

## NVH Simulator CAE Auditor Type 8601-X

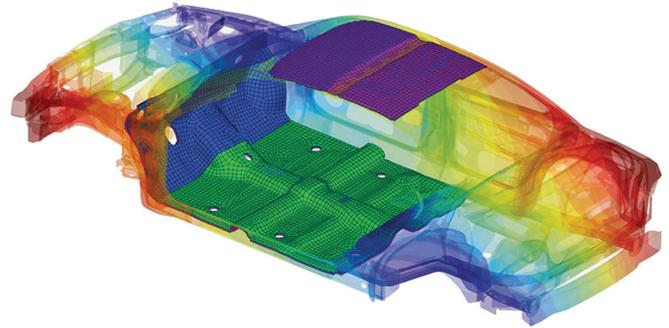
*NVH Simulator CAE Auditor Type 8601-X allows NVH design engineers to easily experience their data in the NVH Simulator or Insight Type 8601-S to evaluate the data in a realistic context and in the presence of other sound/vibration components of the vehicle. Engineers have all the standard NVH Simulator tools at their disposal (for example, switching on and off contributions, applying filters to source strengths and transfer functions, visualization tools, etc.) in order to fully understand the model. Early in a vehicle programme, this approach results in a clear, quantifiable set of cascaded targets for subsequent CAE design iterations. Later, using the NVH Simulator, non-experts as well as experts can choose between design alternatives.*

### Uses

- Efficient use of test and CAE data together
- Understand NVH contributions early in the design process
- Auralise proposed engineering changes in the correct context
- Evaluate and rank design alternatives
- Helps NVH test and CAE engineers to share and develop ideas

NVH Simulator CAE Auditor automatically converts standard CAE response data from common CAE programs into ready-to-run NVH Simulator models. Source strengths and transfer functions can be quickly incorporated into the interactive NVH simulations.

CAE predictions are often only valid over a limited frequency range or for a restricted set of components. To deal with this, the NVH Simulator and NVH Simulator CAE Auditor allow the engineer to combine CAE and test components in order to generate a more complete 'hybrid' model.



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Vibro-Acoustic model from Actran™, the acoustic simulation software of MSC

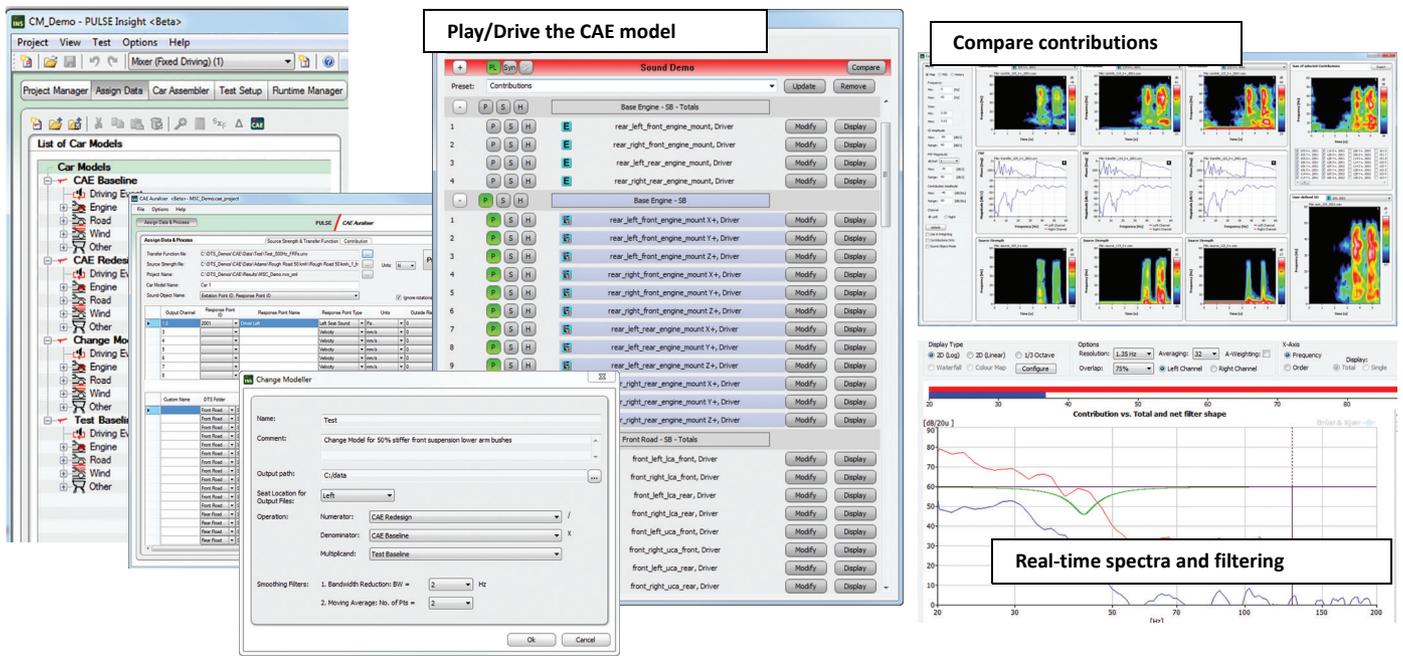
### Features

- Quick conversion of standard CAE response data to ready-to-run NVH Simulator models
- Support of common CAE program data file formats (including MSC Nastran™, Adams®, Actran™ and HyperWorks®)
- Predicted source strengths and transfer functions quickly incorporated into test-based models
- Ability to calculate change filters as the ratio of two (CAE-based) models and apply them to (test-based) models
- Full integration with NVH Vehicle Simulator's interactive play and display tools for understanding, evaluating and communicating the results

In situations where CAE models are unable to predict the absolute sound energy levels resulting from a design change but instead quantify the changes in the response, the Change Modeller in the NVH Simulator can calculate a set of change filters as the ratio of two CAE-based models and apply them to test-based models.

The whole process occurs in just seconds, even with large CAE models, making the Auditor an effective tool in the iterative design process. Every new design alteration can be quickly incorporated into and driven in the NVH Simulator, where the consequences of proposed design changes can be evaluated by anyone.

**Fig. 1** Change modelling, visualization and modification



## Specifications

NVH Simulator CAE Auditorer Type 8601-X is an optional module for NVH Simulator software or Insight Type 8601-S. Type 8601-X creates NVH Simulator or Insight projects, car models, car assemblies and sound objects directly from CAE predicted source strengths, frequency response functions or contribution data files.

Contributions from the various sources can be determined experimentally using [source path contribution tools](#).

## Ordering Information

Software with an -x suffix are available either as a node-locked or floating licence. Please include licence type when ordering:

- N: node-locked, permanent (example: 8601-X-N)
- FYG: annual floating lease, global (example: 8601-X-FYG)
- FYL: annual floating lease, local site (example: 8601-X-FYL)
- FY1: annual floating lease, Region 1, Americas (example: 8601-X-FY1)
- FY2: annual floating lease, Region 2, Europe ( example: 8601-X-FY2)
- FY3: annual floating lease, Region 3, Asia (example: 8601-X-FY3)

### Type 8601-X-x NVH Simulator CAE Auditorer

Go to [bksv.com/nvh Simulator](http://bksv.com/nvh Simulator) to find out more about Brüel & Kjær's NVH analysis solutions. For a full list of NVH Simulator modules and options, see the [product data](#).

### PREREQUISITES

Type 8601-A-x NVH Simulator Core and Visuals  
or  
Type 8601-S-x Insight

### OPTIONAL HARDWARE

ZH-0677 RME® Fireface UC Audio Interface  
HT-0017 Sennheiser HD650 Headphones

### SUPPORT PRODUCTS

Software maintenance and support is included in all annual floating lease licences. For permanent, node-locked licences, the following software maintenance products are required:

M1-8601-X-N Software Maintenance and Support Agreement for Type 8601-X-N

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