

## PAK MONITORING

PAK monitoring enables the online monitoring of characteristics in arbitrary physical quantities, means the multi-channel observation of characteristic vibration phenomena of a test object.

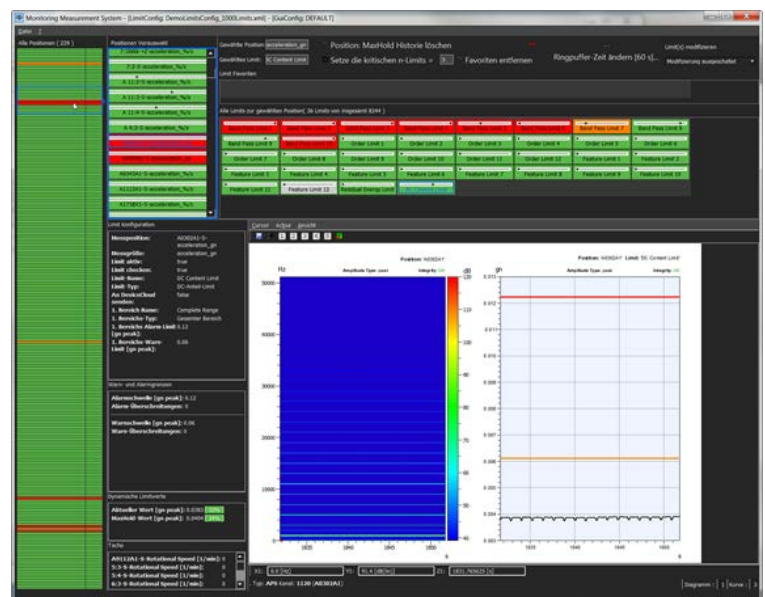
It provides a compact and efficient interface for tracking multiple channels with multiple limits and alarms. A short response time for real-time signal monitoring is the prerequisite for influencing the test run and for a fast confirmation at the test's completion. Additionally, it is essential to gather information flexibly and rapidly concerning the vibration behavior while running the test operation and to assess critical operating conditions.

### AT A GLANCE:

- Shorter and more effective test procedures
- Evaluation of critical loads
- Short response times (reaction times), for example to changes in the configuration
- Continuous (complete) monitoring of signals (vibration data) in real-time
- Short processing time, low latencies, low loop time (time between two updates of the online display)
- Different sampling rates for different sensors

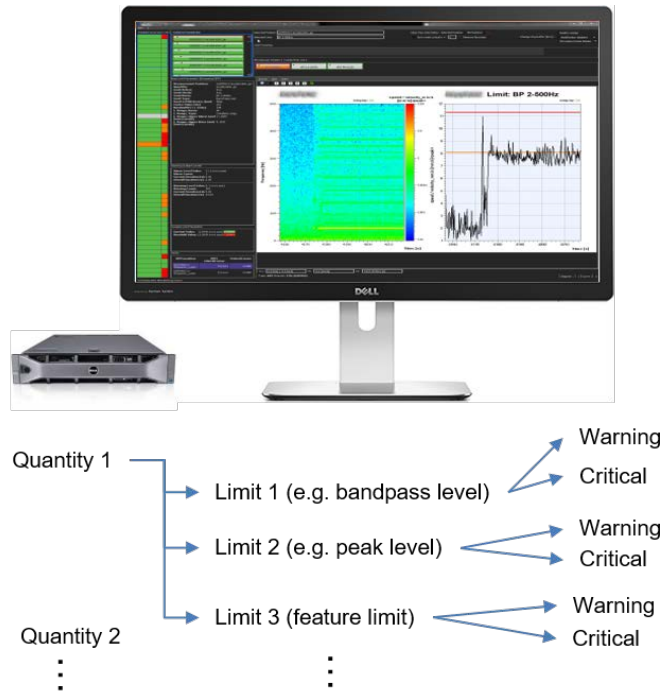
### GENERAL FEATURES

- Standalone application
- Separated services: LIMIT and VISUALIZATION for enhanced process performance
- Multiple instances possible
- Usage of favorites for quick access to important limit monitors
- Extensive logging of all relevant events
- Role-based, on-the-fly limit configuration



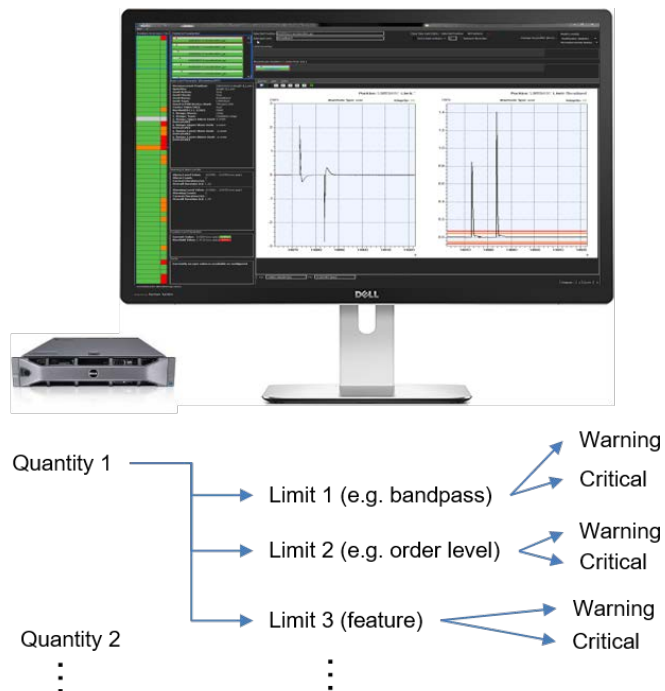
## PAK MONITORING: LIMIT CALCULATION

- Bandpass levels with:
  - Constant limits
  - Dependent limit value derivation (i.e. speed or temperature compensation)
- Peak and RMS limit calculation
  - Both fixed and track-value dependent limits
- Feature calculation derived from a polynomial function
- Out-of-band / residual energy monitoring
- Throughput and amplitude limit monitoring



## PAK MONITORING: LIMIT DISPLAY

- Detailed visualization chain of all relevant data
  - Overview of all channels
  - Zoom-in to a relevant channel
  - Single limit display with time / APS history
- Dedicated display of a chosen limit calculation
  - Max-Hold-display of warning / critical levels
  - Trend display of actual levels
  - Display of limits in the context of time history or APS (circular buffer)
- Optional “send-back” of calculated values for further processing and storage



## CHANNELS:

- Any number of measurement channels to be monitored
- Include frequency bands and order bands
- Channels can be activated and deactivated at any time

## LIMIT CONFIGURATION:

- Upper and lower warning limits as well as upper and lower alarm limits available
- Any number of limits and types of limits for each channel
- Static and dynamic limits available
- Limits can be imported from a file, e.g. from Microsoft® Excel®
- Configurable acoustic signal when exceeding a limit

### About Us

Müller-BBM VibroAkustik Systeme provides testing solutions for various industries in the areas of high speed data acquisition and shock, structural dynamics, fatigue analysis and turbine testing.

We are leading in vibroacoustic measurement technology focused on the interpretation of dynamic and static parameters for the experimental test market. Our tight partnership with the industry and acknowledged expertise in acoustics and vibration results in innovative solutions that seamlessly integrate into laboratory, production and field environments.

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