Embedded firmware

Customised hardware solutions require specialist firmware solutions. Especially if the tasks requires us to exploit the performance of a hardware to the limit. Hence, the focus is not always on speed requirements; the design is often affected especially by the efficient use of the available resources.

Based on our activities in the field of electronic gas meters up to measuring and protective applications in medium and high voltage switchgears, MEMS AG has long-standing experience with extreme requirements regarding ultra-low power (battery life), recording and processing of measured values, robustness, data security, and connection to communications and automation systems.

Depending on the process architecture and manufacturer, we have suitable developer tools for C/C++ and driver libraries available to implement new applications. If necessary, appropriate operating systems can be used on more complex devices.

Software tools

MEMS AG generates software applications to control test benches and production systems as well as service and simulation tools for testing systems or to configure devices in the production line or on site.

Depending on the customer's requirements or terms of reference, development environments for C/C++, C# or LabVIEW are used for capturing data, controlling, visualisation, local data security (e.g. in databases) or in distributed networks.

In addition to full-fledged applications, libraries are used for interface and bus connectivity (e.g. CAN, I^2C, SPI, Modbus, M-Bus) or to record and process measured values for integration into third-party solutions.