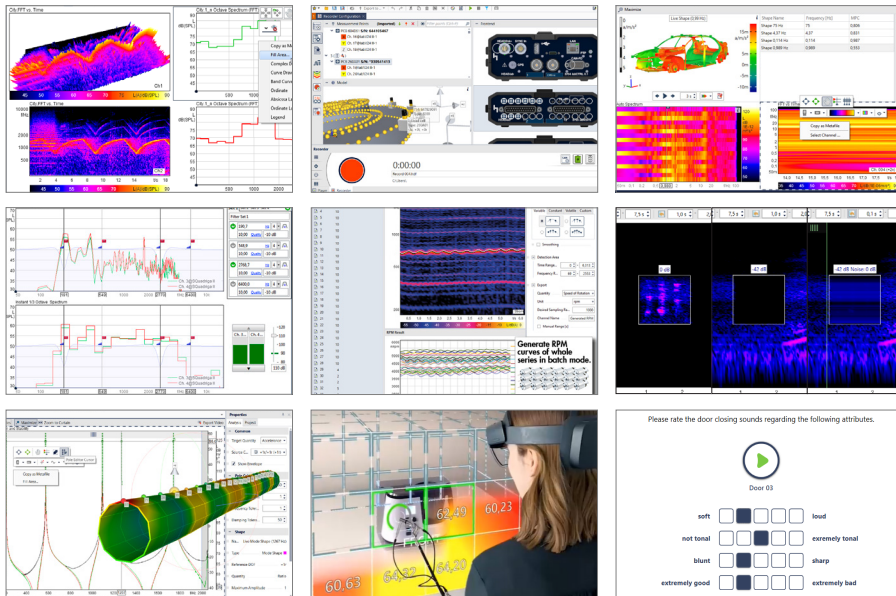


ArtemiS SUITE Overview

Software solution for sound and vibration analysis



Overview

ArtemiS SUITE is a universal software solution for almost all areas of sound and vibration analysis.

A major characteristic of ArtemiS SUITE is its easy handling. The straightforward Pool Project structure allows a wide range of different tasks to be performed quickly and conveniently. Alternatively to the interactive Pool Project, the Automation Project as well as the Standardized Test Project allow repetitive tasks to be processed. For less experienced users, ArtemiS SUITE provides the affordable Compact Analysis, which allows HDF files to be analyzed quickly and easily.

Another specific feature of ArtemiS SUITE is that it offers various possibilities to hear the effects of sound manipulations through filters in real time while analyzing in order to identify problems or specify target sounds.

Various customized solutions for specific tasks extend ArtemiS SUITE.

Detailed information of the modules of ArtemiS SUITE briefly described here can be found in the corresponding datasheets.

Advantages

One software environment for all applications

- Easy handling with a straightforward user interface
- Seamless switching between different tools

Broad range of analysis and processing possibilities

- More than 150 analyses
 - Standardized methods such as level calculation, FFT, octave analysis, calculation of transfer functions, and single value results, psychoacoustic analyses, complex methods resembling the pattern detection of human hearing, etc.
 - Roughness and tonality analyses according to ECMA-418-2 and ECMA-74
- Various pre-processing operations, filters, statistical calculations, etc.

Project-oriented workflow structure

- Interactive working in Pool Projects
- Automated operation using the Automation Project (e.g., without any user interaction)
- Structured execution of standardized test series using the Standardized Test Project

- Quick viewing and analyzing of data with Compact Analysis

Acoustic perception as an integral part of the analysis process

- Optimizing of sound quality and determining of target sounds
- Interactive real-time filters

Additional, user-friendly tools

- Easy-to-use Recorder
- Impact and sound intensity measurements, RPM Generator, and measurement data pre-processing (e.g., CAN and Pulse Decoders), etc.
- Interactive sound design
- Analyzing and animating of deflection shapes (ODS)
- Modal analyses
- Modelling of noise metrics
- Creating and performing listening tests with the jury testing software SQala

Easy management of important information

- Customized reporting
- Quick, uncomplicated data documentation and management

High compatibility

- Native support of ATF files (ATF-XML)

Networking with hardware from HEAD acoustics

- Performing of recordings with up to several hundred channels, analyses, processing operations, and result presentations in one step with a click on a button

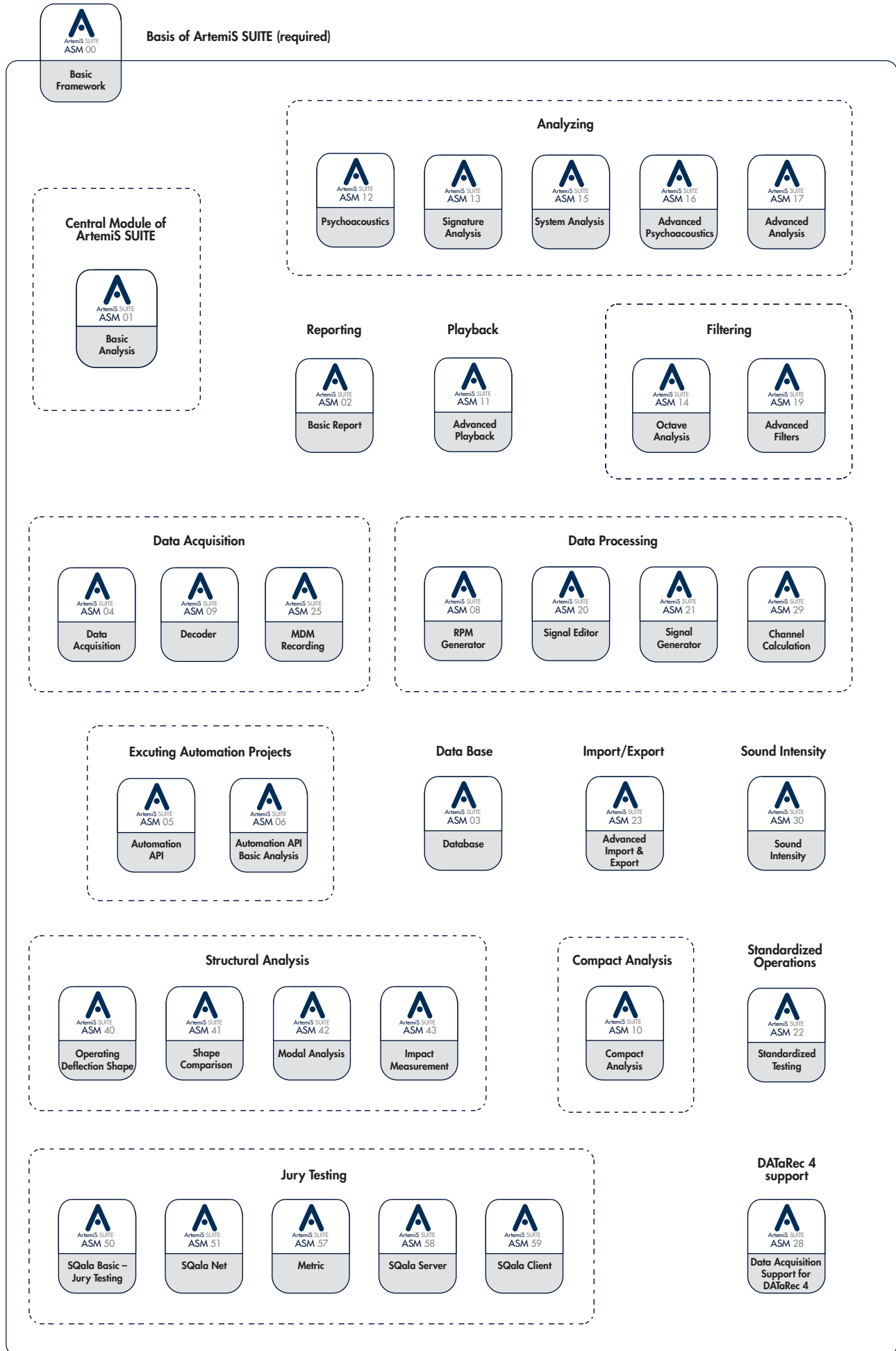
Adaptation to different requirements

- Modular design allows custom ArtemiS SUITE configurations to be compiled

ArtemiS SUITE Modules (ASM) at a Glance

ASM	Code	Title	Description
00	5000	Basic Framework	Basis of ArtemiS SUITE with central functions
01	5001	Basic Analysis	Basic analysis functions and filter operations, interactive working in Pool Projects, creation and execution of Automation Projects
02	5002	Basic Report	Customized report generation
03	5003	Database	Database for convenient indexing and searching of files and data
04	5004	Data Acquisition	Recorder software for frontends supported by HEAD acoustics
05	5005	Automation API	Execution of Automation Projects without user interaction
06	5006	Automation API Basic Analysis	Activation of analyses and other functions from ASM 01 for the execution of Automation Projects
08	5008	RPM Generator	Generation of RPM curves with extension for batch processing
09	5009	Decoder	Extraction of specific signals (CAN FD, OBD-2, FlexRay, GPS, Pulse, ...)
10	5010	Compact Analysis	Quick and easy analysis of HDF files
11	5011	Advanced Playback	Extended playback functionality and interactive real-time filters
12	5012	Psychoacoustics	Using of psychoacoustic analyses
13	5013	Signature Analysis	Calculation of order spectra and calculation of analyses versus various reference quantities
14	5014	Octave Analysis	Using of recursive filters for third-octave and octave analyses
15	5015	System Analysis	Examining of dynamic system characteristics
16	5016	Advanced Psychoacoustics	Using of sophisticated, psychoacoustic analyses
17	5017	Advanced Analysis	Examination of tonal signals, transient signal components, and modulation spectra
19	5019	Advanced Filters	Various filter tools for sound design
20	5020	Signal Editor	Tools for structured editing of HDF and DAT files
21	5021	Signal Generator	Creating and editing artificial and other signals
22	5022	Standardized Testing	Creation and automated processing of standardized test series
23	5023	Advanced Import & Export	Import and export of measurement data and analysis results in third-party formats
25	5025	MDM Recording	Performing openMDM [®] measurement tasks
28	5028	Data Acquisition Support for DATaRec 4	Support of DATaRec 4 frontend systems
29	5029	Channel Calculation	Performing channel-related calculation functions
30	5030	Sound Intensity	Performing sound intensity measurements (optional: using the HoloLens 2 Augmented Reality glasses from Microsoft)
40	5040	Operating Deflection Shape Analysis	Analyzing of deflection shapes
41	5041	Shape Comparison	Analyzing and comparing of deflection shapes
42	5042	Modal Analysis	Analyzing the oscillation behavior of test objects
43	5043	Impact Measurement	Performing impact measurements
50	5050	SQala Basic – Jury Testing	Creating and performing SQala listening tests
51	5051	SQala Net	Performing SQala listening tests in a listening studio
57	5057	Metric	Developing sound metrics
58	5058	SQala Server	Storing and managing SQala projects
59	5059	SQala Client	Performing SQala listening tests with multiple participants

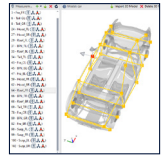
ArtemiS SUITE Modules (Overview)



ArtemiS SUITE Modules (ASM) – Contents (Overview)

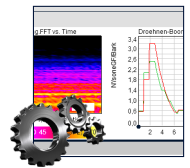
ASM 00 Basic Framework (Code 5000) – Basis of ArtemiS SUITE

- Navigation tool HEAD Navigator
- Player for playing back time-domain signals
- Sensor Library with sensor database (1200 sensors)/Pulse Sensor Geometry Editor
- Channel Editor for editing signals and channel properties
- Data Viewer for convenient display of analysis results
- Measurement Point Library for creating 3D or 2D grid models
- Tolerance Scheme Editor
- Structured documentation/Documentation Template Editor
- Intelligent cache management
- Editor for specifying physical quantities
- Import and export options (Wave, ASCII, ATFX, MP3, Excel – Excel need not be installed –, Excel import via CSV format)
- PowerPoint Add-In: HEAD Interactive Diagram
- Workbook for storing and restoring the current status of work
- Native support of ATFX files (ATF-XML)



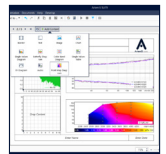
ASM 01 Basic Analysis (Code 5001)

- Basic analyses: FFT vs. Time/(Average)/(Peak Hold)/vs. RPM, Harmonic Distortion/vs. Frequency/vs. Time, Level vs. Time (including Leq, Lmax, Lmin)/vs. RPM, Signal vs. RPM, Octave, Third Octave analyses (from FFT), Order Spectrum vs. Time/vs. RPM, Power Spectral Density vs. Time/(Average)/(Peak Hold)/vs. RPM, Reverberation/vs. Band, Specific Loudness (DIN 45631, ISO 532-1, ISO 532-3, ANSI S3.4), Bypass
- Creating Point Map data, Point Map Rasterization
- Single value calculation from 2D and 3D analyses (Level, Loudness, Sharpness, Metric, from Documentation, Vibration Dose Value, etc.)
- Single Values Table (with export to XLSX format)
- Mark Editor for cutting time-domain signals by time or revolution speed
- Basic filter options: serial/parallel filter banks or filter chains, FIR filter, IIR filters, parametric IIR filters, filters for frequency weighting, equalization filters
- FIR Filter Editor
- Several statistical functions
- Pool Project for interactive execution of tasks
- Automation Project for automated execution of tasks
- Mark Analyzer for displaying, analyzing, filtering, and playing time-domain signals/diagram
- Diagram export (PPTX, PDF, PNG, JPEG, TIFF, GIF)
- Sampling rate conversion of input signals
- Unit Conversion/Vector Magnitude
- Integrate/Differentiate/Delay



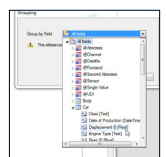
ASM 02 Basic Report (Code 5002)

- Standardized reporting with only one click on a button
- Export of report results to PPTX or PDF format
- Individual layout templates
- Embedding of audio contents in PowerPoint presentations
- Single Values Tables can be integrated into a Report (with ASM 01)
- XY diagram
- Point Map diagram
- Color Band diagram
- Creation of Reports
 - from a Pool Project (with ASM 01)
 - from an Automation Project (with ASM 01)
 - from a Standardized Test Project (with ASM 22)



ASM 03 Database (Code 5003)

- Convenient indexing of data sets
- Inclusion of system documentation and user documentation in the search
- Transfer of files from the search results to other program parts via copy-and-paste or drag-and-drop
- Several Navigation Views for a custom sorting of the database
- Further processing directly from the search results with a Pool Project, Automation Project, Standardized Testing Project, Compact Analysis Project, Sound Engineering Project, Data Viewer, Channel Editor, etc.



ASM 04 Data Acquisition (Code 5004)

- Recorder of ArtemiS SUITE
- Structured planning of the measurement setup and safe execution of measurements by means of measuring points and a grid model
- Visual representation of the measuring setup for intuitive and safe configuration via drag-and-drop
- Several trigger functions
- Online monitoring

Acquisition of several parameters (including pulses, temperature, video, CAN, CAN FD, OBD-2, FlexRay, GPS)

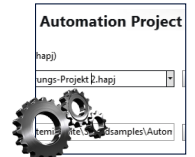
- Online generation of new channels or pulse signals
- Programmable Flow Control
 - (Automatic) control of recurring tasks without programming knowledge



ASM 05 Automation API (Code 5005)

- Execution of existing Automation Projects (it is not possible to create a new Automation Project) via:
 - HEAD Navigator
 - Flow Control function (with ASM 04)
 - Programming interface

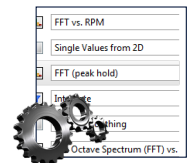
- Mark Creation/Editing
- Unlocking the basic analyses:
 - FFT vs. Time/FFT (averaged)
 - Level vs. Time
 - 1/n Octave Spectrum (FFT)



ASM 06 Automation API Basic Analysis (Code 5006)

- Unlocking all analyses and several functionalities of ASM 01 (statistics, filters, single values, miscellaneous) for an Automation Project

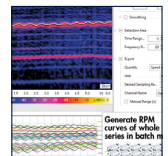
- ASM 06 can only be used in combination with ASM 05



ASM 08 RPM Generator (Code 5008)

- Generating RPM curves, e.g., for measurements of small engines or turbochargers for which the mechanical acquisition of the revolution speed is difficult or impossible

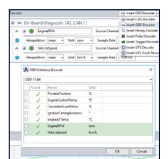
- RPM Generator extension for batch processing.
- Batch RPM Generator embedded in an Automation Project (with ASM 01)



ASM 09 Decoder (Code 5009)

- Decoder Project for the extraction of CAN, CAN FD, OBD-2 (WWH-OBD incl.), FlexRay, pulse, and GPS data, als well as Resolver signals
 - Creation of custom Decoder Projects for specific tasks
 - Straightforward pool structure

- Preview and status indicators for a visual check of decoding results
- Direction Angle Decoder for creating an analog channel with signed direction angle information from digital pulse or trigger signals



ASM 10 Compact Analysis (Code 5010)

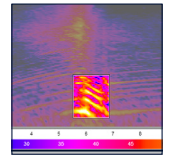
- Affordable alternative to a Pool Project for quick and easy analysis of HDF files:
 - Straightforward interface
 - One-click analysis of files
 - Suitable even for inexperienced users

- Easy-to-use common analysis functions with a reduced set of configuration options
- Overlay of tolerance schemes
- Display of single value results
- Optimized view for A/B comparisons
- Export options (Report with ASM 02)



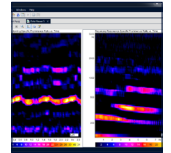
ASM 11 Advanced Playback (Code 5011)

- Use of interactive real-time filters during playback: Any number of serial and parallel IIR filters: allpass, lowpass, highpass, bandstop, bandpass, parametric bandpass, parametric lowpass and parametric highpass, tracking filter (order filter), one serial FIR filter
- Map Viewer
- Playback Spot for selecting distinct sound components (with ASM 01)
- Video Viewer (videos, recorded with the SQobold and SQudriga III frontends)
- HEAD Audiometer for measurement of human hearing capabilities



ASM 12 Psychoacoustics (Code 5012)

- Loudness vs. Time, Specific Loudness vs. Time (DIN 45631/A1, ISO 532-1, ISO 532-3, ANSI S3.4)
- Sharpness vs. Time (DIN 45692, Aures, von Bismarck)
- Articulation Index vs. Time
- Specific Prominence vs. Time
- Fluctuation Strength vs. Time, Specific Fluctuation Strength vs. Time
- Speech Intelligibility Index vs. Time
- Speech Interference Level vs. Time



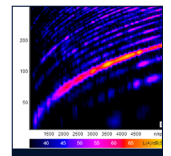
ASM 12 in combination with ASM 13:

- Specific Prominence Ratio vs. RPM
- Articulation Index vs. RPM
- Order Loudness vs. RPM vs. Time, Specific Order Loudness vs. Time vs. RPM
- Order Roughness vs. RPM vs. Time, Specific Order Roughness vs. Time vs. RPM
- Fluctuation Strength vs. RPM, Specific Fluctuation Strength vs. RPM
- Sharpness vs. RPM
- Loudness vs. RPM, Specific Loudness vs. RPM
- Speech Intelligibility Index vs. RPM

ASM 13 Signature Analysis (Code 5013)

- Calculation methods: Variable DFT Length, RPM-Synchronous Resampling, Time Domain Average
- Order Spectrum (Average)/(Peak Hold)
- 1/n Octave Spectrum (FFT) vs. RPM
- Time Signal vs. Rotation
- Gated Time Cuts, Gated Time Cuts (Average)

ASM 13 extends the functionality of the following modules: ASM 12, ASM 14, ASM 15, ASM 16, ASM 17

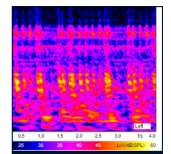


ASM 14 Octave Analysis (Code 5014)

- Use of recursive filters for: 1/nth Octave Spectrum Filter/(Peak Hold) vs. Time
- 4th or 6th order selectable as filter properties
- Filters 6th order (DIN 61260/IEC 61260/ANSI S1.11)

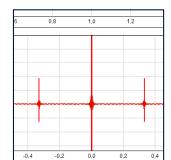
ASM 14 in combination with ASM 13:

- 1/n Octave Spectrum (filter) vs. RPM



ASM 15 System Analysis (Code 5015)

- System analyses/MIMO structural analyses
- Analysis of the signal paths, Transfer Function vs. Time
- Impulse Response vs. Time
- Coherence vs. Time, Coherent Spectrum, Multiple Coherence, Multiple Coherent Spectrum, Partial Coherence, Partial Coherent Spectrum
- Auto Spectrum vs. Time
- Cross Spectrum vs. Time
- Auto Correlation vs. Time vs. Band
- Cross Correlation vs. Time vs. Band

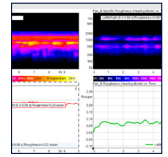


ASM 15 in combination with ASM 13:

- Auto Spectrum vs. RPM, Cross Spectrum vs. RPM
- Auto Correlation vs. RPM, Cross Correlation vs. RPM
- Impulse Response vs. RPM
- Coherence vs. RPM
- Transfer Function vs. RPM

ASM 16 Advanced Psychoacoustics (Code 5016)

- Evaluation of sound measurements with psychoacoustic analyses (ECMA-418-2, 1st Edition (2020), ECMA 74 (2019/2018):
 - Roughness (Hearing Model) vs. Time, Specific Roughness (Hearing Model)/vs. Time
 - Tonality (Hearing Model) vs. Time, Tonality (Hearing Model) Frequency vs. Time, Specific Tonality (Hearing Model)/vs. Time
- Other analyses for an analytic description of audively-perceived sound quality:
 - Relative Approach 2D/3D
 - HSA (Average)/vs. Time
 - Impulsiveness (Hearing Model) vs. Time, Specific Impulsiveness (Hearing Model)/vs. Time
 - Spectrum vs. Time (Hearing Model)

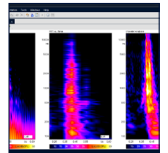


ASM 16 in combination with ASM 13:

- Tonality (Hearing Model) vs. RPM, Specific Tonality (Hearing Model) vs. RPM
- Impulsiveness (Hearing Model) vs. RPM, Specific Impulsiveness (Hearing Model) vs. RPM
- HSA vs. RPM
- Roughness (Hearing Model) vs. RPM, Specific Roughness (Hearing Model) vs. RPM

ASM 17 Advanced Analysis (Code 5017)

- Modulation Frequency vs. Time, Modulation Spectrum/vs. Band/vs. Time, Degree of Modulation vs. Time, Weighted Modulation
- Wavelet
- Cepstrum Cepstrum/vs. Time
- Kurtosis Kurtosis vs. Time
- Level vs. Time (filtered) – including L_{eq} , L_{max} , L_{min} –/vs. RPM (filtered)
- GFT (Gated Fourier Transformation)/vs. Time
- VFR (Variable Frequency Resolution), VFR (Average)/vs. Time
- Tonality DIN 45681/vs. Time
- Tone to Noise Ratio/vs. Time
- Speech Transmission Index 2D (IEC 60268-16:2003 and IEC 60268-16:2011)
- Envelope: Calculating the envelope of a band-pass-filtered input signal (Filter Pool)
- Sound Power vs. Time/vs. RPM, Sound Power Spectrum/vs. Time/vs. RPM

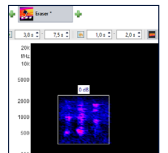


ASM 17 in combination with ASM 13:

- Kurtosis vs. RPM
- Cepstrum vs. RPM
- Modulation Frequency vs. RPM, Modulation Spectrum vs. RPM, Degree of Modulation vs. RPM
- Tone to Noise Ratio vs. RPM
- Tonality DIN 45681 vs. RPM
- VFR vs. RPM

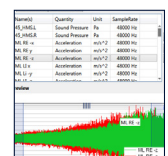
ASM 19 Advanced Filters (Code 5019)

- Sound Engineering Project
 - Identification of disturbing noise using FIR and IIR filters
 - Targeted editing, removing, synthesizing, or adding of sound components or orders (Target Order, Order Generator)
 - Design of target sounds based on the users requirements
 - Interactive operation similar to graphic image processing
 - Easy workflow via the graphic user interface
 - Immediate acoustic and visual feedback after each change
- Real-time filtering with the mobile SQuadriga III (or SQuadriga II) frontend
 - Filtering with four independently configurable filter sets (each set consisting of up to four custom 4th order real-time IIR filters)
 - Zero-latency playback of the filtered signal
 - Signal monitoring with Instant Spectrum, Instant 1/3 Octave Spectrum and Instant Order Spectrum
 - Volume control/optional A-weighting
- Pitch Shift



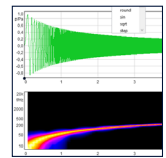
ASM 20 Signal Editor (Code 5020)

- Channel Sort Tool
 - Manual and automatic sorting of channels in batch mode
- Concatenate Tool
 - Concatenation of multiple, identically structured HDF files
- Merge Tool
 - Synchronization and merging of channels from HDF or DAT files into a new file



ASM 21 Signal Generator (Code 5021)

- Creating and editing artificial and other signals generated from periodic or non-periodic basic wave forms, e.g., sweeps, mathematical functions, existing recordings
- Snapshot function
- Automatic recalculation of several channels to a new channel
- Custom concatenation of artificial and recorded signals or signal sections
- Easy, intuitive editing
 - Free-hand drawing
 - Mute, Interpolate, Smooth
- Automatic preview of the time-domain signal and FFT spectrogram (in the Generator)
- Saving to a Signal Generator Project



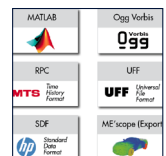
ASM 22 Standardized Testing (Code 5022)

- Measuring and evaluating of standardized test series according to defined test procedures
- Clear display of extensive test procedures
- Safe procedure for structured data acquisition
- Automatic data routing
- Custom-configurable sequences for different test conditions
- Automated processing of all measurements
- Presenting the results in a Report (with export to PPTX or PDF)



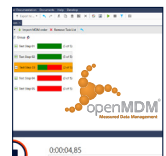
ASM 23 Advanced Import & Export (Code 5023)

- MATLAB
- Ogg Vorbis
- RPC
- SDF
- UFF
- ME'scope



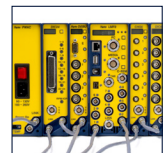
ASM 25 MDM Recording (Code 5025)

- Performing openMDM® measurement tasks with the Recorder of ArtemiS SUITE (ASM 04)
- High flexibility in performing the recordings
- Generating a Task List from an openMDM® task file (XML) for performing measurement tasks
- Editing the documentation



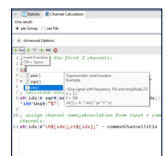
ASM 28 Data Acquisition Support for DATaRec 4 (Code 5028)

- Required for using DATaRec 4 systems with ArtemiS SUITE
 - Recording with a DATaRec 4 system (requires ASM 04)
 - Impact measurements with a DATaRec 4 system (requires ASM 43)



ASM 29 Channel Calculation (Code 5029)

- Processing of multiple channels using scripts
- Using various mathematical functions (e.g., Sin, Log, Sign)
- Colored syntax highlighting
- Use of predefined code segments
- Automated changing of channel measurement units
- Proposal lists
- Compatible with previous ArtemiS SUITE versions



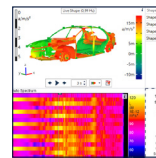
ASM 30 Sound Intensity (Code 5030)

- Determining sound power (ISO 9614-1/9614-2, 9614-3)
- Discrete Points, Scanning
- Creation of sound intensity maps and measurement of sound power
- Assistant-guided procedure
- Quick diagnostics (troubleshooting)
- One-click report, either ISO-compliant or freely designed
- Export: Excel, image file (PNG)
- Measurements according to ISO 9614-1 (Discrete Points) using the HoloLens 2 Augmented Reality glasses from Microsoft
 - Easy use of virtual, ISO-compliant measurement grids
 - Assistant-guided procedure
 - High measurement reliability thanks to visual control of probe positioning
 - Visualization of the measurement progress for each measurement and verification of ISO conformity



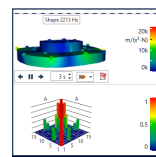
ASM 40 Operating Deflection Shape (Code 5040)

- Operating Deflection Shape Project (ODS) for identification, analysis, and animation of relevant deflection shapes in a defined stationary operating state
 - Available diagrams: Auto Spectrum in 2D diagram, FFT vs. Time/vs. RPM in 3D diagram, Auto Spectrum in Color Band diagram, FFT Average (airborne channels) in 2D diagram, FFT vs. Time/vs. RPM (airborne channels) in 3D diagram
 - Using sliders for identification of frequencies and channels in the diagram
 - Automatically calculated MPC value (Modal Phase Collinearity)
- Time Domain Animation Project (TDA) for evaluation of the time-variant oscillation behavior of a test object
 - Animation and analysis of time-variant motions
 - Time data (Color Band diagram or 2D diagram)
- Detailed detection of patterns and problematic frequency ranges
- Validation of simulation results
- AVI, GIF export of results (video)



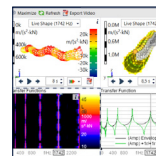
ASM 41 Shape Comparison (Code 5041)

- Analyzing and comparing of deflection shapes
- Detailed observation of individual deflection shapes
- Detection of matching deflection shapes via the Shape Table, which provides specific information and automatically determined MAC index (Modal Assurance Criterion)
- Individual group threshold adjustable
- Displaying the MAC values of modal Shape Tables in a 3D bar diagram or 2D display
- Dual operating mode with two Shape Tables
- Animation of the deflection shapes in the model
- Zooming, turning and tilting a model during animation
- AVI export of results (video)



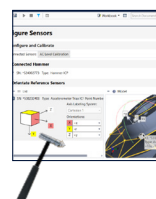
ASM 42 Modal Analysis (Code 5042)

- Examination of the oscillation behavior of test objects
- Validation of simulation results
- Intuitive user interface
- Stability diagram, curve fitting
 - The calculated poles are displayed as color-coded points in the stability diagram
 - Using multiple references when operating with more than one shaker, for example
 - Automatic calculation of the model size using neural networks
 - Interactive optimization
- 3D or 2D animation
 - Selecting different display modes
 - Setting the loop duration, motion, color, etc.
 - Zooming, turning, and tilting the model during animation
- Diagrams for displaying transfer functions
 - Color Band diagrams for observing the transfer functions as color bands
 - 2D diagrams
 - Detecting patterns of relevant deflection shapes
 - Using the slider for identification of interesting frequencies directly in the diagram
- Storing deflection shapes in the Shape Table
 - Displaying MPC (Modal Phase Collinearity) and MAC (Modal Assurance Criterion) values
 - Displaying damping values of deflection shapes created by means of curve fitting
- Combining the shapes with a MAC value above the set Group Threshold value with the Grouped Shape Table
- Export of results
 - AVI, GIF (video), PowerPoint, PDF, image (PNG, JPEG, TIFF, GIF)



ASM 43 Impact Measurement (Code 5043)

- Different coordinate systems
- Measurements according to the methods Roving Hammer and Roving Accelerometer
- Import of 3D models (Measurement Point Library – ASM 00)
- Automatic configuration of the desired measurement parameters
- Visual and acoustic feedback
- Display of the results in the Data Viewer and as a Report
- Export, e.g.: Excel, UFF (UFF with ASM 23)
- Monitoring and analysis using Modal Analysis (ASM 42)
- Comparing the deflection shapes using the Shape Comparison Project



ASM 50/ASM 51/ASM 58/ASM 59 Jury Testing Modules – SQala (Code 5050ff)

SQala Basic (Code 5050)

- Quick creation of listening tests without expert knowledge
- Performing listening tests in single user mode, distributed sessions, listening studios
- Category Judgement, Simultaneous Category Judgment, Paired Comparison, Multi-Attribute Paired Comparison, Ranking, Semantic Differential



SQala Net (Code 5051)

- Performing listening tests with multiple participants in a listening studio

SQala Server (Code 5058)

- Managing SQala Projects

SQala Client (Code 5059)

- SQala Client must be installed at each listening place; no dongle and no license required

Recommended:

- ASX 03 (Code 5093) – SQala Extension API
The programming interface allows users to develop new steps, integrate them into SQala, and execute them in single user mode
- ASM 11 (Code 5011)
Advanced Playback Control (Studio Control) for seamless switching between different playback scenarios (e.g., headphones/headphones + subwoofers/loudspeakers + subwoofers/loudspeakers/...)

ASM 57 Metric (Code 5057)

- Metric design: sequences (processing chains) for determining single value results
- Manual or semi-automatic metric design
- Metric design with automated weighting of the individual sequences based on jury test results
- Processing of multichannel (e.g., binaural) audio files to single values
- Export of metric definitions for use in Pool, Automation, and Standardized Test Projects
- Particular jury test ratings from SQala jury test results (ASM 50ff) for using in a Metric Project

#	Name	Math Function	Scale
1	Sharp Default	None	Lin
2	Rough Default	None	Lin
3	Load Default	None	Lin
4	HTT Default	None	Lin

Jury Rating vs. Metric Result				
Jury Sample	Load Rating	Importance	A	RM
M1	2.54	0.64	0.50	0.50
M2	2.57	0.65	0.50	0.50
M3	2.61	0.58	0.77	0.77
M4	6.21	6.00	0.12	0.12



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.

Supplements

License management

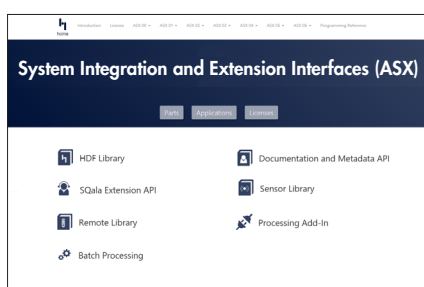
- ArtemiS SUITE supports three license management variants:
Single User License/Network License (net)/Extended Network License (net+)

Software maintenance

The software maintenance and update contract for ArtemiS SUITE covers the maintenance, adaptation and extension, new developments, and improvements. A maintenance contract includes the automatic delivery of new software releases, which provide new features and guarantee that ArtemiS SUITE is always up to date.

HEAD System Integration and Extension Interfaces (ASX)

The ASX system integration interfaces enable the integration of ArtemiS SUITE into users' software applications and the extension of ArtemiS SUITE with users' software applications.



ASX 00 (Code 5090)

Technical documentation and detailed information with various practice-oriented model applications and programming references for the System Integration Interfaces (ASX 01 – ASX 06).

ASX 01 (Code 5091)

Interface for a user-programmed processing of HDF and HSVX files.

ASX 02 (Code 5092)

Interface for interactive control of ArtemiS SUITE (e.g., directly from a measurement software or database) and ArtemiProc.exe from user-specific software solutions.

ASX 03 (Code 5093)

Interface for programming user-specific steps for the SQala jury testing software.

ASX 04 (Code 5094)

Interface for interactive control of the Recorder of ArtemiS SUITE from user-specific software solutions.

ASX 05 (Code 5095)

Interface for convenient creation and editing of User Documentation and Documentation Templates with easy-to-program software solutions.

ASX 06 (Code 5096)

Interface for integration of user software solutions (analyses, filters) into ArtemiS SUITE projects.

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