



Partner Spotlight: Brüel & Kjær

Alun Crewe, Vice President of Strategic Marketing at Brüel & Kjær, discusses NVH testing software, Insight+, available through the Altair Partner Alliance.

APA: What prompted the development of your software? What problem(s) is Insight+ meant to solve?

Alun: The need to be able to evaluate NVH performance in a real vehicle context. Designs were evaluated comparing graphs of predicted performance against target curves which does nothing to indicate the subjective performance in the final vehicle. Even if it's possible to convert the numerical data to a sound, listening to one component without the context of the rest of the vehicle sound environment makes no sense. Insight+ uniquely allows simulation data to be mixed and synchronized with test data to allow precise comparison of alternative design proposals both objectively and subjectively.

APA: Are there any unique applications that Insight+ works for that your competition cannot?

Alun: Insight+ is unique in that it can accurately synchronize test and CAE data seamlessly, this is especially important when listening to dynamic conditions such as run-up/run-down scenarios.

APA: How much time does it take to learn and start using Insight+?

Alun: Insight+ can be used effectively within an hour of starting up the software. Generic vehicle models of test data are provided with the software and all that is needed to do an evaluation are some source strengths and path transfer functions. Both can be from CAE or Test Data. The data importer for Insight+ leads you through the process of converting the raw data to contributions that can be used in Insight+, replacing whichever component you're simulating in the generic models provided. From there you can grow to include more complex contributions including multiple design changes or evaluate 'what if' studies within the software.

APA: What's next for Brüel & Kjær... what can we look forward to?

Alun: The next release will improve the process flow from NVH Director and Optistruct to further simplify getting data into Insight+ seamlessly. In future versions, as we learn more about how Hyperworks customers want to use the software, we will automate some processes to make it easier and faster to use.

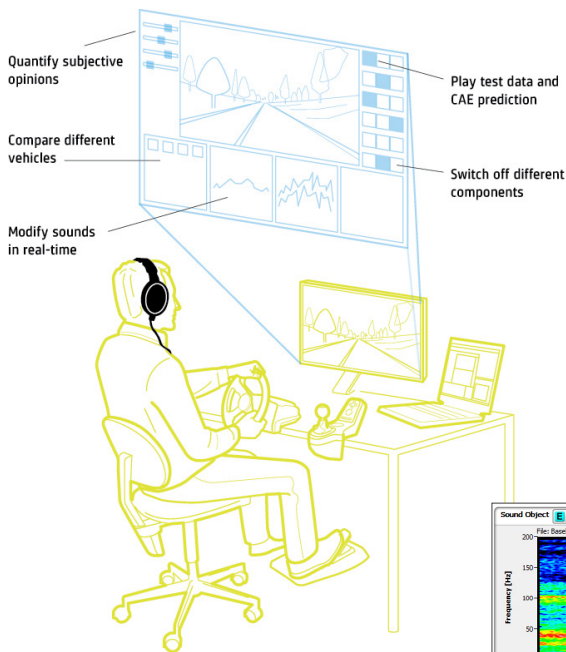


APA: What are the biggest challenges or problems that customers in your target market face and how do you address their needs?

Alun: The need to reduce vehicle development times, handle conflicting cross-attribute challenges and the need to reduce weight and improve fuel consumption. Under these stresses NVH often loses out to more easily understood requirements. Insight+ can demonstrate to non-NVH experts the true impact of design decisions.

APA: Describe a typical workflow using Insight+.

Alun: All that is needed to do an evaluation in Insight+ is to create some representative source strengths for the component or sub-system you are modelling and also some transfer functions between the source and the driver's sensitivity location. The transfer functions can come from numerical simulation or from test. Running Insight+ and selecting these two sets of data will automatically create the sound files required and you can then audition them in one of the generic models provided in the software.



APA: Is there a use case or case study that highlights your software's strengths?

Alun: We don't have any Use Cases directly for Insight+ we only have ones for its big brother the Desktop Simulator. The functionality is the same without the free-driving capability available in the DTS. If that's OK, then our best would be the Ferrari intake system case study.

For more information about Insight+ through the APA, visit the [solution page](#).

