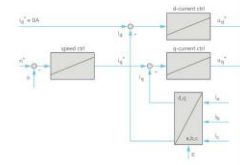


# Mobile Measurement and Control Cabinet

## Overview

- Universal use at all test benches
- All common measurement tools
- EMC-compliant design
- Workstation with necessary software
- Pre-configured measurement templates
  - temperature measurements
  - vibration analysis
  - detection of characteristic diagrams
- Simple wiring
- Short changeover times between test benches



## Equipment

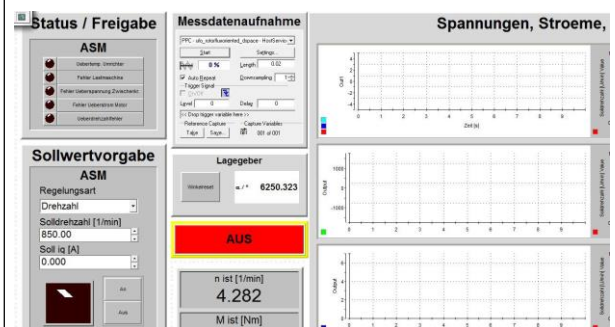
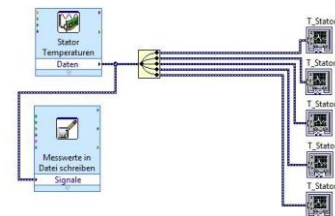
- Rapid Control Prototyping System:
  - dSPACE DS1006 QuadCore Controller Board
- National Instruments PXIe data collection system
- Yokogawa WT3000 Power Analyzer
- Adjustable low-pass filter bench (4<sup>th</sup> order)
- Dell Precision Workstation
- 3 channel high voltage-differential probes
- Conditioning for current transformer up to 1000 A
- Test bench-networking via CAN bus

### Measurement and control capabilities

Control	MTS load unit
Rotary encoder	Hall Sensor, Inc. Encoder, SSI, Resolver, EnDat
Interfaces	32 digital I/Os, 32 A/D, 32 D/A
Performance maps	Yokogawa WT 3000
Temperature detection	32 thermal elements 20 RTD' s
Acceleration	16 synchronous analog input up to 204.8 kS/s

## Application

- Control of frequency converters via PWM-signal
- Controller design in Matlab/Simulink
- Automatic detection of characteristic diagrams
- Data collection of all common measured quantities at motor test bench



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