

PRESS RELEASE

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Advanced particle simulation capabilities with EDEM 2.1

Edinburgh, Scotland (UK), November 4, 2008 – DEM Solutions, world leader in discrete element modeling (DEM) software and services, today announces the release of EDEM 2.1, the latest version of the multi-purpose modeling software used to simulate and optimize bulk material handling and processing operations.

EDEM 2.1 includes many cutting-edge features developed in collaboration with customers in the Bulk Handling, Mining & Construction, Pharmaceutical, Chemical and Agricultural sectors, which allow users to perform more sophisticated particle simulations. EDEM 2.1 is supplied with many new integrated contact models and the flexibility to customize your own advanced physics and particle properties. Existing EDEM users will notice an improved user interface, an optimized Fluid Dynamics Coupling Module for FLUENT, a new Dynamics Coupling option, and a host of other enhancements.

Overview of EDEM 2.1 Enhancements:

Mining, Pharmaceuticals - Integrated Bonded Particle Contact Model

For users working with materials that deform and break under stress such as in Rock Engineering, or tablet damage during mixing or transport in Pharmaceutical manufacturing, EDEM 2.1 integrates load-limited particle bonding and the ability to visualize intact and broken bonds, post process and export bond data.

Mineral Processing, Chemical/ Pharmaceuticals/Materials Handling, Agriculture and others - EDEM Extended API (Licensable Feature)

For users seeking to expand into new areas with more complex particle properties, the EDEM extended API enables customization of particle contact and body force models and provides full data-save and post-processing of user-defined particle attributes. In processes such as coating for example, *cohesion* can be applied to each particle and can be set to change over time or due to interactions with other materials. These custom properties could then show regions of non-uniform coating or variable cohesion between particles within the coating drum.

Problems involving Particles AND Fluids - Optimization of the EDEM-CFD Coupling Module for FLUENT (Licensable Feature)

EDEM is the first commercial DEM application to couple directly with CFD software to allow users to simulate particle-fluid systems in applications such as dense-phase conveying, filtration, drying, particle agglomeration and clumping, fluidized flow, solid-liquid mixing, and spray coating. EDEM uses a surface mesh to represent the geometric boundary which enables a one-to-one coupling with the boundary surface elements of the FLUENT fluid volume. The EDEM-CFD Coupling Module for FLUENT in EDEM 2.1 has an optimized point-search algorithm, resulting in much faster processing.

Mixing and Drying applications - Heat Transfer (Licensable Feature)

For those involved with mixing or drying applications, the heat transfer capability in EDEM 2.1 provides quantifiable data on the effect of heat on particles. For example, using the custom particle properties, the variation of moisture in a particle can be related to the particle temperature.

Agriculture, Mining and Construction equipment - EDEM Dynamics Coupling (Licensable Feature) For equipment manufacturers looking at the interaction of particle dynamics with mechanical loads on equipment, the new EDEM Dynamics Coupling feature enables EDEM's geometry motion to be controlled by external third-party dynamics software. This allows the interdependency of the complex behavior of mechanical assemblies and the associated particle dynamics to be analyzed for model changes in dynamic physical systems.

“EDEM 2.1 recognizes the need for an advanced feature set to support the innovative simulations being carried out by EDEM users in almost every industry sector and engineering discipline” comments John Favier, CEO of DEM Solutions. “DEM Solutions is committed to ongoing development of this leading-edge technology and will continue to prototype exciting new features with the companies in our user community, while remaining committed to providing reliable, efficient, easy-to-use software, and responsive customer support.”

To coincide with the release of the new version of EDEM, we will be running several EDEM 2.1 webinars for users, where a member of the DEM Solutions team will guide you through the features of EDEM 2.1 and help you get the most out of the latest version. The webinars are scheduled for the 9th and 10th of December – please email ruppel.joshi@dem-solutions.com to register. Visit www.dem-solutions.com for more information about EDEM.

About DEM Solutions

DEM Solutions partners with their customers to improve their products and processes by simulating and analyzing operations at the particle scale. First released in 2005, EDEM software is now used in the design and analysis of particulate handling, processing, and manufacturing operations in almost every industry sector and engineering discipline.

EDEM provides companies with a tool to substantially reduce the number of physical prototypes and tests required to get a product to market or a process on-stream. It is used to help troubleshoot difficult particulate processes and, because it is physics based, it can greatly improve understanding of system fundamentals leading to better product and process design and innovation.

DEM Solutions' corporate headquarters are located in Edinburgh, Scotland with offices in Lebanon, New Hampshire, Frankfurt, Germany and Singapore with Distributor representation worldwide. For more information visit: <http://www.dem-solutions.com>

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