Visualize, control, supervise and automate processes with VBASE HMI / SCADA.
VBASE - what is it and where can it be used?

To answer the most important question first: VBASE is an industry-neutral and highly flexible process visualization and control system. The application possibilities of VBASE are almost unlimited. VBASE is domiciled wherever processes are visualized, data is recorded and control commands must be exchanged with remote systems. In industrial automation as well as in the professional building automation. From automotive, to construction materials, to the pharmaceutical and chemical industry - VBASE is not set to a single industry.

For more than 15 years project compatible.

VBASE is constantly developed further. In doing so, we place the highest value on backward compatibility with older program versions. So you don’t have to waste time in re-developing your visualization upon new software versions. VBASE is project compatible for more than 15 years.

Universally compatible from the HMI to the control level.

With the VBASE Editor you get a unified and integrated development environment that will support you in the preparation of the visualization and control for complex systems, as well as for simple HMI tasks with compact operator devices based on Windows CE. With the VISAM Touch Panel series (VTP), we have developed an HMI platform that perfectly complements VBASE.

Compatible with approx. 200 different fieldbus- and remote systems.

VBASE is independent of components and individual manufacturers. Rather, it uses a huge driver pool and communicates with all common protocols, field buses and remote systems. The VBASE communication modules are constantly updated and expanded to include drivers for new systems. It keeps your HMI & SCADA software compatible with the control systems of the next generation. Currently VBASE supports about 200 different systems - and counting!

Open for your technology.

Open interface standards like OPC or TCP/IP allow vertical communication from the fieldbus to the office area. Due to the modular structure of the system it is possible to realize custom adjustments and driver development quickly and very cost-effective.

Free expert help and support!

The support at VISAM is free! Whether you are already a customer or do a test drive with our software. Our professional support team is available for you by phone, email or in our support forum.

New in VBASE HMI / SCADA 11
- Function blocks
- Indexed addressing
- Voice control
- Relationship diagram
- Timeline
Program modules and functions

**VBASE-RT: HMI / SCADA runtime systems**

The VBASE run-time systems are one of the most important program parts within the process visualization system. They run as a standalone application and provide the graphical user interface, receive the user inputs and manage the process variables and the communication channels. The five VBASE runtime licenses differ in terms of functionality, licensing and price.

**VBASE data field (VDF)**

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

**Function blocks**

With the VBASE function blocks it is possible to use complex and frequently used elements and calculations in a simple manner within the SCADA project. For this purpose, VBASE has an integrated library with a variety of pre-programmed functions to choose from. The modules are based on a standardized structure and encapsulate recurring logic or functions determined as "black boxes". The user simply selects the corresponding modules from the library and sets the input and output variables. Function blocks can be developed quickly, flexibly and independently from the main system.

**SQL database interface**

VBASE comes with a flexible database interface that can be configured completely menu-guided. It works across all modules and can be used with the VBASE modules recipe management, reporting system, log and journal. These modules can write, read and change the process data via the database interface. The fields line writer and scale can be connected directly with the database to view the captured data. So the graphical presentation of complex data is possible with ease.

**VBASE Web-Remote**

VBASE includes a modern web interface, which provides a universal human-machine interface based on HTML5. The VBASE Web-Remote allows the display and control of the automation project with smartphones, tablets, and any device with a compatible browser. The necessary HTML pages are generated automatically by the VBASE Editor and can be enabled on a project basis.

**More Features**

- Management of recipes in up to 16 levels
- Logging of process data
- User administration and user log
- Multilingual projects with language selection during runtime and UNICODE support
- Reporting system for text and picture messages
- Message dispatch by email or text message
- VBASE PV-Monitor simplifies start-up and installation
Unified projecting for HMI & SCADA.

The VBASE Editor is the consistent projecting tool that supports you in developing applications for Windows PCs, as well as for the VISAM HMI platform „VTP“. No matter in which world you move, HMI or SCADA, with the VBASE Editor you will always get the most out of your visualization.

An easy beginning.

The VBASE Editor has many features for an easy start with the new software. It has a user-friendly interface and many helpful wizards that assist you in creating projects and process images. Coupling presets allow a quick access to remote systems. The entire application can be operated via drag and drop and it supports layers for easy grouping of elements within the process image.

Good design with ease.

For an optically appealing visualization VBASE comes with several options. Controls can be styled with predefined effects like 3D frames, gradients or rounded corners.

Simple graphic editing in process images, icons and other elements can be done directly in VBASE with the integrated graphics editor. No external applications are necessary. A symbol library with pre-defined graphical elements for the use in your projects is also included.

Higher efficiency, less development time.

The VBASE Editor is doing almost everything to make you reach your goal - the perfect SCADA system. Therefor the Editor contains numerous features to assist you in the effective work:

The pairing wizard assists you to connect your remote system with the project in less than a minute. Function modules facilitate the use of commonly used calculations and functions. For example, a consumption meter is integrated within a very short time and is then available throughout the project with over 70 pre-calculated values. A huge reduction of projecting time for larger projects is archived by the multiple usage of process images. With the indexed addressing it is possible to map various scenarios in a single process image.

Expandable functionality

VBASE has an integrated programming language based on Visual Basic: the VBASE Basic Engine. This makes it possible to extend the functionality of the system individually and relocate functions from the remote system into the visualization.
Sovereign operating and monitoring with VISAM Touch Panel.

The devices of the VISAM touch panel series (VTP) are extremely compact and powerful operator panels for machine and plant construction, as well as for applications in the building automation.

All VTPs are available with a high-quality color TFT with integrated touch screen. The display sizes are scalable from 3.5 to 32 inches, depending on the class. The operator panels defy the extreme conditions in an industrial environment with a front-side IP66 protection against water and dust. The mechanical structure without air vents and moving parts makes the devices very reliable and require only little maintenance. These properties make them also ideal for use under severe vibration and bumping.

5 variants of VTP’s:

**VTP-BC**
Displays: 7” - 17”
Panelmount
WEC7 / Windows CE
VBASE Kompakt-RT

**VTP-UC**
Displays: 7"
OEM / In-Wall
WEC7
VBASE Kompakt-RT

**VTP-TC / TX**
Displays: 3.5” - 17”
Panelmount
Windows CE 6.0 / Windows XP Embedded
VBASE Kompakt-RT / VBASE Pro-RT

**VTP-BX**
Displays: 12” - 17”
Panelmount
WES 8
VBASE Pro-RT

**VTP-AX**
Displays: 15” - 32”
Wallmount / In-Wall
Windows 7 / 8.1
VBASE Pro-RT
Widescreen, Multi-Touch

The full SCADA functionality on your HMI device.

The VBASE Editor is used for the configuration and parameterization of the touch panels. Due to the consistent use you have full access to the HMI and SCADA world with the VBASE Editor.

The functionality of the operating units vary according to the HMI runtime: Systems with Windows Embedded Compact (WEC7) have a slightly limited functionality, due to the hardware specifications. On the other hand, devices with Windows 7 / 8.1 offer the complete functionality of the desktop runtime / VBASE Pro RT. The license for the HMI runtime environment is embedded with the device, the configuration software and operating system is included for free with all VISAM Touch Panels.

Intelligent HMI solutions. SCADA functionality included.
### Functions / Comparison of runtime systems

<table>
<thead>
<tr>
<th>Function</th>
<th>VBASE Kompakt-RT</th>
<th>VBASE Kompakt-Ser-RT</th>
<th>VBASE Light-RT</th>
<th>VBASE Pro-RT</th>
<th>VBASE Server-RT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licensing</td>
<td>Embedded (VTP/VGATE)</td>
<td>Embedded (VTP/VGATE)</td>
<td>Soft-Key, UKey (USB)</td>
<td>Soft-Key, UKey (USB), Embedded</td>
<td>Soft-Key</td>
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<tr>
<td>Supported operating systems</td>
<td>Microsoft Windows CE</td>
<td>Microsoft Windows CE</td>
<td>Microsoft XP / 7 / 8.1</td>
<td>Microsoft Server 2008</td>
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<tr>
<td>Process images per project</td>
<td>256</td>
<td>256</td>
<td>8</td>
<td>9.999</td>
<td>9.999</td>
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<td>Addressable active process variables (* Depending on available memory, operating system, etc.)</td>
<td>65.536</td>
<td>982.898*</td>
<td>2.048</td>
<td>2.147.418.112*</td>
<td>2.147.418.112*</td>
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<tr>
<td>Internal process variables</td>
<td>0</td>
<td>0</td>
<td>63.488</td>
<td>327.680</td>
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<td>Active VDF groups</td>
<td>1 - 256</td>
<td>1 - 256</td>
<td>1 - 8</td>
<td>1 - 256</td>
<td>1 - 256</td>
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<tr>
<td>Number of communication channels for remote systems</td>
<td>10</td>
<td>10</td>
<td>1</td>
<td>10</td>
<td>245</td>
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<tr>
<td>User permissions</td>
<td>32</td>
<td>32</td>
<td>128</td>
<td>128</td>
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<tr>
<td>Number of languages (for multilingual applications)</td>
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<td>256</td>
<td>256</td>
<td>256</td>
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<td>Language selection during runtime (also by remote system)</td>
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<td>yes</td>
<td>yes</td>
<td>yes</td>
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<td>Integrated Basic programming language / max. number of programs</td>
<td>yes / 255</td>
<td>yes / 255</td>
<td>yes / 1</td>
<td>yes / ∞</td>
<td>yes / ∞</td>
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<td>Function blocks</td>
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<td>no</td>
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<td>Web-Remote sessions (HTML5)</td>
<td>1</td>
<td>10</td>
<td>0</td>
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<td>Terminal Server clients</td>
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<td>VOK TCP/IP Server</td>
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<td>ISO on TCP Server</td>
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<td>Modbus TCP/IP Server</td>
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<td>Database Interface</td>
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<td>no</td>
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<td>Client capability</td>
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<td>yes</td>
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<td>Recipe levels (load, save, delete recipes)</td>
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<td>16</td>
<td>16</td>
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<td>Maximum number of recipes</td>
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<td>∞</td>
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<td>Reporting system for text, image and audio messages</td>
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<td>yes</td>
<td>yes</td>
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<td>Maximum number of text messages</td>
<td>4.096</td>
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<td>32.000</td>
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<td>Message logging (to database, ASCII file, printer)</td>
<td>yes</td>
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<td>yes</td>
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<td>Send messages via SMS and email</td>
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<td>Protocol layers</td>
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<td>Operator / System log (logging of operations and system events)</td>
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<td>yes</td>
<td>yes</td>
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<td>Send key codes to 3rd-party applications</td>
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<td>yes</td>
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<td>Image control by remote station</td>
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<td>yes</td>
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<td>yes</td>
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<tr>
<td>Send and receive time and date to / from remote stations</td>
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<td>Support for MDB files</td>
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<td>Table field</td>
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<td>VisAM Win32 compatibility options</td>
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