



Micro-Browser Solution

Low-Cost Panel, CODESYS Web-Visu, App

The MicroBrowser provides high-performance, cost-effective visualization solutions!

Web visualizations need lots of memory and performance? Not with the MicroBrowser! The MicroBrowser is available as a web client for any operating system - from WinCE, Linux to the latest Microsoft Windows version. It is particularly powerful on microcontroller architectures, such as the Cortex M3 / M4 family, enabling cost-effective and robust panel solutions. It is also ideally suited as an OEM component for integration into a customer application or as a basis for an OEM app.

The MicroBrowser can be used in many ways and offers enormous advantages:

- MicroBrowser panels - built on Cortex M3 to M7 - are an inexpensive industrial alternative hardware
- Can be used as a web client on any server with SpiderControl™ or in conjunction with CODESYS web visualizations (V2.x and V3.x)
- The MicroBrowser can be integrated as a .Net or ActiveX control as a component into any PC application
- The flexibility and adaptability of the MicroBrowser can be used as a basis for an OEM smartphone app, etc.

PLAIN AND SIMPLE CODE WITH YOUR APP OR BROWSER

MicroBrowser and WebServer panels at the best possible price / performance ratio

Web visualizations with HTML5 always require the latest hardware to meet the requirements for a good performance. Because smartphones are produced in huge numbers, powerful processors at affordable prices are available on the market, but these circuits are not very suitable for industrial electronics. Long-term availability is not guaranteed; shortly after the product development is finished, the processor is already going into obsolescence. The development cost can never be paid back with the produced quantities.

The MicroBrowser solves this problem: Growing prices can be avoided by the Cortex M3 / M4 / M7 - SpiderControl™ embedded design. Nevertheless, with the MicroBrowser, high-end graphics functions such as alpha-blending, transparency and animated graphics are supported with very good performance. Capacitive touch screens can also be used. Microcontrollers offer a long-term availability as well as the necessary peripherals for industrial designs and are thus the basis for a cost-effective and robust design: the initial hardware development costs are significantly lower, the product can be produced unchanged over 10 years and the MicroBrowser visualization is more stable than scripting languages and virtual machines, thanks to its deterministic design.

Industry-standard design tools and full HTML5 compatibility

The MicroBrowser can be operated as a web client on any server with a SpiderControl™ or CODESYS web visualization. For the design of the visualizations, comfortable HMI tools are available with all industry-standard functions. However, all HMIs drawn with SpiderControl™ are designed without restrictions as HTML5 visualizations. The MicroBrowser therefore offers the combination of all advantages: Full HTML5 openness on standard platforms like smartphone, tablet and PC, familiar tools in the design of the HMI, and at the same time the option for a very cost-effective industrial electronics with display.

SpiderControl™ MicroBrowser for CODESYS web visualization is portable on almost every platform

The virtual machines and script interpreters used up to now on operating systems such as Linux, Raspian or WEC / WinCE have an immense memory requirement, which adversely affects the speed of the application. These use e.g. a so-called „garbage collector“ for the automatic release of memory which is no longer used, which leads to a difficultly controllable real-time behavior and is thus responsible for instability and poor performance. The MicroBrowser offers a completely different approach: The Web-Visu application is interpreted on a higher (semantic) level so that a virtual machine is not necessary. An instantaneous translation of the Web-Visu HMIs into the internal SpiderControl™ format, which runs on the efficient and robust MicroBrowser Engine, is carried out. The memory requirement is therefore much lower. The generated overhead of the virtual machine is completely avoided, which improves the speed several times. The MicroBrowser also has a strictly deterministic storage management, which guarantees long-term stability. Thus web panels for CODESYS web visualizations with very good performance and stability by a favorable price become available.

MicroBrowser apps

Developing your own app is complex. An OEM app on the basis of the MicroBrowser allows the use of Web-Visus within the app and thus the reduction of maintenance cost on different platforms. Also the use of the Java Applet based CODESYS V2.x Web-Visu is possible with the MicroBrowser on IOS and Android, although there is no Java Virtual Machine available on these platforms.

