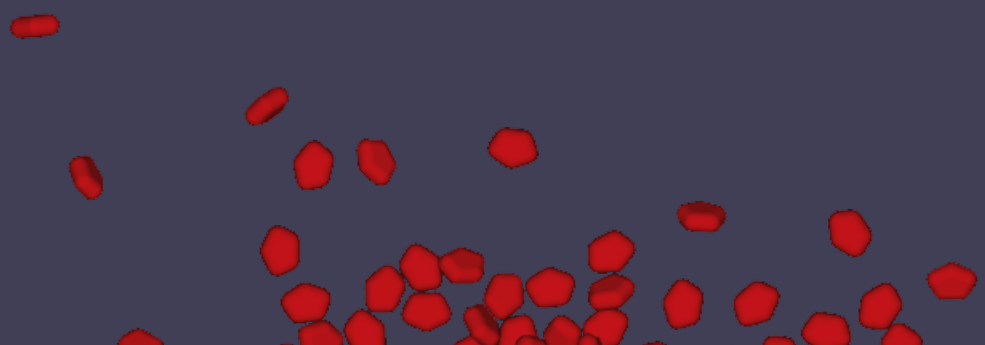
ROCKY-DEM.COM

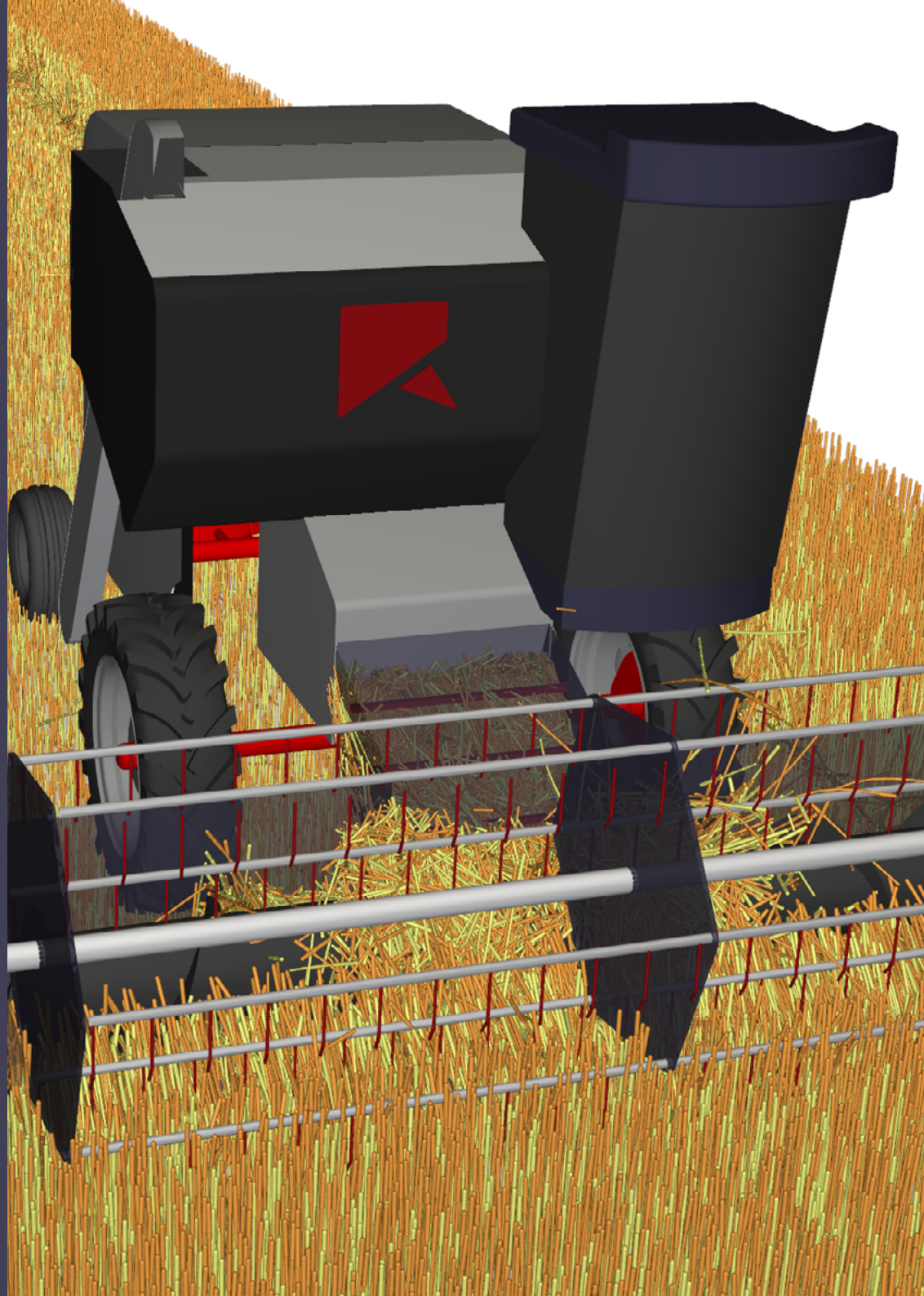
ROCKY

PARTICLE SIMULATION WHERE SHAPES DO MATTER

ROCKY

Rocky DEM is the world's most powerful and advanced Discrete Element Modeling (DEM) particle simulation software. Rocky can quickly and accurately simulate the flow behavior of bulk materials with complex particle shapes and size distributions. It is the number one choice for material handling equipment such as conveyor chutes, mills, mixers, and more.





Key Benefits

Ansys / OFFICIAL SOFTWARE PARTNER /

ACCURATE

With the ability to create realistic shapes that settle and compact just like actual particles, and to simulate sticky and dry conditions, Rocky DEM simulations have been shown to closely match lab experiments.

EASY TO USE

A user-friendly, hierarchical, and flexible interface, customizable parameters, and programmable scripts make Rocky DEM simulations simple to set up, run, and build multiple iterations.

FAST

Streamlined calculations produce results efficiently. Combine that with the power of Rocky DEM's multi-GPU solver—and its time-saving project scheduler and scripts—and you've got one very speedy platform.

FULLY INTEGRATED WITH ANSYS TOOLS

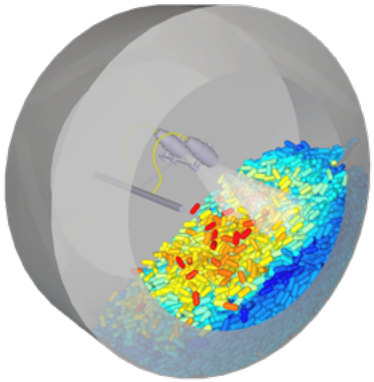
Rocky DEM is fully integrated with the Ansys Workbench™ suite of products, providing engineers with the ability to perform integrated analyses of particle simulations together with other physics such as structural and fluids.

Applications

Many organizations around the world choose Rocky DEM to evaluate their bulk material handling system. Rocky DEM simulates granular flow quickly and accurately, providing more similarity to real-world conditions than ever before.

MINING AND METAL

Discover a revolutionary way to enhance mining and metallurgical processes. Transfer chutes, feeders, mills, and crushers are just some of the bulk materials handling equipment that Rocky DEM helps to evaluate and optimize.



PROCESS EQUIPMENT

Evaluate the behavior of tablets, pills, snack chips, and more, inside various kinds of screening, sorting, and mixing equipment. With Rocky DEM, engineers can reduce prototyping costs and design time, increase equipment efficiency, and optmize production.

HEAVY EQUIPMENT

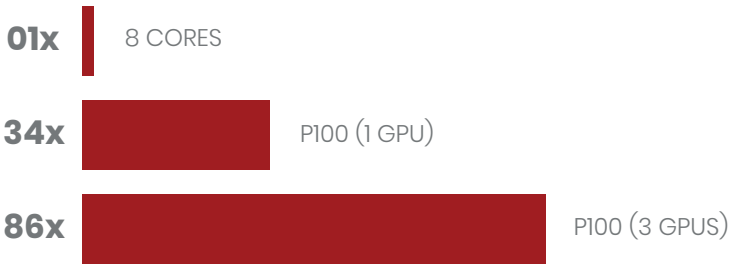
Rocky DEM's accurate prediction of loads generated by bulk material flow helps engineers understand how equipment performs under different operating conditions in order to achieve an optimal design that combines durability and efficiency.

Unique features

- Multi-GPU solver
- Non-spherical particle shapes
- Full integration with Ansys simulation software
- Breakage modeling
- Flexible fibers

Extremely fast simulations with Multi-GPU

Relative increase in speed of GPU/CPU simulations for a commercial tablet coater:



> As a result of several years of collaboration between Ansys and ESSS technical teams, Rocky DEM integrates seamlessly with and extends Ansys Mechanical and Fluids software capabilities for simulations where particle shapes and particle interactions with both fluid flow and structural components play an important role in the design.

DIPANKAR CHOUDHURY
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Ansys

ESSS

www.esss.co

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