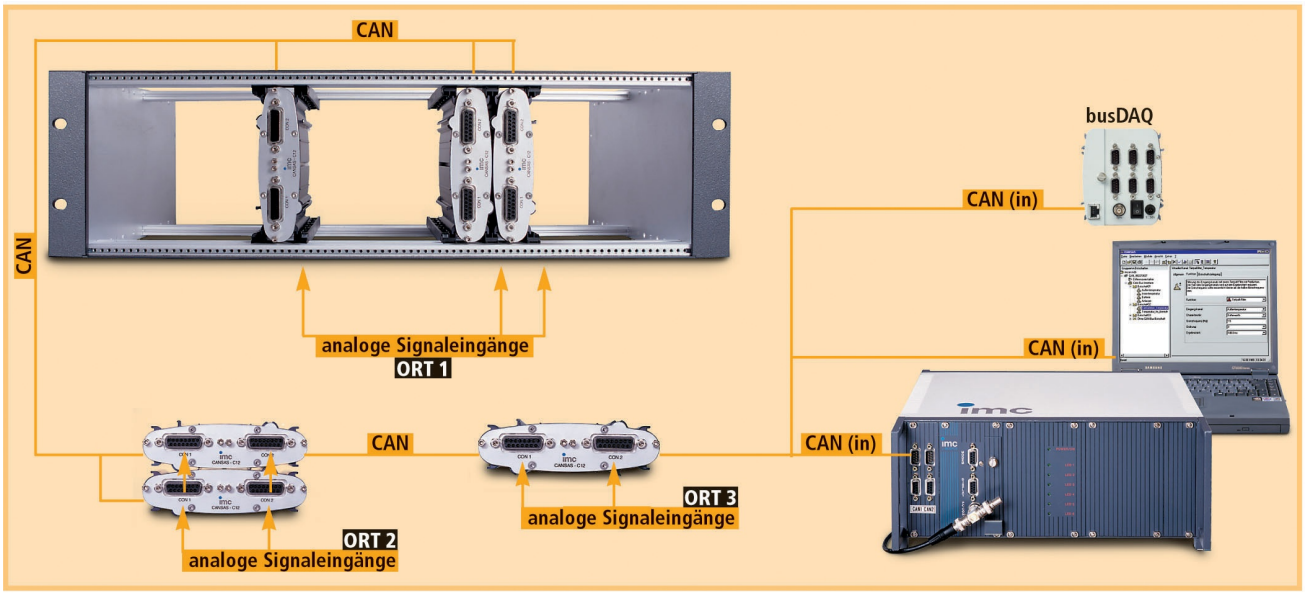
Structure of a decentralized network with CANSAS and busDAQ



Any number and kinds of measurement quantities can be located at different sites.
The sensor outputs are decentrally analog-conditioned and digitalized at these sites.
The various CANSAS modules are linked with each other and to the PC via the CAN-Bus. Since the transferable data rate is limited, the measured data can be processed within the measurement module in real-time and transferred through multiple CAN-nodes.

Using the operating software, it is possible to configure any desired mathematics functions or commonly used procedures such as averaging, and to load them into the module. The functions are executed in real-time by a digital signal processor.

To be able to display the measured data in conventional form, for instance, as a Y-t plot, a data acquisition device such as busDAQ (a dedicated CAN-data collector) is connected to the PC via Ethernet.

If there are purely analog data to analyze in addition to the CAN-data, measurement systems such as µ-MUSYCS, SPARTAN, CRONOS-PL etc., which can receive both analog and CAN data simultaneously and synchronized, are available. It's also possible to expand the measurement network to include other analog or digital devices and sensors having direct field bus or analog outputs

The data acquisition systems mentioned are powerful devices offering comprehensive data display and storage capabilities. Complex triggers, powerful real-time functions for versatile data processing

(basic math functions, filters, smoothing, FFT, and much more) can be defined in terms of formulas in normal notation, using the application Online-FAMOS.

In accordance with the variety of possible measurement types available, there are also a variety of data saving types which can be activated for both short and long term measurements. Circular buffer memory, multi-shot readings and redundant saving on both the device's and the PC's hard drive are just a few of the options.

Last but not least, the complete measurement documentation can be composed using the operating software.