ArtemiS SUITE
PRoject

Code 50040

APR 040 Recorder

The universal Recorder of ArtemiS SUITE can be used for all types measurement from very simple in between starting and stopping of recordings up to complex tasks supported by the Flow Control, with triggers, by real-time analyses, as well as by the handover to the Report is required for an immediate and automated presentation.

OVERVIEW

APR 040
Recorder

Code 50040

The Recorder can be used to record sounds, vibrations, bus data, and other variables. These recordings can then be analyzed seamlessly. The easy-to-use Recorder suits all HEAD acoustics measurement systems, digital sound cards, and more.

A particularly good example for its innovative concept is the visual representation of the measurement chain elements and the inclusion of 3D grid models. After loading a Measurement Point Library (included in APR 000), users simply can drag-and-drop the sensor onto the measurement points of a grid model as well as onto the corresponding channels of the visualized frontend to connect them with each other accordingly.

KEY FEATURES

General benefits
› Universal Recorder for all measurement tasks
› Task-oriented, clearly structured user interface

Frontend Selection
› Automatic detection of frontend systems supported by HEAD acoustics
› Offline frontends

Channel Configuration
› Easy defining and configuring of channels
› Using an individual Sensor Library
› Wizards, for example, to calibrate sensors automatically, to generate query TEDS information, and for auto ranging

Measurement Setup
› Visual representation of the measurement setup for intuitive and safe configuration
› Structured planning and execution of the measurements with measurement points and 3D grid models

Adding of professional information directly at the measurement chain start

Using real-time analyses

Excitation

Trigger
› Combining individually adjustable triggers

Flow Control
› (Automated) control of recurring tasks without programming knowledge

Online Monitor
› Clear online control of incoming signals
› 2D and 3D analyses, tachometers, single values, ...

DETAILS

Frontend Selection

The Frontend Selection automatically displays all connected and supported frontends and modules as graphics.

Using the Offline Frontend, users select their measurement system intuitively via drag-and-drop. Even larger measurement systems with several hundred channels are quickly configured. Offline Frontends enable the Recorder Configuration even without currently available hardware to conveniently prepare future measurements. All applied settings can be transferred to the actual frontend after it has been connected.

Recorder Configuration

The task-oriented, clearly structured Recorder Configuration covers all data acquisition aspects. Each aspect is accessible via an icon to conveniently focus on corresponding settings:
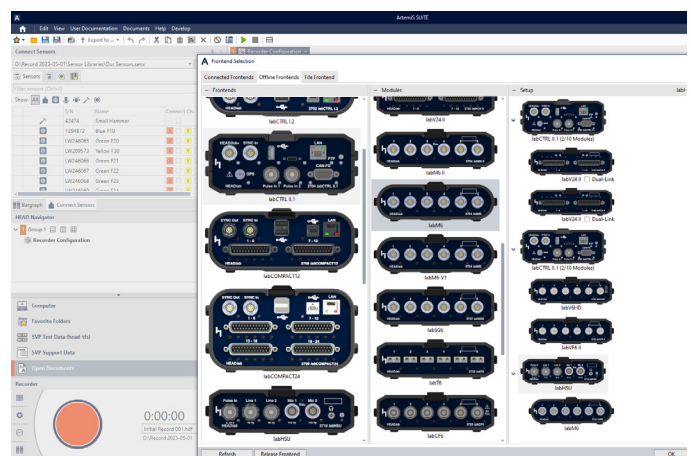
CHANNEL CONFIGURATION

The Channel Configuration displays Signal, Pulse, Coded (...), and Calculated Channels including all relevant information in tabular form each on its own tab. Intuitively users specify the channels to be recorded and configure them as needed. The Auto Range tool can be used to adjust the optimal range automatically. Connected sensors are calibrated by the Sensor Calibration (AC/DC) wizard, which guides through the procedure quickly and safely. The TEDS function automatically queries all TEDS information.
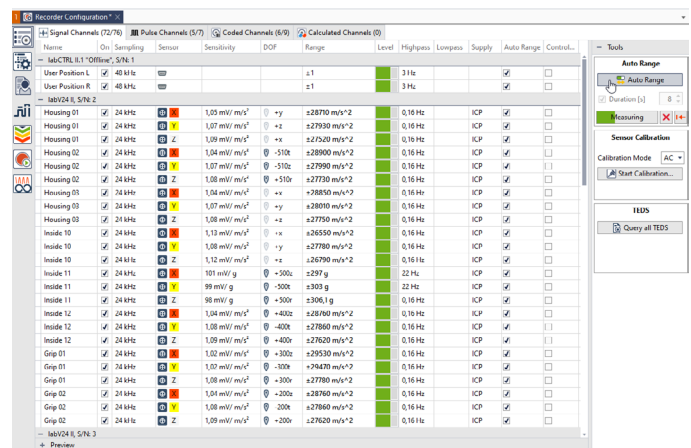
MEASUREMENT SETUP

The Measurement Setup is used to connect sensors, connectors of the frontend, and measurement points quickly and safely with each other.

Users can drag a sensors onto the respective frontend connectors and measurement points to accordingly connect them with each other. If necessary, the sensor alignment can be adjusted individually.
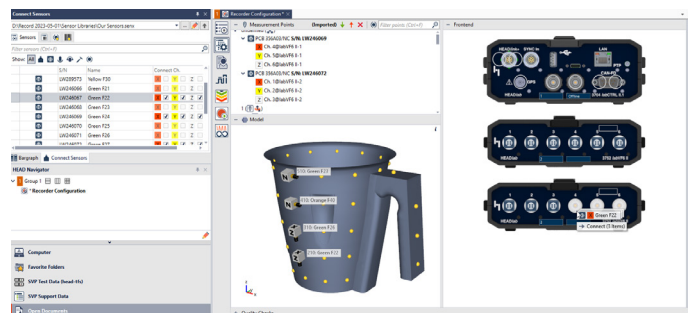
As an alternative for very simple tasks, users can also settle with generic sensors and without measurement points

Frontend Selection

Channel Configuration

Measurement Setup

USER DOCUMENTATION

By means of User Documentation, measurements can be supplemented with professional information right at the measurement chain start, so that the stored information are available for reporting, for example.

TRIGGER

Triggers (signal, time, location, tolerance scheme, analysis value) are used to start and stop recordings automatically.

FLOW CONTROL

The Flow Control can be used to create simple to complex program sequences customized for specific tasks – without programming knowledge.

EXCITATION

The Excitation enables to play back an excitation signal (sinus, sweep, pseudo noise, ...), in order to record its effects on a test object.

ONLINE ANALYSIS CONFIGURATION

The Online Analysis enables analysis results to be optical controlled. Users can configure analyses whose online determined results enable a visual control of the channels to be recorded in the Online Monitor. In addition, certain analysis results can be used as corresponding triggers to specify the start and end of a recording.

TASK LIST

The Task List enables users to configure and to work through a list of recordings to be created. The Task List is particularly useful for the Standardized Test Project (requires APR 220), for example, when performing a series of tests according to a required quality standard, or for the fast and uncomplicated execution of open-MDM® measurement tasks using MDM Recording (ASP 702 is required).
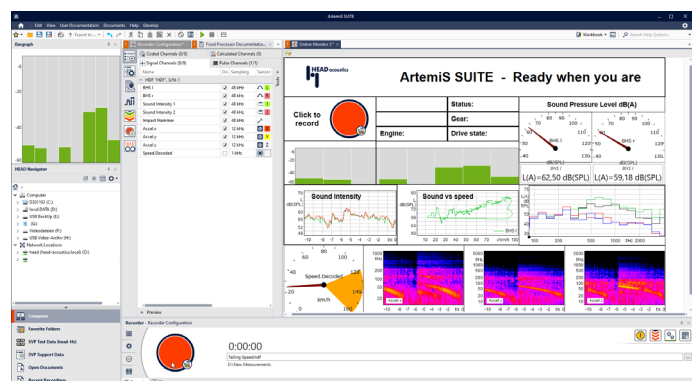
Online Monitor

The Online Monitor, including 2D and 3D diagrams, bargraphs, tachometers, single-value displays, etc., can be used to control incoming signals visually. For example, the Point Map Diagram can be used to display analysis results as a function of two reference quantities.

User Documentation

Excitation

Task List

Online Monitor

SUPPORTING TOOLS

MDM RECORDING (ASP 702)

MDM Recording enables to execute openMDM measurement tasks with the Recorder of ArtemiS SUITE.

DATAREC 4 SUPPORT (ASP 701)

DATaRec 4 Support enables the use of DATaRec 4 frontend systems with the Recorder of ArtemiS SUITE.

BASIC DECODER (ASP 801)

Basic Decoder enables to decode CAN FD, CAN, OBD-2, and FlexRay signals, as well as navigation satellite system data, pulse and other signals. The decoded information are saved as additional channels.

MECALC SUPPORT (ASP 706)

MECALC Support enables the use of MECALC DECAQ modules of the Quantus series with the Recorder of ArtemiS SUITE.

SUPPORTED FRONTENDS

› HEAD*lab*
  Multi-channel frontend system

› *lab*HSU
  High-end 2-channel frontend

› SQuadriga III
  Mobile 8-channel recording and playback system

› SQobold
  Mobile 4-channel recording and playback system

› HMS V/HMS IV/HMS III
  Artificial head measurement systems

› *lab*COMPACT HEAD*lab* modules

› BEQ II
  2-channel frontend

› SQuadriga II
  4-channel frontend

› Digital sound cards

› MECALC – DECAQ modules
  › ICS42 G2 (6 x ICP)
  › ICT42 G2
    (2 x ICP + 2 x tachometer)
  › WSB42X G2
    (4 x Bridge + ICP)
  › CAN42S G2 (2 x CAN)
  › ICP42S G2 (4 x ICP)
  › CHS42X G2
    (6 x ICP + charge)
  › THM42 G2 (8 x thermo)
  › DCH42S G2 (2 x charge)
  › MIC42X (2 x Mic + ICP)

› CSM modules
  › HV AD ECAT (high voltage)
  › AD ECAT

› ASIO sound card
  (e.g., RME HSDP series)

› Safran Data Systems
  DATaRec 4 series

Required: APR Framework (Code 50000)
**and/or: HEAD System Integration and Extension
              (ASX) programming interfaces**

HEAD acoustics

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