
Rezepte
Rezeptliste
ABC
ACV
TEST1
TEST2
Aktives Rezept:
Variablen:
Vorschau:
Aktueller Wert:
Word
2222
0000
DWord
22222
00000
Float
0,000
Bit
DWord:
Menu
Hauptseite
Exit
Video
PDF
Rezepte
F1 drücken für Hilfe
KEB

COMBIVIS studio HMI

The design tool allows for the effective production of graphic user interfaces and status monitoring systems for industrial plants. A special feature is the universal nature and portability of produced projects, which thanks to the integrated driver database can be linked to all conventional control systems and scaled to any desired display size. The user benefits from extensive template libraries and a highly developed toolbox, and can include standard elements such as alarm handling, recipe management and database registration without programming knowledge.

VISUALIZE AND OPERATE

HMI Is the basis for visualization and operation tasks. This symbol is placed by the available hardware.

BASIC function scope for KEB HMI.

PRO Professional function scope for KEB HMI (extended real-time database, data logger.

Advanced Advanced function scope for KEB HMI (webserver, multidrivers, SMS, email.

COMBIVIS studio HMI

PROJECT NAVIGATOR

for easy access to project resources.

CONTROL PANEL

contextual to the resource selected

REFACTORING EXPLORER

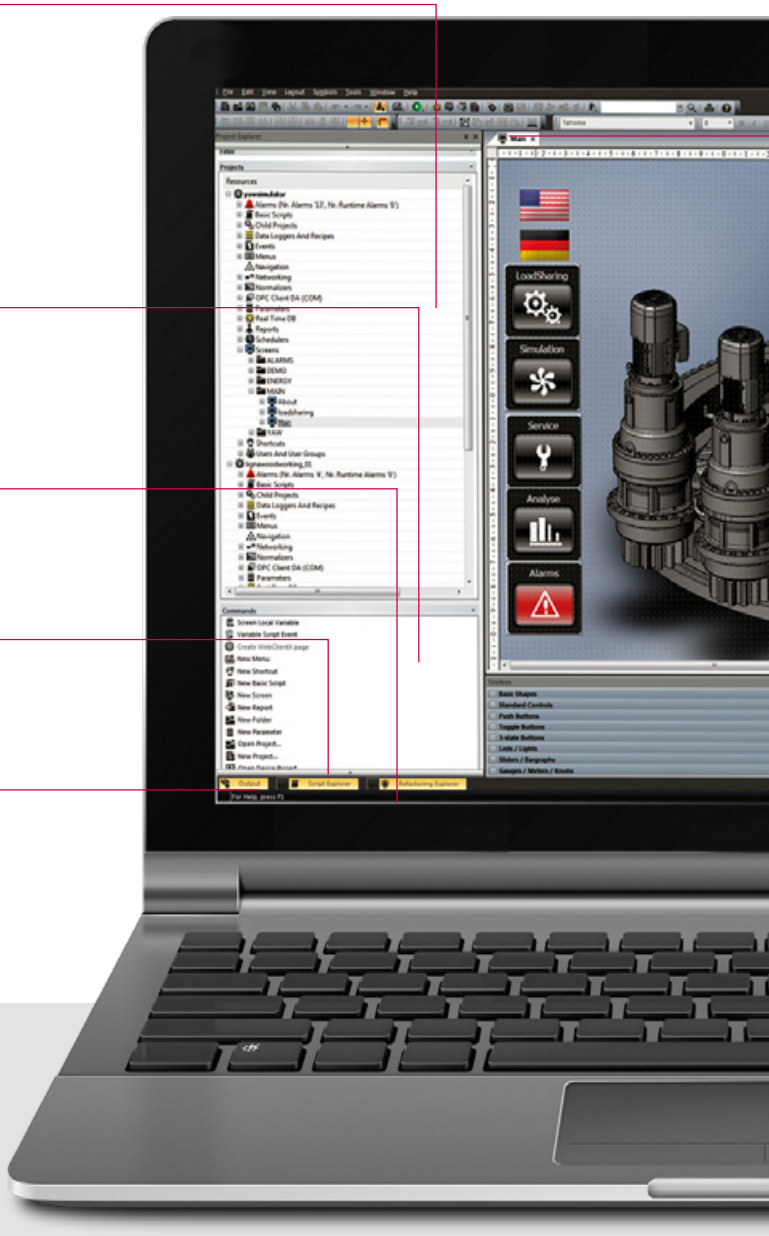
tool for automatic error correction

SCRIPT EDITOR

for compiling VBA, VB.NET and IL scripts and fault searching

OUTPUT WINDOW

for tracing all actions performed during development
and run time



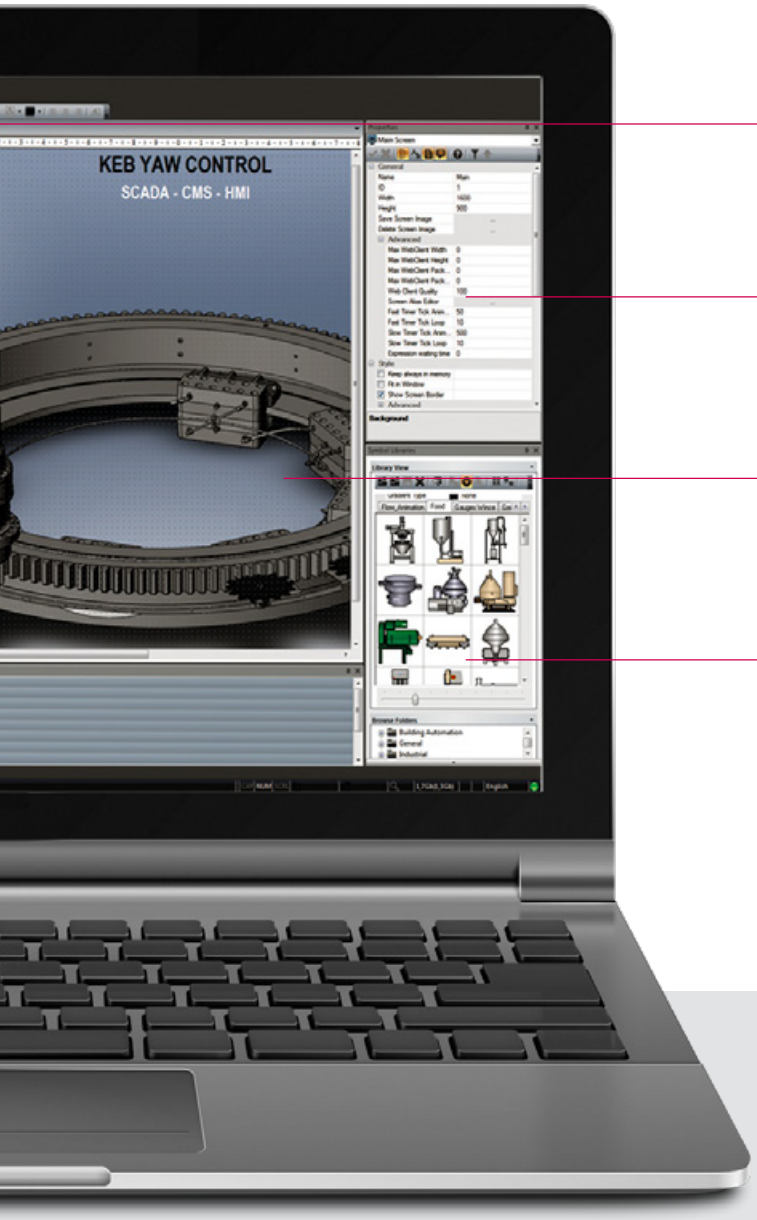
Created for development of user interfaces, applications for monitoring and data acquisition. With the Windows-based visualization tool COMBIVIS studio HMI, complete machines can be visualized within the KEB COMBIVIS studio 6 programming environment. The software can also be used as an independent tool for programming human machine interfaces.

The basic technology of XML ensures performance and flexibility on an open platform. The human machine interface can therefore be managed easily with production data and statistical analysis by means of XML. Scalability and flexibility come standard with COMBIVIS studio HMI. HMI solutions, once produced, can therefore be used on various KEB hardware devices - irrespective of whether they are based on Win CE or Win 32/64 operating systems.

There is no need for the complex reprogramming of screen masks when the hardware is updated in the background.

KEB has designed COMBIVIS studio HMI as an interpreting system. Since there is no compiling, once project objects have been produced they can be reused by simple cut and paste. Because of the KEB philosophy of using open standards, COMBIVIS studio HMI is also ideal for integration and data exchange with PPL and ERP systems, both locally and in remote operation.

The technologies supported by COMBIVIS studio HMI include: Web services, SVG Graphics, OPC, SQL, ODBC, .Net and Java-Machine for Web-Client solutions.



TOOLBARS AND SYSTEM INFORMATION

freely configurable and adjustable.

PROPERTY

for simple and intuitive object configurations and explorer resources.

GRAPHICS EDITOR

and synoptic functions for production and visualization.

TOOLBOX

object library, graphic symbols and templates

HIGHLIGHTS

- Open communications driver database
- Automated variable exchange
- Parallel development of HMI and controller projects
- Extensive template library
- High-level archiving possibilities

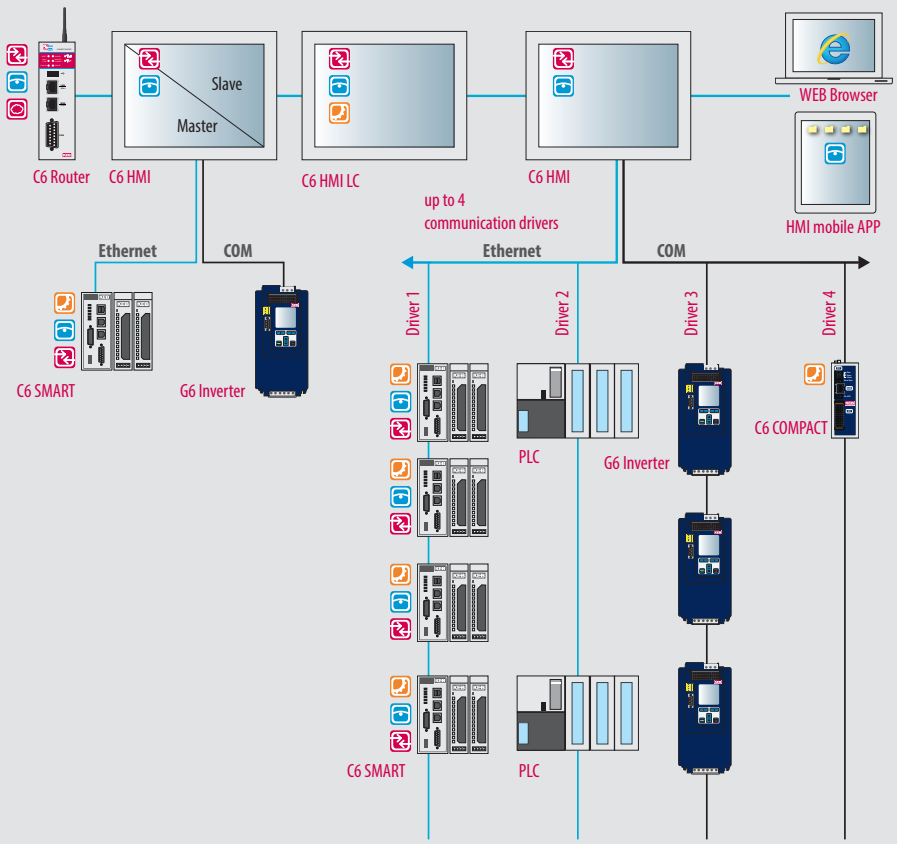
VISUALIZATION CONCEPT

Within the KEB world of drive and automation, there are no borders between device technology and software. Consequently, solutions for visualization, movement control and also remote maintenance can be used platform-independently on all KEB devices which have Win CE or Win 32/64 operating systems. So the choice of hardware suitable for an application is merely a question of the assigned task. Users therefore have a free choice of the form of automation:

an integrative approach with just one device, remote panel solution or a decentralized arrangement of core components on different products. Finally, it is the required performance which determines the best path, and not the restrictions of individual products - which is why at KEB, all devices available in the network can be linked together with just one connecting cable.

HIGHLIGHTS

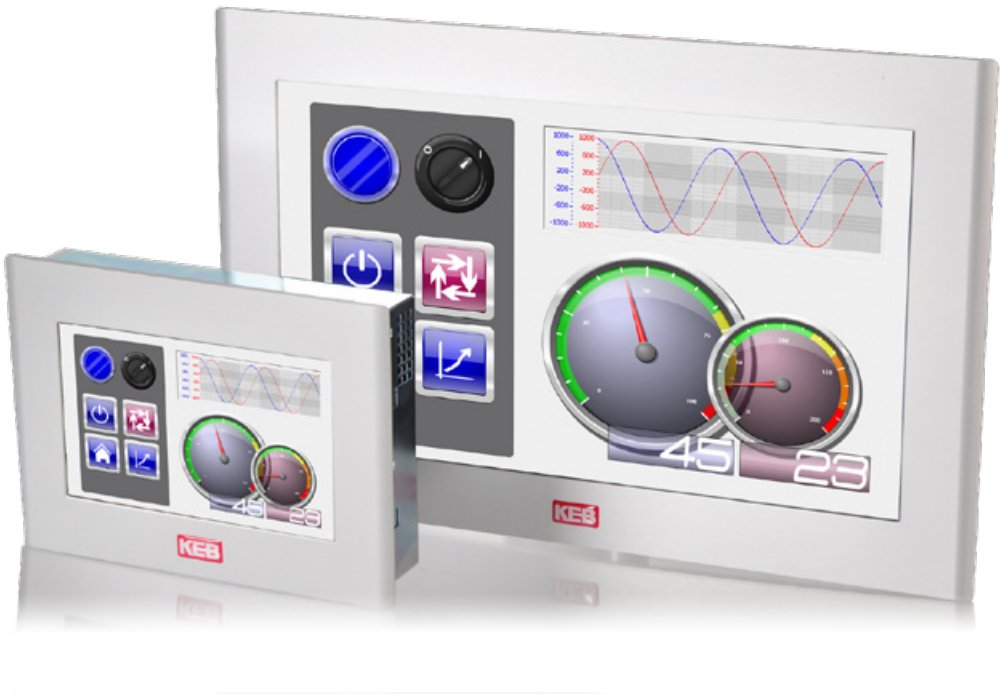
- No borders between hardware and software
- Many drivers ensure communication at all levels
- Connectivity inside and outside the KEB automation world



DRIVERS	HARDWARE INTERFACES			WIN CE	WIN 32/64
COMBIVIS studio HMI Version 5.0. 1183.xx	Serial	Ethernet	ADD-ON	ARM	x86
KEB - PLC HANDLER (Elau, Parker...)		x		x [1]	x
KEB - DIN66019II	x	x		x	x
B&R PVI with protocol INA 2000 [2]	x	x		x	x
B&R TCP [3]		x		x	x
BACNET IP [4]		x			x
BeckhoffTwincat (ADS protocol) [5]		x		x	x
KNX (EIBUS Konnex)	x	x			x
ELAP	x			x	x
FATEK		x		x	x
GE FANUC SNP-X	x				x
GE FANUC SRTP2		x		x	x
Hilscher NETLINK		x			x
Hilscher NETX MPI	x		NETCoreX MPI		x
Hilscher NETX PROFIBUS Slave	x		NETCoreX PROFIBUS SLAVE		x
Hitachi PLC serie H	x				x
LENZE LECOM AB	x			x	x
LonWorks	x	x			x
Mitsubishi MELSEC A		x			x
Mitsubishi MELSEC FX	x			x	x
Mitsubishi MELSEC Q	x	x		x	x
Mitsubishi FX3U TCP		x			x
Modbus RTU Master / Slave	x			x	x
Modbus TCP IP, Modbus TCP Server		x		x	x
Moeller SUCOM	x			x	x
OMRON ETHERNET IP		x		x	x
OMRON FINS	x	x		x	x
OMRON Host Link	x			x	x
PANASONIC FP MEWTOCOL	x	x		x	x
ROBOX		x		x	x
Rockwell DF1 and Data Highway	x			x	x
Rockwell Ethernet IP, Rockwell Ethernet IP 1800		x		x	x
SAIA via SCOMM DLL	x	x			x
SAIA S-BUS	x	x		x	x
SCHNEIDER UNITELWAY SLAVE	x			x	x
Shared Memory		x		x	x
SIEMENS MPI PC ADAPTER	x			x	x
SIEMENS S5 CPU, SIEMENS S5 DK3864R	x		RS232 to current loop convert	x	x
SIEMENS S7 200 PPI	x			x	x
SIEMENS S7 300/400 MPI	x			x	
SIEMENS S7 CP 300/400/1200 [6]		x		x	x
SIEMENS SAPI S7	x		SIEMENS CP5611, 5613, 5614, 5412, SIMATIC NET		x
SIEMENS TIA		x		x	x
SIEMENS SIMOTION		x		x	x

1) requires CoDeSys Gateway running on controller side, 2) requires an additional PLC communication library (license), 3) requires a FB into the B&R PLC without Libraries, 4) driver for building automation, 5) requires Beckhoff library (free of charge), 6) communication with S7-1200 controllers is supported only with absolute addressing (no symbolic addressing), 7) supports the variable import from TIA portal and the communication to S7-1200/1500 with absolute and symbolic addressing

COMBIVIS studio HMI



HIGHLIGHTS

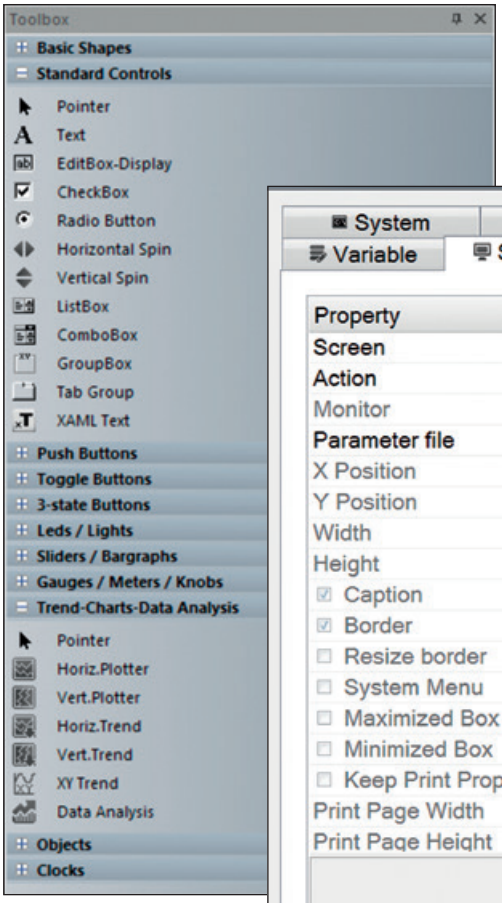
- Project scalability independent of screen size
- Multitouch and gesture control
- Support for vector graphics and media functions such as videos, Office files, PDF
- Large library with elements, graphics and functional template

GRAPHIC FUNCTIONS

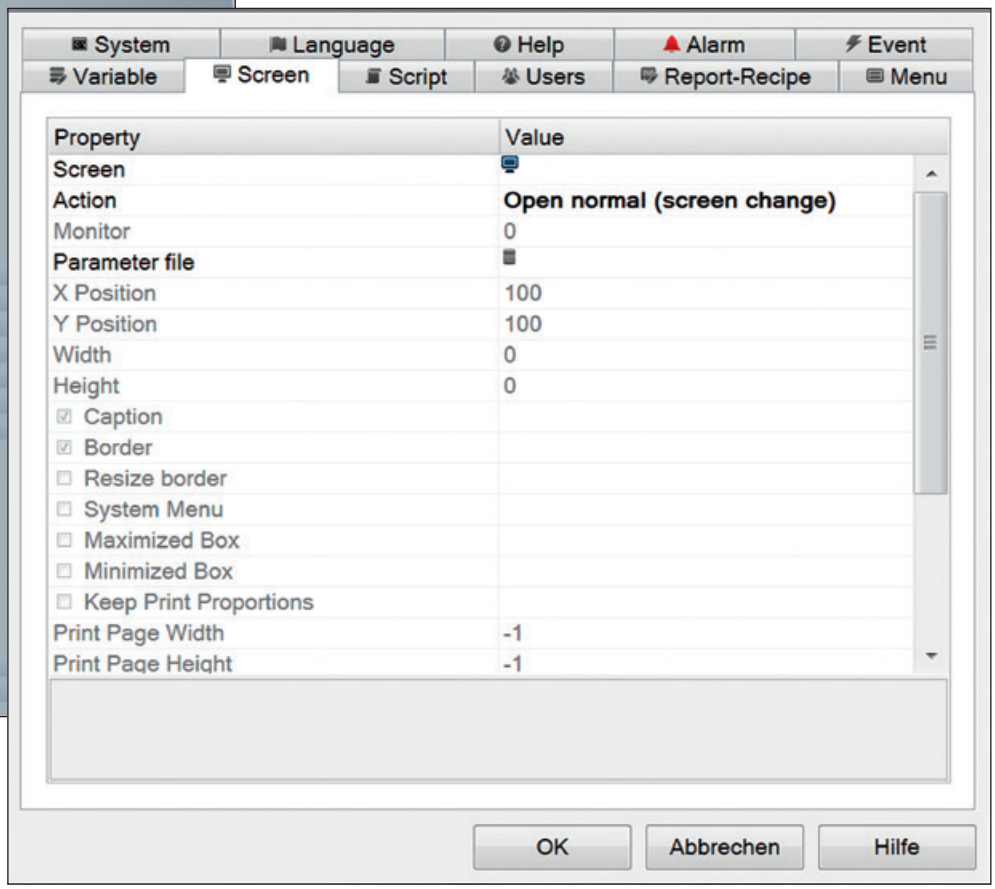
The products and tools for KEB visualization solutions are designed to meet even sophisticated demands in terms of speed and quality of graphics. Because project scalability is an absolute must in modern programming of visualization solutions, graphic projects which are produced in COMBIVIS studio HMI can later be displayed on different size HMIs. The projects produced with COMBIVIS studio HMI are platform-independent because they use an "interpreted language" which avoids special hardware compiling.

COMBIVIS studio HMI supports high-quality graphics in a simple way and automatically scales the objects to the size of the display. The use of vector graphics facilitates work with files of type bmp, gif, wmf and emf.

To ensure less distance between the Office world and industrial automation, all KEB products support the Media function. Files with extensions .doc, .xls, .ppt and .pdf can be opened directly from the visualization pages without needing to shut down the program.



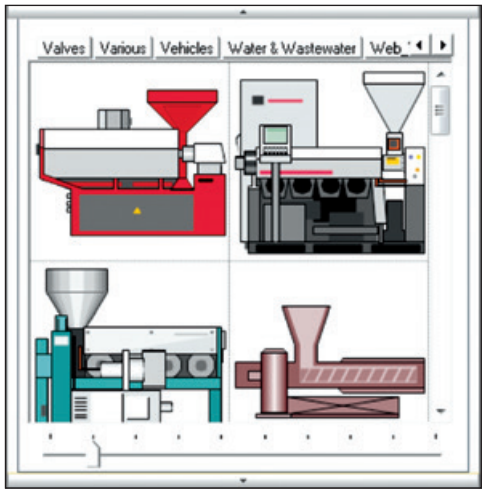
Toolbox



Properties

COMBIVIS studio HMI offers a wide range of graphic objects such as buttons, switches, meters or similar visualization elements. Each object has a large number of predefined properties and actions which can easily be adapted.

Power Templates are used to configure projects automatically. Here the user simply inserts symbols and screen masks. This can be done after producing predefined templates with special dynamic animations and VBA scripting functions. The export function means that these objects can be used with conventional Windows tools. Multi-monitor functions also create the basis of assigning a specific screen mask to monitors and creating a link for which page should be displayed on which monitor.

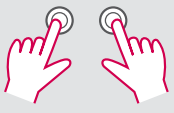


Object templates

MULTITOUCH AND GESTURECONTROL

The Multi-touch feature is supported by COMBIVIS studio HMI starting from the COMBIVIS studio HMI 5 version.

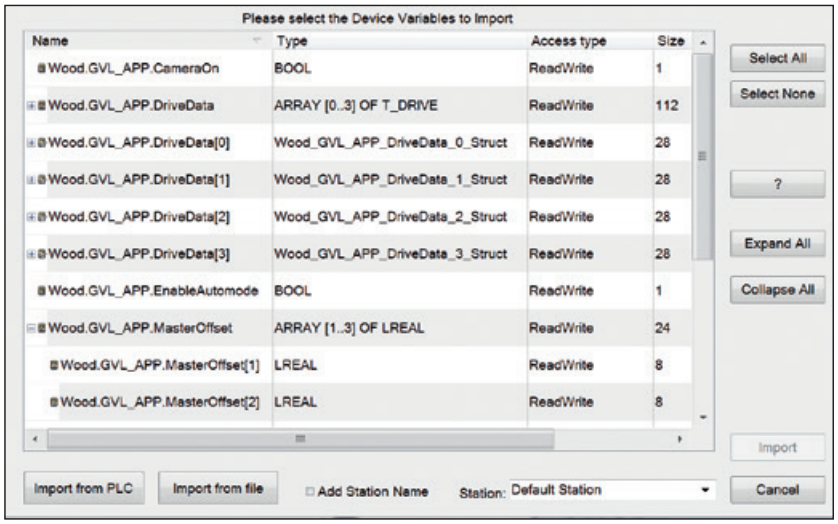
The multi-touch is formatted in two parts, the hardware (a touch screen which recognizes multitouching simultaneously) and the operating system which recognizes points being touched and interprets them. When the software senses more than one touch gesture at the same time on the screen, it provides user interaction with project functions with intuitive gestures based on those frequently used in modern mobile devices such as table and smartphone to improve HMI systems use experience. In addition, COMBIVIS studio HMI supports the Multi-touch feature for multipoint tapping whereby two command objects can be tapped contemporarily which is handy for systems that need to ensure safety where both the user's hands must be present on the screen at startup or when activating particular commands.

Pinch open	Zoom-Out the screen (Pinch&Zoom)	
Pinch Close	Zoom-In the screen (Pinch&Zoom)	
Pan	Move a previously zoomed area	
Scroll	Vertical scroll for lists and tables	
Flick	Scrolling the displayed area horizontally to view those parts that cannot be seen within the window or switching of the active Screen	
Touching two different command Objects at the same time.	The system allows individual commands of the two objects to be executed at the same time upon being pressed	

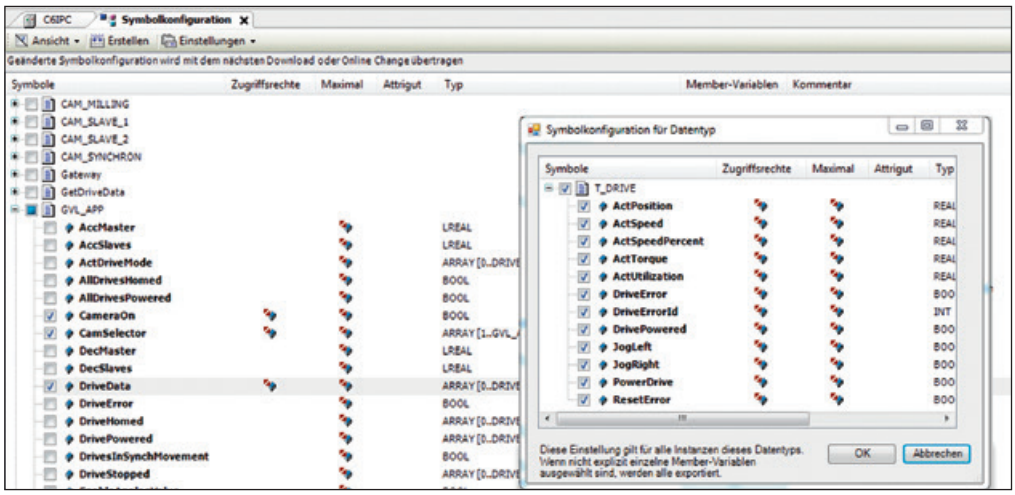
VARIABLES IMPORT

The KEB solution for visualization and control was developed with an eye to flexibility. The COMBIVIS studio platform for automation and human machine interfaces offers the user the opportunity of importing the entire database of control variables. This reduces development time since all the user need do is combine the controller with the HMI. Independent variable databases can be produced in the HMI project.

The variable database is a direct part of the visualization product, so an assistant is available which guides the user through the database import/export and handling. Everything necessary for the project is contained in the system. A wide range of system variables can be used in conjunction with the database for the PLC variables to make the customer's work highly efficient, safe and stable.



Variable database



Symbol configuration

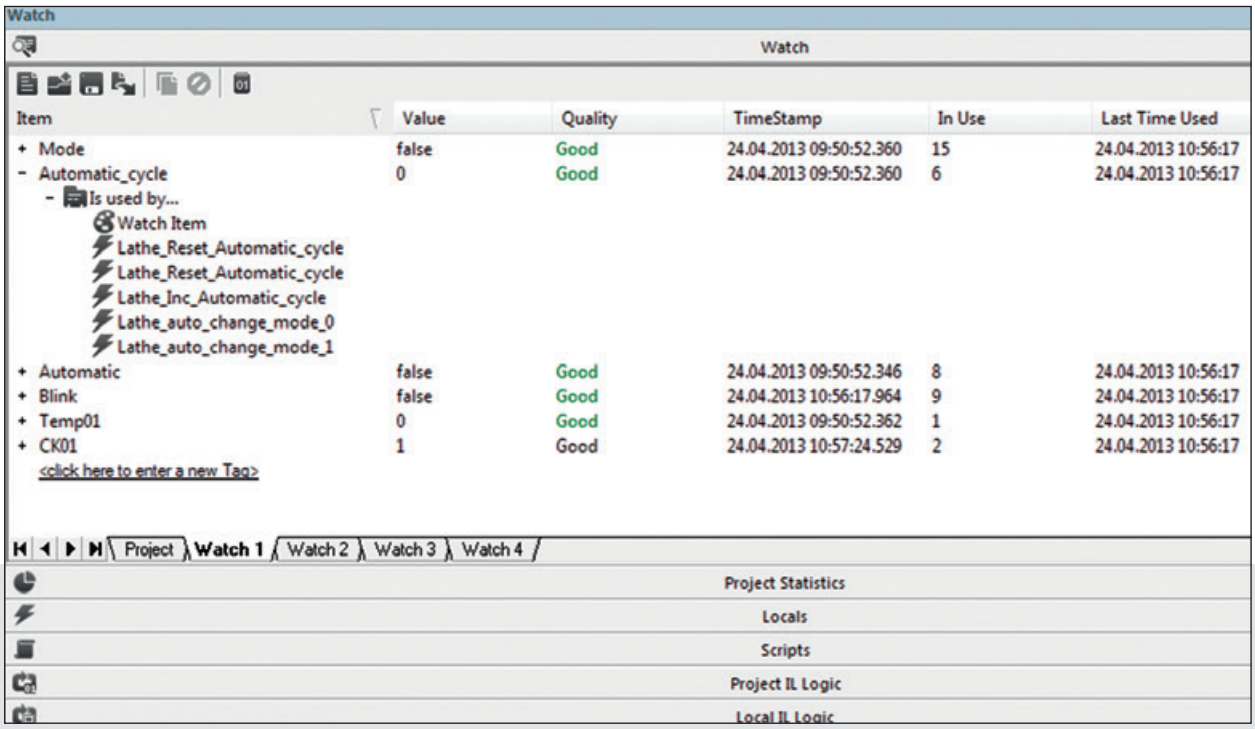
Depending on the number of variables required, the user can simply select the best HMI product. In KEB products, there are no restrictions for imported variables, just for the number of bytes in use (memory limit). Using the project navigator, the user can see the number of variables currently used and the peak usage value during project operation.

All variables displayed on the screen, and variables of data acquired and alarms monitored, are listed under "in use". The programming environment automatically reports where the variables are used and, after double-clicking, jumps direct to the variable concerned.

DEBUGGEN AND LANGUAGES

In debug mode, a wide range of tools is available such as checking variable status, statistics and script checking. The statistics tool helps the user check the number of variables used in the project and find the correct hardware to support the variables range and the desired performance.

The user may exceed these limits for two hours for fault search and test purposes, but shut down and restart are required.



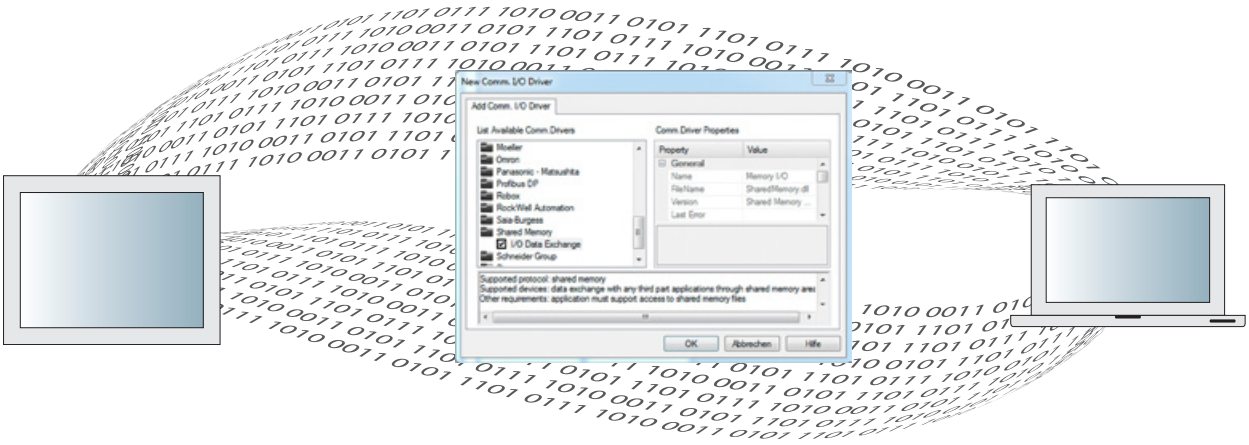
Watch window

HIGHLIGHTS

- Flexible import / export of variables between controller and visualization
- Convenient debug possibilities in simulation and on the actual device
- Shared memory
- Unrestricted multilanguage projects with support for special characters

Shared Memory: COMBIVIS studio HMI can export the variable database when using software from a third party supplier, which greatly simplifies the integration between existing hardware and software.

COMBIVIS studio HMI easily handles multilanguage projects using string tables. The tables can be exported into CSV format, sent for external translation and then reimported into the project. HMI multi-language supports all ASCII or Unicode UTF-16 standards.



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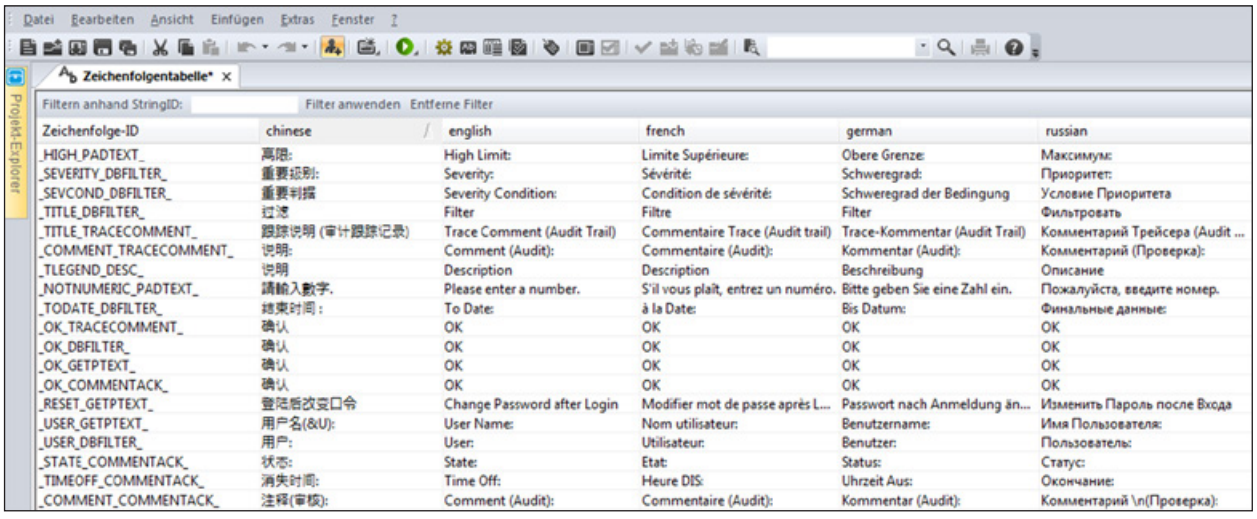


Datei Bearbeiten Ansicht Einfügen Extras Fenster ?

Zeichenfolgentabelle*

Filtern anhand StringID: Filter anwenden Entferne Filter

Zeichenfolge-ID	chinese	english	french	german	russian
_HIGH_PADTEXT_	高限:	High Limit:	Limite Supérieure:	Obere Grenze:	Максимум:
_SEVERITY_DBFILTER_	重要级别:	Severity:	Sévérité:	Schweregrad:	Приоритет:
_SEVCOND_DBFILTER_	重要判据	Severity Condition:	Condition de sévérité:	Schweregrad der Bedingung	Условие Приоритета
_TITLE_DBFILTER_	过滤	Filter	Filtre	Filter	Фильтровать
_TITLE_TRACECOMMENT_	跟踪说明 (审计跟踪记录)	Trace Comment (Audit Trail)	Commentaire Trace (Audit trail)	Trace-Kommentar (Audit Trail)	Комментарий Трейсера (Audit ...
_COMMENT_TRACECOMMENT_	说明:	Comment (Audit):	Commentaire (Audit):	Kommentar (Audit):	Комментарий (Проверка):
_TLEGEND_DESC_	说明	Description	Description	Beschreibung	Описание
_NOTNUMERIC_PADTEXT_	請輸入數字.	Please enter a number.	S'il vous plaît, entrez un numéro.	Bitte geben Sie eine Zahl ein.	Пожалуйста, введите номер.
_TODATE_DBFILTER_	结束时间：	To Date:	à la Date:	Bis Datum:	Финальные данные:
_OK_TRACECOMMENT_	确认	OK	OK	OK	OK
_OK_DBFILTER_	确认	OK	OK	OK	OK
_OK_GETPTEXT_	确认	OK	OK	OK	OK
_OK_COMMENTACK_	确认	OK	OK	OK	OK
_RESET_GETPTEXT_	登陆后改变口令	Change Password after Login	Modifier mot de passe après L...	Passwort nach Anmeldung än...	Изменить Пароль после Входа
_USER_GETPTEXT_	用户名(&U):	User Name:	Nom utilisateur:	Benutzername:	Имя Пользователя:
_USER_DBFILTER_	用户:	User:	Utilisateur:	Benutzer:	Пользователь:
_STATE_COMMENTACK_	状态:	State:	Etat:	Status:	Статус:
_TIMEOFF_COMMENTACK_	消失时间:	Time Off:	Heure DIS:	Uhrzeit Aus:	Окончание:
_COMMENT_COMMENTACK_	注释(审核):	Comment (Audit):	Commentaire (Audit):	Kommentar (Audit):	Комментарий \n(Проверка):

Language table

RECIPES, DATALOGGER AND ALARM HANDLING

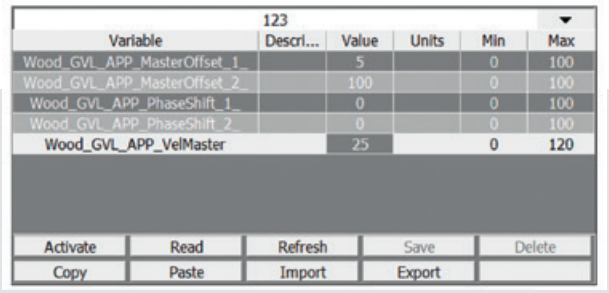
Recipe management is a standard in machine operation. The operator can select the recipe on the basis of the product requirements. If adaptations are required, the operator can save new settings under a new recipe. Each recipe contains a unique ID which prevents overwriting existing recipes. On the software side, there are no limits to the number of recipes. The memory on the motherboard is the only restricting factor.

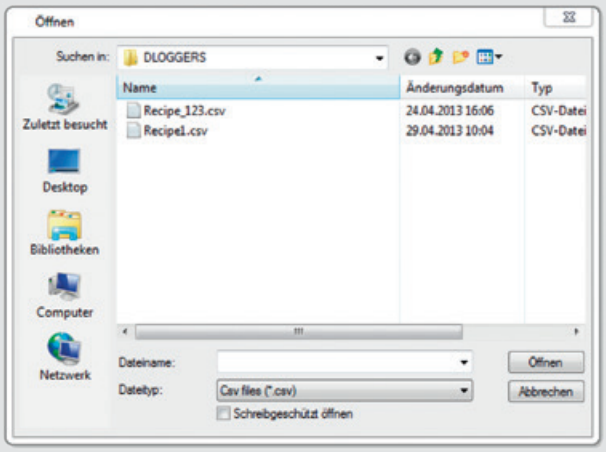
Also with the KEB solution, recipes can be structured in a parent-child configuration so that general values can easily be passed on. Recipes can be saved manually or directly by extraction of historic data from a database. All this is achieved thanks to the commands and scripts of COMBIVIS studio HMI.

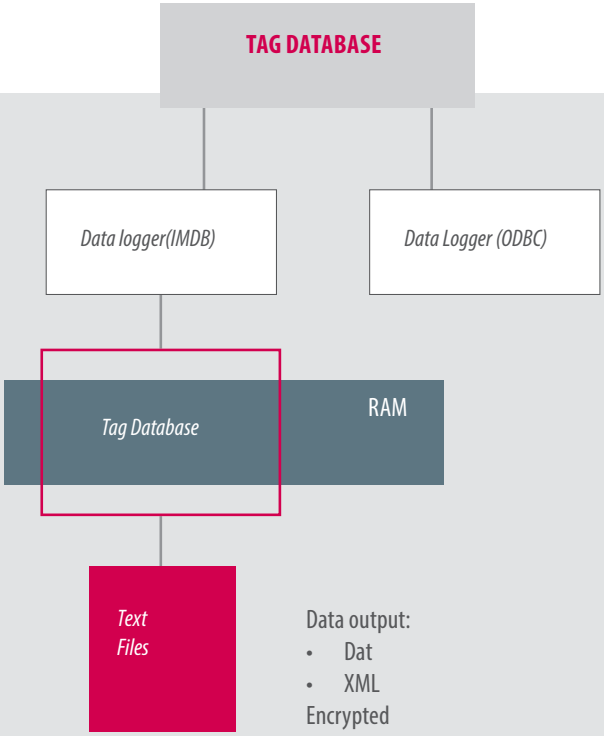
Screen masks for recipes can be produced manually or the integrated automatic assistant can be used. Each recipe contains a “Variable”, a “Description”, a “Value” and a “User unit”, and can be encrypted for security.

The datalogger is an equally powerful tool and serves for recording and managing of data for the purpose of further database analysis, whether ODBC (Open Database Connectivity) or IMDB (In Memory DB) is used. The data may be stored as simple text, as XML files or in encrypted form.

For devices based on Windows CE, the use of IMDB avoids converting ODBC connections into ADOCE, and makes the installation of ADOCE and SQL Server CE components superfluous. The result is a lower system load from the Windows CE device and an improvement in performance.







The data can be monitored using the raster object provided for this, which includes many functions such as an analysis filter. Variables can be sampled on a time basis, by command or by triggering. For WIN 32/64 operating systems, the standard ODBC interface to the Microsoft database can be set up locally or in remote mode.

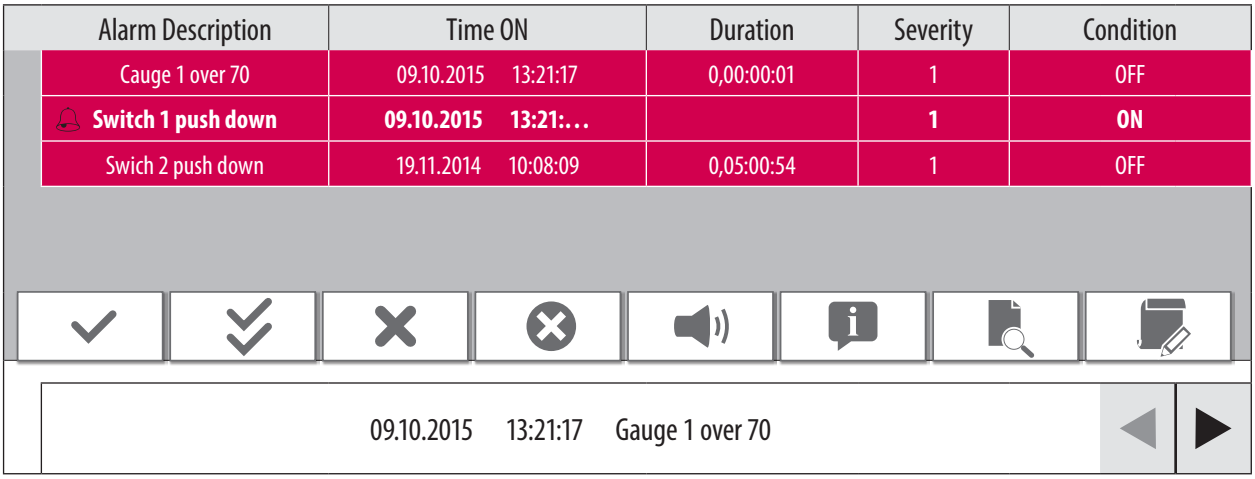
For WIN CE, only local mode is supported. The list of ODBC types supported by KEB products includes the following: MS Access, MS SQL Server 2000, 2005, 2005 Express, 2008, 2008 Express, MySQL 5.1, and Oracle Express.

COMBIVIS studio HMI offers a power alarm management. Its main task is to generate an alarm in relation to a variable threshold value or a logic variable.

The COMBIVIS studio HMI alarm management is fully configurable and can meet the needs of every application. Project alarms are combined into groups which are in turn grouped into threshold values. The alarm activation can be triggered by a fixed or a variable threshold value. Acknowledgement and reset of each alarm are programmable.

Special priority levels can be assigned to each alarm so that the user can rapidly assess the situation. The alarms can also be grouped into areas for filtering the alarm displays.

Statistical calculations such as the frequency and duration of the alarms, and the reporting methods such as SMS, email, print spooling and scroll lock, are also integrated in COMBIVIS studio HMI.



HIGHLIGHTS

- Existing recipe management with many possibilities for individualisation
- Datalogger and historic data are standard
- Wide support of different databases
- Continuous error management

TREND, TESTING & SAFETY

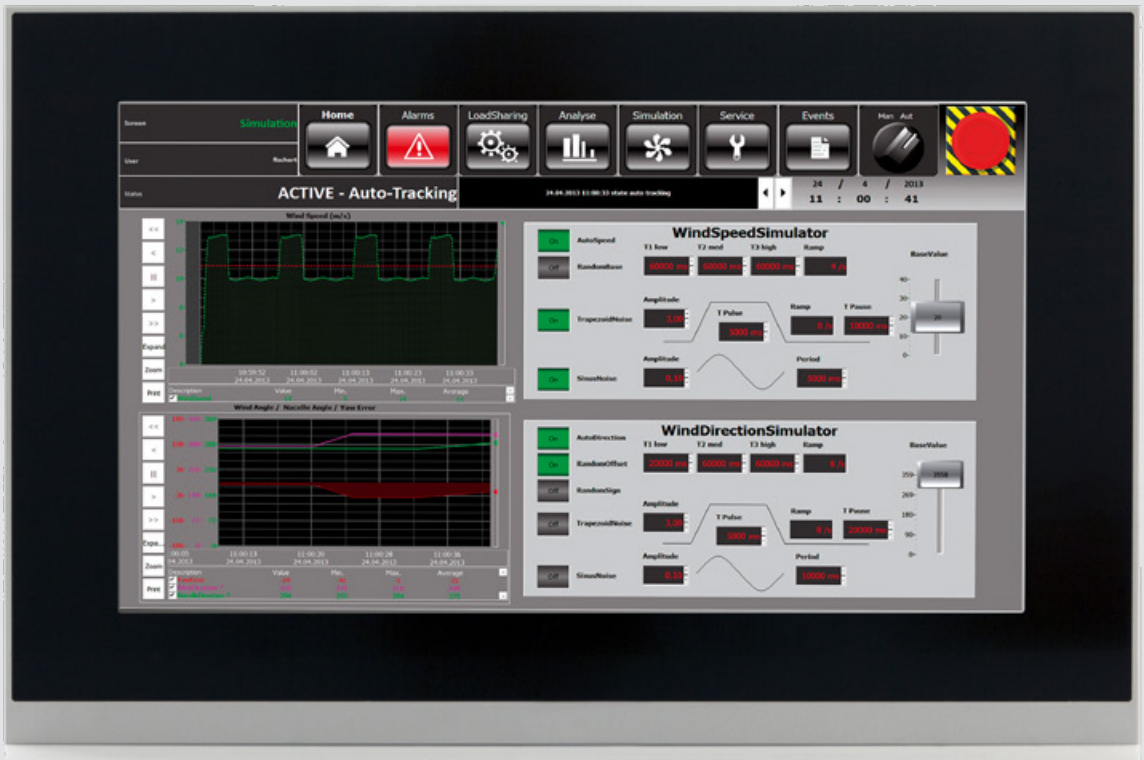
The Trend tool is a powerful observation tool for data recorded with the datalogger, and also a standard format CSV recorder. Thanks to the "Keep-in-Memory" function, recording is active even when the object is not displayed. The trend function was developed to offer maximum flexibility in the graphic display of recorded data.

The trend function of COMBIVIS studio HMI allows the user to view and monitor selected variables in a graphic format, and is the most effective way of saving, printing and analysing variables such as temperature, pressure, fill level, weighing cell and chemical measurement values.

The graphs can be displayed as follows: historically, in real-time, time-based or as X-Y diagrams.

When the trend function is started, the sampling and display settings selected for the user are loaded. The data buffer can be expanded up to 10,000 sampling values. When the trend function is stopped, the buffer contents are displayed. In the background however the trend function continues to sample and buffer values.

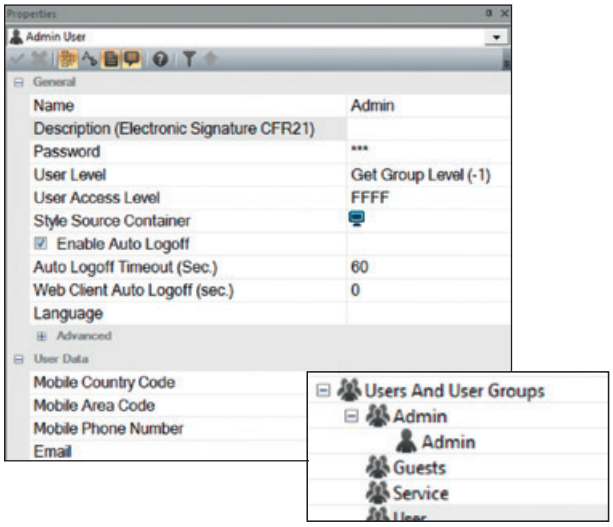
COMBIVIS studio HMI also has an audit trail tool for recording changes in specific variables together with the change cause in a database or text file. This provides a simple form of monitoring particular machine settings for changes over time, and the associated causes. This function is also used in connection with FDA standard 21 CFR Part 11.



The KEB product range offers the user a high standard of safety. On the basis of the general properties of the user or user groups, it is possible to define how project safety should be managed. For example, password protection can be activated for editing/changing a project. Other passwords (user log on/log off) are possible in machine operation.

As soon as a user level is set to a particular value, only users of this or a higher level may make changes. All settings are stored in a file which can be saved in the runtime folder or externally after defining the network path for client-server projects.

The project can also be protected by a password which is required every time when programming or on start of runtime. Up to 1024 levels can be set. Activation of password management also requires password inputs for the runtime functions.



HIGHLIGHTS

- Flexible possibilities of trend depiction
- Integrated Audit Trail Tool (FDA Norm 21 CFR Part 11)
- Extensive user management (e.g. create new user in operation)

KEB products comply with FDA standard 21 CFR Part 11. According to the Food & Drug Administration (FDA), the purpose of the standard is to create a legal equivalence of electronic documents (electronic records and digital signatures) with traditional paper. This is necessary in view of the increased use of business automation devices and the extensive management of production processes which may be subject to checking and approval by the USA FDA.

To comply with standard 21 CFR Part 11, it is necessary to ensure that the operating personnel records are always reproducible (electronic signature). COMBIVIS studio HMI by KEB offers the opportunity of activating the necessary electronic signature easily as part of the user properties.

Many pharmaceutical companies are inclined to use the benefits resulting from the use of electronic records. The load from paper documentation which must be stored for many years is in itself a motivating factor.

In addition, the use of electronic records can substantially reduce the time for acquisition and checking of the necessary documents before medication is released to the market.

With the safety and access restrictions available, electronic records are protected from accidental loss, theft or falsification. This function is also used in connection with FDA standard 21 CFR Part 11.

PROJECT MANAGEMENT & CONNECTIVITY

COMBIVIS studio HMI offers a powerful and innovative function which allows you to meet new challenges in the development of monitoring systems.

Using the KEB tool, you can structure a project by the centralising resources to other projects ("children") with dynamic relationships, which creates the possibility of dividing the development tasks. A "child project" is a normal COMBIVIS studio HMI project which can work independently but is coupled to the "parent project" in a "parent- child" configuration. The parent project has all its own project resources plus the project resources of the child project.

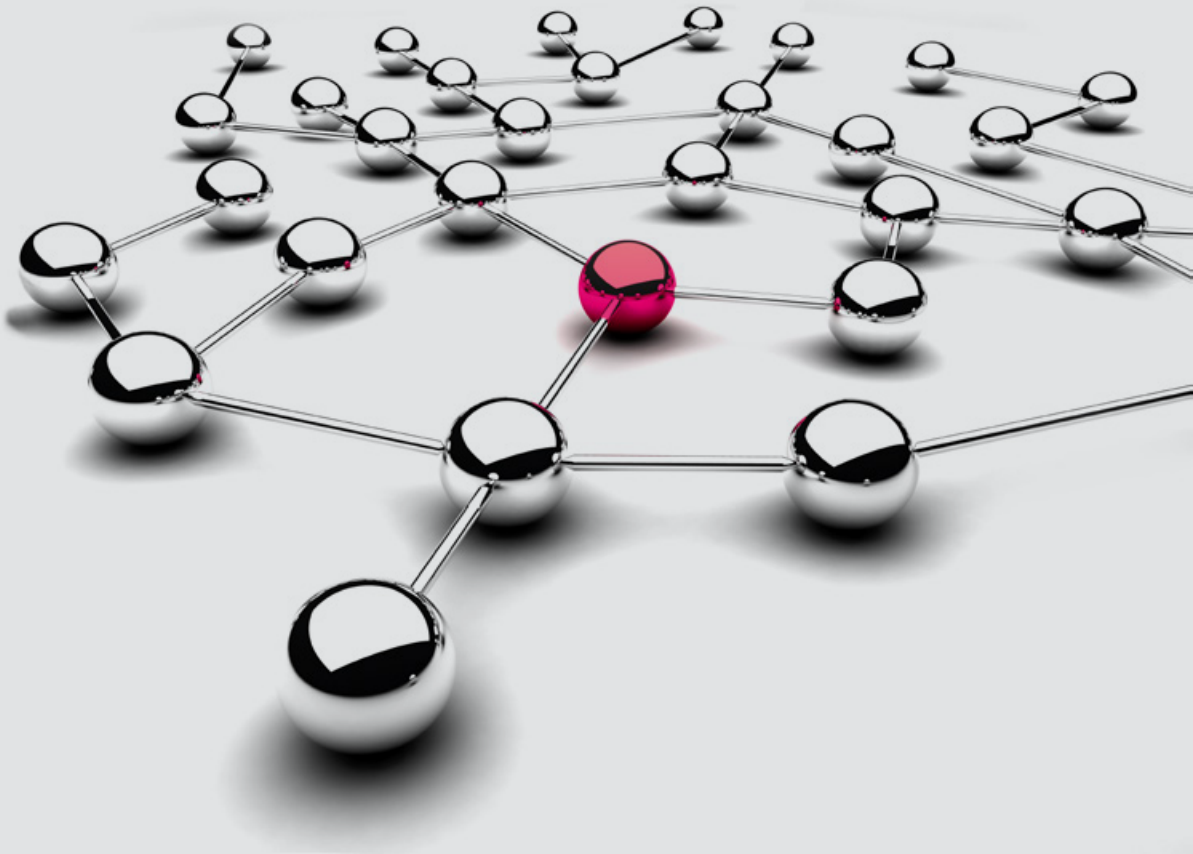
To take this concept further, a parent project may contain several child projects, and a child project could itself contain one or more child projects and hence itself be a parent project. The overall result is a cascade project structure which is perfect for companies with divided software development and/or modular machine construction tasks.

OPC and OPC UA technology [OPC UA (Open Platform Communications Unified Architecture)] is a logical addition to COMBIVIS studio HMI's extensive communication driver database. In the application, a very flexible networking is possible, which can access both proven, proprietary services, as well as forward-looking standards.

The COMBIVIS studio HMI OPC UA integration sets new standards „ready-for-Industry 4.0"

Easy to use: Available servers are automatically detected or added easily via the network address. On the server the user can navigated directly to required variables and import them.

Easy Integration and Backward Compatibility: Existing projects can be augmented or renewed without touching the visual user front end. Communication drivers are easily exchanged or extended in the background.



Redundancy and reliability: Simple configuration of backup servers and constant monitoring-of the communication via heartbeat mechanisms ensure reliability and high availability of important operating data.

The divided process control architecture increasingly calls for solutions for handling connected multiple cells and workstations, control-only or display-only stations, and multiple PCs.

The most logical solution is to interconnect these devices via an Ethernet connection. Since this offers high performance and low cost, the Ethernet connection is now by far the most common physical level. KEB's networking function uses the efficiency of the protocols which can run on Ethernet connections to connect COMBIVIS studio HMI stations together in client/server mode.

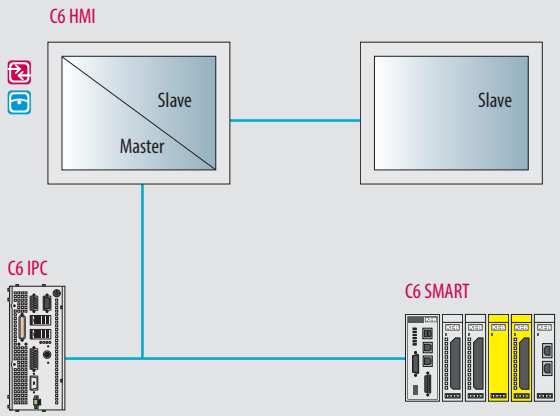
COMBIVIS studio HMI fulfills the requirements for connectivity and networking using the performance of TCP/IP, UDP and HTTP protocols which are already standard and used daily in Ethernet connections. These have proven to be as popular as they are fast. With a few simple mouse clicks, two or more KEB stations can be connected together in a network. The variables in use are then exchanged between client and server.

KEB products were developed for good connectivity. In this connection, there is more than one possible way of reaching devices around the world. With KEB's HMI solutions, via a browser supporting Java Machine, a user can reach any device based on Windows CE or Windows 32/64 – with or without password protection.
Two users can be connected simultaneously. When accessing a browser on a device, a remote instance is formed which is different from the local display and thus allows the remote user free access to all screens without adversely affecting the screen of the local user.

For situations in which remote access to machines over the internet is not permitted, KEB offers the remote access tool COMBIVIS connect. COMBIVIS connect works independently of firewalls and creates an industrial VPN (virtual private network) for complete device access.

HIGHLIGHTS

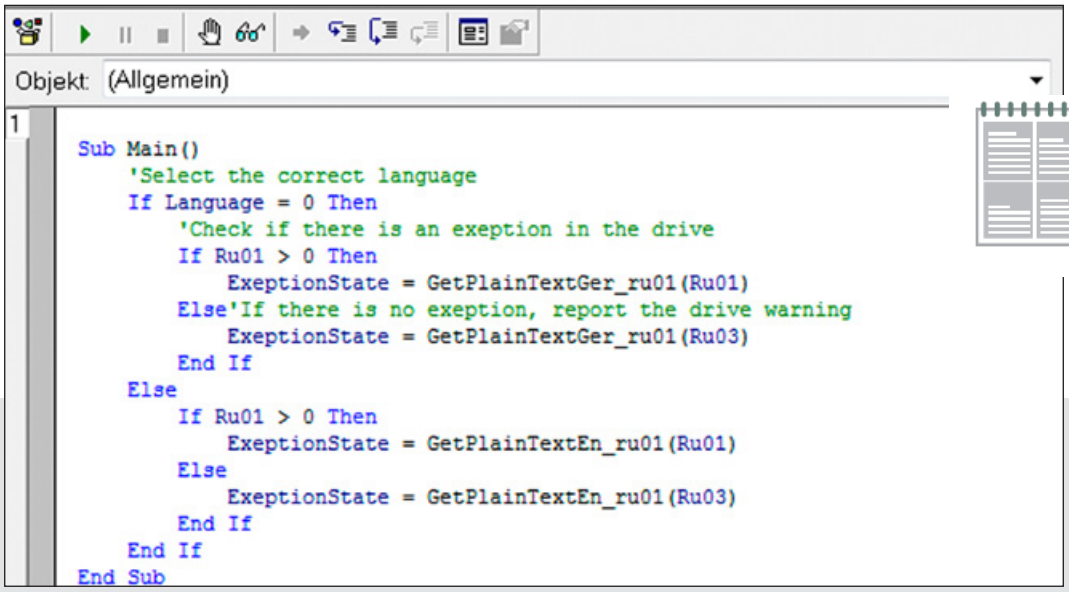
- Project structure through parent-child projects
- Flexible OPC UA and OPC classic integration
- Connectivity within the automation system

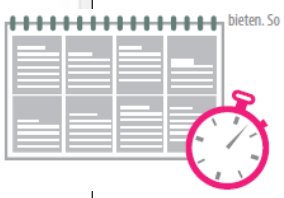


SCRIPT AND SCHEDULER

The performance of the KEB solution is also measured via its scripting functionality. For the most demanding customers looking for functions which are not available as standard in our development environment, the powerful VBA (Visual Basic Application) script language provides a custom solution. This function is available for both Windows CE and Windows 32/64 platforms. Win 32/64 platforms also support developments in VB.NET.

A scheduler tool is provided for products which call for commands to be executed at predefined times or at preset intervals. The scheduler is then responsible for executing a command or command list based on the system time of the PC. This function can drastically reduce machine development time and offers users advantages in performance. Thus for example, a machine can begin warming up before the workforce appears, or a machine can start a maintenance cycle every week.





HIGHLIGHTS

- The open system means that all possible functions/expansions can be produced using Visual Basic Application
- Scheduler tool for time- or event-dependent tasks

FUNCTIONS	WINCE BASIC	WINCE ADVANCED	WIN32 BASIC	WIN32 PRO	WIN32 ADVANCED
REAL-TIME					
Real-time DB (max.)	1024 Byte	4096 Byte	2048 Byte	2048 Byte	4096 Byte
ODBC real-time	x	x	–	x	x
Trace DB	x	x	–	x	x
Object events	x	x	–	x	x
GRAPHIC INTERFACE					
Public symbols / Power Templates (VBA symbols)	x	x	–	x	x
Support of BMP, GIFF, JPG, WMF, EMF	x	x	x	x	x
Raster functionality	x	x	–	x	x
Dundas display instruments	–	–	x	x	x
Alias management in objects	x	x	–	x	x
Multi-Touch, gesture control	x	x	x	x	x
Objects via Drag and Drop	-	-	x	x	x
Window IP camera	x	x	x	x	x
ALARME AND ARCHIVE					
Historic management (CSV)	x	x	x	x	x
Historic management (ODBC)	x	x	–	x	x
Alarm transmission (SMS, email, voice)	–	x	–	–	x
SMS via SMPP protocol	–	x	–	–	x
Alarm management	x	x	x	x	x
DATA					
Recipe / Data Logger (XML)	x	x	x	x	x
Recipe / Data Logger (ODBC)	max. 2	x	–	x	x
TRENDS					
Real-time trend / historic trends (CSV file/Datalogger XML)	x	x	x	x	x
Historic trends database (ODBC)	x	x	–	x	x
Data analysis	x	x	–	x	x
USER					
User group management 1024 levels / run-time users	x	x	x	x	x
Dynamic multi language	x	x	x	x	x
CFR21	x	x	–	x	x
DRIVERS					
Max. number of drivers	max. 2	max. 4	max. 2	max. 2	max. 4
Event objects, time management	x	x	x	x	x
PLC Tag Importer	x	x	x	x	x
OPC Client XML DA	–	–	x	x	x
OPC Client UA, OPC Client DA	x	x	x	x	x
LOGIC					
IL Logic (Step5-Step7)	x	x	x	x	x
VBA Logic (WinWrap Basic)	x	x	max. 2 scripte	x	x
VBA interface communication drivers	x	x	–	x	x
VARIOUS					
Subprojects	x	x	–	x	x
Process image navigation	x	x	–	x	x
Web client	–	max. 4 clients	–	–	max. 2 clients
COMBIVIS HMI mobile	–	x	-	-	x