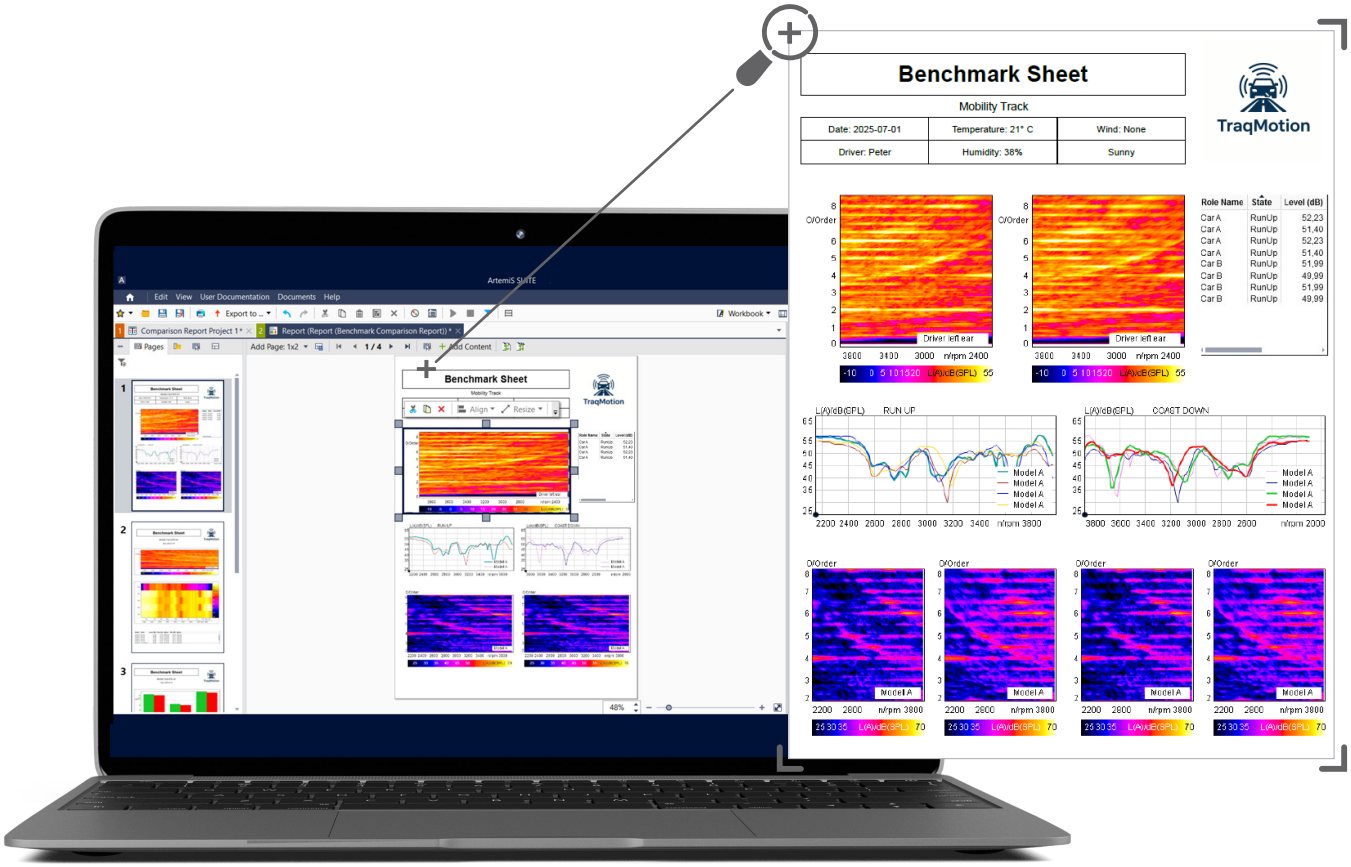
HEAD acoustics

DATA SHEET



ArtemiS SUITE
PRoject

Code 50021

APR 021
Comparison Report

Comparison Report of ArtemiS SUITE enables efficient analysis and comparison of your data through batch processing in a clear, dynamic Report. It supports benchmarking at the push of a button, effortless comparison of product development stages, and more.

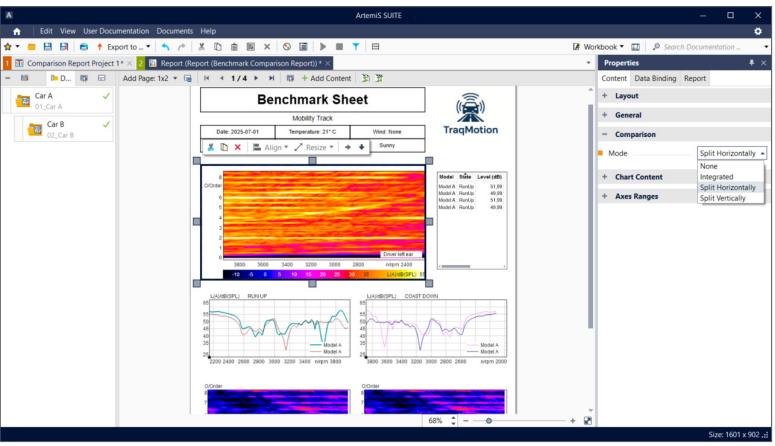
OVERVIEW

APR 021
Comparison Report

Code 50021

The Comparison Report Project enables the calculation of your data in one step using either an Automation Project or a Standardized Test Project, providing a Report in which the results are optionally displayed collectively or individually in diagrams (2D, 3D, XY, Color Band, Single Values, ...). In this way, differences and similarities can be analyzed quickly, even when handling large data sets.

The Comparison Report Project extends the functional scope of the Report (APR 020), the Automation Project (APR 050), and the Standardized Test Project (APR 220), streamlines your workflows, and significantly increases productivity when evaluating your data.



KEY FEATURES

Extended Report functions

- Direct and clear comparison of data sources—such as measurement, synthesis, or analysis results—within a single, clear Report
- Flexible and targeted parameterization to address specific requirements through the use of variables

Batch processing functionality for

- Automation Projects that, once defined, are executed automatically and can be reused across subsequent processing stages
- Standardized Test Projects that support the acquisition of different operating conditions of test objects and their analysis using different methods

Prerequisites

- A license for the Comparison Report Project
- A Report template created with APR 020
- An Automation Project or Standardized Test Project created with APR 050 or APR 220
- Licenses for all functions, analyses, and additional processes utilized within the projects

APPLICATIONS

- Automated comparison of data and analysis results for benchmarking and related use cases
- Comparison of different development stages for product optimization and similar applications
- Batch-mode operation using an Automation Project or a Standardized Test Project

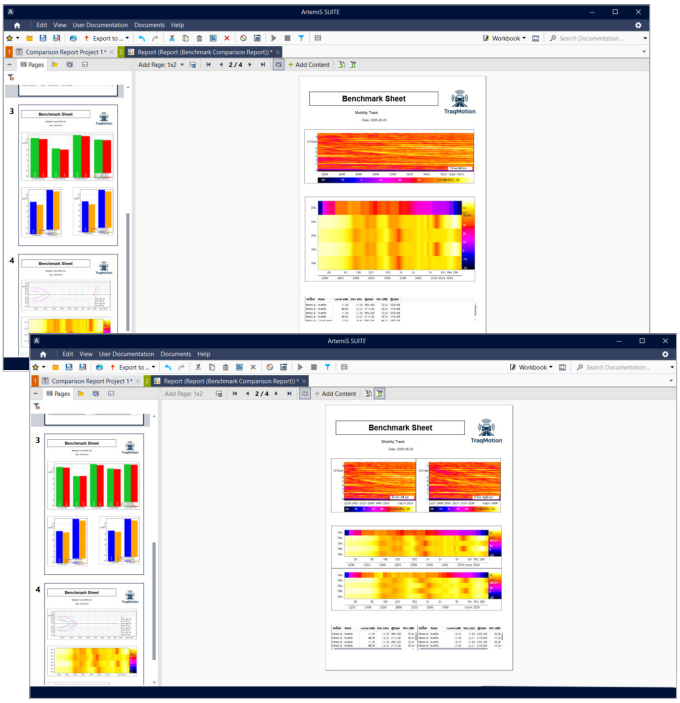
DETAILS

THE COMPARISON REPORT PROJECT

Extended Options

The Comparison Report Project is based on a Report (APR 020) and an Automation Project or Standardized Test Project. These combinations provide extended functionality by enabling direct data comparison and the simultaneous processing of multiple data sets in a single operation (batch processing). This results in a highly efficient workflow for both recurring and computationally intense tasks. Manual effort and error susceptibility are reduced, workflows are optimized, and data evaluation becomes significantly more productive.

The Comparison Report Project also substantially extends the capabilities of the Report (APR 020). Rather than generating multiple individual Reports, you can now directly compare a large number of datasets within a single consolidated Report. Extended functionality is available to ensure that comparison results can be presented in a clear and efficient manner.

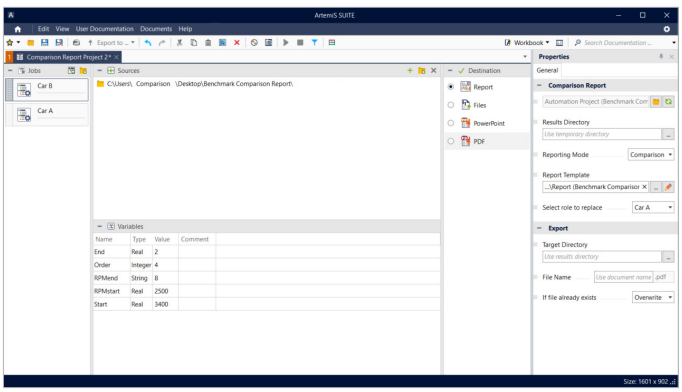


Comparison Report Project: Switching from normal Report mode (diagram at the top) to Comparison mode at the push of a button

Using Variables

The Comparison Report Project enables direct parameterization of the Report results using variables. The principal advantage of these variables is that the processing elements of the Automation Projects and Standardized Test Projects remain unchanged, while individual adjustments can be made directly within the Comparison Report Project.

This allows the effects of variation-dependent adjustments on your products to be determined immediately, enabling rapid optimization, for example.



Automation Project: Individually configurable variables can be used to analyze different variants of a product or component

Creating a Report

A Comparison Report Project requires two templates: a Report template (*.hrpx) and either an Automation Project (*.hapj) or a Standardized Test Project (*.hstj).

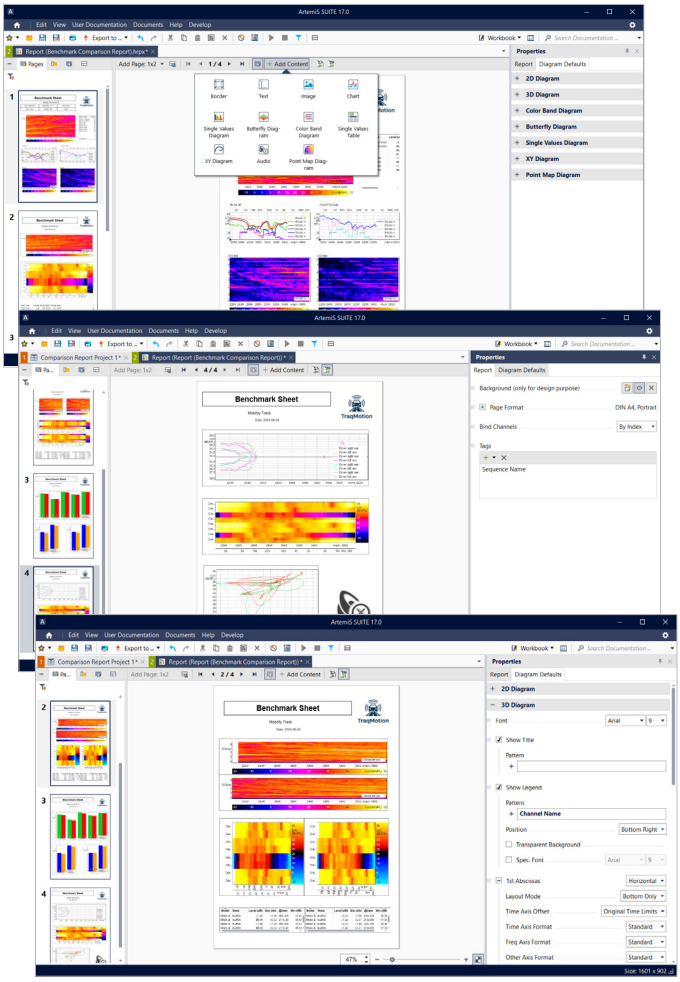
Beyond these requirements, you only need to select the data (jobs) that are to be compared. These may comprise individual files or complete folders containing multiple files. The data structures must be comparable. If they differ, the Automation Product and the Standardized Test Project provide appropriate options for working with different structures.

Previously calculated analysis results from earlier Comparison Report Projects can be reused and combined with new, not yet analyzed data. This enables you, for example, to compare existing reference data with new data quickly and efficiently.

Once you have loaded the Report template, a project, and the data, the Report is automatically filled with the results at the push of a button. The data can be presented either collectively within a single Report element or separately across multiple Report elements arranged side by side or one above the other.

The Comparison Report Project enables the adjustment of data defined in the Automation Project or in the Standardized Test Project. This is particularly useful when different versions of a file are to be processed in different ways.

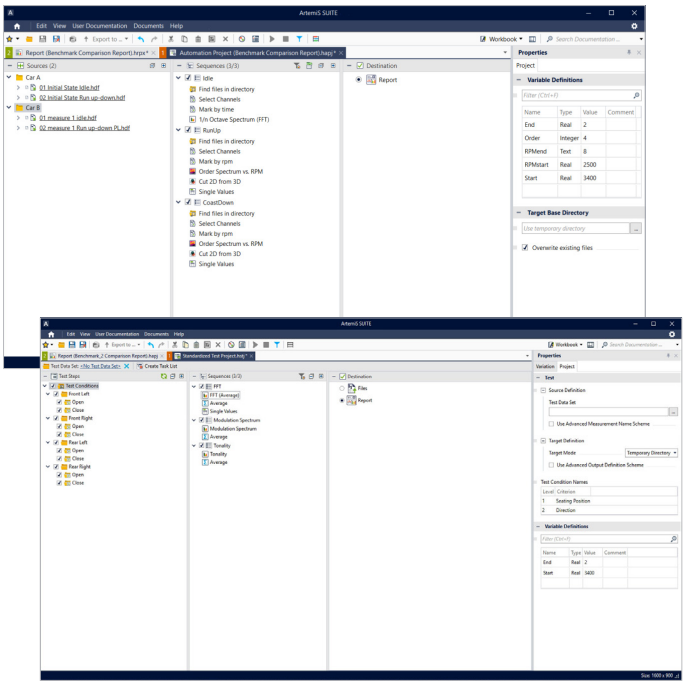
Further modifications should be made in the Report template, the Automation Project, or the Standardized Test Project and subsequently transferred to the Comparison Report Project.



Comparison Report Project: Examples of display options

Output Options

The results are output as a Report, a PowerPoint presentation (*.pptx), or in PDF format. If either the Automation Project or the Standardized Test Project is to be calculated, only its results are saved as files.



Examples of basic Automation Projects (at the top) and Standardized Test Projects (at the bottom)

DISPLAY OPTIONS IN THE REPORT (APR 020)

2D/3D Diagram

- Individually editable display of two-dimensional and three-dimensional data sets
  - Time data, 2D or 3D analyses over time/RPM, ...
  - Tolerance curves
  - Pulse channels can be bound and displayed if they are of the "pulse rate" or "trigger" type

XY Diagram

- Graphical representation of the relation between two channels from one or two HDF files with a common time abscissa (same physical quantity and unit as well as a common abscissa subrange)
- Time data, 2D analyses over time/RPM, ...
- Visualization of single load cycles and deflections
- Representation of the vibrations of components etc.

Color Band Diagram

- Clear visualization of several 2D results in one diagram
- Representation of the individual 2D curves as color bands one below the other
- Color coding of the ordinates
- Display of time signals and 2D analysis results
- Fast recognition and comparison of "patterns"
- Improved control of multichannel measurements, for example, through the rapid acquisition of useful signals
- Clear representation of the path distribution of transfer path analyses

Point Map Diagram

- Graphical representation of a single value as a function of two reference quantities
- Corresponding data sets can be created with an Automation Project (APR 050 is required) using the Point Map and Point Map Rasterizing (optional) elements

Butterfly Diagram

- Graphical representation of directional two-dimensional data sets
- Display of any number of normal 2D datasets

Single Values Diagram

- Graphical representation of single values in a column diagram
- Combination of several single values (minimum, maximum, average) into one value

Single Values Table

- Tabular display of statistical single values
- Display of the single values as linear or other physical quantities and in dB

Text

- Formatable display of freely entered text
- Automatic filling of text fields with text automatically generated by variables
- Use of additional information from the documentation of linked data
- Insertion of comments

Figure

- For example, insertion of
  - a company logo
  - an illustration of a measurement setup

Audio

- Integrating sounds, audio examples, etc. that can be played at a mouse click during the presentation after the PowerPoint export

LICENSES AND OPTIONAL FEATURES

Requirements

Code	Name	Application Scenario
50000	APR 000 APR Framework	The license for APR 000 is the basis of ArtemiS SUITE and is required for all application scenarios.
50021	APR 021 Comparison Report	The license for APR 021 is required to open, edit, and calculate a Comparison Report Project
50020	APR 020 Report	The APR 020 license is required › to create a Report template for the Comparison Report Project › to open and edit the Report template that is used for the Comparison Report Project › to open and edit the Report that was created using the Comparison Report Project
50050 or 50220	APR 050 Automation Project APR 220 Standardized Test Project	The APR 050 license is required › to create an Automation Project that is to be used as a template for the Comparison Report Project › to open and edit the Automation Project that is to be used for the Comparison Report Project The APR 220 license is required › to create a Standardized Test Project that is to be used as a template for the Comparison Report Project › to open and edit the Standardized Test Project that is to be used for the Comparison Report Project
51001 to 51801	ASP 001 Basic Analysis to ASP 801 Basic Decoder	The licenses for the processes from ASP 001 to ASP 801 used within the processing chains of the Automation Project or Standardized Test project are required to calculate the Automation Project or Standardized Test Project using APR 021

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