MSC Apex Diamond Python Smart Midsurface™ Speeds Modeling to Validation up to 10X

NEWPORT BEACH, CA--(Business Wire – July 28, 2015) – MSC Software Corporation today announced a new release of MSC Apex, the company's 'award winning' next generation Computer Aided Engineering (CAE) platform. The MSC Apex Diamond Python release introduces:

- The fourth release of **MSC Apex Modeler** – a CAE Specific direct modeling and meshing solution that streamlines CAD clean-up, simplification, and meshing workflow. New in this release is Smart Midsurface™ technology - a new workflow to expedite the creation of finite element models for thin structures composed of metals, plastics, and composites
- The second release of **MSC Apex Structures** – an add-on to MSC Apex Modeler which expands MSC Apex to a fully integrated and generative structural analysis solution

MSC Apex was recently recognized as a 2015 R&D 100 Award Finalist. The new release shortens the time to create and update Finite Element analysis models, enabling engineers to rapidly optimize strength and improve the performance of product designs within an easy to use, and easy to learn simulation environment.

New in MSC Apex Modeler:

The new Smart Midsurface™ technology in MSC Apex Modeler includes:

- **Incremental Midsurface Workflow**
  - New semi-automatic, incremental workflow to create midsurface geometry and capable of expediting the process up to 10x. The incremental midsurface workflow involves the creation and pre-configuration of pairs that act as guides for subsequent midsurface extraction and creation.
- **Midsurface Extraction Methods**
  - New midsurface extraction methods are available for a larger range of thin structures composed of injection molded plastics, metals, and composite materials. Midsurfaces may now be extracted for variable thickness sections, whether they are tapered, curved, symmetric or asymmetric.
- **Rapid Development of Simulation Model Definitions**
  - The process of meshing midsurface geometry and defining material and section properties was a key focus of this release. New features enable analysts to rapidly construct surface and solid element meshes, now supporting hex meshing and mesh seed point constraints. MSC Apex can also automatically map hundreds of 3D geometry thickness and offset onto shell element properties in seconds and has been documented to be up to 24x faster than manual methods. This capability has been expanded to support thin sections that are non-uniform and further expands the scope of designs that can be modeled.

New in MSC Apex Structures:

MSC Apex Structures offers users a fully integrated simulation environment for structural analysis.

- Regenerative Analysis Readiness has been enhanced so that analysis readiness checks are now done automatically as users work on their model. Any change in the mesh, the loads, boundary conditions, or thickness properties will automatically regenerate analysis readiness results. This reduces trial and error and speeds up the 'modeling to validation' process so that users can make faster decisions during virtual testing.

To learn more about MSC Apex Diamond Python, please watch the new release webinar at http://bit.ly/1McZnff
Request a free trial of MSC Apex at www.mscapex.com

About MSC Software

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