



## M1 webMI pro

### Web visualization directly on the controller

For the operation and monitoring of machines and systems, usually dedicated MMI devices are required and the software for this purpose must be installed and allocated. Thanks to the M1 webMI pro, this is no longer necessary; here, the visualization is integrated directly on the controller. As a result, each authorized device using a current browser becomes the HMI - always and everywhere.

### Pure Web standards

With the M1 webMI pro it is possible to exploit the advantages of the Web technologies entirely without limiting add-ons such as browser plug-ins and ActiveX. Any visualization devices from smartphones to a high-performance control panel can be connected directly to the M1 controller via a secure web server - operating and monitoring when- and wherever the process calls for it.

### High-quality user interface

The integration into the powerful M1 controller system is evidence of the kind of performance that state-of-the-art web technologies provide: A flicker-free display is produced even at data update rates of well under 100 ms and with hundreds of animated graphic elements. The additional resources that are required here are minimal.

Item	Item No.	Description
M1 webMI pro RT	00022839-63	Licenses to operate the M1 webMI Pro on one controller CPU. Deployment of dynamized web pages (HTML, SVG) via the integrated web server to display on modern browser-enabled devices. Data coupling to SVI and IO channels locally, simple alarm handling and archiving value directly to the controller system. Engineering with ativse Builder and SolutionCenter.
M1 webMI pro AMT	00022839-70	One year of product support per company location and registered support user.
M1 webMI pro Starter	00022846-00	Combination package of 10 Runtime Licenses M1 webMI Pro, basic training M1 webMI Pro for up to 8 people, advanced training M1 webMI pro for up to 4 people. One Year of product support and updates delivery are included in this package (Annual Maintenance). (Can only be ordered once per company, only one date per training, prices for training location Feldkirch/A or Bochum/D otherwise extra travel expenses are added).

# Visualization

When viewing an M1 webMI pro visualization page, the singular advantages of HTML5 and SVG (Scalable Vector Graphics), the basis of all graphic objects, become immediately apparent. Perfect graphic results are achieved with zero loss of quality when scaling and zooming.

## Unique chart functions

The integration of the Scope 3 software oscilloscope makes some unique functions available for this area. Firstly, data can be recorded on the controller in real time (up to 100 microsecond sampling rate) and displayed directly in a graph in the visualization. Secondly, it is also possible to load large data archives with a time scan and navigate in these recordings. In mixed operation it is possible to display both the archive data and the live data. Ready-to-use components in the visualization simplify the use of these functions and adapt them to the requirements at hand. The controller is provided with a programming library for the general use of this data, thus enabling any user to create their own user interface components for visualizing the data.

## All major HMI functions on board

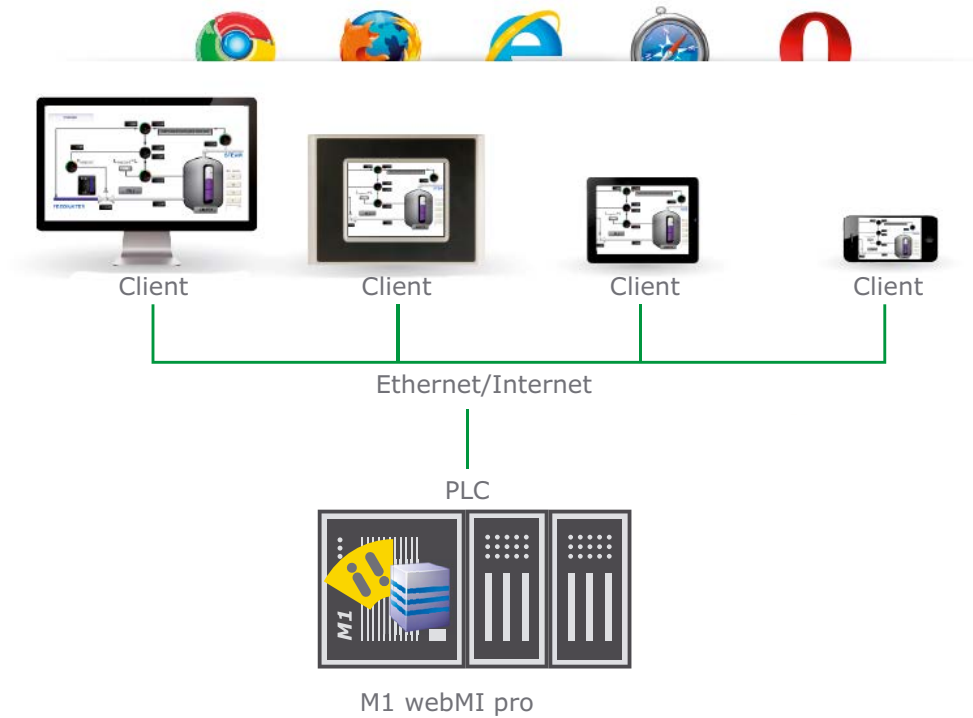
Thanks to fully-graphic planning incl. dynamization of the objects depicted, the creation of visualizations is easy and possible without programming knowledge. Here all functions of a modern HMI solution such as alarming, journaling, trending, user administration, and multilinguality are supported. Special requirements of the HMI can be implemented via client-side Java scripts, there are practically no limits to the possibilities.

- Directly integrated in the controller
- Client-server architecture (multi-client)
- User interface in pure Web technology
- Device and operating system-independent (HTML5, SVG) PC/Mac/Unix, tablet, smartphone, iPad etc.\*
- Alarming and journaling of variables
- Graphic trend display
- Online language/font switchover
- User administration & access security
- Client-side Java Script

\* Current browser compatibility list can be called up at [www.atvise.com](http://www.atvise.com)



# Visualization



## M1 webMI pro

### Server

Installation	Web server as a software module directly on the M1 controller via SolutionCenter
Parallel Operation	Yes, multiple visualizations can be run on several TCP interfaces
Sampling interval	Server monitors the process variables in a cycle of 50 to 5000 ms
Access security/Security	Yes (AccessControl of the M1, HTTPS with SSL encryption)
Server time stamp	Yes
Alarm system	Alarms on variables incl. persistence of the alarm status
Archiving	Archiving of the process values on the controller, configuration of the sample intervals via archive groups, up to 100.000 data points can be stored in the database
User Administration	Yes (rights, groups, users)
Functional expansions	Yes, M1 applications can provide data for processing in the HMI

# Visualization

M1 webMI pro	
Client	
Installation	No installation necessary
Technology process images	HTML, SVG, Java Script
Number of clients	Up to 16 clients at the same time
Zooming	Yes, continuously without quality loss
Scaling	Yes (automatic adaptation of the resolution on the target device) without additional engineering effort
Vector graphics	Yes (all components of the HMI are SVGs)
Trend	Yes (live trending and historical data views are possible)
Operation	Mouse or other pointing device Keyboard (hotkeys can be configured) Touchscreen, Multitouch**
Multilingual	Yes (online)
Font switching	Yes (online)
Fonts	Any (including Asian-language characters, Cyrillic etc.)
Embedding of external contents	Yes (everything that runs in the Web browser: HTML, video, audio, VRML/3D chat etc.)*
Functional expansions	Total flexibility through Java Script (client-side) Application interface (controller side)
Configuration/Engineering	
Variable integration	Variables can be read in directly from the M1 controller
Fully-graphic process image editor	Yes (integrated into atvise® builder)
Program editor	Yes (integrated Java Script editor in atvise® builder)
Page editor	Yes (integrated HTML source editor in atvise® builder)
Graphic objects	Primitive: line, polygon, shape (any), rectangle, ellipse, bezier curve etc. Widgets: label, text field, table, trend etc.
Object library	Yes, extensive catalog of pre-configured standard objects in pure vector graphic (adaptable, expandable) contains among other things bar graphs, tacho/gauges, tanks, engines and much more
Graphic incorporation	SVG (and all other according to W3C) as well as pixel graphics (PNG, JPG etc.)
Animation types	Text, value, frame color, background color, text color, visibility, operability, size x/y, position x/y, rotation, blinking, distortion etc.
Graphic options	Any shapes & sectors, roundings, simple and complex color processes, transparency, semi-transparency (alpha blending), rotation, shading, transformation/change of existing SVG graphics
Interface to the server	HTTP(S), FTP(S)
Import/Export	XML (customer-specific expansions feasible)

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\*\* Multi-touch dependent on device functionality, operating system and browser version

<b>M1 webMI pro</b>	
<b>Scope 3 Integration***</b>	
Installation	Scope V3.02 or higher on the M1
Ready-to-use displays	Yes Graph component, online configurator of the display, various interaction elements available
Data volume / limits	Unlimited, depending on hardware used (M1 and HMI device)
Display types	Live, Mixed and Archive mode as well as scans across several data recorders possible
Controller data recorder	Yes, commands can be sent to the data recorder via Javascript library
Proprietary UI components	The data from Scope 3 can be used in UI components (e. g. tables, other chart types, data processing).
<b>System prerequisites</b>	
Clients	Commercially available browser only*
Server	All M1 CPUs except ME203 (MH2xx, MC2xx, MPC2xx, MX2xx) with at least M-Base 3.85
<b>Variants</b>	
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\*\*\* See Scope 3 product sheet for detailed information on the functions