

DIGITAL INDUSTRIES SOFTWARE

# Simcenter Anovis Software for industrial testing

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## Product Information Sheet

### Summary

Simcenter Anovis Acoustic Noise and Vibration Signal analyzer is a comprehensive system for analysis and rating of the noise and vibration at the production line.

The IVS-Laser-Signal-Improvement software improves the test reliability when using laser vibrometers

## BENEFITS

- Significant increase in the reliability of laser vibrometer measurements in industrial environments
- Allows the use of laser vibrometers in industry in case of high MSA requirements
- Objective assessment of laser signal quality through special metrics
- Cost reduction through condition-based maintenance of laser vibrometers

IVS-Laser-Signal-Improvement-Software improves the test reliability when using laser vibrometers, it is useful to perform the following additional tasks:

- Analysis of the laser level to detect "poor" signals showing too little laser light reflected from the device under test. This allows identification of such cases as "false measurement" and the possibility to eliminate and avoid the root cause of poor signal quality. Soiling or other surface conditions at the measurement point may be the cause of a "poor" signal. The laser level is recorded via an operating data channel, which has to be available in the connected Simcenter Anovis SRD.
- The frequency with which "poor" signals occur can indicate when maintenance is required (evaluated by master computer).
- Analysis of the vibration signal for spikes. Spikes can arise from physical causes (laser speckles) and lead to an unwanted and significant increase of the noise level. Spikes can result in an incorrect assessment of the test subject.

- The IVS-Laser-Signal-Improvement-Software detects signals containing spikes and eliminates the spikes analytically as far as possible. The identification of too many spikes can avoid an incorrect test subject assessment, while eliminating spikes conditions measurements to give a reliable assessment

### IVS-Laser-Signal-Improvement-Software

The IVS-Laser-Signal-Improvement software adds the following module and functionality to the Simcenter Anovis Signal Processing software:

SrdAcquisUnspike: Connector for all types of standard Anovis signal recording devices (SRD) including

- An algorithm for spike detection that bases on optimal filter technology.
- Adjustable handling of detected spikes: Detection only/muting/interpolation between left and right sided samples
- Metrics for evaluation of signal quality: Number of spikes/max spike-signal-ratio/mean spike-signal-ratio