

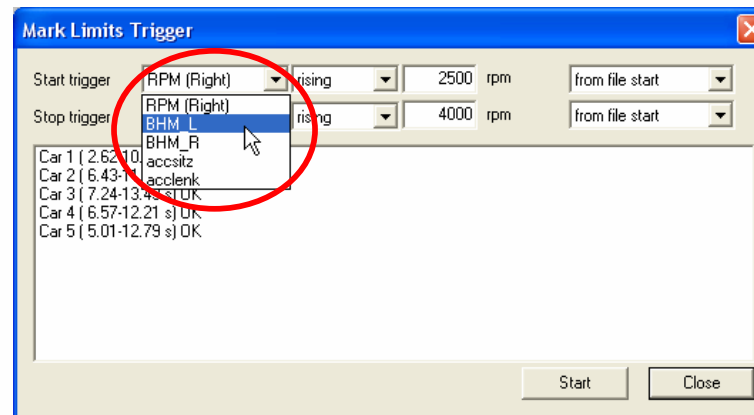
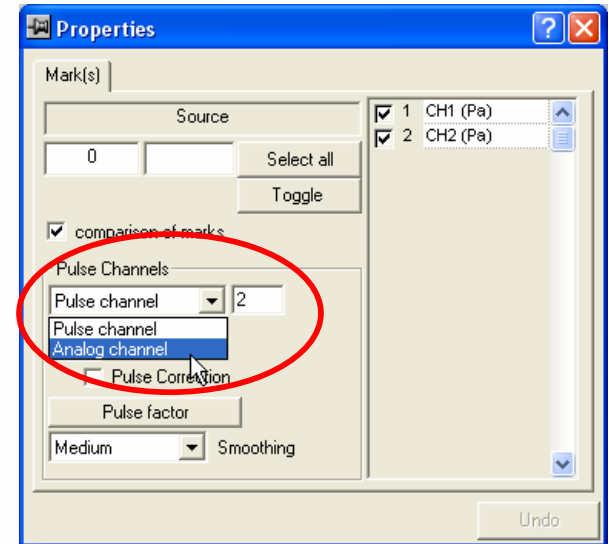
# What's New in ArtemiS 8.0?

New Features in ArtemiS 8.0

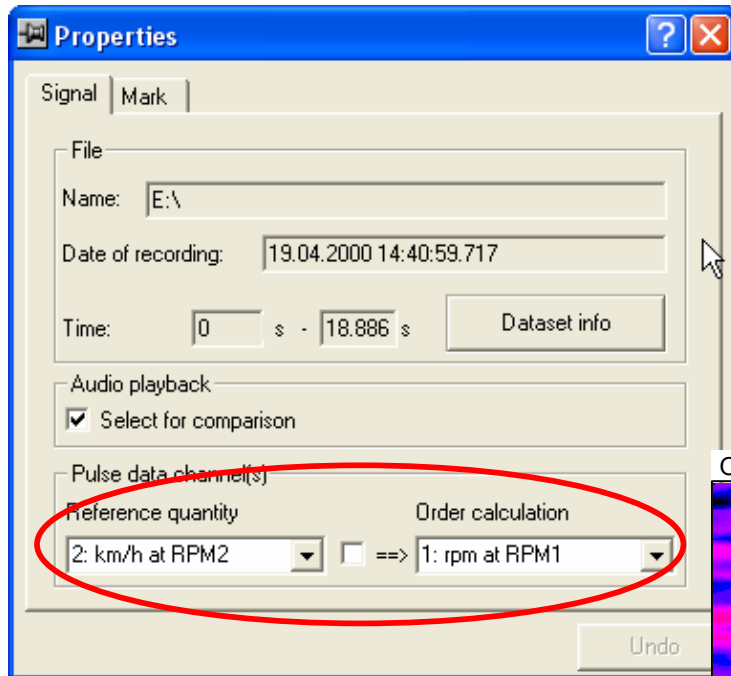


# Mark Properties

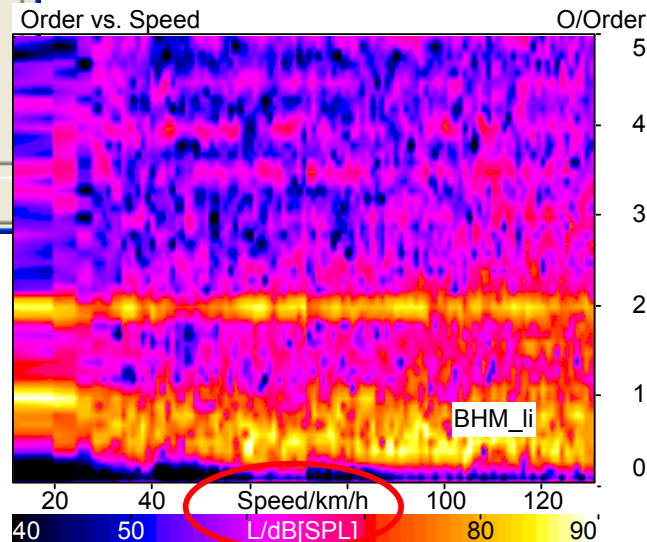
- Editing the properties of a mark is now easier than ever:
  - Select the analog reference channel for an entire mark folder.
  - Specify the mark limits of one or several marks by triggering on a channel or RPM signal.



# Selecting the Reference Quantity

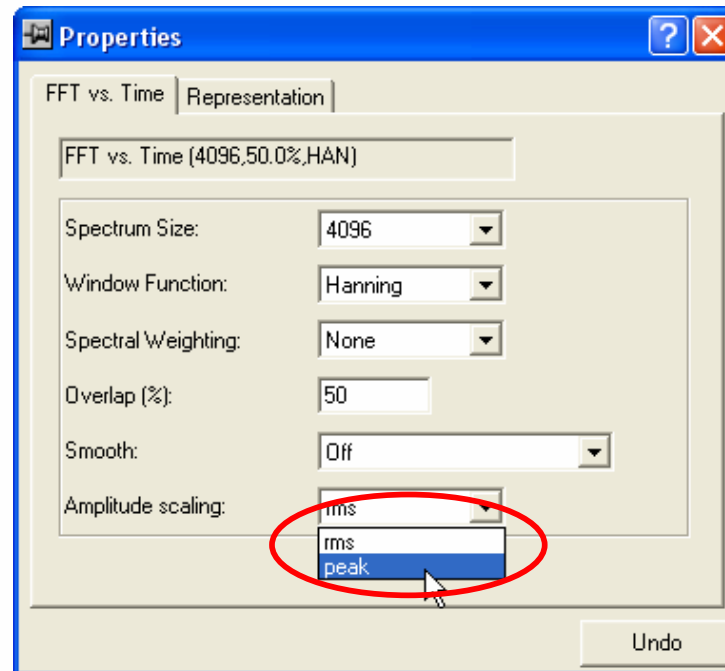


- The reference quantity for the calculation and the reference quantity for the graphical representation can be selected independently. That way you can, for example, calculate an order analysis, but display it vs. speed rather than vs. RPM.



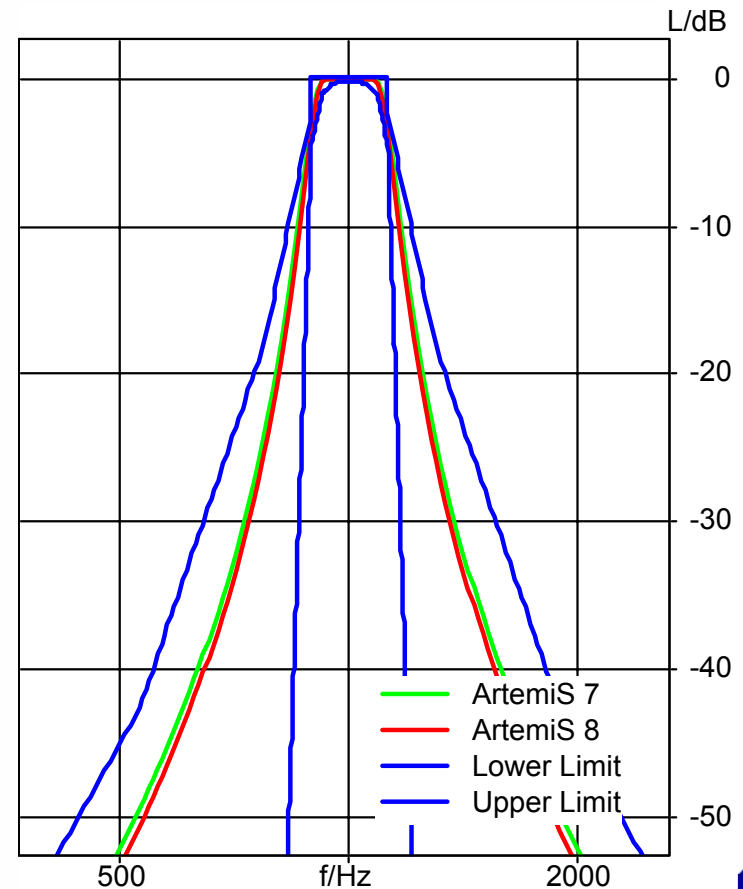
# Peak Value – Effective Value

- Now selectable:  
Output of analysis results as effective values (root mean square) or as peak values

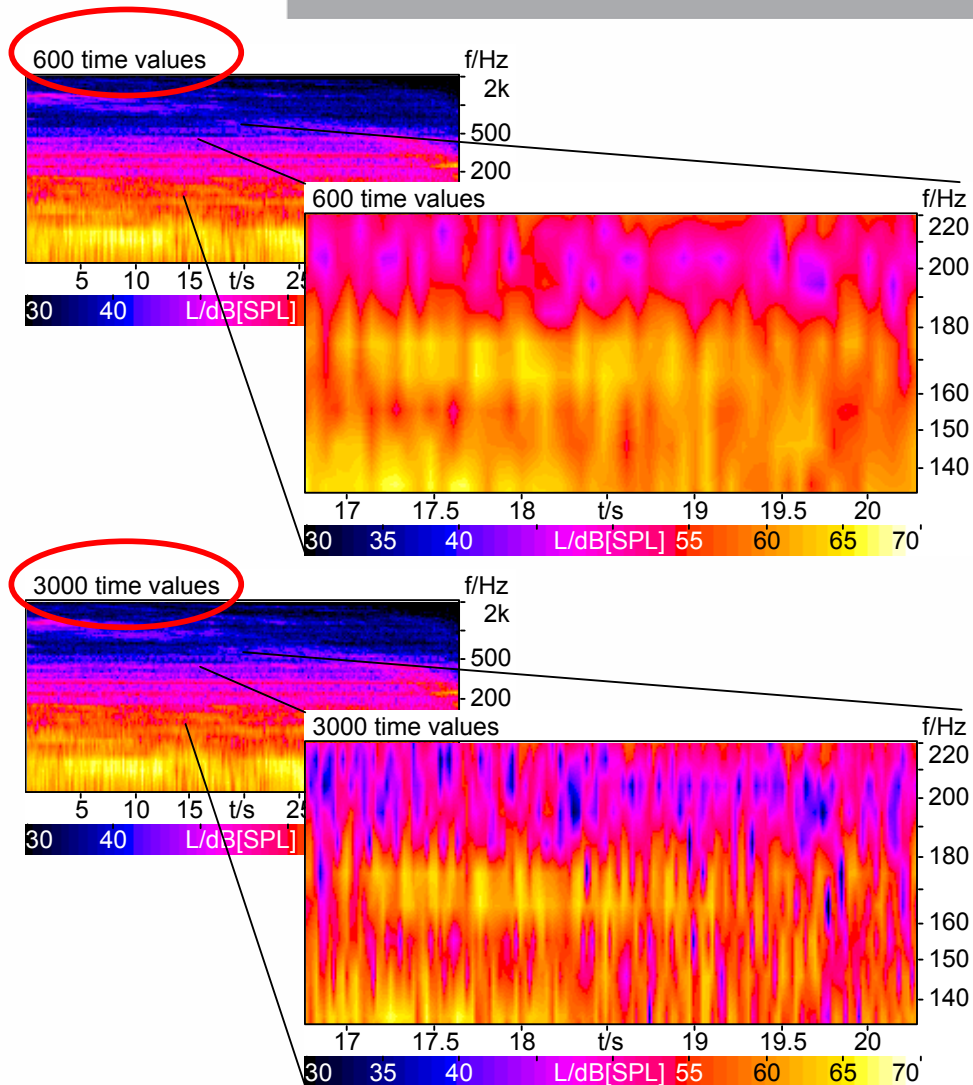


# Enhanced 1/n Octave Analysis

- Improved filter for 1/n octave analysis:
  - The filters for calculating this analysis are now faster and comply with the accuracy class 0 (previously 1) of the IEC 1260 or EN 61260 standard regarding the reference bandwidth.
  - In addition, the calculation time has been significantly reduced.



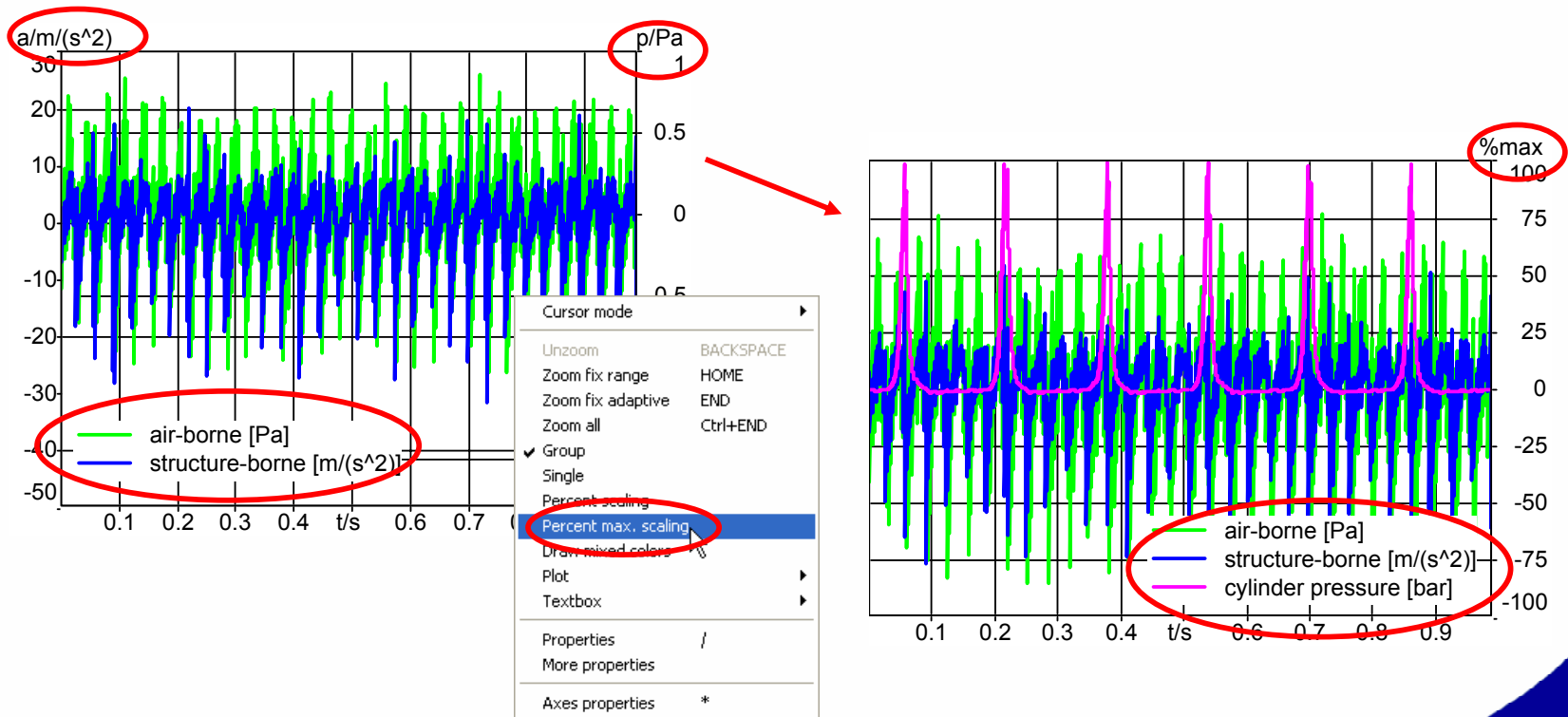
# Time Resolution in the Diagram



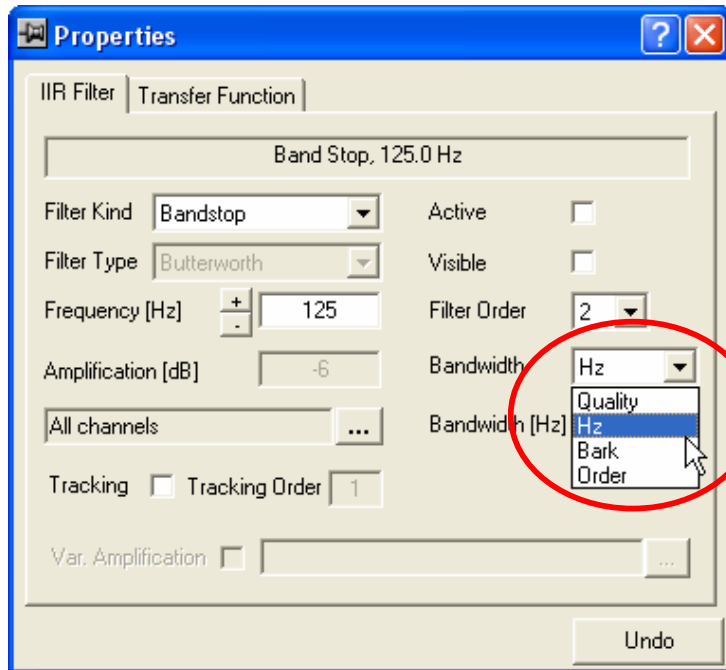
- The number of time values for a diagram can now be specified for many analysis types, significantly improving the time resolution when enlarging a diagram section or on high-resolution monitors.

# Displaying Different Units

- The function “*Percent max. scaling*” allows data sets with more than two different units to be displayed in one diagram. The values are shown as a percentage of the respective maximum value.



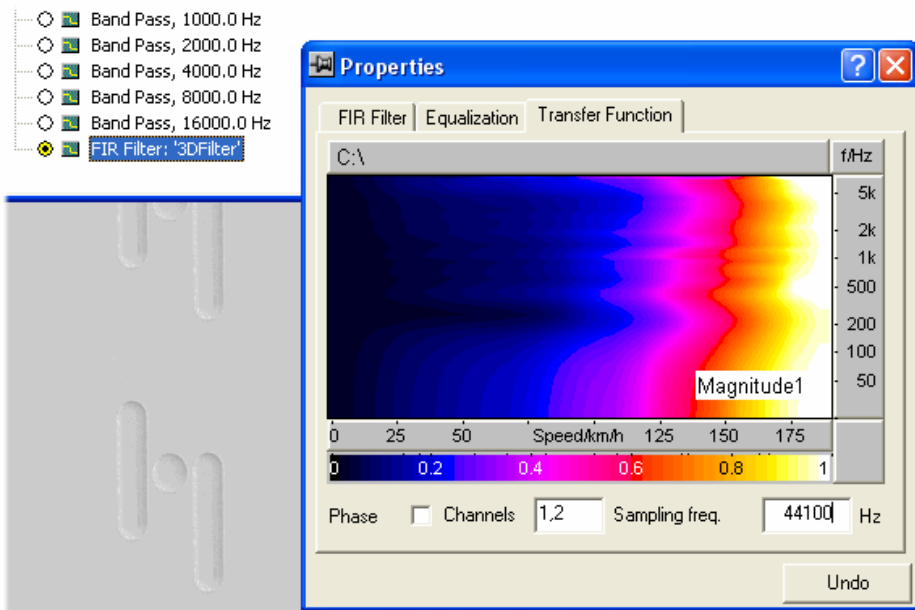
# Enhanced Filtering Functions



- The selection box for the quantity that determines the filter bandwidth has been extended by the new options “Bark” and “Order”.
- For example, a tracking filter can now be configured so that it has a filter width of 2 orders across the entire RPM range.



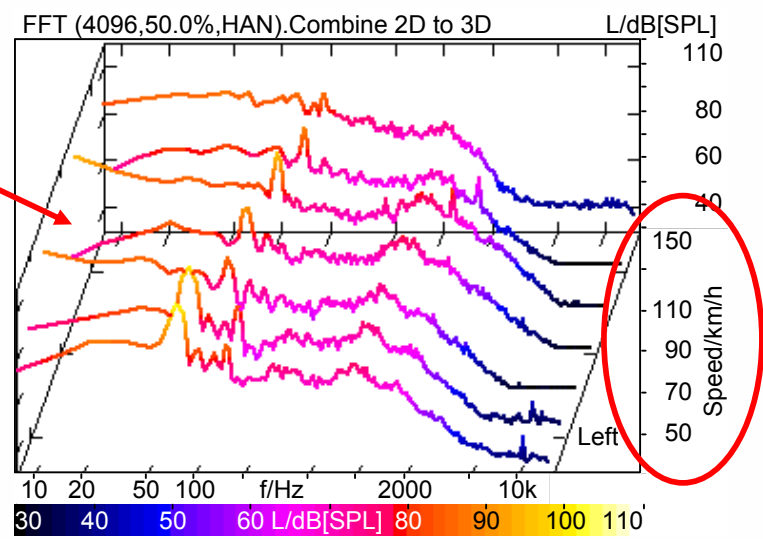
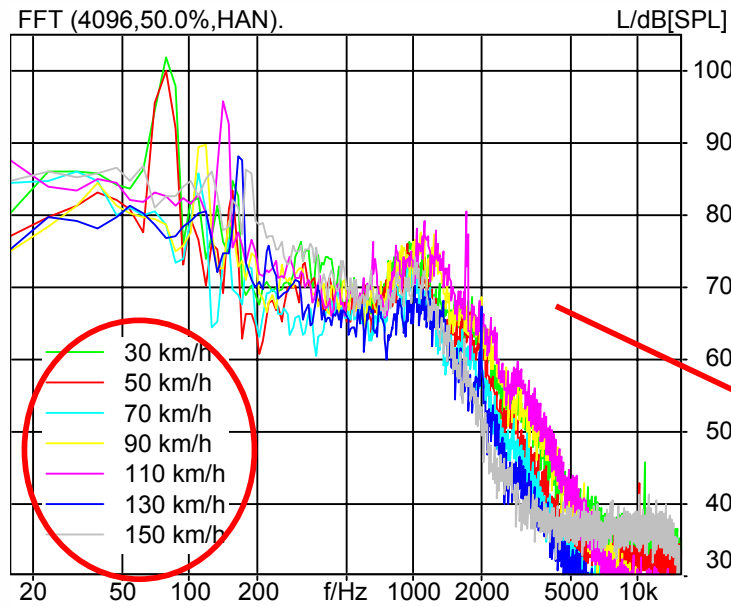
# Time-variant FIR Filters



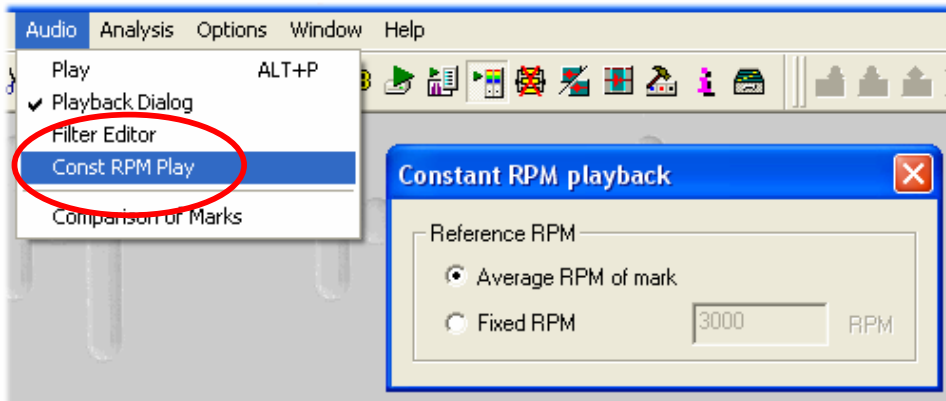
- In ArtemiS 8.0, it is possible to apply time-variant FIR filters (e.g. time-dependent transfer functions). These can be determined from 3D data sets. The transfer function of such a filter is then displayed as a spectrogram.

# Combining 2D Data Sets

- In the Statistics Pool, the new element “Combine 2D to 3D” is available. This element allows several 2D data sets to be combined into one 3D data set.

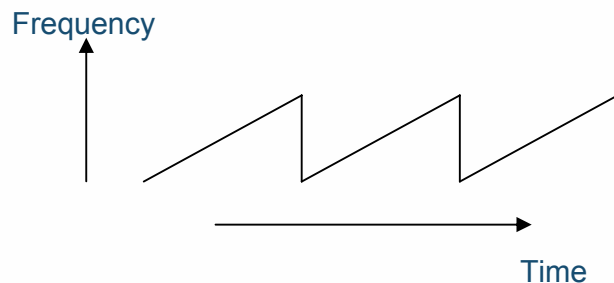


# Playback With Constant RPM

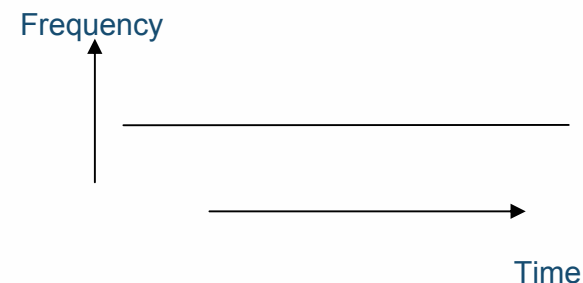


- A new dialog is available for playback with a constant revolution speed.

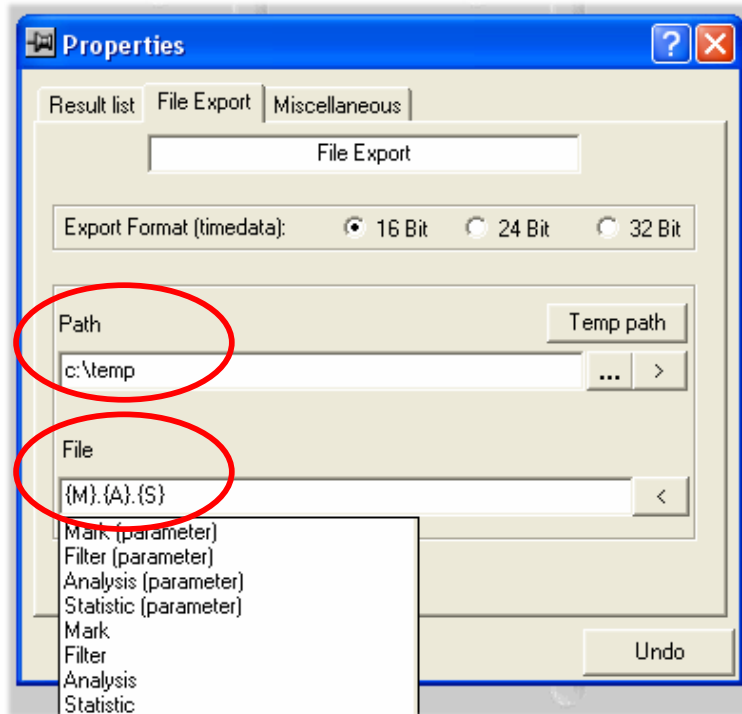
- Constant RPM playback can be used, for example, to play an engine run-up smoothly in an uninterrupted loop. Instead of a repeating up and down, the signal is played at a constant base frequency.



Constant RPM  
Playback →



# Path and File Name Generation



- The options for the automatic generation of path and file names during a file export have been expanded:
  - Elements, such as the name of the analysis or the filter, can be combined with manually entered elements into path and file names for the newly created files.
  - Furthermore, it is also possible to use the *User Defined Information* of sound files for the path and file names.



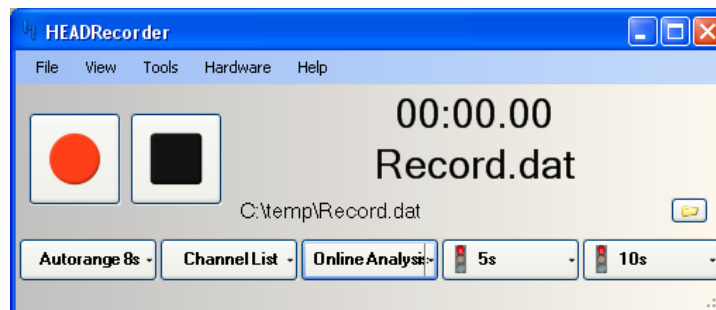
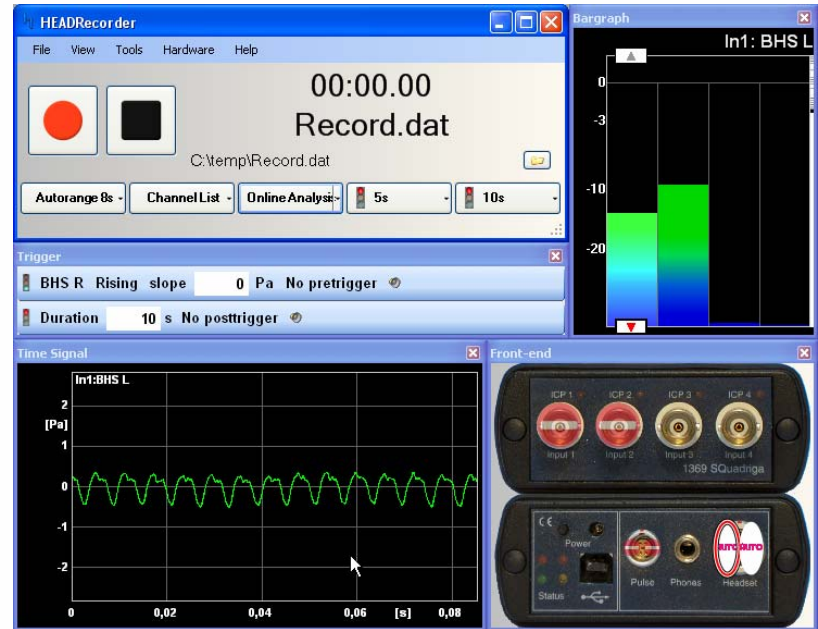
# New Recorder Software

- ArtemiS 8.0 comes with the new HEAD Recorder, which – as an integral component of ArtemiS – controls all supported measurement frontends with the same “Look & Feel”.



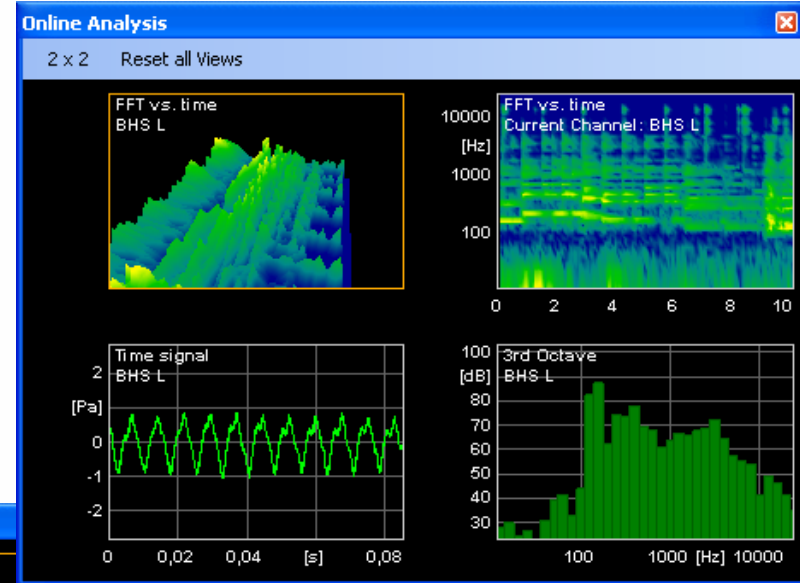
# Customizable Interface

- The user interface of the Recorder can be customized to your needs:
  - The individual windows can be arranged independently on the screen.
  - Buttons with user-definable functions are available.
  - For simple measurement tasks, the Recorder can be reduced to a simple Start / Stop control panel.

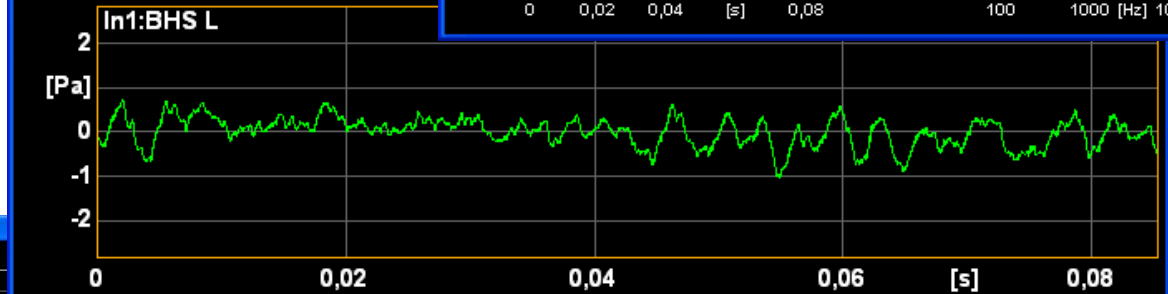


# Real-time Display

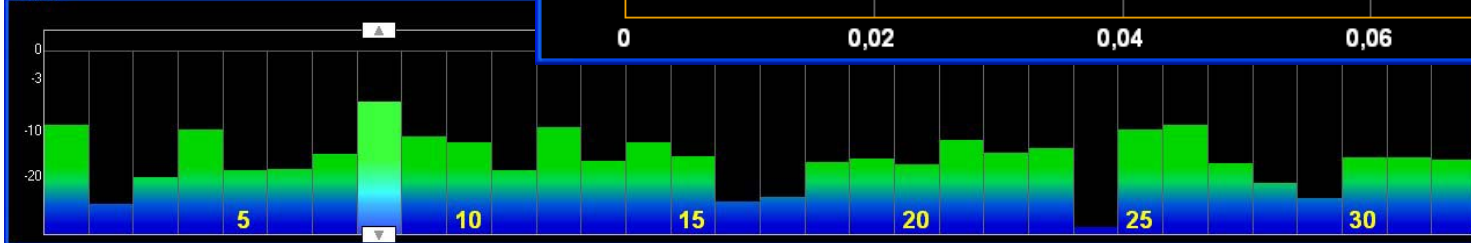
- The new Recorder features a wide range of real-time signal display options for monitoring the acquired data on one or several channels.



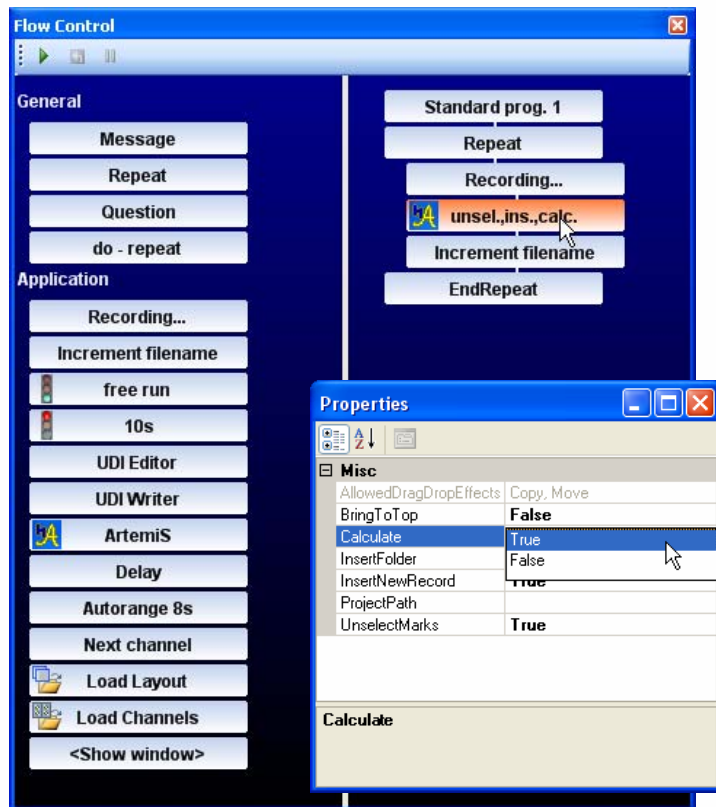
Time Signal



Bargraph



# Programmed Measurement Procedures



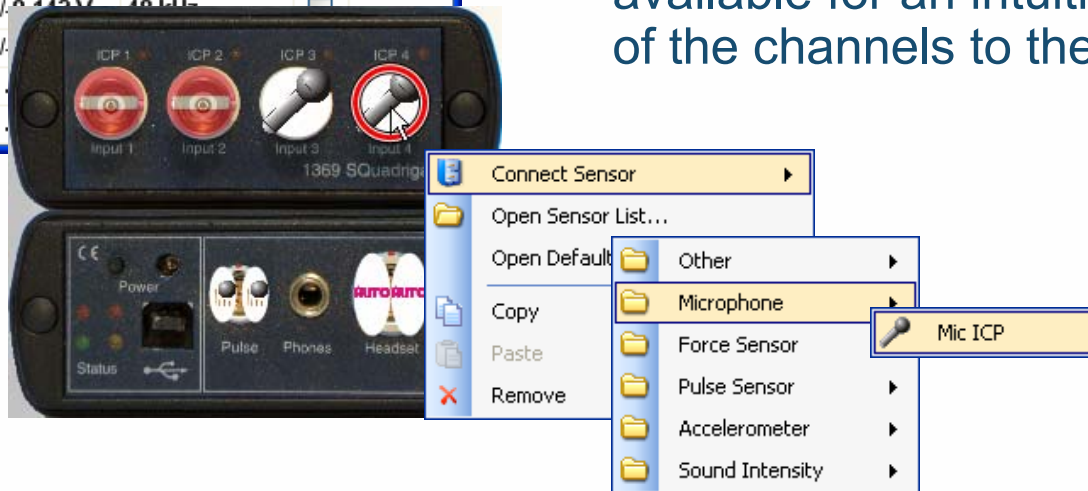
- With the *Flow Control Editor*, you can pre-program your frequently used measurement procedures, thus adapting the Recorder to your individual measurement requirements.

# Intuitive Channel Assignment

Channel List

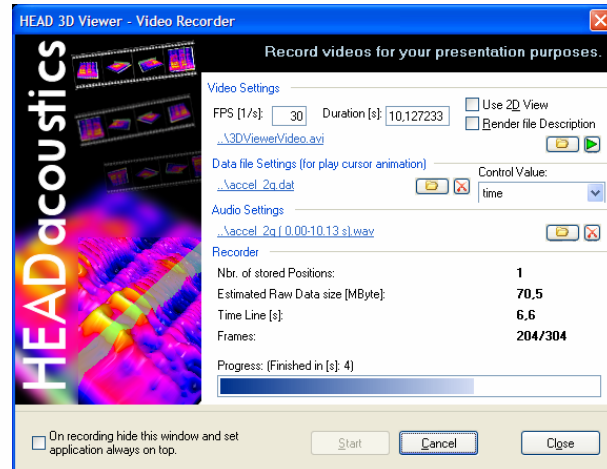
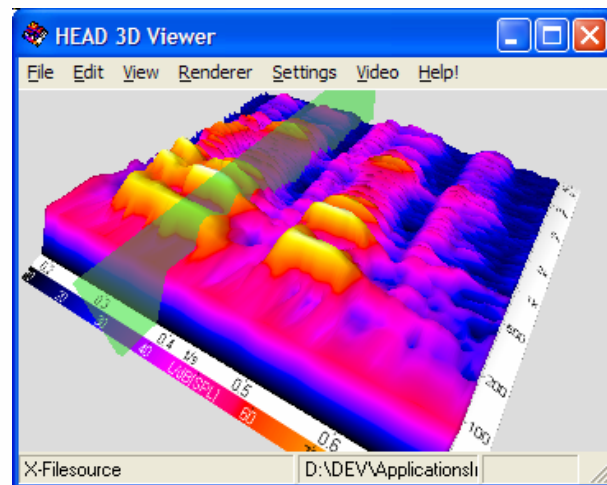
| On                                  | Name    | Sensor | Range       | SamplingRate | ICP                      |
|-------------------------------------|---------|--------|-------------|--------------|--------------------------|
| <input checked="" type="checkbox"/> | BHS L   | AUTO   | +/-2.835 Pa | 48 kHz       | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | BHS R   | AUTO   | +/-2.835 Pa | 48 kHz       | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | Input 3 |        | +/-0.143 V  | 48 kHz       | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> | Input 4 |        | +/-0.143 V  | 48 kHz       | <input type="checkbox"/> |
| <input type="checkbox"/>            | Pulse L |        | 0           |              | <input type="checkbox"/> |
| <input type="checkbox"/>            | Pulse R |        | 0           |              | <input type="checkbox"/> |

- Besides the channel list, now a frontend view (adapted to the respective connected frontend) is available for an intuitive assignment of the channels to the sensors.



# HEAD 3D Viewer

- The HEAD 3D Viewer (ATP 18) has been reworked and expanded. For example:
  - Interactive filtering, where the effect of the active filter is immediately shown in the HEAD 3D Viewer diagram.
  - Video Recorder: Saves a 3D Viewer animation as a video file (including audio).



## ... and a Lot More

- Diagram: Swapping the axes with one mouse click
- Signal generator:
  - Editable phase for the RPM sweep
  - Formulas can be saved
- Improved behavior of the playback dialog interface

