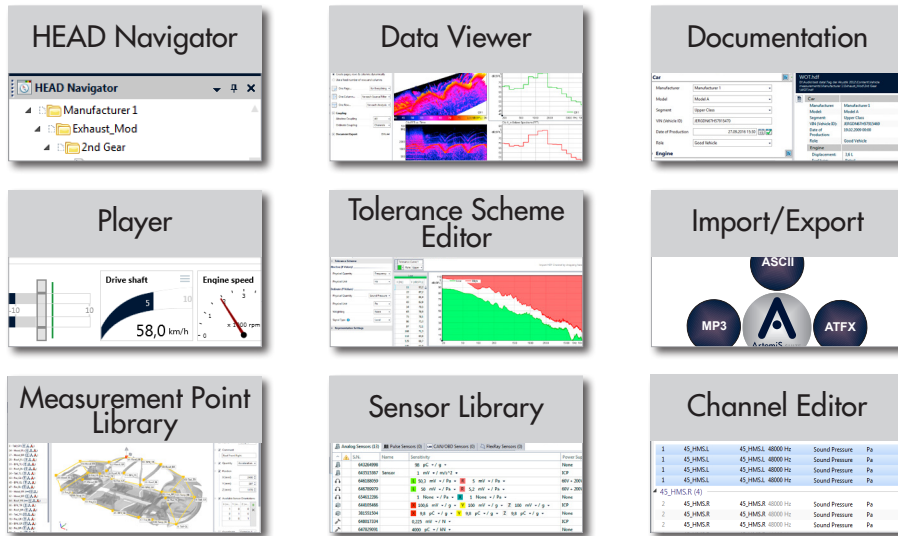


ArtemiS SUITE Basic Framework (Code 5000)

Basis of ArtemiS SUITE (required)



Overview

The Basic Framework is the basis of ArtemiS SUITE and connects the various modules into a consistent unit.

All important operations can be controlled from a straightforward user interface.

Users can freely position the windows of the user interface to their needs, e.g., using the convenient docking function. The custom layout of windows etc. can be saved and restored later.

In addition, the Basic Framework includes some central functions.

Features

HEAD Navigator (central navigation tool)

- Quick access to folders and removable media
- Convenient selection (multiple selection possible) and easy transfer of files and folders into the various functional areas of ArtemiS SUITE via drag-and-drop

Structured Documentation

- Creation and display of
 - User Documentation (specified by the user) and
 - System Documentation (information provided by the system)
- Editor for quick and easy creation of Documentation Templates

Player

- Playback of time-domain signals directly from the HEAD Navigator
- Quick access to frequently used functions via tiles
- Mapping several physical quantities to comparable levels
- Ear protection

Display options

- Data Viewer
 - Displaying analyses and time signals in configurable diagrams
 - Data sets can be easily added via drag-and-drop
- File Viewer for displaying diagrams, images, etc.

Import and export options

- Wave, ASCII, ATFX, MP3, Excel
- Direct diagram export from a Data Viewer to PPTX or PDF format, or as an image

Sensor Library

- Comprehensive database with all common sensor types
- Easy creation of custom sensors

Measurement Point Library

- Creating 3D models
 - Recorder of ArtemiS SUITE
 - Operating deflection shape analyses
 - Time domain animations
 - Shape comparisons
 - Modal analyses

Tolerance Scheme Editor

- Creation and editing of tolerance schemes

Physical Quantities

- Editor for specifying physical quantities

Pulse Sensor Geometry Editor

- Precise specification of complex pulse sensors
- The Pulse Sensor Geometry Editor can be executed directly from the Sensor Library or the Channel Editor

Channel Editor

- Convenient editing of Documentation Templates signals and channel properties of one or several HDF or DAT files
- Various sorting options

Additional Functions

- Native ATFX support (ATF-XML)
- File Viewer, Frontend Reader

PowerPoint Add-In: HEAD Interactive Diagram

- Using the diagram functionality of ArtemiS SUITE in PowerPoint

User interface

In ArtemiS SUITE, all operations relevant for the user can be controlled intuitively from a single interface.

The individual tool windows can be docked, hidden (auto hide), or placed freely on the screen independently of the main window (or even on a separate monitor) as desired by the user.

User-defined layouts can be saved and reloaded.

HEAD Navigator

The HEAD Navigator is the central navigation tool of ArtemiS SUITE. The HEAD Navigator allows users to directly access data, to play back files with the Player, or to pass them to any of the functional areas. For example, the Data Viewer, the Channel Editor, the RPM Generator (requires ASM 08), or an Automation Project (requires ASM 05) can be launched directly from the HEAD Navigator.

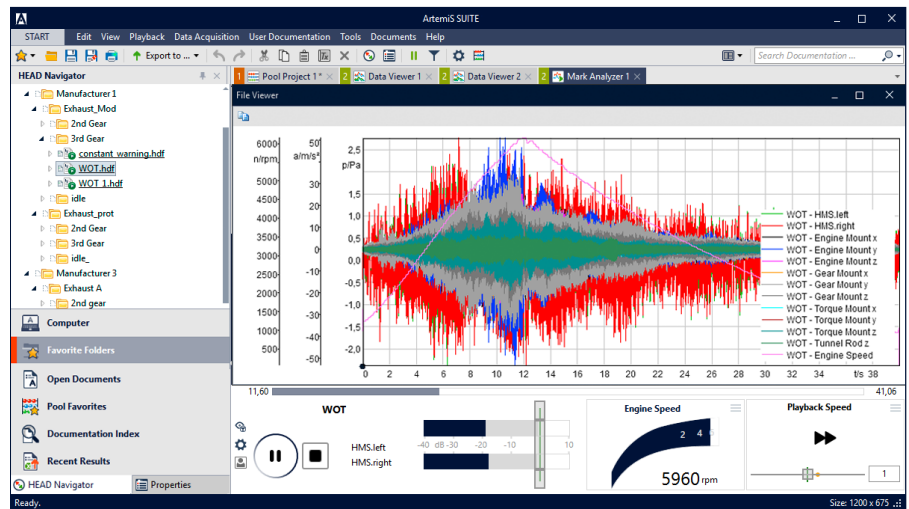
The HEAD Navigator has a tree structure comparable to the navigation tree of the Windows Explorer, but in addition displays the individual channels of HEAD acoustics file formats.

User Documentation

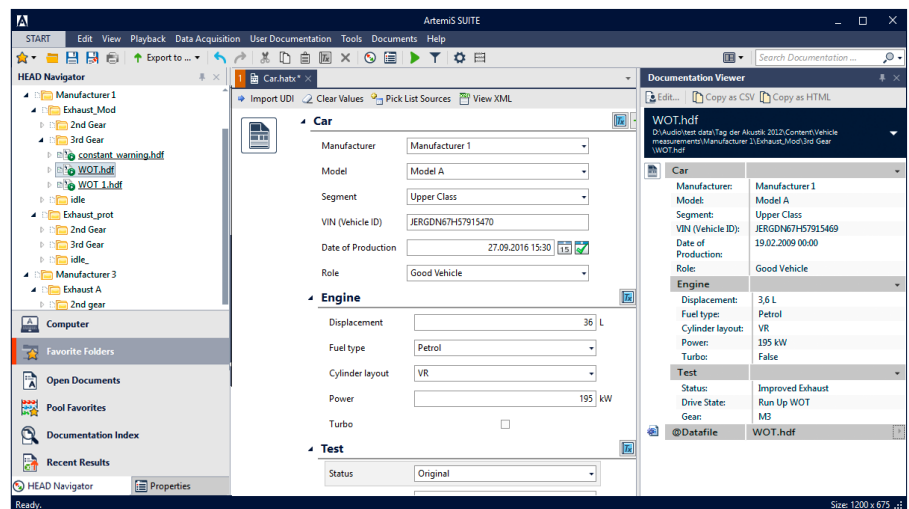
User Documentation in ArtemiS SUITE can be used to document measurement data and is an important pre-requisite for efficient data and information management.

The documentation can be created quickly and with little effort using Documentation Templates. User Documentation can be seamlessly connected to the Recorder of ArtemiS SUITE, for example, to document measurements.

Furthermore, the documentation functionality facilitates reporting (requires ASM 02). With a few mouse clicks, documentation data can be inserted into a presentation.



The interface of ArtemiS SUITE allows users to customize and arrange all windows according to their needs.



This editor is used to create Documentation Templates that can be used to document and catalog recordings.

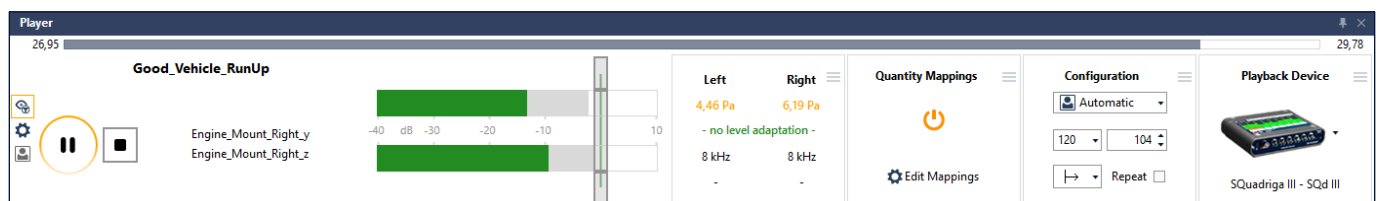
Player

The Player is used for interactive playback of audio files (HDF or DAT files). The Player allows both the playback level (per channel) and the playback speed to be adjusted. A simple click on the desired position on the playback bar specifies the playback position.

The channels selected in the Player for playback can be saved as a new HDF file including all playback settings (e.g., filters, volume, playback speed).

Customizable tiles in the Player provide quick access to frequently used functions, such as RPM information.

It is possible to play back not only airborne signals but also other signals in automatic Playback Mode with comparable levels.

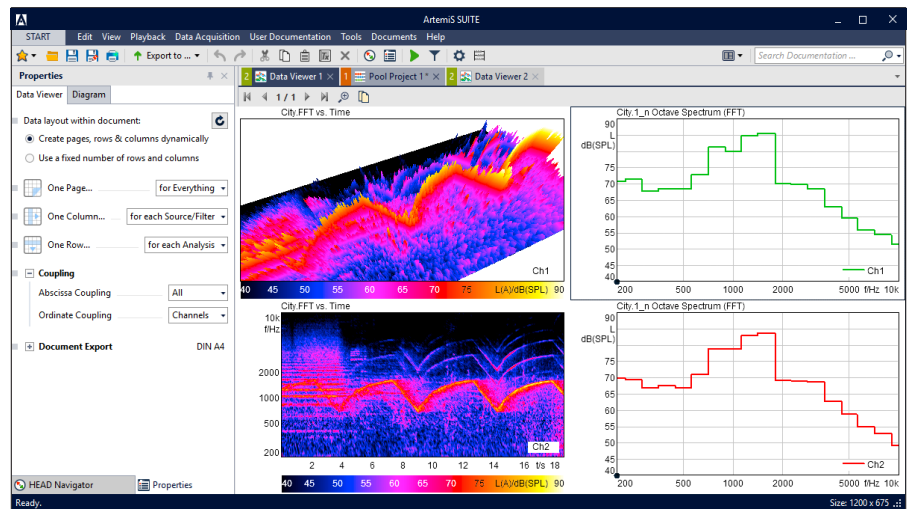


Data Viewer

The Data Viewer is used to display time-domain data and analysis results in one or several customizable diagrams. With the easy-to-use Result Routing, analysis results can be easily and conveniently distributed to the various diagrams.

For a quick comparison, files from the Recent Results list of the HEAD Navigator can be added to the results of another Data Viewer via drag-and-drop.

Various cursors are available for the Data Viewer, which allow information to be attached to curves, abscissa and ordinate values and harmonics to be read, or single value results to be determined for any section of the diagram.



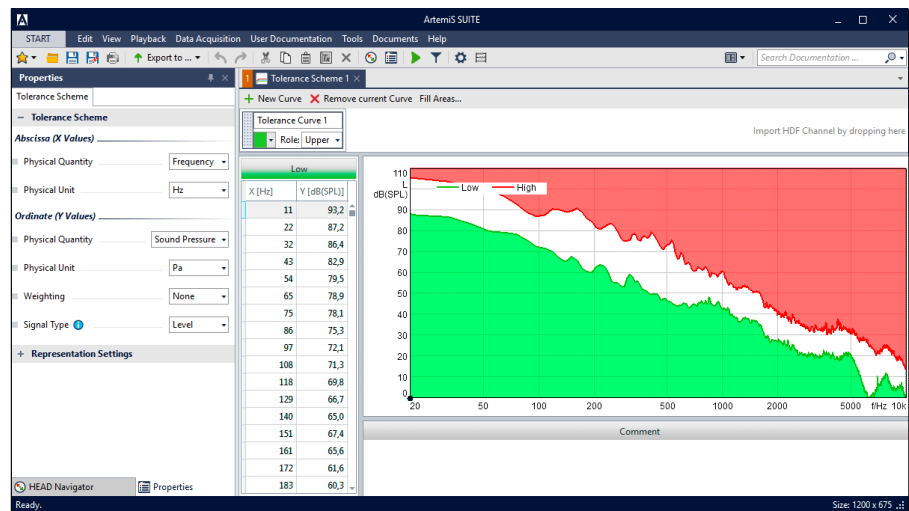
The Data Viewer is used for the customized display of analysis results. The Result Routing allows the criteria for the layout of the individual diagrams to be selected.

Tolerance Scheme Editor

The Tolerance Scheme Editor allows custom reference curves to be specified and displayed automatically in the analysis result (requires ASM 01). The tolerance curves can be based on existing 2D analysis results simply by dragging and dropping them, for example, from the HEAD Navigator into the Tolerance Scheme Editor.

Sensor Library

The Sensor Library contains a comprehensive database of about 1200 sensors (microphones, acceleration sensors, impact hammers, etc.). New sensors can be created and saved quickly and conveniently, allowing the creation of custom Sensor Libraries, which can be used, for example, for real-time filtering (ASM 19), or for impact hammer measurements (ASM 43). Furthermore, a Sensor Library can be imported in ASM 04 (Recorder) of ArtemiS SUITE and HEAD Recorder).

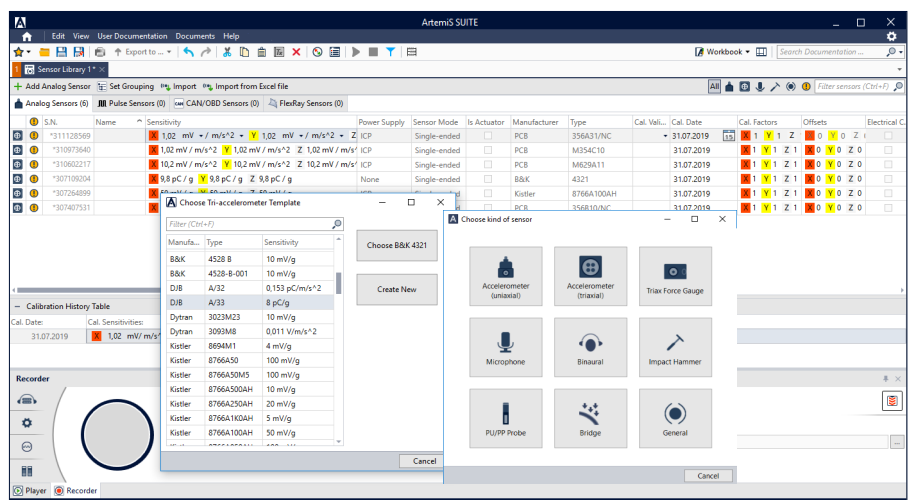


All curves contained in a Tolerance Scheme are displayed in the diagram with the full functionality available, e.g., zoom, various cursor modes, and fill areas.

Pulse Sensor Geometry Editor

The Pulse Sensor Geometry Editor allows a precise specification of pulse sensors.

The range of possible specifications of pulse patterns includes equidistant pulses with or without gaps, non-equidistant pulses, zebra tape patterns with overlap at several discontinuities, and the position of the top dead center.



The Sensor Library shows the respective sensor type as an icon and the available sensor parameters in a clearly arranged layout and also notifies the user of problematic settings.

Measurement Point Library

Measurement points are used to define points on measurement objects, where quantities can be recorded by triax or other sensors.

In order to make the measuring setup more secure, users define the measuring points with the Measurement Point Library in advance and specify them precisely in a 2D or 3D grid model on the computer.

It is very easy to construct grid models. Users can define the individual measurement points with Excel according to a predefined scheme and provide them with names. Then, the document is loaded into the Measurement Point Library and displayed immediately as a grid model.

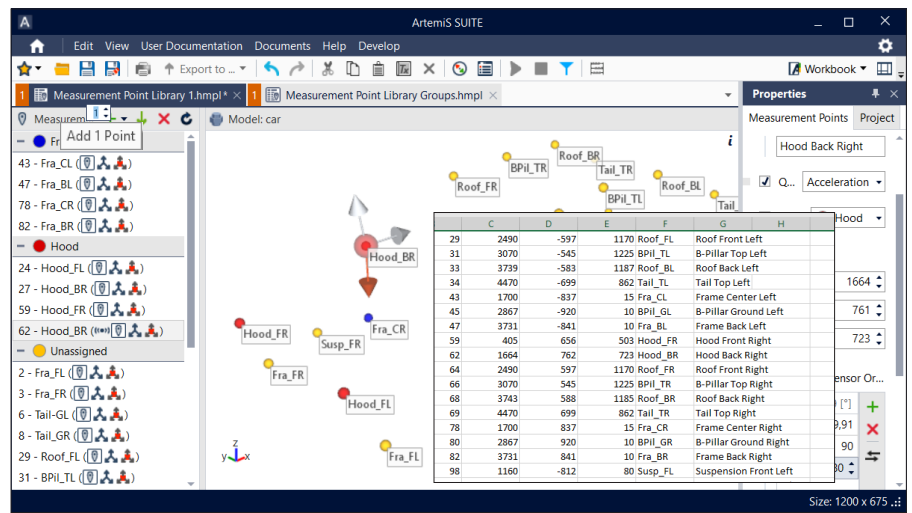
Alternatively, users select their measurement points directly with the Measurement Point Library, enter the coordinates, and connect the points manually with lines to a model. Each measurement point can be specified, labelled, provided with an image, and much more. For visual control, users zoom, turn, tilt, etc. the model at any time.

Measurement points can also be defined without an exact position, for instance, if a general description of the desired measurement position is sufficient or if it serves for the consideration of measured quantities without location reference.

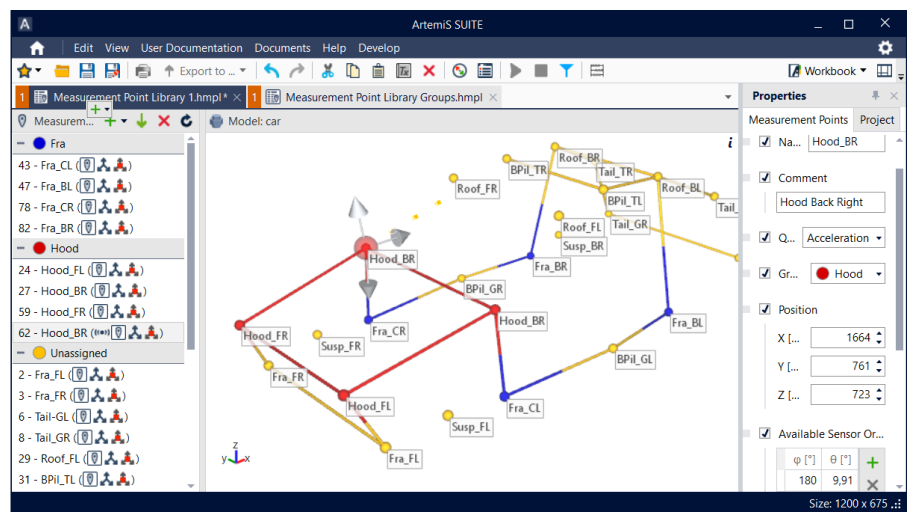
Even a larger number of measurement points can be clearly displayed. To do this, the measurement points can be combined into measurement groups with corresponding names as well as group colors and be displayed or hidden together.

For further processing in other modules of ArtemiS SUITE, the measurement groups can be used to interpolate all model points belonging to the same measurement group in one step, for example.

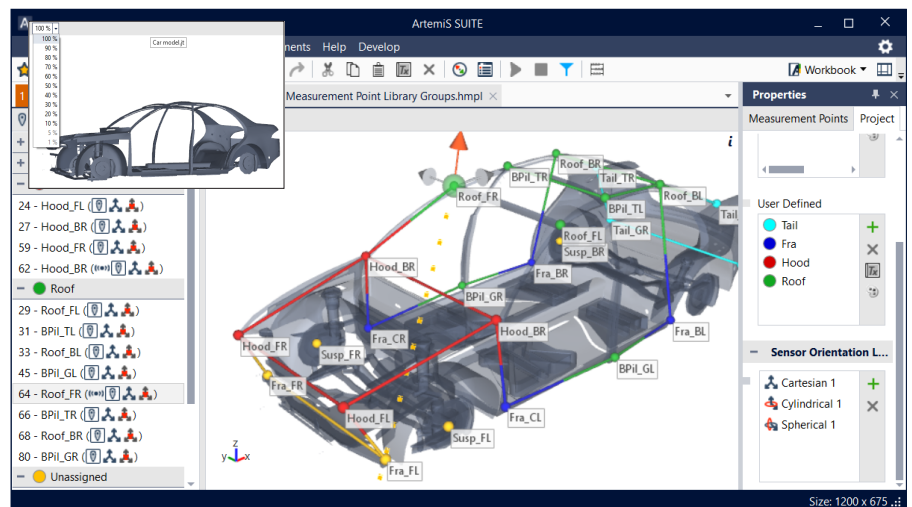
If a CAD model of the measurement object or simulation data are available, they can be imported and merged. Supported are different CAD models (*.brep, *.jt, *.iges, *.step, *.stl), ME'scope projects (*.vtprj, *.vtmax), Excel workbooks (*.xls, *.xlsx), UFF models (*.uff, *.unv), Punch (*.pch), ANSYS (*.out) and Abaqus models



HEAD acoustics provides guidance concerning the structure of how the measurement points are defined with Excel. Typically, five to five hundred measurement points are captured.



The surface of the Measurement Point Library is clearly structured. On the left, all measurement points defined in the Measurement Point Library are listed with their mandatory number. The properties allow various adjustments, such as sensor orientation, to be controlled and corrected as needed.



Using the import, the number of model points of complex CAD models can be reduced. Imported Measurement Point Libraries offer different display options: full surface, wireframe, or transparent. Measurement point numbers, names, lines etc. can be shown or hidden.

(* .dat), as well as PERMAS files (*.dato, *.gz). If there are too many data points, data reduction is possible.

The completed models can be further processed with the Recorder of ArtemiS SUITE or other ArtemiS SUITE modules (ASM 40, ASM 41, ASM 42, ASM 43). The Recorder connects sensors, frontend connectors, and the measurement points of the measurement object with each other very quickly and safely. This significantly optimizes the entire measurement setup.

Export options (*.jt, *.iges, *.igs, *.step, *.stp, *.stl) can be used to make the 3D models available to other programs.

Channel Editor

The Channel Editor allows the convenient editing of signals and channel properties of one or several HDF or DAT files. In addition, the rotation of the measurement coordinate system can be corrected according to a Measurement Point Library.

The desired customizations can be carried out very efficiently, thanks to

- a clearly arranged display of the properties in a window,
- various sorting options,
- multiple selection.

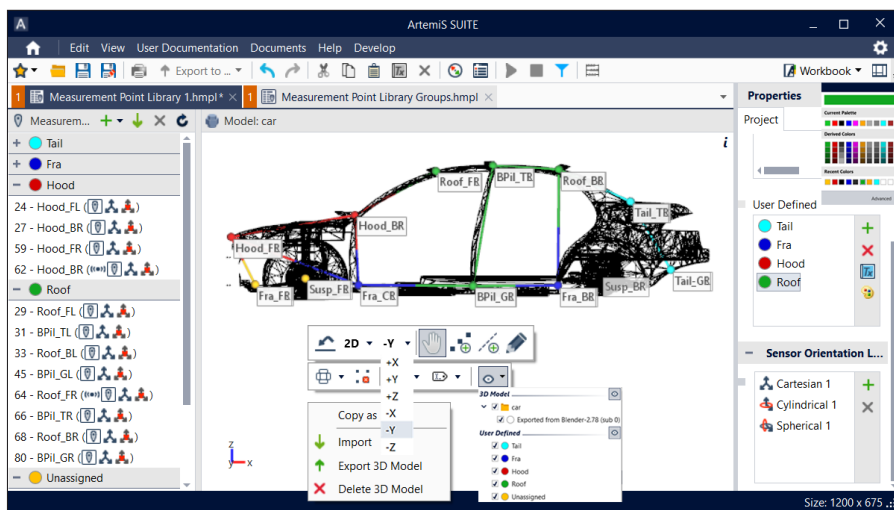
Native ATFX support without conversion

ArtemiS SUITE 13 provides the native support of ATFX files. By means of the HEAD Navigator, users can switch between the visualization of the original ATFX file structure (Native View) and a clear structure that corresponds to the visualization of the HDF files (HEAD View). In HEAD View the ATFX files are not modified.

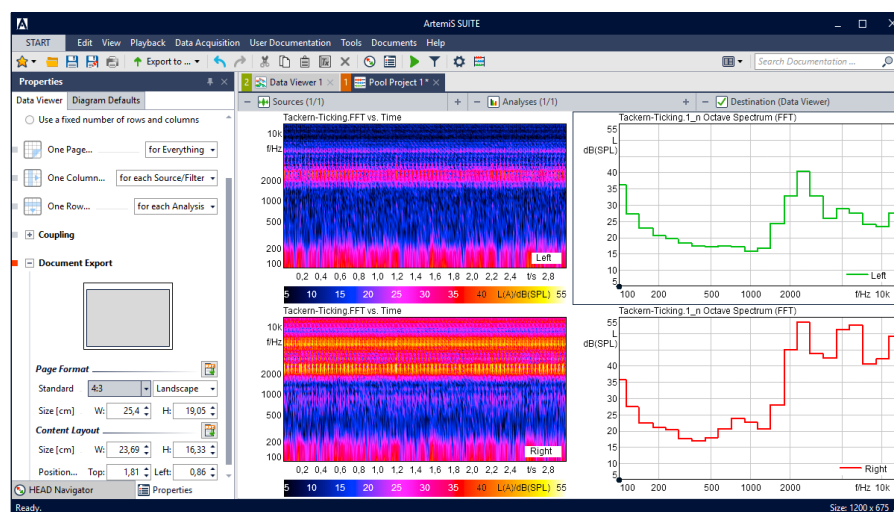
Import and export functions

Excel is imported via the CSV format. Using a template, the header can be configured extensively. For export to Excel (XLSX format), no installation of Excel is required.

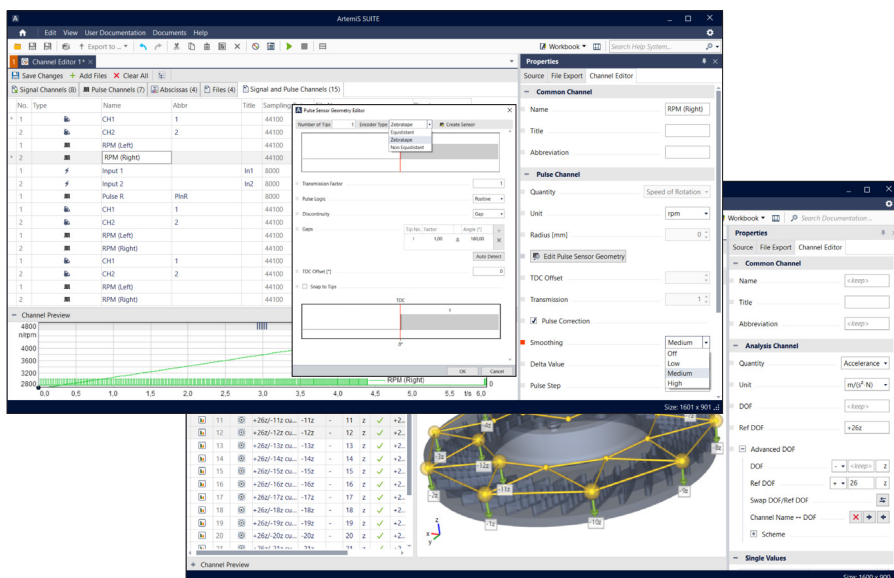
Individual diagrams or entire pages of a Data Viewer can be exported to PPTX or PDF format (images with 96 or 300 dpi) or as image files (PNG, TIFF, JPEG, GIF). PowerPoint or Adobe Acrobat need not be installed.



The measurement groups are shown in the model and are listed in the list on the left side. For better clarity, each measurement group can be expanded and collapsed by clicking on it.



Diagrams or entire pages of a Data Viewer can be exported to PDF format very easily.



The Channel Editor offers a detailed overview of all channel properties and it also allows to change most of them. Users can perform the desired changes of the channel properties either for individual channels directly in the Channel Editor or via the additionally opened Properties tool window.

Workbook

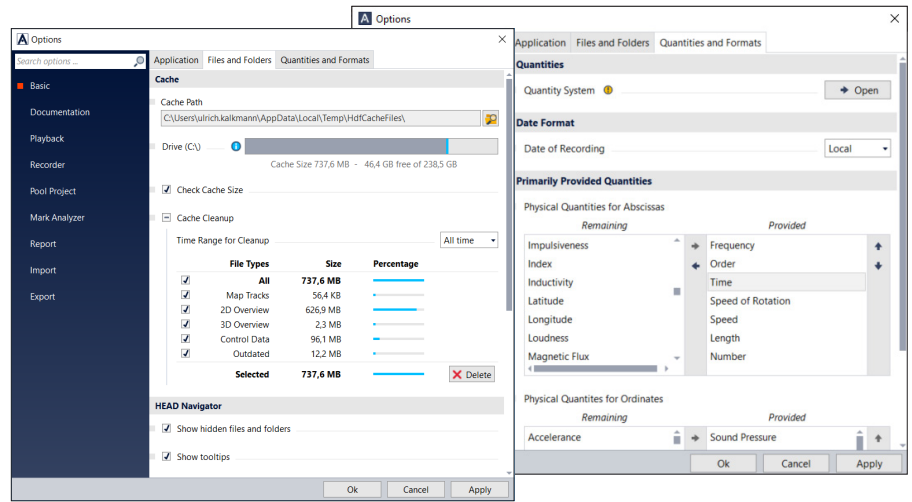
Using the Workbook, the current work status can be saved and restored later on.

File Viewer

The quick view can be used to display various file formats (HDF, DAT, BMP, EMF, GIF, JPG, PNG, WMF, HTM, HTML, XML, PDF).

Basic settings

ArtemiS SUITE offers an intelligent cache management and further options to adjust physical quantities, the language, and much more to individual needs.



The basic settings in ArtemiS SUITE are clearly structured. Via dialogs, users can easily make their individual setting adjustments.

System Requirements

- Windows 11 x64 (Pro, Enterprise, Education; version: 21H2 or newer; languages: US, Western European)
or:
Windows 10 x64 (Pro, Enterprise, Education; version: 1809 or newer; languages: US, Western European)
- Xeon E5-1680, Core i7-7700, Core i5-8250U, Ryzen 5 1500X, Ryzen 5 2500U (recommended: Core i7-9700KF, Core i9-9980HK, Ryzen 5 3600, Ryzen 9 4900HS)
- 8 GB RAM (recommended: 16 GB)
- DirectX 9.0c-compliant graphics adapter with 512 MB (recommended: 2 GB)
- Display with WXGA resolution (1366x768) (recommended: FHD resolution (1920 x 1080))
- .NET Framework 4.8
- HASP dongle driver
- HEAD USB driver (optional)
- Microsoft 365 x86, Microsoft Office 2021 x86, Microsoft Office 2019 x86, Microsoft Office 2016 x86 (optional)

In order to install software and drivers from HEAD acoustics, administrator rights are required. To operate the software, only standard user rights are needed.

PowerPoint Add-In: HEAD Interactive Diagram

HEAD Interactive Diagram is a PowerPoint add-in from HEAD acoustics that allows users to embed ArtemiS SUITE diagrams in PowerPoint (32 bit only) and to keep using the diagram functionality provided by ArtemiS SUITE (zoom, scaling, cursor function).

- PowerPoint presentations with interactive diagrams are created using the familiar PowerPoint export function of ArtemiS SUITE. Displaying the presentation requires only PowerPoint with the HEAD Interactive Diagram extension.
- Cutting, copying, and pasting within a presentation is possible. It is also possible to insert additional pages into existing presentations using the export function of ArtemiS SUITE.

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