

DATA ACQUISITION AND CONTROL INSTRUMENTATION OF THE BEWAG BATTERY TEST FACILITY

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This round-table contribution describes the control and data acquisition system used in the BEWAG battery test facility (Fig. 1). The structure of the system is outlined as well as the tasks performed:

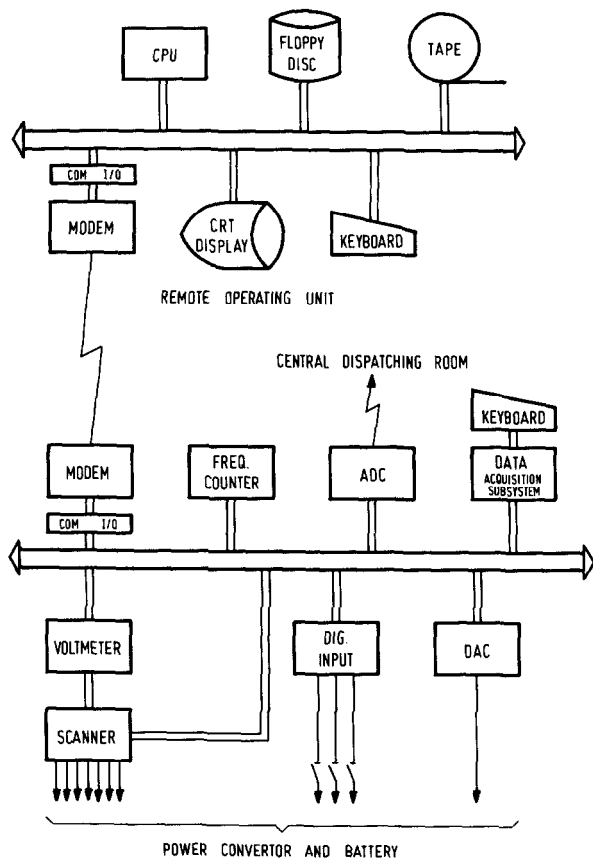


Fig. 1. Schematic diagram of the control and data acquisition system used in the BEWAG battery test facility.

- Control.
 - Primary, secondary, and tertiary control loops.
 - Special test schemes (capacity test, instantaneous reserve test, cell state evaluation, etc.).
 - Control of electrolyte agitation system.
- Data acquisition.
 - Continuous acquisition of battery current, voltages, electrolyte temperature, etc.
 - Calculation of battery efficiency.
- System monitoring and control.
 - Display of selected information for the test engineer.
 - Remote control of the test facility from the test engineer's office.
- Data processing.
 - Statistical investigations.
 - Check for extreme stresses.
 - Graphic display of test data.
 - Problem-related analyses.