price and performance categories with identical handling and programming.
Easy to use engineering and programming software.



Driving

From page 18

Integrated drive systems with powerful commands. Drive controllers for all conventional drive types and performance classes.
Compact servo motors.

Operating

From page 26

The whole world of operation and monitoring - ranging from a plain-text display to an industrial PC.

Networking

From page 30

Modular systems comprising a wide variety of compact peripheral modules.






More speed and flexibility with JetWeb technology

Productivity Gain

- Data consistency
  Vertical: From ERP to sensors
  Horizontal: Asset tracking
- High degree of machine availability
- Downtimes are reduced by means of automatic machine adaptation and calibration
- Automatic product changeover

Time Savings, Time to Market

- Cost and time savings in engineering
- Networked systems with modular software design
- Controlling, visualization, motion and Ethernet TCP/IP networking as one unit
- Uncomplicated and comprehensive after sales service
- Worldwide access, diagnostics and maintenance, even in newly industrialized countries

Innovation and Innovation Assistance

- Long-term, reliable cooperation
- Collaborative product and market development
- Creation of innovative products, competitive edge

Process Optimization, Fully Customized Production

- Single-part production
- Automatic optimization of material use and scheduling
- Online optimization of all machine functions

JetWeb

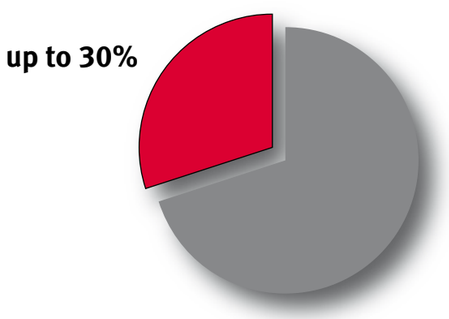
Efficient Automation Solutions

Applications

- Handling technology
- Packaging machines
- Winding machines
- Welding plants
- Electronic equipment production
- Semiconductor production
- Machines for window production
- Plants in the beverage industry
- Pharmaceutical plants
- Molding machines
- Special-purpose machines
- Building automation

Cost Cutting

The use of JetWeb for the implementation of control system projects can lower the costs of programming and commissioning by up to 30%.



JetWeb Technology

Features

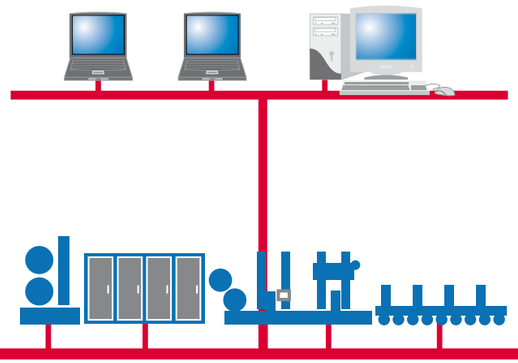
In JetWeb, integrated Ethernet TCP/IP is used throughout - even for synchronizing electric motion systems. This simplifies modular organization and servicing of plants and also provides connectivity to office IT systems. Visualization and operation via Web-browser is possible, as well as the communication of alarm messages from the plant by e-mail or SMS.

- One system, one language for the whole range of automation
- The most powerful programming language JetSym STX
- Integrated drive systems
- Ethernet as a communication medium
- Synchronized drives with realtime Ethernet
- Scalable CPU performance
- Identical programming of all controllers
- Fully integrated path control (motion control)

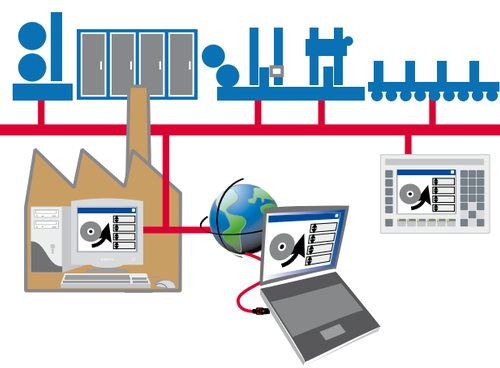
Standards

JetWeb is a complete and optimally coordinated system solution provided by Jetter for the efficient implementation of automation projects. These solutions rely on standards wherever this is possible and advantageous:

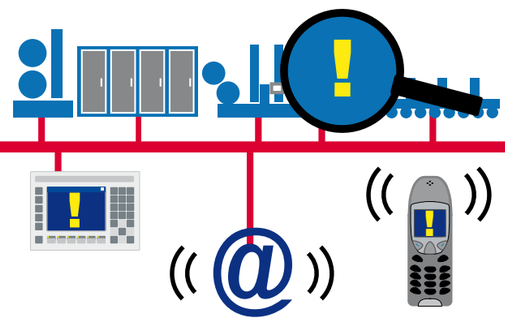
- Internet protocols such as TCP/IP
- Programming language based on structured text
- Modbus TCP/IP, CANopen, Profibus-DP, AS-Interface, EtherNet/IP
- Web browser as a runtime tool for visualization
- HTML, XML, Java, JavaScript
- Windows 2000 / XP / CE
- OPC



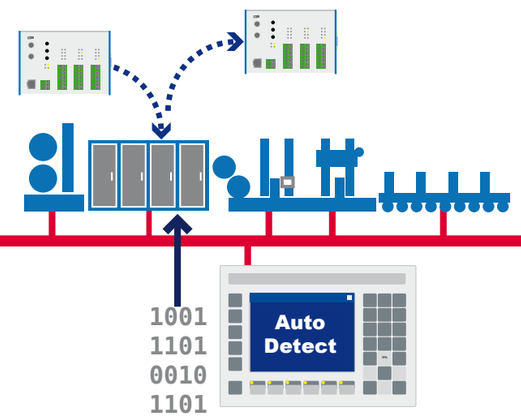
Integrated Ethernet TCP/IP - from the office to the sensor.



It is now possible to visualize your plant on your web browser - anytime and anywhere.



Web and e-mail servers enable diagnostics with a web browser and communication of alarm messages by e-mail or as a text message (SMS).



Hot Swap - simple and straightforward exchange of devices during operation.

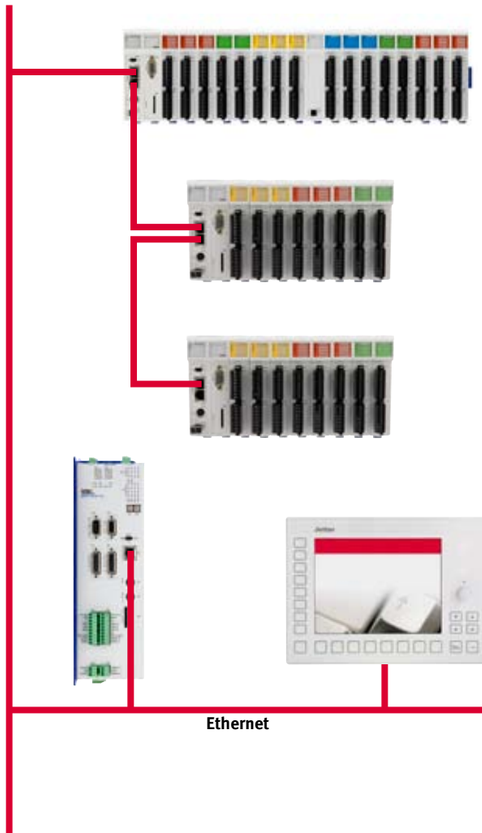
Controllers

One System and One Language for the Full Range of Automation

Features	JetControl 340	JetControl 350	JetControl 360
Program/data memory	1 MB	2 MB	4 MB
Non-volatile registers	2,000	30,000	60,000
Number of connectable modules	16	16	16
Number of axes	3 max.	8 max.	unlimited
Number of motion control (path control) axes	-	-	12 max.
Interfaces	1 serial port (RS232/422/485), 1 system bus (CAN), 2 Ethernet ports with integrated switch	1 serial port (RS232/422/485), 1 system bus (CAN), 2 Ethernet ports with integrated switch	1 serial port (RS232/422/485), 1 system bus (CAN), 2 Ethernet ports with integrated switch
SD card slot	Option	Standard	Standard
Max. number of digital I/Os	256 onboard (expandable)	256 onboard (expandable)	256 onboard (expandable)
Max. number of analog I/Os	64 onboard (expandable)	64 onboard (expandable)	64 onboard (expandable)
Max. number of temperature sensors	32 onboard (expandable)	32 onboard (expandable)	32 onboard (expandable)
Realtime clock	Yes	Yes	Yes
Integrated web server	Option	Option	Option
E-mail feature	Option	Option	Option
Modbus TCP	Option	Option	Option
Memory expansion	18,000	-	60,000

Features

- Scalable CPUs
- Identical programming
- Identical size
- Integrated switch for line wiring
- Powerful programming language JetSym STX
- From integrated drive systems to path control
- Easy servicing due to plug terminals and modular design
- Covers the entire price and performance range
- Simple performance enhancement by CPU replacement

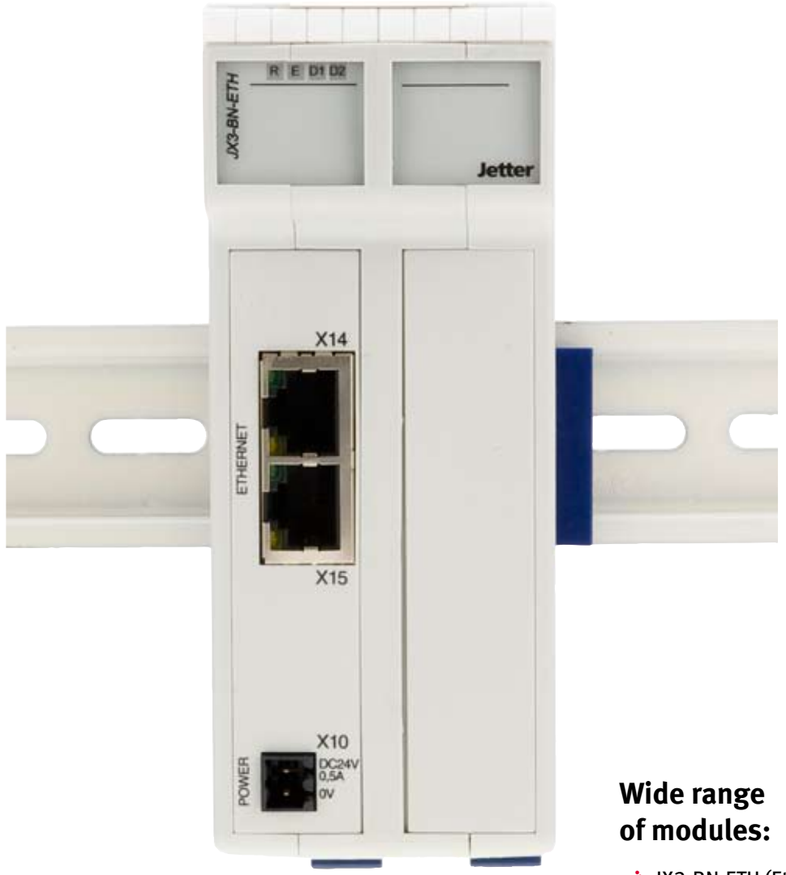


Controllers

I/O System and Expansion Modules

Distributed control solutions allow modular machine structures. This can be easily implemented with the compact and fast JX3 I/O system for IP20 and the LioN-system for IP67. Controllers, drives, remote I/Os and industrial PCs are transparently networked via Ethernet. This means that the data and parameters of all devices and modules of a plant are available without any interfaces. The Jetter JX3 system is a modular system comprising small and compact peripheral modules for automation solutions.

- Module width: 25 or 50 mm (H: 131 mm, D: 100 mm)
- Fast signal processing
- Wide range of additional functions
- 1- or 3-wire connections as options
- Use of standard connectors



Installation Made Easy

Simple installation by snapping onto DIN rails and very easy module replacement by disconnecting the module housing from the backplane. Each individual module is labeled with a color code. Each color indicates a specific function.

- Installation and replacement in a few seconds
- The backplane can be easily expanded by direct plugged connection
- Pluggable electronics and connection terminals
- Wiring harnesses can be prefabricated

Wide range of modules:

- JX3-BN-ETH (Ethernet bus head)
- JX3-BN-CAN (CAN bus head)
- JX3-DI16 (digital input module)
- JX3-DO16 (digital output module)
- JX3-DIO16 (digital input and output module)
- JX3-AI4 (analog input module)
- JX3-AO4 (analog output module)
- JX3-THI2-RTD (temperature module with Pt100/Pt1000)
- JX3-THI2-TC (temperature module with thermocouple)
- JX3-DMS2 (strain gage module)
- JX3-CNT (counter module)
- JX3-PS1 (power supply module)

Controllers

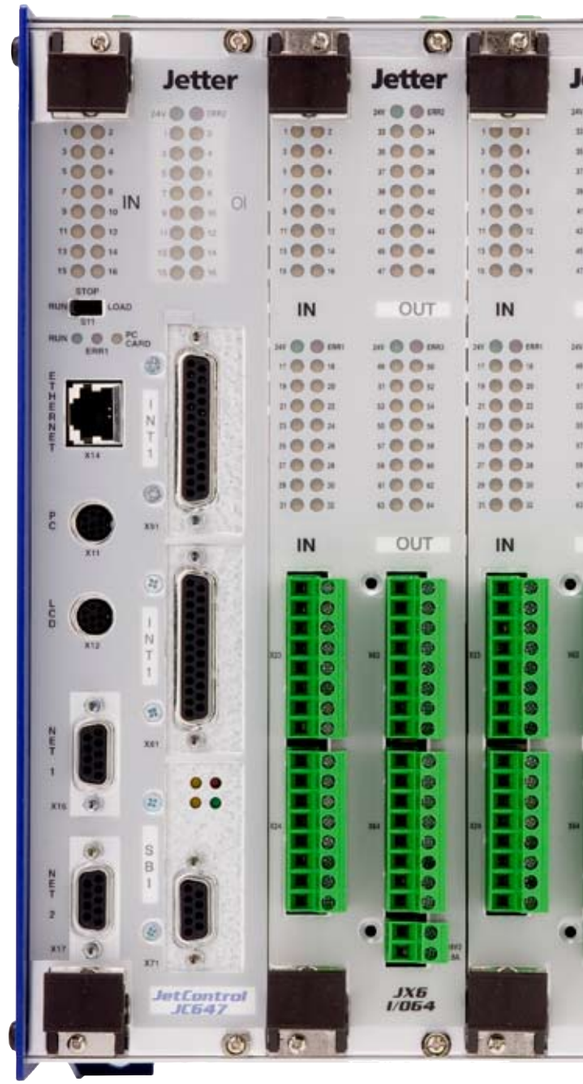
One System and One Language for the Full Range of Automation

JetWeb opens up the entire range of control technology. JetWeb controllers offer all functions for open and closed-loop control, motion, data management, operation and visualization. JetWeb features a fully comprehensive range of automation options from micro-controllers to PC-based systems. All control systems are identically programmed.

Features	JetControl 241	JetControl 243	JetControl 246	JetControl 248	JetControl 647
Program memory	64 kB	64 kB	64 kB	64 kB	256 kB
Data memory	1 MB	3 MB	7 MB	7 MB	2 MB
Non-volatile registers	30,000	30,000	30,000	30,000	480,000
Integrated web server	Option	Option	Option	Option	Yes
E-mail feature	Option	Option	Option	Option	Yes
Digital inputs (basic device)	16	16	16	16	16
Digital outputs (basic device)	8	8	8	8	-
Ports (basic device)	RS232/RS422, 100 MBit/s Ethernet	2 x RS232/RS422, 100 MBit/s Ethernet	2 x RS232/RS422, 100 MBit/s Ethernet	2 x RS232/RS422, 100 MBit/s Ethernet	RS232/RS485, JetWay, 100 MBit/s Ethernet
Max. number of digital I/Os	136	264	392	520	1488
Max. number of analog I/Os	56	170	184	248	372
Max. number of PID controllers	4	12	24	32	96
Max. number of stepper motor axes	2	6	12	16	48
Max. number of servo axes	1	3	6	8	24
Max. number of counters	46	46	46	62	93
Max. number of ports	8	17	25	33	93
Motion control/path control	No	No	No	No	Yes

Features

- One software tool and one language for all functions
- Controller, drive and HMI in one device
- All data/parameters can be accessed throughout the network at all times
- Ethernet as an integrated network
- The controllers are equipped with integrated web servers
- Each controller is equipped with its own operating and diagnostics functions



Seamless Programming with JetSym STX

The Language

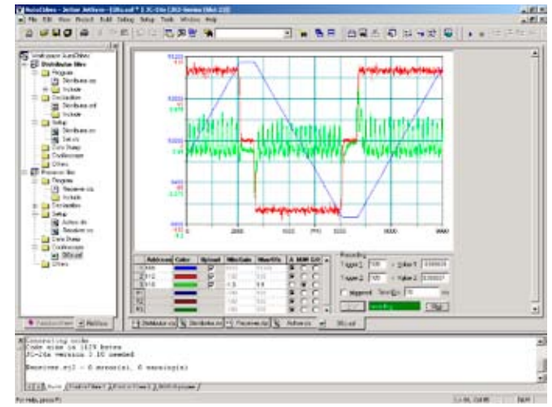
- Process-oriented language for direct process description
- One language for all automation functions
- Efficient motion commands
- Parallel programs for simultaneous processes (100 parallel programs/multitasking)
- Transparent realtime access to all plant parameters
- Convenient motion wizards
- Extensive commissioning and service functions
- Object-oriented programming possible
- Commands for handling folders and files

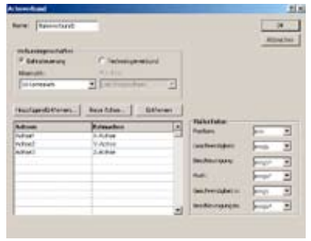
User Interface

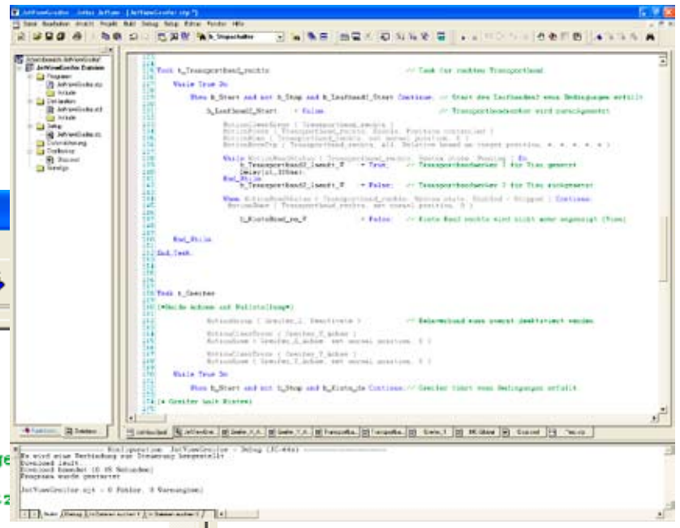
- One single development environment for project management, programming, commissioning
- Several projects can be processed simultaneously
- It is also possible to integrate files with other formats, such as WORD documents, into one JetSym project
- Powerful debugger with breakpoints, single step and call stack monitoring function
- Oscilloscope mode for recording and display of continuous processes
- All functions and parameters of the entire plant are transparent and available in realtime
- Clearly structured motion interface for parameterizing and commissioning of motion axes
- Freely configurable commissioning interface
- For Microsoft Windows 2000 / XP / Vista
- Interface to source control tools

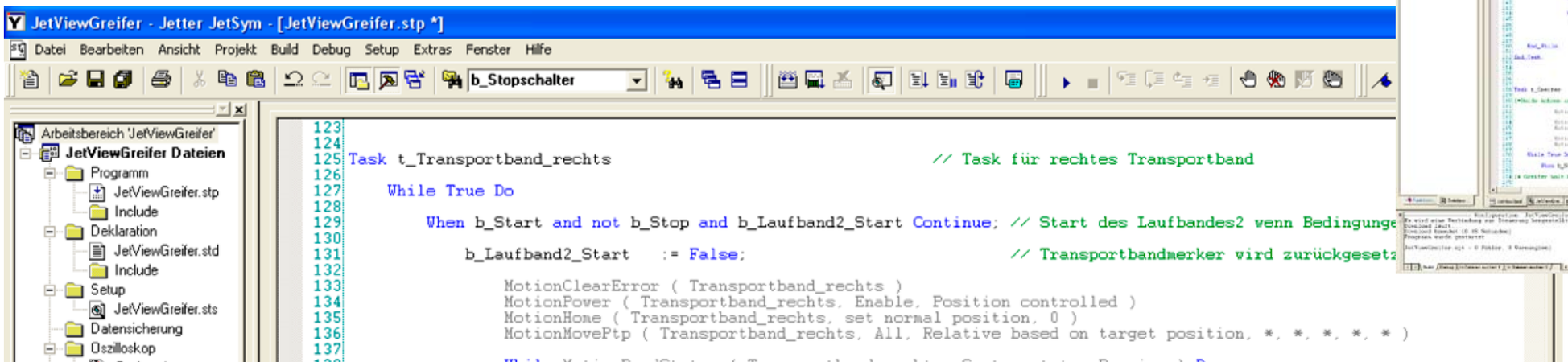
Your Benefits

- Fast learning curve
- Shorter programming and commissioning times
- Enhanced functionality
- No additional outlay for the use of different tools and languages
- Interface-free access to the entire system









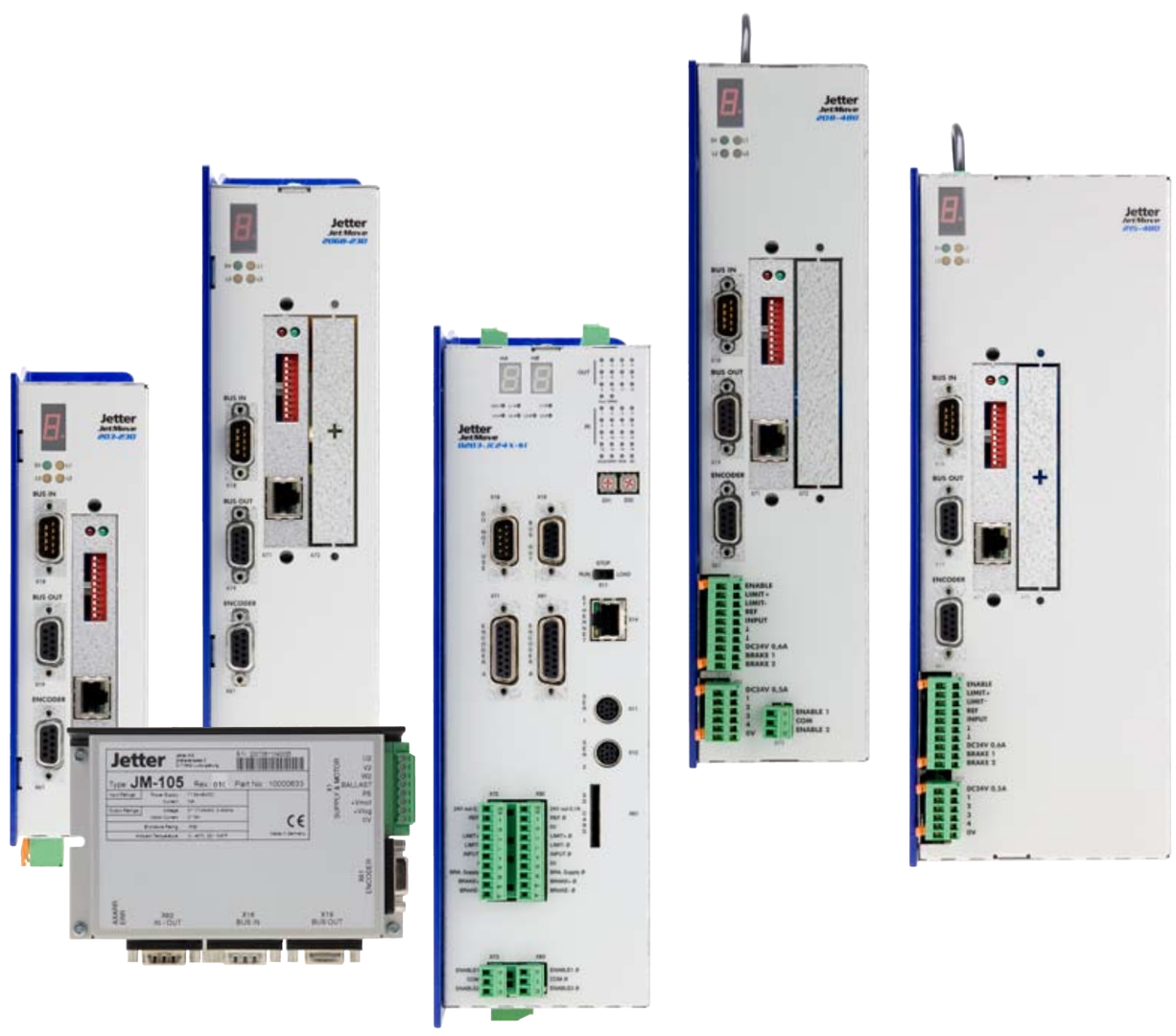
Drive Systems

From Point-to-Point to Path Control

JetWeb makes the interface-free integration of drive systems into the control system possible - from simple point-to-point positioning through to complex path control system. As a user, you will only need one development environment and one programming language for both the control and motion system, regardless of whether stepper or servo motors are being used.

Powerful, high-level commands for all motion functions simplify programming. An uncomplicated motion GUI makes commissioning and servicing much easier.

	JM-105	JM-203/D203/206	JM-204/208/215/225
Rated Voltage	24–48 VDC	1x / 3x 230 VAC	3 x 400 VAC
Rated Current	5 A	3 – 6 A	4 – 25 A
Peak current	10 A	6 – 12 A	8 – 50 A
Continuous output	250 W	0.5 – 1.5 kW	2 – 7 kW
Interfaces	Jetter system bus	Jetter system bus, Ethernet optional	Jetter system bus, Ethernet optional
Safety function	No	Yes	Yes
Controllable motor types	2 and 3-phase stepper motor, synchronous servo motor, linear motor, torque motor, DC motor, asynchronous motor	3-phase stepper motor, synchronous servo motor, linear motor, torque motor, asynchronous motor	3-phase stepper motor, synchronous servo motor, linear motor, torque motor, asynchronous motor



Drive Systems

Program a Drive in the Same Way as an Input

JetMove represents a powerful and compact family of drives. The highest possible flexibility and simplicity is guaranteed by interface-free integration into Jetter control systems. JetMove drive controllers can handle asynchronous drives, synchronous drives and/or linear motors.

Motors

Drives have to meet a wide range of requirements depending on the specific application. Jetter AG offer a broad spectrum of motors to meet these requirements. Starting with miniature motors of 0.03 Nm through to motors with 115 Nm there is a complete range of suitable drive packages for every application.

Accessories

A complete drive package must also include the right accessories. Jetter AG also provide the suitable electronic gearing, cables and connectors for your individual application. The package also includes all-round, professional advice and our company's wealth of experience.

JetSym – One Software for Control and Drive Systems

The JetSym software tool supports you from commissioning through to servicing of drive systems.

Hardware Profile

A hardware profile is created quickly and conveniently. When selecting a JetMove drive, it is only necessary to enter a name and all relevant data are then automatically defined in the programming tool.

Oscilloscope

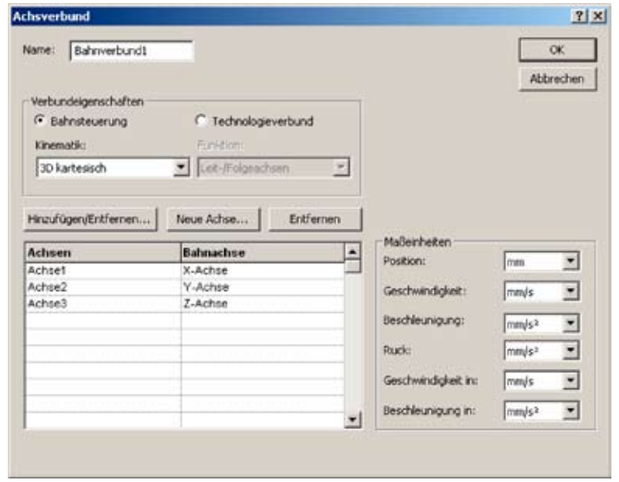
With the integrated multi-channel oscilloscope, axis behavior can be monitored right down to the individual bits. Several axis parameters can be monitored in realtime and visualized for diagnostics. As a result axis behaviour can be precisely determined during a positioning run.

Motion Commands

Whether a point-to-point motion is to be programmed or a trajectory with several axes is to be followed - the motion wizard assists you when entering commands. Pre-defined axis names are prompted. Every command shows you exactly which functions are currently available and prevents incorrect entries.

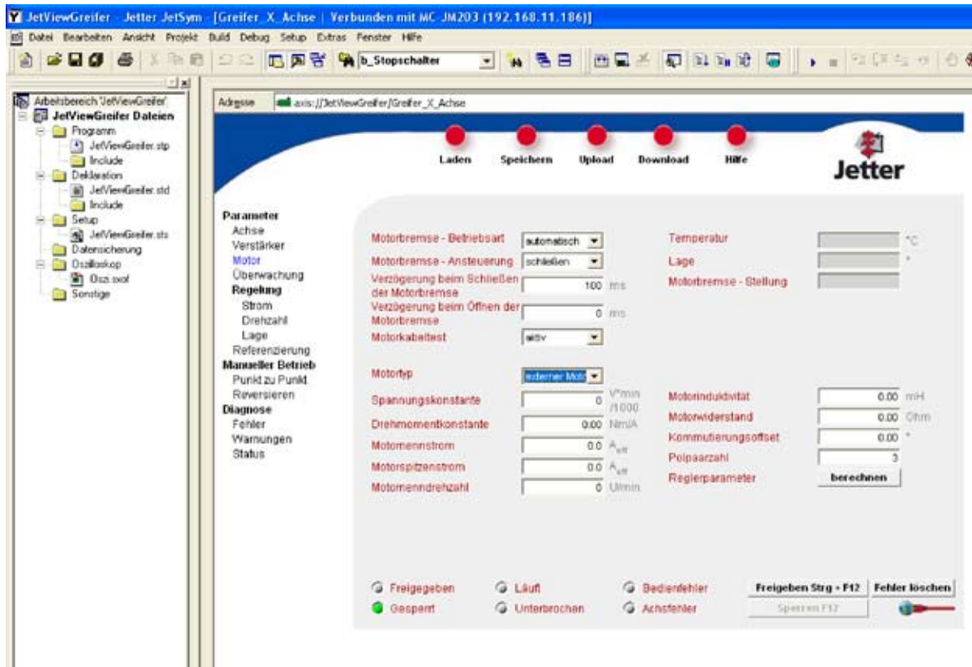
Motion Setup

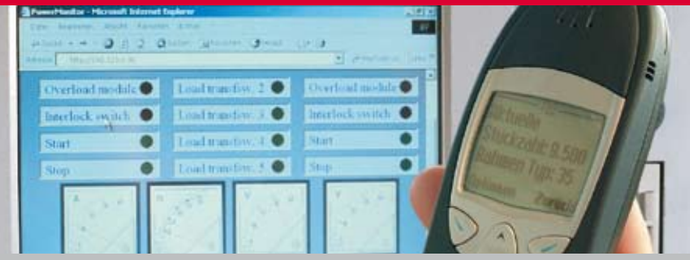
All axis parameters can be accessed online with Motion Setup. Its structure is so simple that the correct axis parameters are intuitively defined. During commissioning it is important that the axis is moved safely and conveniently. For this reason the determined parameters are stored on the controller and the PC at the touch of a button. Subsequently the drive is always initialized with the correct data by the controller, even when a servo amplifier has been replaced.



Diagnostics

Information on the current axis status is accessed at the click of a mouse button. All axis information - enabling, error signaling and the current axis status - is displayed immediately.
Simple axis movements from one point to another or complex path control jobs are no problem for Jetter controllers. All these functions have been integrated into one system.





Drive Systems

Motion Control – Path Control within the PLC

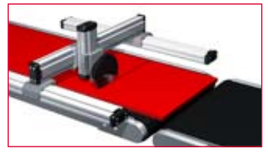
Axis interpolations can easily be implemented with the Motion Control software. Interpolating 3D path motions can directly be activated in the application program.

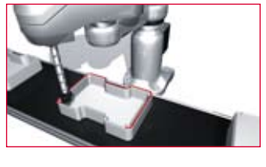
Technological functions

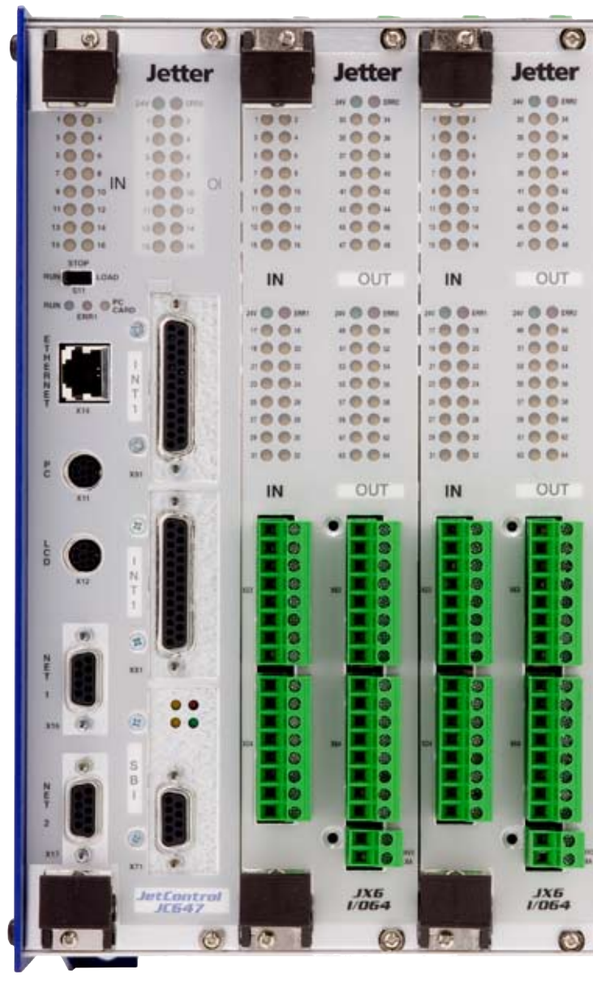
- Print mark
- Electronic gearing
- Cam disc
- Winding
- Flying saw
- Synchronous axes
- Capture mode
- Coupling and decoupling of axes (synchronization)

Path control

- 3D path interpolation: Linear, circular, helix, spline
- Polynomial smoothing
- Jerk-limited speed control
- Look-ahead function
- Kinematic transformations
- 3D-orientation interpolation







Motors

Servo Motors - the Right Type for All Assignments

Jetter servo motors are 3-phase synchronous motors which are categorized in three groups:

JL series

The JL motor series comprises synchronous servo motors featuring classic winding technology. These motors are very rugged and cover the range from 0.1 Nm to 115 Nm.

JK series

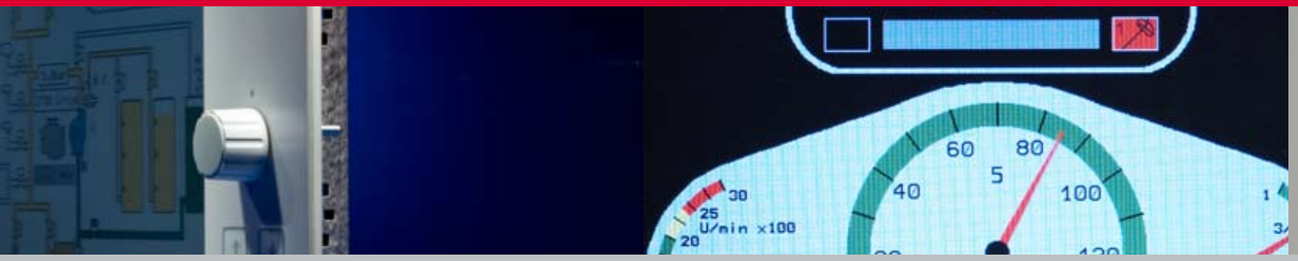
The JK motor series comprises synchronous servo motors featuring classic winding technology. The focus of this motor series is on short design. JK motors are used wherever a small footprint is paramount. These motors are very robust and cover an extremely wide range of applications.

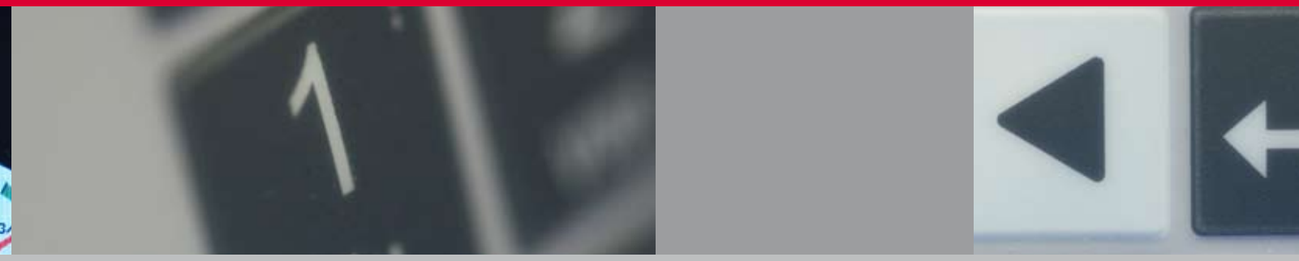
JH series

The JH series excels with its segmented winding technology, and achieves a power density increase of more than 40 percent in comparison to conventional designs. As a result these motors are very compact and especially suitable for dynamic applications. The JH motors cover a torque range from 0.03 Nm to 8.6 Nm.

Features

- IP65 (IP67) protected
- CE and UL approved
- Magnetic holding brake
- Permanent-field synchronous servo motors
- Insulation class F
- ATEX zone 2
- Wide range of options





Human-Machine Interfaces

More Than Just Stylish

As a systems provider, Jetter AG offer you a wide variety of HMIs for operation and visualization. These range from small alpha-numeric devices over full-graphics HMIs, which can be operated as terminals linked to a server, up to ruggedized industrial computers.

Graphic HMIs

Graphic HMIs ensure easily comprehensible operation and visualization. These devices are very good alternatives to industrial PC systems if the focus is on visualization rather than on data management.

Web terminals of the JetView series are available in different screen sizes. They offer the optimum operating concept for all applications. The digital potentiometer "DigiPot" offers exceptionally user-friendly operation by turning and pressing.

Industrial PC Systems

The industrial PC is ideal for both visualization and data management as well as serving as a platform for a soft PLC. This product line ranges from small, compact devices of the JetView series to panel PCs and PCs for use in the control cabinet with the remote display of the JI-PC series.

Alphanumeric HMIs

The alphanumeric HMIs are fully integrated into the Jetter controller concept and controlled directly from the application program. They are programmed and handled directly by means of convenient commands in the user program of the controller. The basic principle also applies here - one system and one program for the entire application.

Human-Machine Interfaces

Visualization and Data Management

JetWeb has helped the production shop to 'come in from the cold'. Since JetWeb makes use of the latest technologies, such as universal communication with Ethernet TCP/IP and Internet protocols, the production shop is now transparently connected to the office.

JetWeb makes use of the benefits offered by IT technologies, in particular in the fields of visualization and data management.

The Jetter JetViewSoft is an state-of-the-art and attractive software tool:

- Web-based visualization
- Direct database connectivity
- Alarm handling and trend graph
- Project-specific extensions by means of JavaScript
- Sending of e-mails and text messages (SMS)
- OPC support for third-party products

Visualization

JetViewSoft assists users with a familiar visualization interface for the creation of screen masks. These can be saved as HTML files and displayed with any web browser which is used as runtime software. JetViewSoft is equipped with all functions for creating dynamic visualization pages.

Database Connectivity

JetWeb enables uncomplicated connection of machines to IT databases. It is only necessary to set the software parameters; all important functions are available by default. Data from individual controllers or of the entire plant can be read from or written to a database.

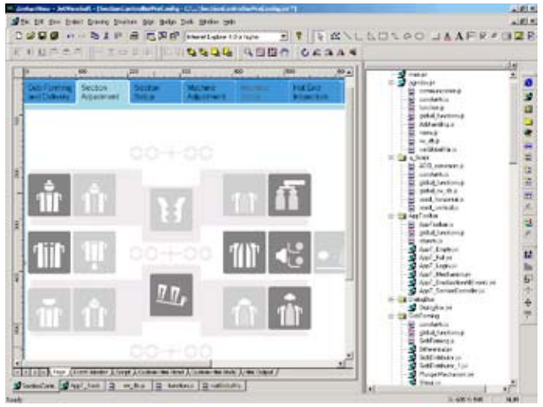
Alarm Handler

Immediate reporting of imminent or detected of errors is vital for fault-free production. To this purpose JetWeb provides an alarm handler to send and log alarm messages. Alarm messages can also be sent by text message (SMS) or by e-mail, which significantly enhances flexibility.

Trend Graph

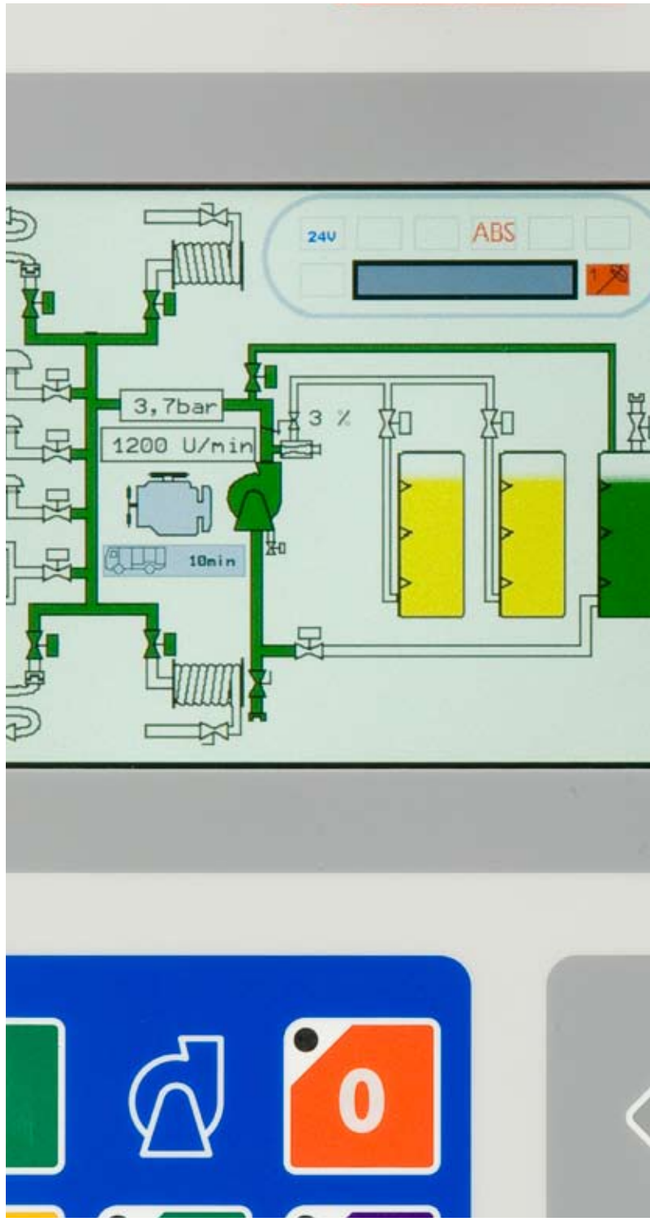
The trend graph function adds an extra dimension to the display of processes. Production processes, quantities and measured values can be displayed with a clear structure.

JetViewSoft



Optimum Interaction with JetSym

JetViewSoft features data integration of JetSym declarations. Data which have been declared in JetSym are automatically available in JetViewSoft. This way, data consistency is automatically ensured.



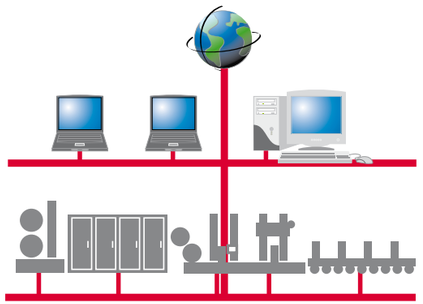
Networking

One Network for All Situations

Industrial communication has become a key technology of industrial automation.

Modular machine structures and the necessity of data management require new concepts for networking automation systems.

In response to this demand Jetter AG have developed the JetWeb technology - a universal solution based on Ethernet which has set a benchmark on the market. Jetweb technology offers a whole range of significant advantages:



End-to-end Ethernet - from the office to the sensor

- A consistent networking technology for the entire manufacturing realm
- Transparent communication between all devices of a plant
- Integration of machines into the company's IT system
- All devices can be programmed and serviced from any free Ethernet port
- Transparent access to any device allows uncomplicated commissioning and servicing
- Network technology with high reserve capacities
- Ethernet is the leading standard in the IT world
- Plug&Play functionality – devices log on to and off from the network automatically
- Benefits will increase as IT standards are developed further (e.g. 1 Gbit/s Ethernet)

JetSync

JetWeb enables the synchronization of drives, peripheral equipment and controllers with standard Ethernet and TCP. The JetSync solution was developed to this purpose. It is based on standard protocols and special hardware is not required.

Features

- Axis synchronization by means of Ethernet TCP/IP (jitter < 10 µsec)
- There is basically no limit to network participants
- Download of traversing profiles during operation
- All networking functions have been implemented using the Ethernet TCP/IP standard
- Standard IT components such as switches are used
- Asynchronous (TCP/IP) communication is also possible in runtime, e.g. for access to the web server in the drive
- Intelligent error management, e.g. to enable synchronized and controlled shutdown of drives (within 1 ms)

System Partnership

Active Partnership

Machine engineering companies use qualities such as performance, functionality, reliability, ease of operation and good service to put themselves ahead of competitors. These are all factors which have a great deal to do with the employed control technology. It is often necessary to adapt control and drive equipment for reasons of function and price. This requires a flexible partner who also has access to the control system itself.

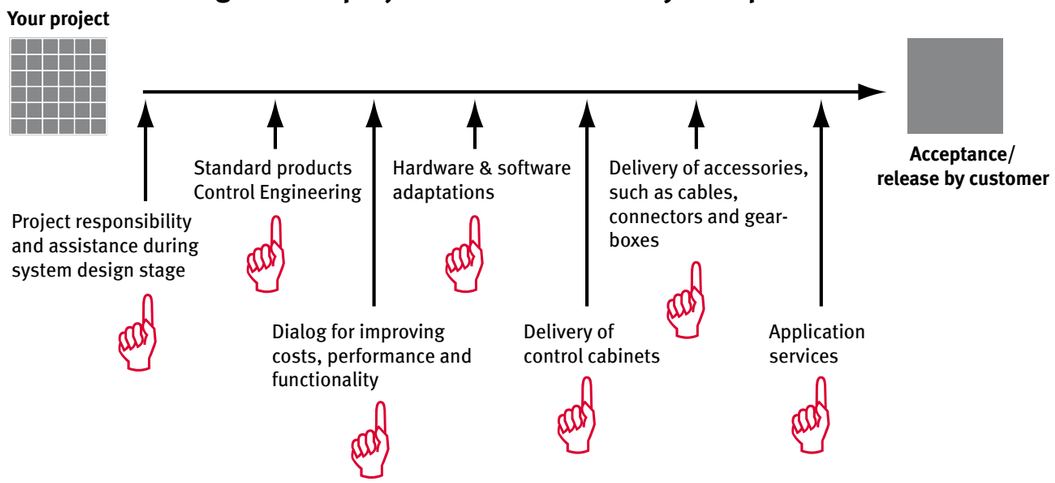
Training

We offer interesting seminars with a high level of practical relevance for the optimum use of our products in the following fields:

- Programming
- Service and Maintenance
- Visualization
- Drive Systems

These seminars are tailored to meet the needs of different target groups. Detailed information is available at: www.jetter.de

Diagram of a project schedule with a system partner



Level 4:
A dedicated team (comprising Jetter developers and application engineers) will become your control department under your guidance

Level 3:
A dedicated team (comprising Jetter developers and application engineers) will assist you in implementing your project

Level 2:
Our hardware and our software are adjusted according to your requirements

Level 1:
Competent and quick assistance by our specially trained hotline staff in the case of problems when using our products

Basic level:
Training in the four product lines: controlling, driving, operating and networking

The Partnership Idea

Jetter AG have developed a concept in which customers themselves decide which services they want to use. In the most basic case they simply buy the product, i.e. the devices, and assume responsibility for the application and implementation themselves.

Customers are also offered the choice of the following services:

- System and drive configuration
- Control cabinet design and/or manufacture
- Programming and commissioning
- Service
- A dedicated team of application engineers under the customer's guidance
- Development services for customized product modifications

Mobile Automation

HMIs and Controllers

Jetter AG have been active in the field of automation technology for more than 25 years – since 1980 in the industrial automation sector and since 2001 also in the mobile automation sector.

The company laid the foundation stone in this field by the acquisition and integration of Ebelt GmbH. At this point in time, Ebelt GmbH was able to look back over around 20 years of experience in the development and production of HMIs.

A modular system was evolved as the result of many years of close collaboration with market and sector leaders, which now serves as the basis for our current customized equipment.

Our success is backed by a highly-motivated team which contributes expert competence, experience and a high level of commitment to produce top-quality products.

Renowned companies have been placing their trust in Jetter for many years!

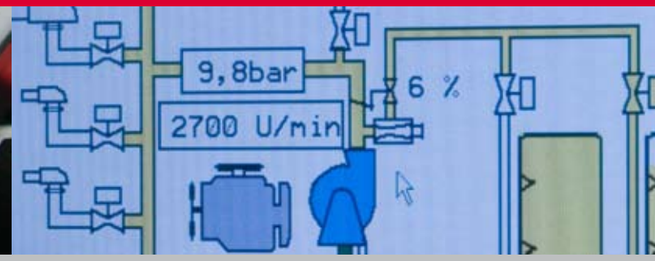
HMIs and controllers by Jetter AG are now used in many mobile automation applications:

- Agricultural machines
- Fire engines
- Supply and disposal vehicles
- Railway vehicles
- Mobile machines
- ...

The modular approach allows us to offer our customers technically and economically mature solutions, even in small quantities.

Customer benefits are always the focus of our developments. This is easily recognizable by the special features which our equipment has to offer, such as:

- Sunlight readable display
- Extended temperature range
- Environmental and shock resistance
- Digital potentiometer for data input
- Illuminated keys (night design)
- Dimmable display
- Camera port
- and many more



Mobile Automation

Human-Machine Interfaces

Our HMIs for the mobile automation sector are characterized by their versatility and robust design. Whether you need a product for harsh outdoor applications or for use inside the cab – we can offer the right class of protection, from IP 20 to IP 67.

The tried-and-tested JetSym and JetViewSoft software tools will provide you with optimum support when configuring, programming, and creating visualization masks.

Thanks to the integrated STX interpreter, the operator terminal can even handle control functions, providing the kind of performance you would expect if your system had an additional implement ECU.

In addition to our wide array of standard terminals, we can also produce bespoke units to suit your personal requirements in terms of design, operating system, input/output configuration or interfaces.

The JVM-407-Kox-O01 is the latest mobile operator terminal from Jetter. It is comprehensively available with IP 65 degree of protection. The brightness level of the 7" TFT WVGA display makes it fully suitable for use in sunlight. There are three CAN interfaces plus one Ethernet interface for full access to all parts of the machine. Your application-specific data can be managed via the integrated SD card and USB interface. A large number of digital inputs are also available.

Controllers

We also place a great deal of importance on reliability and flexibility as far as our implement ECUs and I/O nodes are concerned. Many of the devices can be used as I/O nodes on the CANbus network or can even serve as an implement ECU if combined with an additional CPU. This means you can perfectly match control performance to the requirements of your machine.

The fact that the standard JetSym STX programming language is used for all controllers means that your code can easily be ported and distributed to a number of controllers. An Ethernet connection coupled with our implement ECUs will see you perfectly equipped for the future.

In addition to the standard I/O components, our product range also includes a whole host of special functions such as hydrostatic drive controllers, multi-axis controls, or GPS connection.

The JXM-IO-E02-G06-K02 is a prime example of cutting-edge Jetter components:

- Operating voltage: 8 .. 32 VDC
- Protection class: IP 68
- Ambient temperature: -40 .. +85°C
- 21 digital inputs / 16 digital outputs
- 3 PWM outputs
- 2 frequency inputs
- 4 analog inputs
- 1 analog output
- Power supply for sensors
- and many more

Equipped with an additional CPU this device can also be used as implement ECU.

Mobile Automation

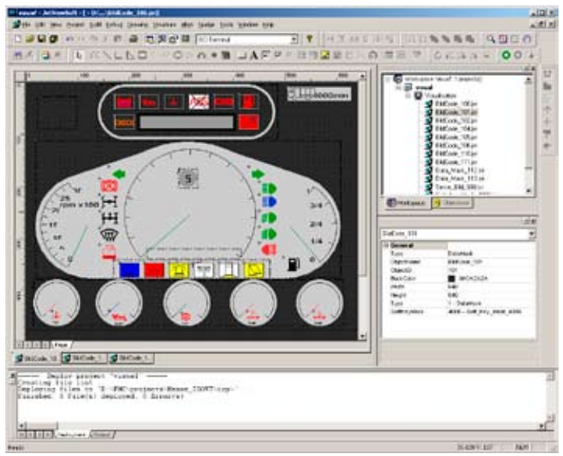
ISO Designer: Plug & Play in Mobile Automation

The solution for the implementation of ISO-compliant masks is the JetViewSoft ISO Designer. JetViewSoft is a visualization and SCADA software which has been in use for many years in Industrial Automation. The ISO Designer is now a permanent feature of the JetViewSoft visualization software. It also provides an easy-to-use graphic editor for creation of the masks and features object-oriented structures. JetViewSoft masks can be implemented for various target platforms - with HTML masks for web browsers, for Windows-CE devices, for customized runtime software and now also for ISO-compliant operating terminals or corresponding implement ECUs.

- The solution for the implementation of ISO-compliant masks
- Creating of IOP files to ISO-11783
- Object-oriented programming
- Object pool with predefined ISO objects
- Automatic conversion of images to ISO colors
- Simulation of a terminal (VT) on the PC

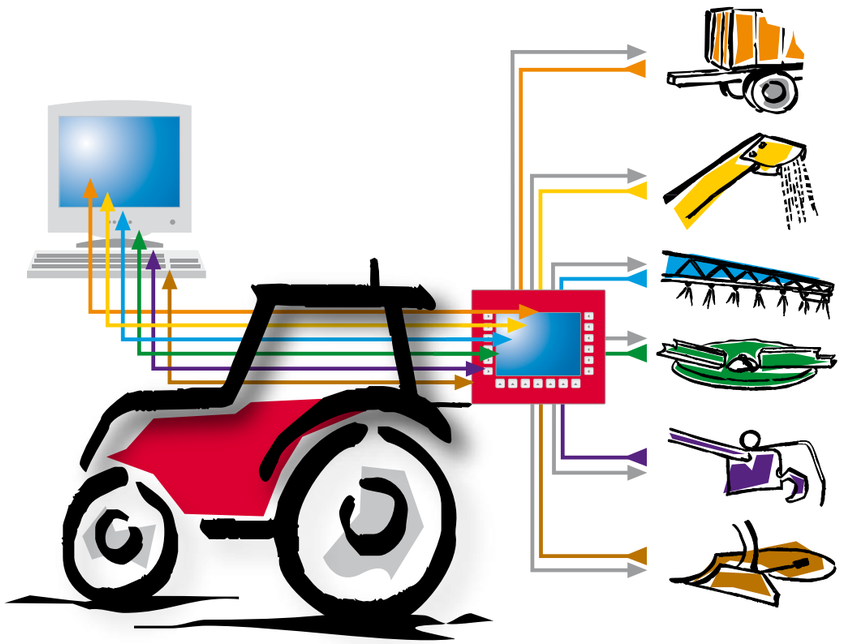
Object Orientation for Efficient Engineering

The structure of the masks and their elements is object-oriented in compliance with the ISO standard. All objects defined in the ISO standard and also those created in the mask can conveniently be activated in the object pool. The available properties are contained in a property grid. Any objects can be encapsulated in so-called containers in accordance with the object-oriented approach. The containers can then be edited in a separate window.



ISOBUS Establishes Compatibility

ISOBUS standardizes communication between tractor and implements, as well as data exchange between these mobile units and the PC located on the farm.



About us

Introduction

Jetter AG was founded in 1980 by the graduate engineer Martin Jetter. Since the middle of the eighties, the company has focused on industrial control technology. Since 2000 company operations have been supplemented by the mobile automation sector as the result of the acquisition of Ebelt.

The corporate strategy has always centered on customer benefits. For this reason Jetter AG has always been ready to leave trodden paths and take up new challenges - in the interest of the user. This entrepreneurial approach is typified, for example, by the integration of drive systems into the programming language and also the consistent use of Ethernet-TCP/IP in industrial automation.

In 1999, Jetter AG was listed on the stock exchange to fund future growth.

The company is managed by Martin Jetter (CEO), Andreas Kraut (CTO) and Günter Eckert (CFO).

Our Philosophy

- We cultivate honest and trusting cooperation for strong partnerships.
- Willingness to change is an important factor for our success.
- If problems arise, we seek solutions, not blame.
- We assume social responsibility both inside and outside the company.
- We are careful to treat environmental resources with a responsible attitude.
- All corporate processes must be able to withstand public scrutiny

Jetter
AKTIENGESELLSCHAFT

History

1980 The company is founded by Martin Jetter

1981 Development of the first controller with simple plain text high-level language

1986 PROCESS-PLC technology is presented at the Hannover Messe International

1988 Initial international activities, followed by the foundation of subsidiaries abroad: Jetter UK (1991), Jetter US (1992), Jetter Switzerland (1994), CYBEX Singapore (1994)

1991 Installation of a fully-automatic, database-controlled production and assembly line at Rolex is started.

1996 Pilot project: The first powder-coating plant in the world at BMW; automation of the Miss Saigon musical

1998 Jetter GmbH restructured to form Jetter AG

1999 The revolutionary JetWeb technology is presented at the Hannover Messe International

1999 Jetter are listed on the 'Neuer Markt'

2000 Jetter AG acquire Ebelt GmbH, a manufacturer of HMIs

2002 Jetter AG present the first ready-for-sale integrated Ethernet- and web-based systems solution for industrial automation

2002 Jetter AG introduce JetSync, the first solution for synchronizing drives via Ethernet TCP/IP

2003 Lumberg Automation Components GmbH & Co. KG and Jetter AG sign a cooperation agreement

2005 Bucher Industries AG, Niederweningen, Switzerland, acquire a 20 % interest in Jetter AG

2005 Jetter present the new generation of the programming language JetSym STX

2005 Jetter AG acquire Futronic, the Tettnang-based controller manufacturer

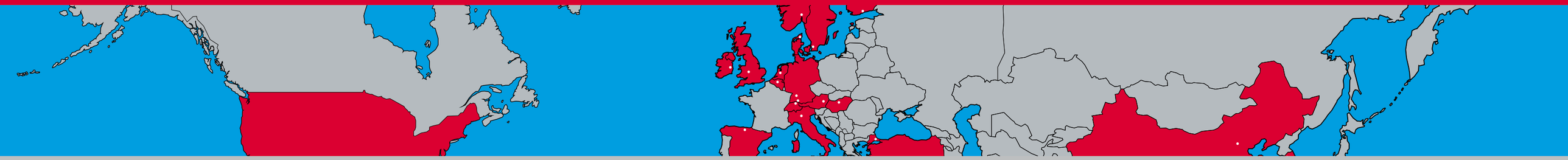
2006 Jetter AG found a subsidiary in Italy

2006 Presentation of the compact and high-performance I/O system JX3

2007 Presentation of a new, compact and high-performance controller generation

2008 Grand opening of the new production building

2008 Acquisition of Control Developments (U.K.) Ltd. and renaming it to Jetter UK Ltd.



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