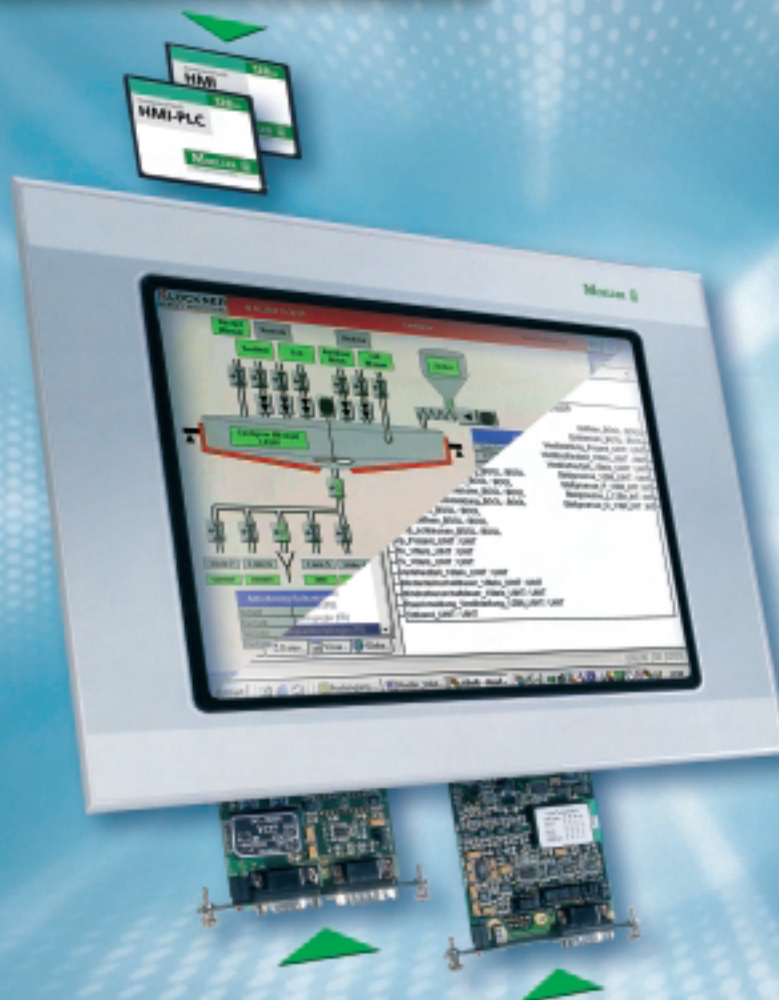


# HMI or HMI-PLC – the CompactFlash™ decides



## xSystem

Automation products, system solutions and services. The recognised brand name all around the PLC, enhancing the performance of machines and systems.

PC based HMI-PLC und PLC

Embedded HMI-PLC

Modular PLC

Compact PLC

HMI

Remote I/O

Operator- and control relays

## Product Information XV400 Touch Displays

**MOELLER** 

Think future. Switch to green.

## XV400 – Hardware for scalable and flexible solutions

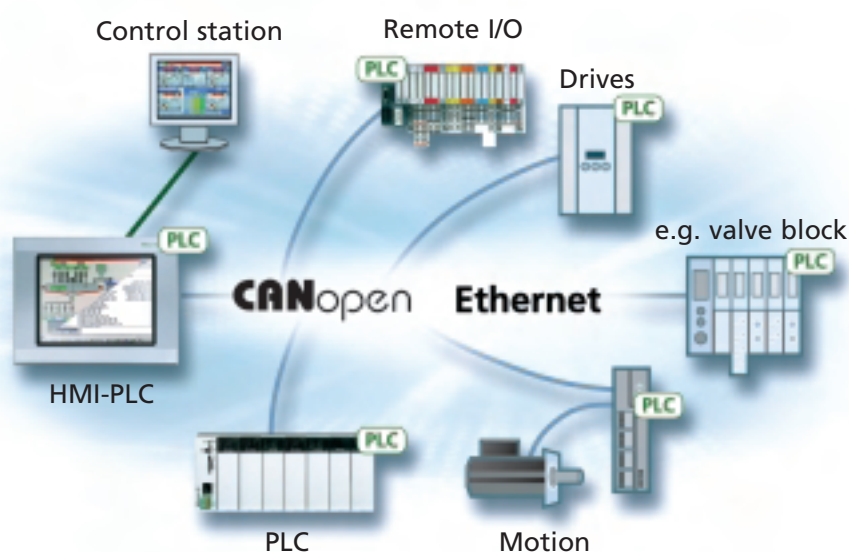


With its new XV400 touch display series, Moeller is offering solution concepts that are scalable and secure investments for the future. The HMI or combined HMI-PLC are based the same hardware platform. With the XV400 series, whether an elementary HMI or combined HMI-PLC is required by the user is determined by a removable CompactFlash™ card.

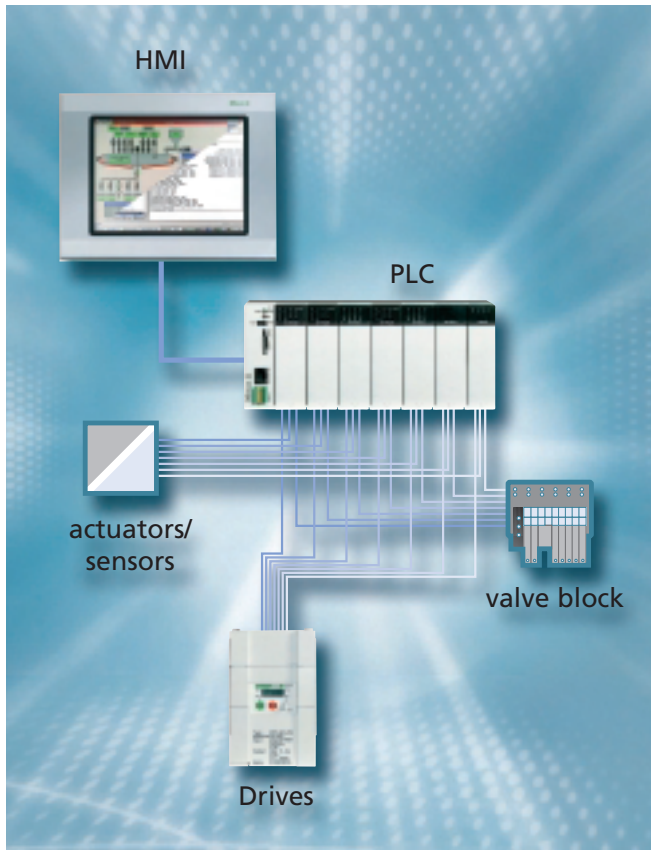
### Decentral intelligence – the trend for secure investments for the future with automation engineering

Classical fieldbuses are being continually displaced to the fieldbus level for the connection of peripheral devices by the arrival of industrial Ethernet with the TCP/IP protocol. New technologies are now offering features to combine control, visualization and data management tasks with modern networking options in a single device – the HMI-PLC.

On the one hand this approach reduces the hardware investment, and on the other hand, the engineering costs are reduced decisively by universal data management ranging from engineering to diagnostics during a malfunction.

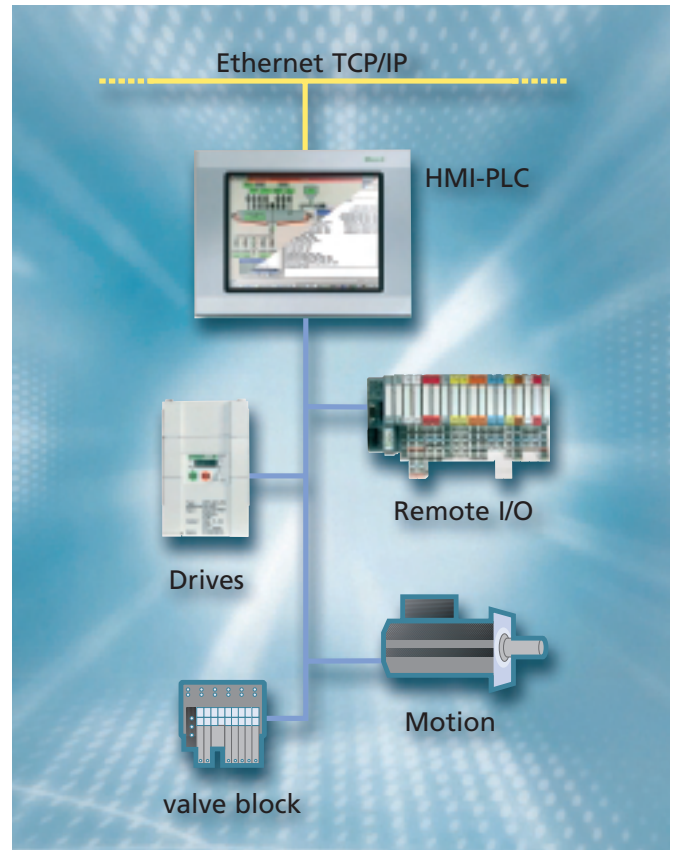


## PLC controlled



PLC controlled automation solutions have been used for many years in various applications of different branches of industry. In spite of all optimization such as the use of fieldbuses or high-performance PLC's, the engineering effort required is considerable. Interfacing to conventional networking structures such as Ethernet TCP/IP is partly impossible or associated with considerable investment in hardware and software.

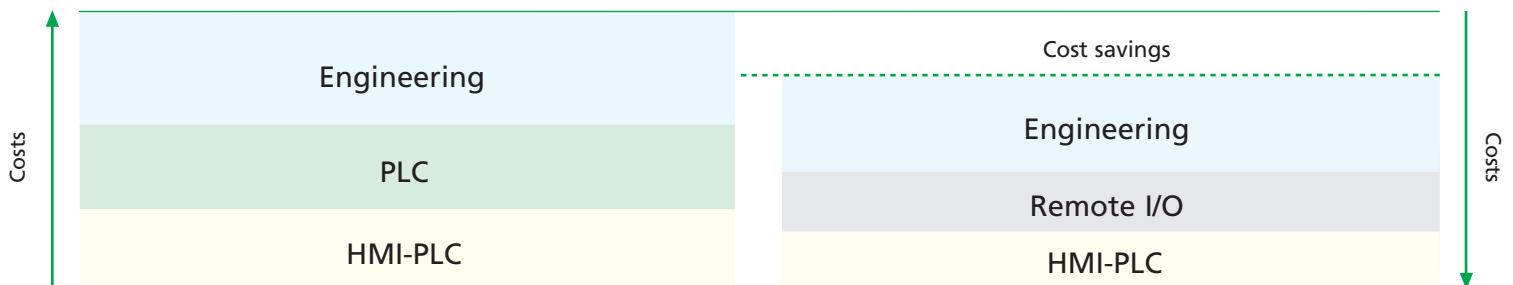
## HMI-PLC controlled



The most modern IT technologies merge with the classical PLC and HMI technologies to form the HMI-PLC.

More and more components feature fieldbus interfaces such as CANopen or Profibus DP with Ethernet.

The new XV400 series fulfils these demands and offers decisive advantages for current and future automation solutions due to its performance and flexibility.



With today's high pace of innovation and the constant costing pressures, the objective must be modern, future-oriented automation which offers cost-optimization for the entire costs of hardware/software and the entire engineering, ranging from the project

engineering phase to service. Moeller has risen to these demands, and in conjunction with its comprehensive range of hardware/software and engineering tools, it offers modern and trend-setting products for implementing solutions to current and future tasks.



# XV400 – the ideal solution for every task

## XV400 flexible in application

HMI or combined HMI-PLC with the XV400 series is determined by an exchangeable CompactFlash™ via the device function and the preferred engineering tool.

As a HMI, an XV400 can be engineered using the XSOF-GALILEO graphic configuration tool or can be engineered using XSOF-EPAM, the MS-Excel™ based visualization tool.

The same level of flexibility is offered by the HMI-PLC function – the user simply selects the visualization using either the graphic-based XSOF-GALILEO or the line-based XSOF-EPAM visualization tool, combined with the XSOF-PROFESSIONAL PLC software.

XSOF-PROFESSIONAL is a CoDeSys based programming system from 3S compliant to IEC 61131-3.

## The communication professional

The devices of the XV400 support a wide range of communication features. One or two communication slots, CANopen, Ethernet 10/100 MBit, USB Device, USB Host and RS232 direct on-board, provide maximum flexibility – whether as a HMI, a HMI-PLC, a panel with gateway function or as the connection to the control level via Ethernet TCP/IP.

On-board functionality such as WEB browser, FTP server, and remote client/server or OPC client/server offer not just new networking and programming options, they also offer the customer a major innovative step with his automation solution.

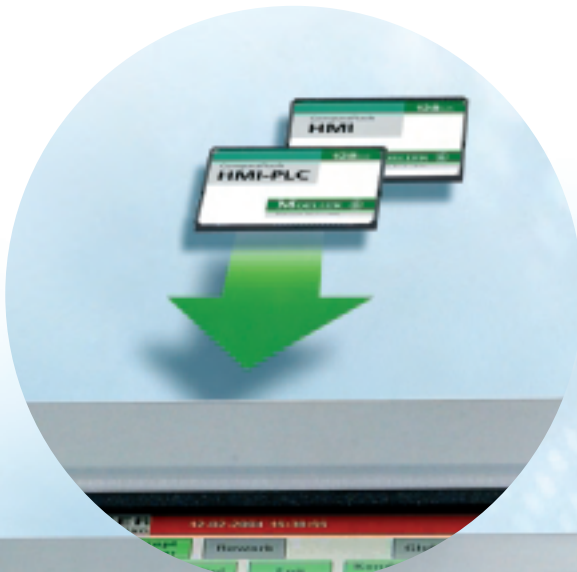


### 5.7" device features:

- 5.7" STN display
- 32 Bit / 400 MHz RISC CPU
- Windows™ CE on board
- Resistive or infrared touch
- 1 slot for CompactFlash™
- 1 slot for communication modules
- Multi-tasking PLC
- Vertical or horizontal installation possible

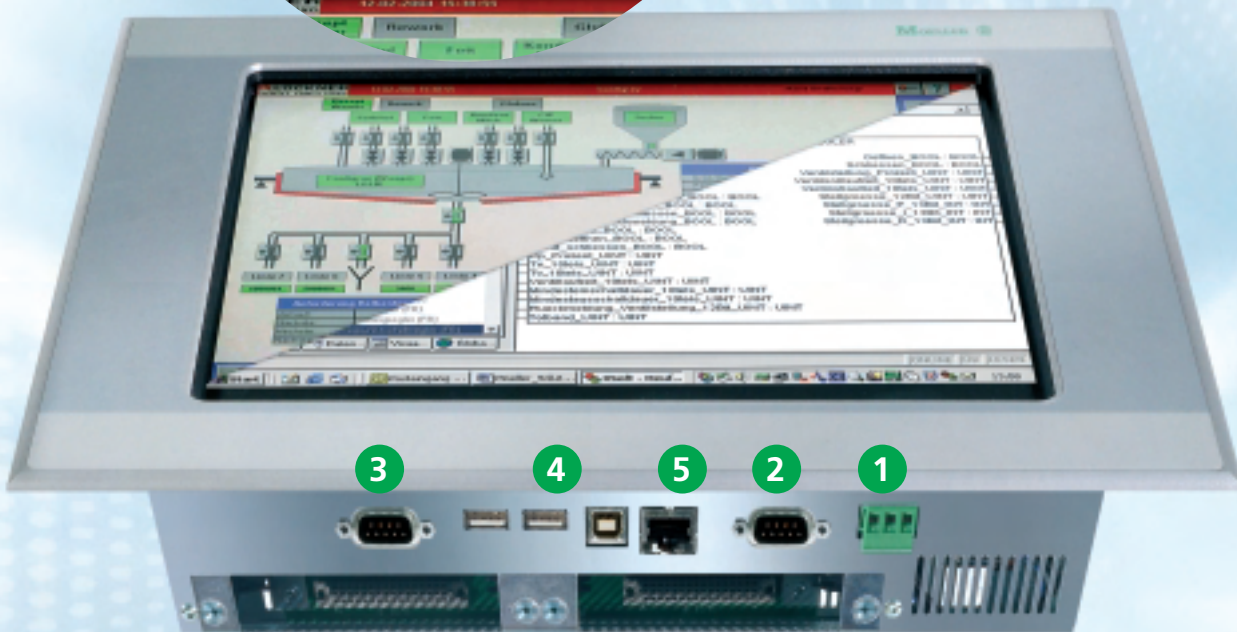
## Communication on board

- 1 24 V DC
- 2 System port
- 3 CANopen
- 4 USB host
- 5 Ethernet



#### 10" to 15" device features:

- 10.4 – 12.1 – 15" TFT display
- 32 Bit / 400 MHz RISC CPU
- Windows™ CE on board
- Resistive or infrared touch
- 2 slots for CompactFlash™
- 2 slots for communication modules
- Multi-tasking PLC
- Vertical or horizontal installation possible



#### Kommunikation on board

- 1 24 V DC
- 2 System port
- 3 CANopen
- 4 USB / USB host
- 5 Ethernet



# XV400 – technical data



## 5" XV-442-57C    XV-432-57C

## 10" XV-440-10T    XV-430-10T

System				
Processor	RISC, 32 Bit, 400 MHz		RISC, 32 Bit, 400 MHz	
Memory	32 KByte		32 Kbyte	
Retentive memory	64 MB		64 MB	
Data/program memory	1.5 MB linear Flash/CompactFlash™		1.5 MB linear Flash/CompactFlash™	
CompactFlash™ slots	1		2	
Display				
Display	LCD STN colour		LCD TFT colour	
Resolution	320 x 240 or 240 x 320 pixels (1/4 VGA)		640 x 480 or 480 x 640 pixels (VGA)	
Number of colours	256		65536	
Background illumination	1 x CCFL, software dimmable		2 x CCFL, software dimmable	
Active display area	5.7 inch		10.4 inch	
Touch				
Type	Infrared touch	Resistive touch	Infrared touch	Resistive touch
Technology	Light-barrier	4-wire	Light-barrierr	4-wire
Communication				
On-board	CAN, Ethernet 10/100 Mbit, RS232, USB Device/Host		CAN, Ethernet 10/100 Mbit, RS232, USB Device/Host	
Slots	1		2	
Power supply				
Rating	24 V DC, 1.0 A		24 V DC, 1.0 A	
Admissible range	18.5 ... 30.2 VDC		18.5 ... 30.2 V DC	
Engineering				
HMI	XSOFT-EPAM or XSOFT-GALILEO		XSOFT-EPAM or XSOFT-GALILEO	
HMI-PLC	XSOFT-PROFESSIONAL with XSOFT-EPAM or XSOFT-GALILEO		XSOFT-PROFESSIONAL with XSOFT-EPAM or XSOFT-GALILEO	





**12"**

**XV-440-12T    XV-430-12T**

**15"**

**XV-440-15T    XV-430-15T**

		System
RISC, 32 Bit, 400 MHz		Processor
32 Kbyte		Memory
64 MB		Retentive memory
1.5 MB linear Flash/CompactFlash™		Data/program memory
2		CompactFlash™ slots
		Display
LCD TFT colour		Display
VGA 800 x 600 or 600 x 800 pixels		Resolution
65536		Number of colours
2 x CCFL, software dimmable		Background illumination
12.1 inch		Active display area
		Touch
12.1 inch	Resistive touch	Type
Light-barrier	4-wire	Technology
		Communication
CAN, Ethernet 10/100 Mbit, RS232, USB Device/Host		On-board
2		Slots
		Power supply
24 VDC, 1.0 A		Rating
18.5 ... 30.2 VDC		Admissible range
		Engineering
XSOFT-EPAM or XSOFT-GALILEO		HMI
XSOFT-PROFESSIONAL with XSOFT-EPAM or XSOFT-GALILEO		HMI-PLC

# Programming and visualization software

## XSOFT-PROFESSIONAL: programming to international standards



XSOFT-PROFESSIONAL is a CoDeSys based programming system from 3S compliant to IEC 61131-3. Proven technical features, simple handling and a wide distribution of this software in automation components of different manufacturers guarantees its success

### XSOFT-PROFESSIONAL Features:

#### Configuration:

Configurator for local I/Os, CANopen and DP stations

#### Communication:

RS232, Ethernet, in distributed networks via CANopen, OPC-Server

#### Web page generation: yes

#### Password protection: 8 levels

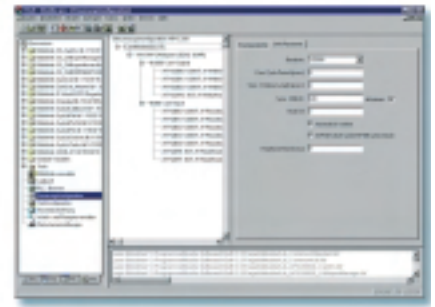
#### Language support: D, GB, F

**Libraries:** IEC, UDP, MMC/MC access, E-mail

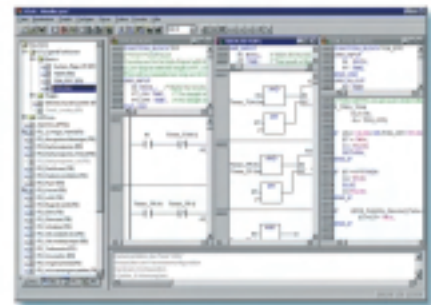
#### Special features:

Network variables for direct data transmission between substations via CAN and Ethernet. Web page generation

User-friendly  
PLC configuration



The optimal  
programming  
language (IL, ST,  
FBD, CFC, LD, SFC)  
for every task



Extensive debugging  
and commissioning  
tools save time  
and money



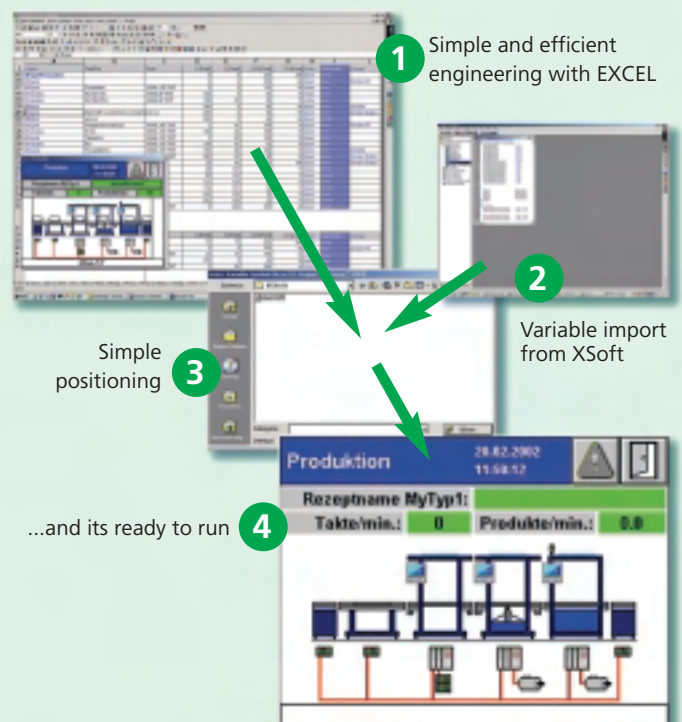
## XSOFT-EPAM: The web-enabled visualization tool under MS-OFFICE™

### Engineering under MS-Excel™

Visualization engineering is implemented simply and efficiently under MS-EXCEL™. Installation of a specific software package is not necessary. XSOFT-EPAM must simply be integrated as an Add-in for Microsoft Excel™. Thus, all the objects necessary for visualization are available under Microsoft Excel™. A text based description of the visualization is stored in an "Excel™

table". The design engineer can access all Excel™ features during the engineering phase. Furthermore, masks or objects can be reused continuously using Copy & Paste. This considerably reduces the particularly expensive engineering times.

Functions and the mask designs can be tested by simulation on the PC. "Real-life" testing is also possible by direct process connection to the device.

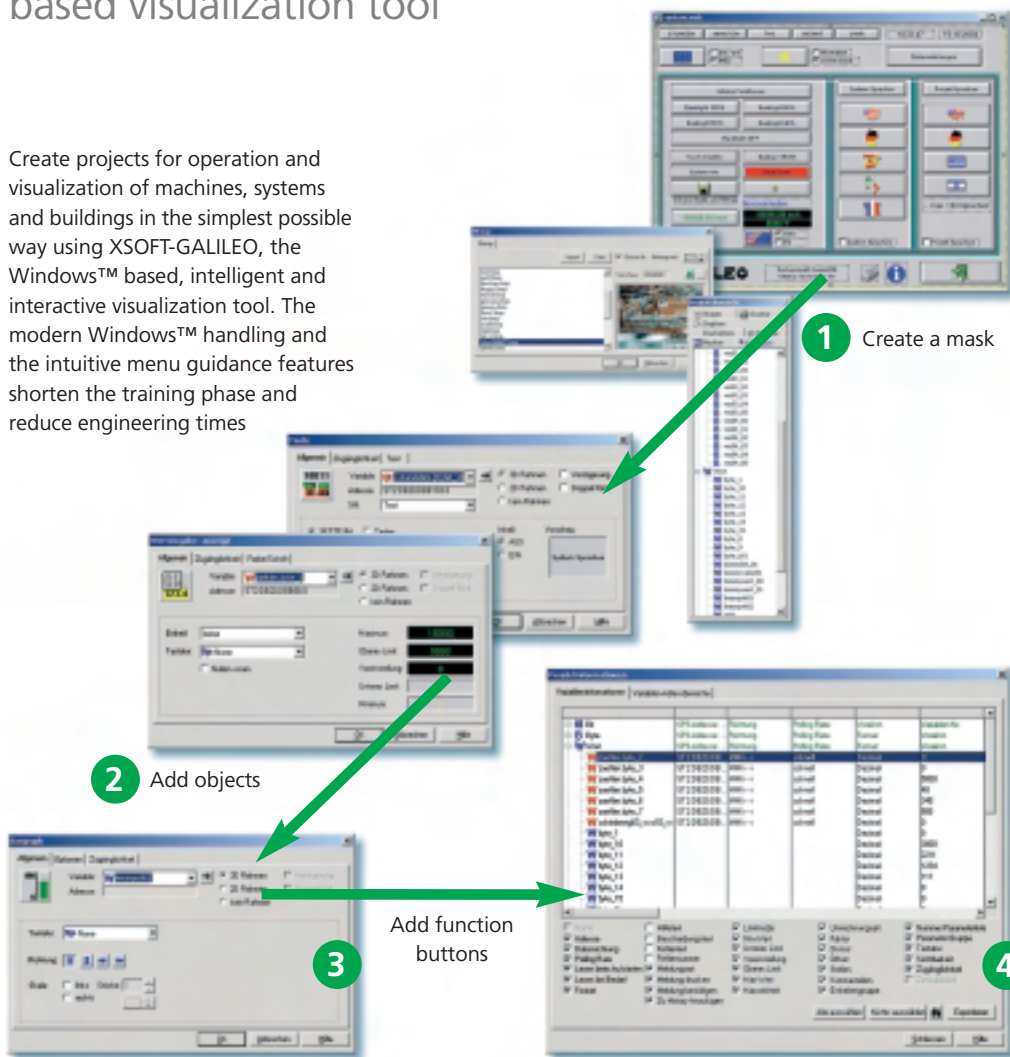




## XSOFT-GALILEO: the MS-Windows™ based visualization tool

A complete project  
in a few steps

Create projects for operation and visualization of machines, systems and buildings in the simplest possible way using XSOFT-GALILEO, the Windows™ based, intelligent and interactive visualization tool. The modern Windows™ handling and the intuitive menu guidance features shorten the training phase and reduce engineering times



### XSOFT-GALILEO-Features

- UNICODE support (support for other languages with their own characters, e.g. Chinese)
- Standard WIN PCL printer functions
- Webcam integration
- Linear conversion of the variable values between PLC and HMI
- Variable types: (e.g. Bit, Byte, Word, Doubleword, Error, Float, Array, Struct)
- Standard keyboards and user-defined keyboards
- Password management (200 levels, 500 users)
- Comprehensive script language and parameter list
- Online project simulation on the PC without HMI
- Context-sensitive help
- Alarm and history functions
- Recipe handling
- Import of 15 different image formats (.bmp, .tif, .jpg, .gif, .png,.....)

## XSOFT-EPAM: WEB visualization made easy

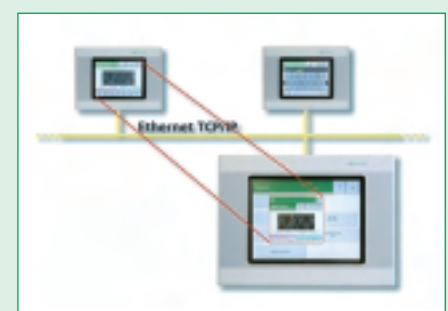
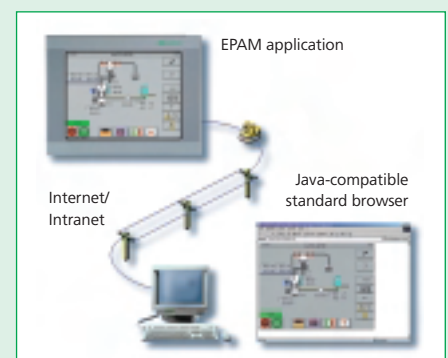
With XSOFT-EPAM new and existing "EPAM applications" are web-enabled with a mouse click. A Java applet is loaded via the integrated WEB server which presents a 1:1 image of the visualization process in any Java-compatible standard browser, thus enabling the system to be controlled

remotely via Ethernet. Furthermore, a 1:1 image of the process visualization is available locally at all times. User entries can be traced and corrected if required. Machine malfunctions or operating faults can be quickly and easily diagnosed world-wide via the web.

### Everything in view with remote control

XSOFT-EPAM allows screen contents from other touch displays to be displayed. All touch functions on the monitor can be implemented centrally or locally.

This function provides benefits for process visualization and operation of the system as well as for teleservice applications, in order to diagnose or operate machine/system states remotely.



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**www.moeller.net/address**  
**E-Mail: info@moeller.net**

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### **Xtra Combinations**

Xtra Combinations from Moeller offers a range of products and services, enabling the best possible combination options for switching, protection and control in power distribution and automation.

Using Xtra Combinations enables you to find more efficient solutions for your tasks while optimising the economic viability of your machines and systems.

It provides:

- flexibility and simplicity
- great system availability
- the highest level of safety

All the products can be easily combined with one another mechanically, electrically and digitally, enabling you to arrive at flexible and stylish solutions tailored to your application – quickly, efficiently and cost-effectively.

The products are proven and of such excellent quality that they ensure a high level of operational continuity, allowing you to achieve optimum safety for your personnel, machinery, installations and buildings.

Thanks to our state-of-the-art logistics operation, our comprehensive dealer network and our highly motivated service personnel in 80 countries around the world, you can count on Moeller and our products every time. Challenge us! We are looking forward to it!

**MOELLER**



Think future. Switch to green.