

DIGITAL INDUSTRIES SOFTWARE

Simcenter Anovis Software for industrial testing

Simcenter/AN-ELT.011/2023/20231207

Product Information Sheet

Summary

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

Simcenter Anovis Chameleon provides software extension to Simcenter Anovis for automated adaptation of limits based on the production statistics. This allows a highly sensitive detection of abnormalities in mass production by use of automated production drift adaptation.

The vibration and noise behavior of components and modules contains quality relevant information. Beside this quality relevant information, vibration signals contain undesired signal components caused by process drift.

BENEFITS

- Automatic adaptation of assessment limits to the production statistics,
 - Less manual work for maintaining limits,
 - Rating of full curves with automatic tolerance curves allows detection of not yet known types of issues
 - Increased efficiency thanks to automated fault diagnosis.

The Chameleon setup comprises the following steps:

- Recording of the vibration signal of unlabeled standard production parts.
 - Automatic evaluation of statistical parameters.
 - Definition of alarm tolerances with optional use of a security measure for each feature.
 - Definition of warning tolerances.

Various methods can be selected as adaptation strategy of abnormality limits, e. g. update of limits after each measurement or after special events.

It is recommended to apply quality assurance measures in parallel to the routine test. This means that good items, items near the tolerable limit and rejected items as well should sometimes be spot-checked. The aim is to check if quality assessment is optimally adjusted, and no pseudo-rejects occur.

It is possible to define for each quality feature whether the tolerance limits are updated or kept at fixed values.

Simcenter Anovis Chameleon

The Simcenter Anovis Chameleon-software adds the following modules and functionality to the Simcenter Anovis Signal Processing software:

Chameleon: Signal processing module (flowlet) that provides the following functionality

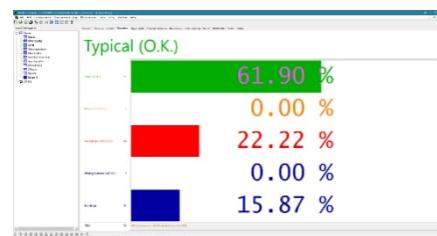
- Automatic limit adaptation for any single values or curves generated by Simcenter Anovis.

- Arbitrary number of curves/values only restricted by PC resources.
 - On-line classification of the current measurement based on the Chameleon limits.
 - Comprehensive parameterization of both adaptation and classification

Visualization

Results created from the Simcenter Anovis Signal Processing Software can be displayed in the available viewers. The following data viewer is included in Simcenter Anovis Chameleon:

Classification: Visualization of the current Chameleon classification result, the part statistics and the current state of Chameleon.



Tools

Simcenter Anovis Chameleon includes a stand-alone application for displaying all active chameleon instances and resetting them individually to perform a re-adaptation.

