

# **ICEM Launches ICEM Style**

ICEM launches ICEM Style  $\hat{A} \square$  A Revolutionary New Software Package for Product Styling and Design Ideation. New software offers users an optimum suite of digital tools for rapid creation, ideation and visualization of designs in a single, integrated solution - for the first time.

London, UK (<u>PRWEB</u>) February 29, 2004  $-\hat{A} \square$  ICEM Ltd., the leading surface modeling, analysis and visualization software developer, today launched ICEM Style, a revolutionary new software product developed specifically for use by stylists and industrial designers.

With ICEM Style it is now possible, for the first time in a concept design tool, to design in a photo-realistic modeling environment. No longer are third-party, stand-alone visualization products required to visualize the complete design, or a time-consuming waiting for a static rendering to be generated. Modeling and real-time visualization for concept design can now be performed within a unified environment.

Using ICEM Style, the ease with which true geometry can be modeled and edited  $\hat{A} \square$  with tools such as geometry sketching, digital taping and automatic surface generation  $\hat{A} \square$  means that designs can be created and evaluated much faster than with traditional tools. ICEM Style ensures that only the tools needed to model and visualize the design are presented to the designer, thereby avoiding the complexity and confusion often experienced with the use of other tools.

Significantly, the use within ICEM Style of the same data architecture as is used within ICEM Surf - the company $\hat{A} \square$ s leading Class A surfaces development software suite  $\hat{A} \square$  ensures that the original design data remains intact and fully re-usable downstream once the design data is ready to evolve. The more sophisticated surface construction and analysis tools found in ICEM Surf can then be used to iterate the design through to final production tooling design.

This integration with downstream engineering tools ensures that engineering criteria can be mapped against design intent at any stage in the design to manufacturing process. This flexibility enables critical decisions and design modifications to be made much earlier and faster than has previously been possible  $\hat{A} \square$  providing a far more agile way of working.

ICEM Style  $\Box$  s seamless interaction with ICEM Surf will result in better communication and design iteration between the styling, surface engineering and manufacturing processes. This enables design and engineering decisions to be mapped more effectively upfront. Visibility of this data will allow key engineering decisions to be made a lot earlier in the design process.

Earlier and more effective communication will help reduce confusion brought about by ambiguous and isolated decision making processes. This will allow reductions in the design to production time scale and development costs. These savings will allow companies to react more quickly to market trends and help ensure that design becomes a significant factor in the market.

 $\hat{A} \square$  It is generally recognized in the automotive industry today that styling and design are becoming the key differentiators in car purchasing decisions $\hat{A} \square$ , said Lee Cureton, chief executive, ICEM Ltd., at the launch of ICEM Style.  $\hat{A} \square$  We have therefore developed ICEM Style so that conceptual digital designs can be realized as



quickly as possible. ICEM Style allows designers and stylists to quickly create and visualize designs and then iterate the design data further downstream into ICEM Surf and other engineering applications. Traditionally, the use of concept design data stopped at the conclusion of the design phase. Now ICEM Style will enable companies to use the original digital design data to drive design intent through to manufacturing. This two-way process with manufacturing will ensure that design intent can be considered at a very early stage with regard to manufacturing constraints. $\hat{A} \square$ 

 $\hat{A} \square$  With ICEM Style we are continuing ICEM $\hat{A} \square$ s aim of delivering tools that address our customers $\hat{A} \square$  complete digital design needs, $\hat{A} \square$  Cureton added.  $\hat{A} \square$ As our customers look to shorten their design timescales, successful implementation of our evolving modeling and visualization tools will help this aim become a reality. $\hat{A} \square$ 

# Designed for designers.

ICEM Style supports curve, surface and facet-based modeling workflows, ensuring that it is suitable for use in design studios anywhere in the world. Users can choose the approach which best suits their skills, or the task in hand.

Developed with casual users in mind, ICEM StyleÂ $\Box$ s user interface allows high levels of knowledge retention and can be fully customized to suit multi-disciplinary project or team-specific workflows. ICEM Style is easy to learn and easy to use, ensuring that training costs are kept to the minimum for new users. The choice of penbased and/or mouse-based input methods ensures that designers can quickly begin to create curves in the same way that they would normally sketch.

ICEM Style  $\Box$  s unique geometry sketching tools create true geometry, enable designers to sketch curves in the way they are used to when drawing on paper. This allows for the  $\Box$  emotion  $\Box$  that is essential to curve and sketch creation and enables designers to create sweeping freeform curves without concern for the underlying mathematics.

Traditional concept design sketches can easily be imported into ICEM Style for use as the basis for digital geometry creation, with multiple sketches able to be viewed simultaneously in one window. Engineering data, such as a vehicle packaging or power-train model, can also be imported and used in conjunction with sketches within the ICEM Style modeling environment.

# Digital tape.

As an aid to both original and face-lift design projects, ICEM Style provides digital tape facilities for the first time in an integrated styling and concept modeling tool. Multiple tape sizes, styles and colors can be saved and used for different purposes and  $\hat{A} \square$  just as with real tape  $\hat{A} \square$  the user is able to  $\hat{A} \square$  pinch $\hat{A} \square$  and  $\hat{A} \square$  pull $\hat{A} \square$  the tape in order to achieve the desired character line.

ICEM Style  $\Box$  s digital tape facility can be used on 2D background images to mark up sketches displayed. For example, on a Powerwall display system. It can be used on exterior surface or scan data to identify feature lines, shut lines or to mark up face-lift work, as well as on 3D interior design data, such as seats and instrument panels.

ICEM StyleÂ $\Box$ s digital tape facility will help to improve communication between departments, for example by enabling designers to tape directly onto Class A surface models to identify feature lines or areas that need to be amended. Previously, face-lift work often meant having to re-model existing surface data. ICEM Style enables



legacy data to be used again in the concept and styling phase of the development process.

With ICEM Style  $\Box$ s digital tape facility, it is also possible to save different themes on separate layers for comparison and design review  $\Box$  and then use the digital tape to drive the surfaces. This means that things that are not possible in the physical world  $\Box$  different themes on one clay model  $\Box$  are now achievable in the digital world.

# One-button surfacing.

With ICEM Style, the sketch curves and lines created with the geometry sketching tools can be used to create the initial surface model, for further refinement. Using the  $\hat{A} \square$  surface fit $\hat{A} \square$  tool in ICEM Style, this surface model creation is achieved with just one menu button push.

The high quality surface model created this way can be used for early feasibility and initial engineering analysis as well as to drive the downstream Class A surfaces development process.

So while designers can be creative and un-constrained while designing in ICEM Style, Class A surface engineers and other departments can work with the same data in a structured manner, with both feeling comfortable with their own tools and their own environment.

ICEM StyleÂ $\Box$ s one-button approach to surface model creation helps designers, being unconstrained by procedures and the underlying mathematics, to focus on the design and to be creative. The ability to iterate high quality surface models during the styling and concept design phase, together with visibility of the data earlier in downstream engineering processes, means that important design decisions can be made a lot earlier in the design process.

ICEM Style also provides  $\hat{A} \square$  bookmark $\hat{A} \square$  facilities enabling designers to experiment with different design approaches without fear of corrupting or losing data, allowing  $\hat{A} \square$  design themes $\hat{A} \square$  to be saved during a design session and then rolled back during design review.

In addition, support of multiple viewports allows different model variants to be worked on simultaneously in one design session. For example, different geometry variants, color variants and camera variants of the same model can be worked on in the same session, enabling different themes and designs to be tried out concurrently, earlier in the design process.

# Advanced visualization.

Visualization is a key component of ICEM Style. For the first time in a concept modeling product, ICEM Style offers fully integrated, advanced visualization tools for a variety of applications.

For example, the tools can be used for design, marketing or management reviews, allowing the easy conveyance of design intent to interested parties. Having this capability and level of realism in one package ensures that decisions and modifications can be made immediately, on screen, without having to export the model to a third-party stand-alone package or to wait for an image to render. ICEM Style  $\Box$  s visualization tools are quick to use, require little training and can easily handle large amounts of data.

The ICEM Style visualization tools include: real-time photo-realistic shading real-time concept and silhouette line shading



ray-traced rendering radiosity rendering virtual studios

Pre-set and user definable  $\hat{A} \square$  in-context $\hat{A} \square$  virtual studio environments enable the user quickly to place a vehicle into a customized or standard real-time or static virtual environment. These environments can be used throughout a company for digital design, marketing or management reviews.

ICEM StyleÂ $\square$ s real-time photo-realistic visualization tools enable design and modeling operations to be performed with the highest fidelity of realism ever provided within a single design tool.

For the first time, levels of visual quality usually associated with static ray traced images or a stand-alone visualization product are available at the design stage  $\hat{A} \square$  within the modeling environment. Materials, textures and soft shadows are also displayed  $\hat{A} \square$  as well as self-shadowing and multiple reflection environments.

The ease of use of these visualization tools ensures that there is no need for designers to spend time configuring the model to create an image or a rendering of the design. This offers significant timesavings and helps to reduce ambiguity in the design creation and decision making processes.

To provide designers with a familiar look and feel to visualizations of early designs. For example, incomplete models or when areas of interest need to be explored more closely but not the complete model, ICEM Style  $\Box$ s real-time concept and silhouette line shading facilities create real-time visualizations that look like hand drawn 3D sketches. Designers can then tape onto the surface model geometry to add missing features, such as shut lines, without having to model the features. Silhouette line shading enables feature lines and key design themes to be identified more easily.

For the highest possible quality of surface model visualization, ICEM Style also includes ray-tracing and radiosity rendering, as standard.

Radiosity rendering allows a more realistic portrayal of shadows and simulated light sources. These capabilities are particularly useful for visualizing vehicle interiors and exteriors.

Based on the LightWork Design rendering engine, with its unprecedented processing and rendering speed, ICEM StyleÂ $\Box$ s visualization tools are able to render massive models extremely quickly Â $\Box$  something that users of ICEM Surf already experience.

All visualizations created with ICEM Style can be output to industry-standard animation and video production systems.

Consistent database.

Unlike other software products used in the styling and concept design process, ICEM Style produces design data that can be used directly in the downstream Class A surfaces engineering and tooling design processes, allowing a concurrent design and engineering environment.

Based on ICEMÂ  $\Box$  s next generation parametric and object oriented database architecture, ICEM Style is 100% compatible with current and future versions of ICEM Surf, which is the Class A surface development software Page 4/6



suite of choice of the majority of the world $\hat{A} \Box s$  automotive OEMs and their leading suppliers.

This compatibility means that a seamless flow of design data is now enabled, for the first time. From concept design and styling, through to surface engineering, Class A surfaces development and final production tooling design. This helps to ensure that design intent is maintained through to manufacturing, with concept design either being driven by or driving engineering design  $\hat{A} \square$  whichever is the more appropriate. It also enables iteration and virtual try out of the digital design at the early stages of the design process - avoiding costly rework further downstream.

ICEM StyleÂ $\Box$ s database can also support massive models, meaning that designers are able to work with complete vehicle or power-train models, in real time at the concept stage, in a photo-realistic environment.

By using ICEM Style for conceptual design and ICEM Surf for the downstream Class A surface development and tooling design processes, and by taking advantage of both products $\hat{A} \Box$  data consistency with solid basedbased CAD/CAM systems, ICEM believes that significant savings can be realized in the overall time needed when compared with traditional methods. Earlier visibility of the design data allows key manufacturing decisions, such as tooling, CFD (computational fluid dynamics) and structural analysis, to be arrived at much sooner in the process, thereby avoiding potentially costly downstream problems.

#### About ICEM Ltd.

With its headquarters in the UK, ICEM Ltd. is the leading worldwide developer and supplier of advanced, surface-based modeling software for use in the design and development of automotive vehicle bodies and interiors and consumer durable products. The company has a worldwide network of sales and support offices and specialist distributors covering continental Europe, the USA, Australia and the Asia Pacific region.

ICEMÂ $\Box$ s principal market sector is the worldwide automotive industry, where it includes most of the leading manufacturers among its customers, including the Ford Motor Company, DaimlerChrysler Group, Volkswagen Audi Group, Porsche, BMW, PSA Peugeot Citroën, Nissan, Subaru and Harley Davidson among others, as well as leading automotive industry companies such as Volke, EDAG, Pininfarina, Bertone and Bertrandt, among many others. The company also has a significant presence in the consumer durable products design market.

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