

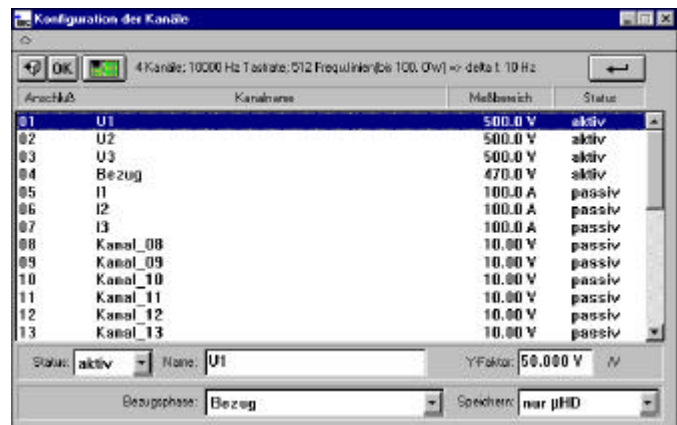
Harmonics Analyser

The measurement of 50Hz or 60Hz voltage and current signals as well as the evaluation of such signals is necessary for assessing the quality of the power utility delivered. The testing required, however, is no easy task. There are national and international standards as well as the internal regulations of energy suppliers and their customers to consider.

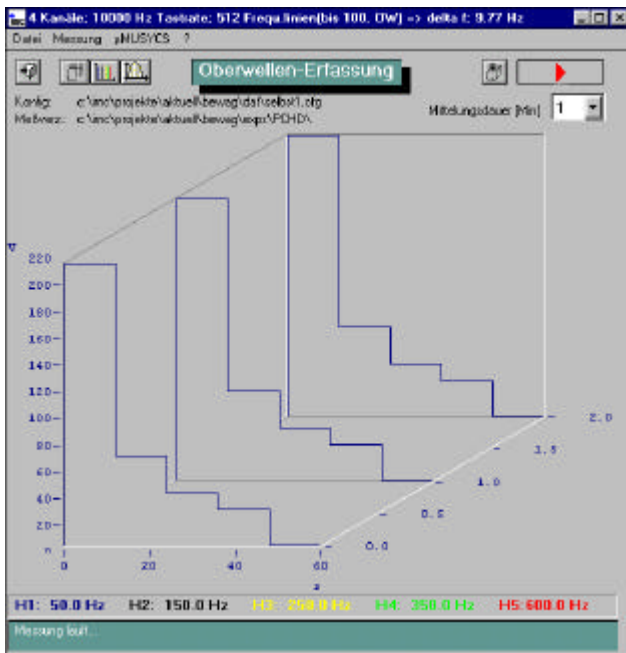
For BEWAG, the Berliner energy supplier, imc developed a power quality analyzer based on the measurement system μ -MUSYCS. The requirements for such a system are:

- PC-independent operation
- measurement and evaluation of up to 32 channels per system (cascadable)
- online FFT for up to 32 channels per system
- calculation of harmonic power in reference to the power factor
- event triggering and storage
- configuration of different averaging functions
- online evaluation of selectable harmonics
- online display (with PC)
- storage of up to 500 MBytes without the PC

user interface. System configuration, data evaluation, data display and data reporting should be manageable by personnel not possessing specialized skills. Thus, imc developed a software application tailored to BEWAG's special requirements. Using its rich experience in making customer-specific programs, imc developed a complete interface to perform the measurements stipulated by DIN EN 50160 (DIN EN 61000-4-30, DIN EN 61000-4-7) and internal BEWAG requirements.



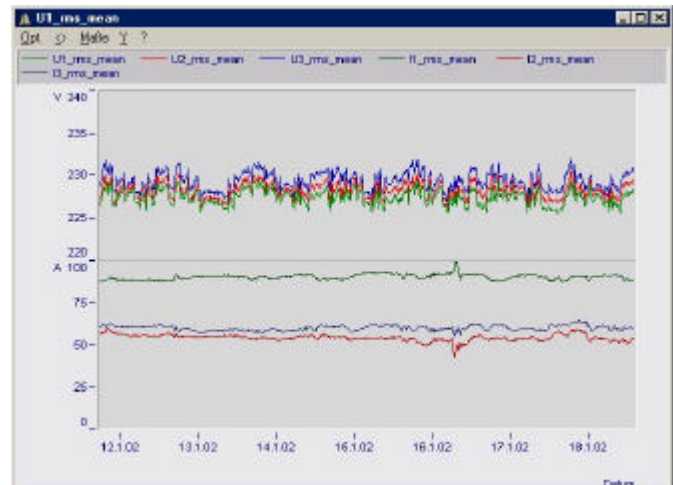
The configuration of channels as well as measurements has to be simple and easy



The customer specified software informs about demanded results

The system was developed together with engineers and technicians from BEWAG. In addition to the functionality, a major requirement was a easy to use

For further evaluations and statistical analysis, BEWAG has chosen FAMOS. This widely circulated imc tool not only provides the engineers with over 300 mathematical, analytical and statistical functions, but also enables automated report generating or macros programming. BEWAG engineers say: '...it's the ideal tool for us'.



Measurement results as RMS values can be plotted offline and online over days, weeks and months