



PRODUCT SHEET

CloudWorx for Octave Forte Review

Analyze point cloud data within Forte Review



Octave Forte Review is the complete visualization environment for interactively reviewing and analyzing large, complex 3D models of process and power plants. Used by many companies around the world, the software provides all the visualization tools you need to review designs during engineering, construction, or maintenance – in one powerful application.

The CloudWorx add-on uses the Leica Geosystems Cyclone software platform to provide access to point cloud data inside Forte Review. This powerful combination enables you to perform a plant walkdown without leaving the comfort and safety of your office!

Laser scanning offers the most accurate, complete, and cost effective way to collect and work with as-built information for existing facilities. CloudWorx for Forte Review is the first point cloud solution to provide Octave users with the convenience and added value of working with rich, as-built laser scan data directly within Forte Review.

Review and visualize in context with the existing environment

Users enjoy a virtual site presence within their native review environment. Project and design teams can review, visualize, and dynamically interact with real-world, "as-found" point cloud conditions and a fully rendered PDS or Octave Forte 3D design model. You can confidently assess a design's impact on construction and/or operations.

Powerful point cloud management and measurement

CloudWorx for Forte Review users can quickly navigate and manipulate point cloud data. For any viewpoint, the application automatically selects the best set of data to load. It also offers ready access to all data without having to segment scan data sets into smaller blocks. To quickly isolate areas of specific interest, users can apply sections and spatial limit boxes and recall a defined partition on demand. Forte Review tools can be used for direct measurement on the point cloud, either within the point cloud or to design CAD elements.

Automated point cloud interference detection

Automatically detect clashes between modeled objects and point clouds, with results based on a user-defined tolerance threshold setting. All scan points indicating a clash within the defined threshold are visually highlighted.

High accuracy plus high performance

Enjoy both high-definition and high-performance point cloud management. Leica's point-based representation – in contrast to volumetric or "voxel"-based representation approaches – preserves the highest accuracy and fidelity of the raw scan data. From a performance standpoint, Leica algorithms treat data volumetrically for efficient processing, storage and sharing.

Multiple scanner format support

Octave users can take advantage of scan data from any laser scanner via industry-standard data formats. In addition, CloudWorx for Forte Review directly accepts, without any data format conversion, compact native data formats from the industry's most popular scanners. These include all models of Leica Geosystems laser scanners.

Benefits

- Easy to learn and easy to use
- Fast, accurate, comprehensive, reality-based visualization with point clouds
- Design verification with detailed, as-built point cloud data
- Measurements directly from the point cloud
- Minimized or eliminated site revisits
- Workgroup support

Large point cloud management

- Efficient loading
- High-fidelity visualization
- Real-time navigation
- Cyclone object database client/server technology – Fast data processing; efficient data management

Rendering

- Level of Detail (LOD) graphics preserve data quality
- "Single-pick" point cloud density control
- Intelligent memory management

Visualization

- View point clouds with intensity mapping and true color for photo-realistic views

Display control

- Control for displaying point clouds and snapping to point clouds
- Flexible point masking for fence, section (half-space), slice, and limit box (volume clipping)

Point cloud management

- Limit box manager
- Hide regions manager (fences)
- By scanner location
- Cut plane manager (sections, slices)
- Layers in Cyclone database

Measurement - support surface measuring

- 3D point coordinate
- Point-to-point
- Point-to-CAD entity

Interference checking

- Check designs for potential interferences with point clouds
- Highlight interfering points
- User-defined parameters

Point cloud archiving

- Point clouds as historical, as-built record

About Octave

Octave is a leader in enterprise software, turning data into decisive action and intelligence into your edge. Our software solves for and simplifies complexity, from the design and build to operations and protection of people, property, and assets— for any scope, at any scale. For decades, we've partnered with customers to sharpen performance, elevate efficiency, and amplify results. From factory floors to entire cities, our solutions are tuned to scale up what's possible from day one onward.

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