

ROCKY DEM 4.0

General

Materials Catalog

Interactions Catalog

Extend Simulation

Simulation Restart

Simulation Scheduler

Unit System Management

Parametric Support (Pre & Post)

Compressed Data Storage

Linux OS Support

Periodic Boundaries

Python Scripting

HPC and Parallel Process

Parallel shared memory Solver (HPC licenses required)

Single GPU and multiGPU Solver (HPC licenses required)

Contact and Physical Models

Rolling Resistance Model: Type 1 - Constant rolling resistance model

Rolling Resistance Model: Type 3 - Elastic-plastic spring-dashpot resistance model

Contact Model (Normal Forces): Linear Hysteresis & Linear Elastic Viscous

Contact Model (Tangential Forces): Elastic Coulomb & Coulomb Limit

Shear Wear Contour Plots

Wear (Surface Wear Modification)

Particle Breakage

Thermal Model

Airflow Model (Lattice Boltzmann)

Geometry Types

Custom Inlets

Custom Geometries (import *.XGL, *.STL, and *.DXF Files)

Feed Conveyor Parametric

Receiving Conveyor Parametric

Custom Geometries (import *.CAS and *.MSH ANSYS Fluent Files)

Movement

Rotation

Translation

Rotation Without Displacement

Translation Without Displacement

Motion Preview

Vibration

Pendulum

Periodic Motion

6DOF (Six Degrees of Freedom)

Replicate Geometry

Combined Motions

Particle Types

Spherical Particles

Non-Round Particles

Particle Size Distribution

Adhesive Materials (Wet/Dry/Sticky Contact Rheologies)

Particle Detailed 3D View

Concave Particles

Flexible Particles

Data Export

Export Image

Export Table Data

Export Curve Data

Collision Data Collection & Export for FEA Analysis (ANSYS Mechanical)

Collision Energy Spectrum

Export Modified Wear Geometry

Quantitative Calculations

Cube Selection

Cylinder Selection

Plane Selection

Polyhedral Envelope Selection

Property Filter

Residence Time

Particle Tagging

Eulerian Statistics

Particle Time Statistics

Particle Flip Count

Post Processing Tools

3D View

Time Plot

Space Plot

Histogram

Cross Plot

Video Animation

Motion Preview

MultiTime Plot

Particle Inspector

Particles Trajectory

Particle Detailed 3D View

External Coupling / Other Physics

ANSYS Workbench Parametric Integration

ANSYS Mechanical 1-Way Coupling (DEM-to-FEA)

ANSYS Fluent 1-Way Coupling (CFD-to-DEM)

ANSYS Fluent 2-Way Coupling

DYNARDO optisLang Integration