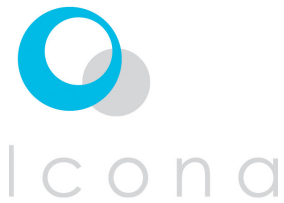


Bentley Motors streamlines the process of reaching its high perceived quality targets, with Icona Solutions' aesthetica software



Press information

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Software enables styling, engineering, quality and manufacturing teams to visualize and agree on gap and flush conditions early in the design process.

Manchester, UK. 4 March, 2009. – Bentley Motors, the iconic high performance luxury car manufacturer, has implemented Icona Solutions' innovative perceived quality simulation software, aesthetica, at its design and manufacturing plant in Crewe, England. It is being used to streamline and improve the process of achieving consistently high perceived quality in the company's vehicles without negatively impacting development timescales and manufacturing costs.

The software has been introduced to help overcome the difficulties of getting all stake-holders in the vehicle design and development process – styling, engineering, quality and manufacturing personnel – to agree at the most appropriate stage in the development process on the assembled conditions to which the Class A surfaces development process should adhere.

“At Bentley Motors we are constantly seeking ways to improve the design processes required to achieve quality in manufacturing,” explained Jim Shaw,

Bentley Motors streamlines the process of reaching its high perceived quality targets, with Iona Solutions' aesthetica software

manager of concept engineering at Bentley Motors. "However, the practicalities of getting everyone involved to agree the gap and flush conditions ahead of the Class A surfacing process meant there was a reluctance to commit to them early enough in the design process. This was resulting in agreements only being reached after tooling prove-out models had been milled and stacked, which was leading to loops in the Class A surfacing activity that were eating into the development timeline."

Following the findings of a working group that was formed to look into dimensional management throughout the development process at Bentley Motors, several new techniques were identified and justified, with the implementation of aesthetica being the final piece of the jig-saw puzzle.

"In several pilot projects over recent months it has been clearly demonstrated that aesthetica allows us to truly visualize the effects of all stake-holders' proposals, not just for edge conditions but also for the underlying fixing constraints", said Shaw. "Styling, engineering, quality and manufacturing people can therefore appreciate and understand each other's requirements and reach agreement at a much earlier stage in the development process than was the case before."

Fewer physical models

The use of Iona Solutions' aesthetica software at Bentley Motors allows the variation in key areas of the vehicle that would occur under manufacturing conditions to be visualized, studied and understood without the need for the manufacture of solid, physical models. These key areas have been agreed with the cross-functional team that is responsible for design approval.

"Specific viewpoints that are used by the audit team have been set up in aesthetica so that they review the virtual 3D models in the same way that they view production cars," explained Patrick Crutchley, Senior Engineer - Surfacing

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at Bentley Motors. "The improvement in understanding and the promotion of collaboration between departments that this brings has been immense," he adds.

Future developments

While aesthetica is now bringing real and quantifiable benefits to the Class A surfacing and dimensional management processes at Bentley Motors, the car manufacturer is also looking at how the software can be used in the future, further upstream in the design process to influence the early style development.

"In addition", stated Shaw, "we are working closely with both Icona Solutions and with Bunkspeed to examine the use of Bunkspeed's HyperShot 3D visualization software to provide state-of-the-art, photographic quality snapshot capabilities directly from aesthetica. This would take advantage of the HyperShot integration capability that Icona Solutions offers as an optional supplement to aesthetica's in-built visualization facilities".

Tim Illingworth, managing director, Icona Solutions Ltd., said, "We are very proud of the fact that Bentley Motors has selected aesthetica after an exhaustive evaluation of its capabilities. Together with our business partner, Majenta Solutions, we look forward to continuing to work with Bentley Motors in the further development of the solutions and in their deployment within the company."

About aesthetica

Icona Solutions' aesthetica software provides an accurate, visual simulation of the effects of component variation, assembly variation and component deformation in manufactured assemblies to enable full perceived quality reviews using digital models in order to resolve issues of fit and finish quality. The use of aesthetica gives greater insight than has previously been possible into the impact of manufacturing variation on perceived quality by enabling the user to visualize a 'virtual' product at different states within its geometric tolerance range, in real-

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time, and precisely as the customer will see the final, manufactured product. It helps to improve perceived quality while saving time and improving communication in the design process.

About Icona Solutions Ltd.

Icona Solutions Ltd. develops and provides innovative and unique solutions to audit and improve perceived quality in manufactured metal and plastics products. Its software can form an integral part of a product design and manufacturing company's overall product lifecycle management (PLM) software environment and is supplied and supported globally both directly and through qualified, specialist resellers. Icona Solutions is a member of both Dassault Systèmes' CAA V5 Adopters and of Siemens PLM Software's JT Open programs. Find out more at: www.iconasolutions.com

ENDS

Captions to attached images:

Image: Bentley, aesthetica1new.jpg.

Caption: Gap and flush tolerance targets for the Bentley Continental Flying Spur Speed are set and displayed in aesthetica.

Image: Bentley, Bunkspeed HyperShot 23.jpg

Caption: Integration of aesthetica with Bunkspeed Hypershot provides high quality, state-of-the-art photographic snapshot capabilities.

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