



Article	Article no.
M1 webMI pro RT	00022839-63
M1 webMI pro AMT	00022839-70
M1 webMI pro Starter	00022846-00

M1 webMI pro

Web HMI with SCADA character, directly on the M1 controller

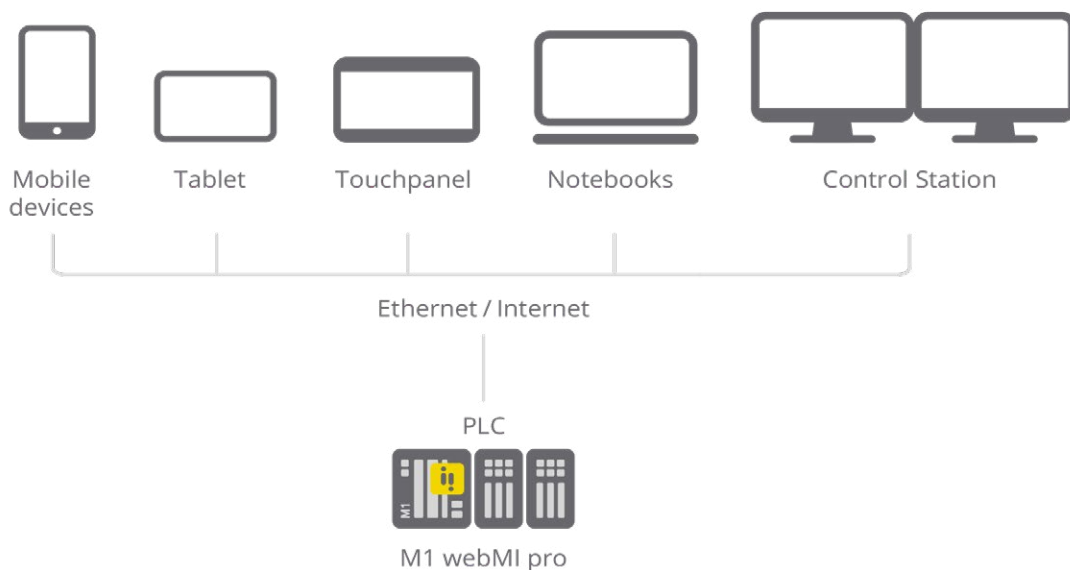
Native web technology used

M1 webMI pro makes it possible to use the advantages of web technologies entirely without restrictive add-ons such as browser plug-ins. All visualization devices from smartphones to powerful operator terminals can be connected, operated and monitored via a web server integrated directly on the M1 controller. Wherever and whenever the process requires it.

High-quality user interface

Integration into the powerful M1 controller shows the performance offered by modern web technologies: Even with data refresh rates of well under 100 ms and hundreds of animated graphic elements, flicker-free display is guaranteed. The additional resources required are minimal.

With SVG-based visualization, users benefit from perfectly rendered graphics at any zoom level. To meet demanding visualization requirements, webMI pro offers the ability to import graphic objects created by graphic designers. These can be created in graphic editors and imported into the project. The imported graphic objects can be made dynamic afterwards with the webMI pro engineering tool.



Ready for every front end

When it comes to implementing visualizations, webMI pro offers a great deal of flexibility. For instance, simple SVG-based visualizations can be developed easily via drag-&-drop. If special requirements are necessary, webMI pro offers the ability to develop HTML-based controls and embed them in the visualization environment. Modern web frameworks can be used for highly individualised visualizations. Developers have at their disposal all the libraries and tools used by the web community to create web applications.

Unique chart functions

Integration of the Scope 3 software oscilloscope in webMI pro makes data analysis in the microsecond range possible. Using the included trend component, data on the controller can be recorded in real time (up to 100 microseconds sampling rate) and displayed directly in the visualization. In addition, it is also possible to reload data archives by a time query and to navigate in the recordings. In mixed mode, both archive and live data can be displayed in a diagram.

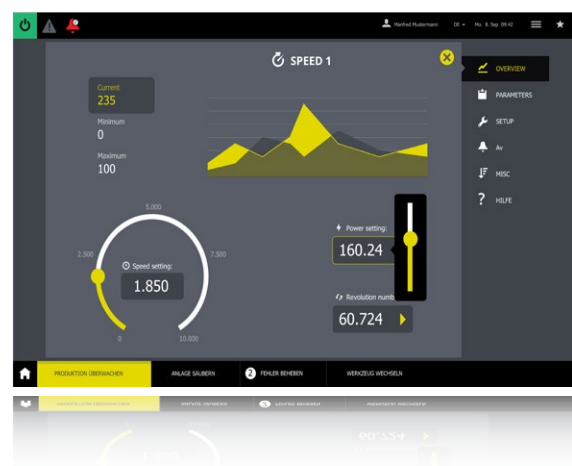
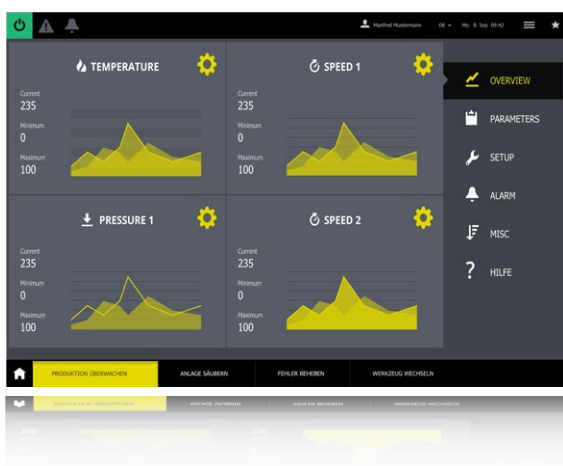
The data provided by Scope 3 can be used not only in the trend component, but in the entire visualization environment. A programming library with which your own user interface components can access scope data is available for this purpose.

More than just an HMI

All components required for fast and efficient implementation of professional visualizations are integrated into the range of functions in webMI pro. In addition to integrated alarming and historisation of control data, an extensive object catalogue that can be expanded and adapted as desired is offered for visualization.

Thanks to fully graphic project planning and dynamisation, the creation of visualizations is simple and possible without programming knowledge. Project teams benefit from the integrated online multi-user engineering capability of webMI pro. All project team members can work together on the same visualization project and updates to implemented components are immediately visible, without having to restart the visualization server or compile the project.

Special requirements for the visualization can be realised via client-side scripting; there are practically no limits to the possibilities. If there are special requirements in the interaction between visualization and controller, the flexible hook interface of webMI pro can be used. It can be used to implement function calls easily on the M1 controller, which can be called up conveniently via the visualization. The entire range of functions of the Bachmann M1 controller is available in the programming.



M1 webMI pro	
Server	
Installation	Software module on the M1 controller, configurable via SolutionCenter
Parallel operation	Yes, several visualizations can be operated on different TCP ports
Sampling interval	The server monitors the process variables in a cycle of 50 to 5000 ms
Access security/Security	Yes (AccessControl on the M1, HTTPS with SSL encryption)
Server timestamping	Yes (UTC)
Alarm system	Alarms on variables, incl. persistence of the alarm status
Historisation	Archiving of process values on the controller, configuration of sample intervals via archive groups, up to 100,000 points can be archived in a database
User administration	Yes, your own visualization users with rights and groups or also coupling to Access Control of the M1 controller
Functional extensions	Yes, applications on the M1 controller can provide information to the server for processing in the visualization
Client	
Installation	No installation necessary
Process images technology	HTML, SVG, JavaScript
Number of clients	Up to 16 clients simultaneously
Zooming	Yes, continuous without loss of quality
Scaling	Yes (automatic adaptation of the resolution to the target device without additional engineering effort)
Vector graphics	Yes, all components of the visualization are based on SVG
Trend	Yes, both live trending and display of historical data
Operation	Mouse or other pointing device Keyboard (hotkeys configurable) Touchscreen, Multitouch ¹⁾
Multilingual	Yes (online)
Font selection	Yes (online)
Character sets	Any (including Asiatic languages, Cyrillic, etc.)
Embedding of third-party content	Yes (all web browser content: HTML, video, audio, VRML/3D, chat, etc.) ²⁾
Functional extensions	Full flexibility through use of JavaScript (client side) Application interface (controller side)
Configuration / Engineering	
Integration of variables	Variables are read in directly from the M1 controller
Process picture editor fully graphic	Yes (integrated in atvise® builder)
Program editor	Yes (integrated JavaScript editor in atvise® builder)
Page editor source code	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, a comprehensive catalog of preconfigured standard objects in pure vector graphics (customisable, expandable) includes, among other things, bar graphs, speedometers/gauges, tanks, engines, etc.
Graphics integration	SVG (and all others according to W3C) as well as pixel graphics (PNG, JPG etc.)
Animation types	Text, value, frame colour, background colour, text colour, visibility, operability, size x/y, position x/y, rotation, flashing, distortion, etc.
Graphical possibilities	Any shapes & cut-outs, rounding, simple and complex colour gradients, 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 extensions can be implemented)

1) Multitouch depending on device functionality, operating system and browser version

2) Detailed information on supported operating systems and web browsers can be found at www.atvise.com and accessed in the "System Requirements" area.

M1 webMI pro	
Scope 3 Integration ¹⁾	
Installation	Scope V3.02 or higher on the M1
Predefined displays	Yes Diagram component, online configurator of the display, various interaction elements available
Data volume / limits	Unlimited, depending on hardware used (M1 and HMI device)
Display modes	Live, mixed and archive mode as well as queries via multiple data recorders possible
Control of data recorder	Yes, commands can be sent to the data recorder by using the JavaScript library
Your own UI components	Scope 3 data can be used in UI components you created (e.g. tables, other chart types, data processing).
System requirements	
Clients	Standard browser only ²⁾
Server	All M1 CPUs except ME203 (MH2xx, MC2xx, MPC2xx, MX2xx) with at least M-Base 3.85
Versions	
M1 webMI pro RT	Licences for operation of M1 webMI Pro on a control CPU. Provision of dynamic web pages (HTML, SVG) via integrated web server for display on modern browser-capable end devices. Data coupling to SVI and IO channels locally, simple alarm handling and value archiving directly on the control system. Engineering via atvise Builder and SolutionCenter.
M1 webMI pro AMT	Product support for 1 year for one company location per registered support user.
M1 webMI pro Starter	Combination package of 10 M1 webMI pro runtime licences, M1 webMI pro basic training for up to 8 participants, M1 webMI pro advanced training for up to 4 participants, annual support for one support user (Can only be offered once per company, training courses only 1 date each, prices for Feldkirch/A or Bochum/D location, otherwise plus travel expenses).

1) See product sheet Scope 3 for detailed information on the functionalities.

2) Detailed information on supported operating systems and web browsers can be found at www.atvise.com and accessed in the "System Requirements" area.

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