Automation platform for industrial and building automation

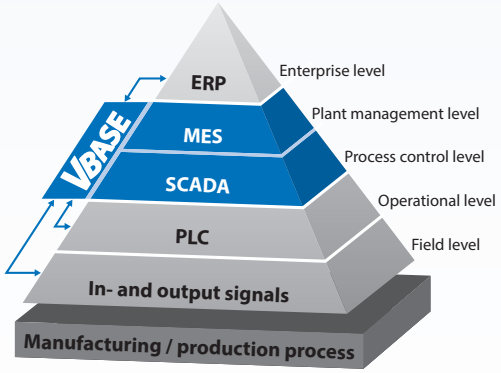
Processes & Data capture, visualize, control and automate with VBASE.

VISAM Smart Solutions

VBASE Smart Factory + Building

The flexible automation platform

VBASE is the central hub for all your automation projects. VBASE can be used in an almost unlimited number of ways. VBASE is at home wherever processes need to be visualized, data collected and control commands exchanged with remote systems. In industrial automation, just like in professional building system technology. From automotive to building materials to pharmaceuticals and chemicals - VBASE is not restricted to one industry.



Consistently networked and digitized

With many interfaces, VBASE connects systems both horizontally at machine level and vertically from the sensor to the ERP system and enables continuous communication between the systems.

Open for your technology

Open interface standards (e.g. OPC UA or TCP/IP) enable vertical communication from the fieldbus to the office area. The modular design of the Systems, customer-specific adaptations can be implemented quickly and cost-effectively.

Support for 200 remote systems

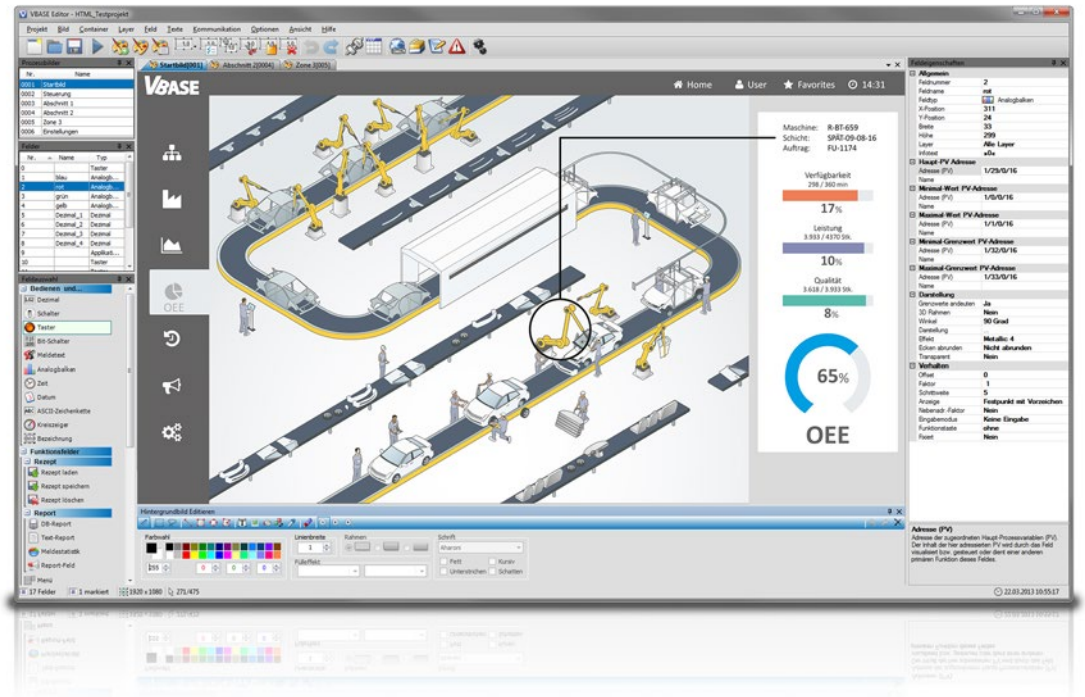
VBASE is independent of individual components and manufacturers. It uses an extensive driver pool and communicates with all common protocols, fieldbuses and remote systems. The VBASE communication modules are permanently updated and extended by new drivers. This ensures that your automation software remains compatible with the next generation of control systems. VBASE currently supports approx. 200 different systems - and the number is rising!

With MQTT VBASE supports one of the most important IOT and M2M protocols. MQTT offers real push communication and is scalable to several thousand clients. The MQTT broker can be freely selected, in addition, VISAM GmbH offers a service under VBASE.cloud.

Allen-Bradley | BACnet | Beckhoff TwinCAT ADS | digitalstrom | ISO on TCP | KNX | Matsushita PLC systems | M-Bus | Mitsubishi MELSEC | Modbus TCP/RTU | MQTT | OPC UA (Client/Server) | Panasonic PLC systems | Saia | Siemens SIMATIC | VIPA | WAGO I/O-System | many more systems

20+ Jahre Project compatible for 20 years

VBASE is constantly being further developed. We place the highest value on downward compatibility with older program versions. VBASE has been project compatible for more than 20 years.



VBASE Software modules and functions

VBASE-RT: the runtime systems

The VBASE runtime systems are among the most important program parts within the automation system. They run as independent applications and provide the graphical user interface, accept user input, manage the process variables and the communication channels. The 5 variants of VBASE runtimes differ in terms of scope of services, licensing and price.

VBASE Data field (VDF)

Within VBASE, all process data is exchanged via process variables of the VBASE data field (VDF). The VDF forms the bridge between all VBASE functions and the connected remote stations. Due to this data structure, all process data are simultaneously available in the system. The VDF manages up to 2 billion process variables.

Funktionsbausteine

With the VBASE function modules it is possible to easily use complex and frequently used functions and calculations in projects. A library with various pre-programmed functions is available for this purpose. The modules are based on a standardized structure and permanently encapsulate recurring logic or functions as a „black box". The user only has to select the corresponding blocks from the library and define the input and output variables. Function blocks can be developed quickly, flexibly and independently of the basic system.

SQL Database Interface

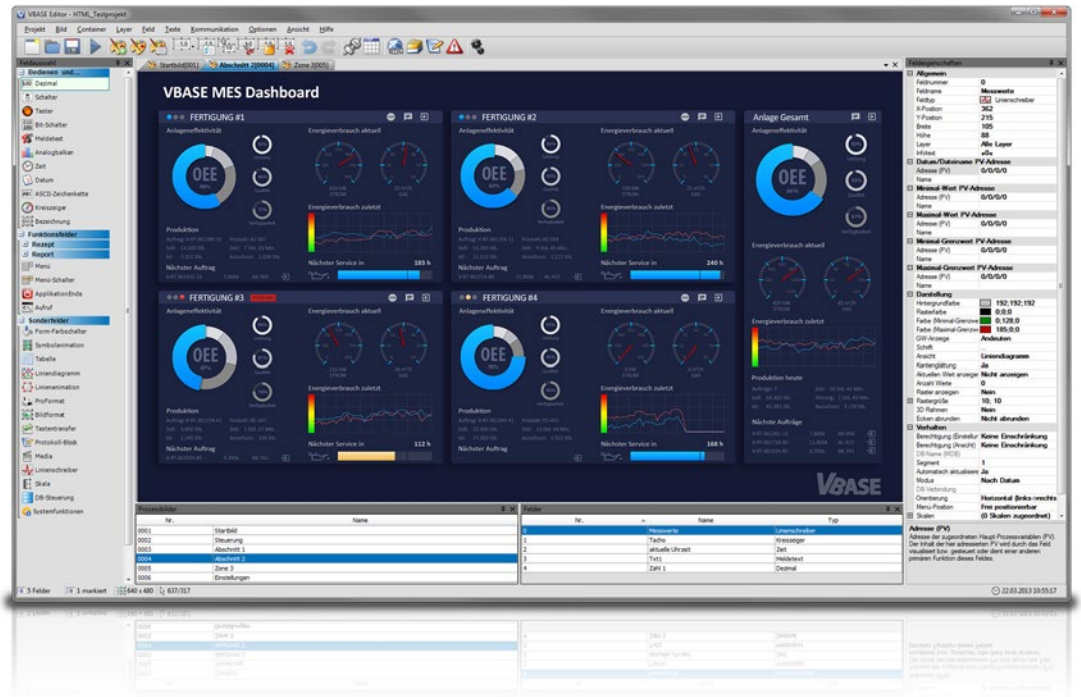
VBASE comes with a flexible database interface that can be configured menu-driven. It works across modules and can be used with the VBASE modules recipe, reporting system, log and logging. These modules can write, read and modify process data via the database interface. To display the recorded data, the line recorder and the scale can connect directly to the database. The graphical processing of complex data is possible without any problems.

VBASE Web-Remote

VBASE includes a modern web interface that provides a universal HMI interface based on HTML5. The VBASE Web-Remote enables the display and control of the automation project with smartphones, tablet PCs and all devices with a compatible browser. The Web-Remote generates the necessary HTML5 pages automatically and can be activated on a project basis.

More functionality

- Administration of recipes in 16 levels
- Logging of process data
- User administration and user log
- Multilingual projects with language switching at runtime and UNICODE support
- Message system for text and image messages
- Sending messages via email, SMS and messenger
- VBASE PV-Monitor supports the commissioning process



VBASE Editor - the projecting environment

Consistent project planning

The VBASE Editor is the universal project engineering tool that supports you in the development of applications for Windows PCs, the HMI platform VTP and the gateway family VGATE. From simple machine control to complex shop floor applications, with the VBASE Editor you always achieve the maximum for your project.

The easy way to get started

The VBASE Editor makes it easier for you to get started with an user-friendly interface and helpful wizards to help you create projects and process images. Preset coupling presets enable fast connection of remote systems. The entire application can be operated via drag & drop and supports layers for easy grouping of elements within the process screen.

Good design in the twinkling of an eye

VBASE also offers a number of options for visually appealing visualization. Control elements can, for example, be assigned predefined effects, 3D frames, gradients or rounded corners.

Simple graphical work on process images, symbols and other elements can be done directly in VBASE with the integrated graphic editor, without the need for to call external programs. An extensive symbol library with prefabricated graphics for the use in your projects is also integrated.

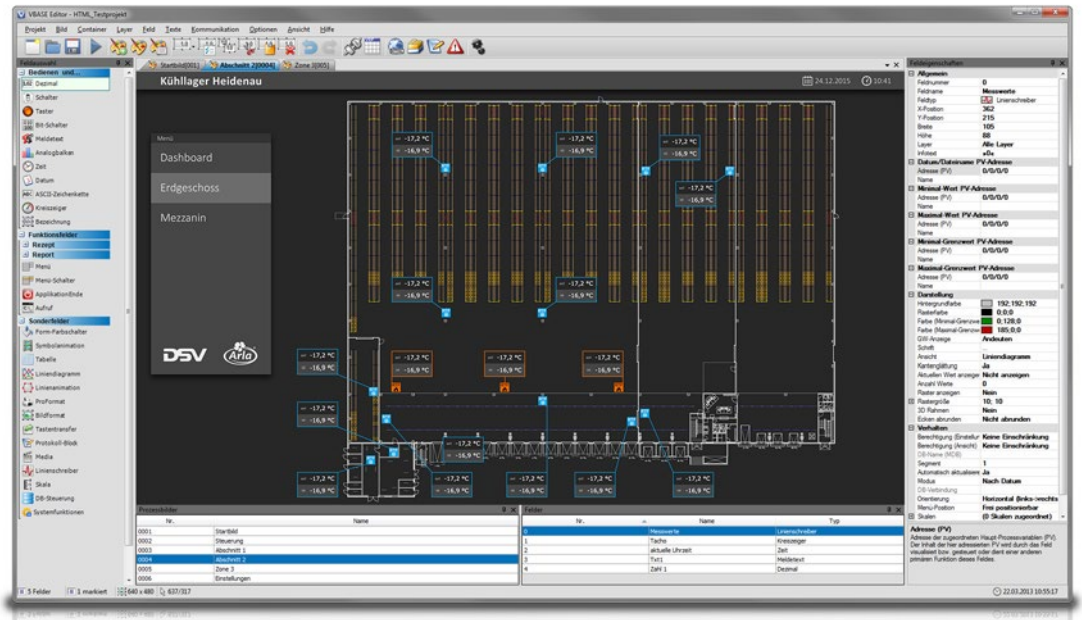
Tools for shorter development times

The VBASE Editor does everything to help you reach your goal as quickly as possible - the perfect automation application. It therefore contains numerous functions that support you in your effective work:
With the coupling assistant, you can connect your remote system to the project in less than a minute. Function blocks facilitate the use of frequently used calculations and functions. For example, a consumption meter can be integrated within a very short time and is then available throughout the project with over 70 precalculated values. The indexed addressing enables a strong reduction of the project planning effort for larger projects through the multiple use of process screens and the mapping of different scenarios in one screen.

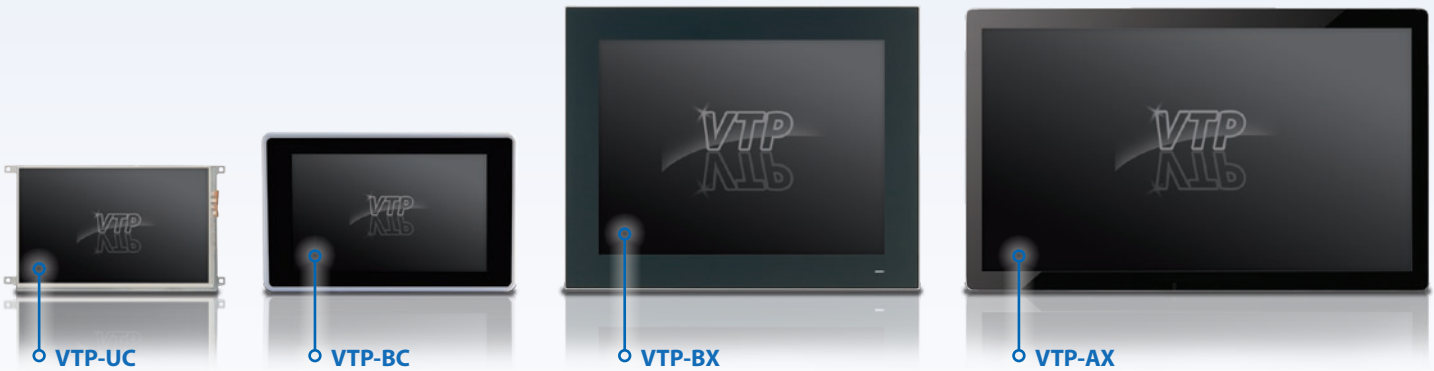
Function Modules:
the modular concept of VBASE

Expand functionality yourself

With the VBASE Basic Engine, VBASE has integrated a complete programming language based on Visual Basic. This makes it possible to extend the functionality of the system individually or to transfer functions from the remote system to the visualization.



VTP VISAM Touch Panel



VTP-UC
Display: 7"
OEM / in-wall mount
WEC7
VBASE Kompakt-RT

VTP-BC
Display: 7" - 17"
Panel mount
WEC 7 / Windows CE
VBASE Kompakt-RT

VTP-BX
Display: 12" - 17"
Panel mount
Windows 10 IoT
VBASE Pro-RT

VTP-AX
Display: 15" - 32"
Wall mounting / in-wall mounting
Windows 10 IoT
VBASE Pro-RT
Widescreen, Multi-Touch

Robust HMI for professional industrial and building automation

VISAM Touch Panels are extremely compact yet powerful operating devices for machine and plant construction as well as for building automation.
The operator interfaces withstand the extreme conditions in industrial use with front protection (up to IP66) against splashing water and contact. The mechanical design without fans and moving parts makes the devices very reliable and low-maintenance. Thanks to this feature, the devices are also ideally suited for use in the event of strong vibrations and shocks.

Full MES & SCADA functionality also on HMI units

With VBASE as software for project planning and parameterization, the operator interfaces have complete access to the HMI, SCADA and MES worlds.
The functional scope of the operator interfaces differs with regard to the HMI runtime: devices with Windows Embedded Compact (WEC7) have a slightly limited functional scope due to the hardware specification. Devices with Windows 10, on the other hand, offer the complete functionality of the desktop runtime VBASE Pro-RT.

VGATE Automation Server & IoT-Gateway

Connecting automation worlds

The products of the VGATE series are robust compact servers for data acquisition and data exchange between different systems, physical interfaces and protocols. They are suitable, for example, for use as data intermediaries, data collectors, interface converters or as servers for higher-level systems. All VGATE work with VBASE and are compatible with approx. 200 different bus, protocol and remote systems.

data intermediaries | data collector | web visu server | data server | IOT gateway | edge computing | more

Made for Headless

With powerful yet fanless processors and no moving parts, the VGATEs are ideally suited for machine-oriented use in industrial environments. They offer a wide range of interfaces and can be flexibly integrated into existing applications. The compact devices are designed for installation in the control cabinet. As a black box, they work headless in the background and make the recorded data available in real time in the network.

VBASE Functions / Comparison of runtime systems

Function:	VBASE Light-RT	VBASE Pro-RT	VBASE Server-RT	VBASE Kompakt-RT	VBASE Kompakt-Server-RT
Licensing	Soft-Key, UKey (USB)	Soft-Key, UKey (USB), Embedded	Soft-Key	Embedded (VTP, VGATE)	Embedded (VTP, VGATE)
Supported operating systems	Microsoft Windows XP / 7 / 8 / 10 Microsoft Server (as of 2008)			Microsoft Windows CE / WEC7	
Process images per project	8	9.999	9.999	256	256
Addressable active process variables (* Depending on available memory, operating system, etc.)	2.048	2.147.418.112*	2.147.418.112*	65.536	982.898*
Internal process variables	63.488	327.680	327.680	⊗	⊗
Active VDF groups	1 - 8	1 - 256	1 - 256	1 - 256	1 - 256
Number of communication channels for remote systems	1	10	245	5	5
User permissions	128	128	128	32	32
Number of languages (for multilingual applications)	256	256	256	256	256
Language selction during runtim (also by remote system)	✓	✓	✓	✓	✓
Integrated Basic programming language / max. number of programs	✓/ 1	✓/ ∞	✓/ ∞	✓/ 255	✓/ 255
Function blocks	⊗	✓	✓	✓	✓
Web-Remote sessions (HTML5)	⊗	✓/ 1	✓/ ∞	✓/ 1	✓/ 10
Terminal Server clients	✓/ 1	✓/ 1	✓/ ∞	⊗	⊗
VOK TCP/IP Server	⊗	✓	✓	✓	✓
ISO on TCP Server	⊗	✓	✓	✓	✓
Modbus TCP/IP Server	⊗	✓	✓	✓	✓
Database Interface	⊗	✓	✓	✓	✓
Client capability	✓	✓	✓	✓	✓
Recipe levels (load, save, delete recipes)	16	16	16	16	16
Maximum number of recipes	∞	∞	∞	∞	∞
Reporting system for text, image and audio messages	✓	✓	✓	✓	✓
Maximum number of text messages	4.096	4.096	32.000	4.096	4.096
Message logging (to database, ASCII file, printer)	✓	✓	✓	✓	✓
Send messages via SMS and email	✓	✓	✓	✓	✓
Protocol layers	16	16	16	16	16
Operator / System log (logging of operations and system events)	✓	✓	✓	✓	✓
Send key codes to 3rd-party applications	✓	✓	✓	✓	✓
Image control by remote station	✓	✓	✓	✓	✓
Send and receive time and date to / from remote stations	✓	✓	✓	✓	✓
Support for MDB files	✓	✓	✓	⊗	⊗
Table field	extended	extended	extended	basic	Basic
VisAM Win32 compatibility options	✓	✓	✓	⊗	⊗

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