ENJOY THE BENEFITS:

- Fast manipulation of point cloud data within Smart 3D.
- Easy, clear viewing using slices, half-space sections, and limit boxes.
- Measurement and modeling of pipe center construction lines and diameter.
- Definition of accurate tie-ins.
- Clash checking and reporting.
- Direct measurements from point clouds.
- Multi-user, simultaneous network access.
- Support for any laser scanner.
- Graphical user interface that blends with Smart 3D commands.

CLOUDWORX™ FOR INTERGRAPH SMART™ 3D

Analyze 3D Point Clouds within Smart 3D

Intergraph Smart™ 3D offers market-leading, next-generation plant, offshore, and material handling design solutions. The CloudWorx™ add-on uses the Leica Geosystems HDS Cyclone™ software platform to provide access to point cloud data inside Smart 3D. This powerful combination enables you to perform an asset walkdown without leaving the comfort and safety of your office!

CloudWorx for Smart 3D is a plug-in for efficiently manipulating as-built point cloud data – captured by laser scanners – directly within Smart 3D for better retrofit design, construction, and operations. It provides a virtual site within Smart 3D for greater confidence in assessing potential construction and operational impacts of the new design.

Take advantage of the Smart 3D interface and tools to shorten the learning curve of working with laser scan data. Efficiently visualize and process large point cloud data sets. You can create accurate 3D as-builds, check proposed designs against existing conditions, perform critical construction and fabrication QA, and more … all directly within Smart 3D.

The Intergraph® solution is faster and easier than other point cloud plug-ins. A unique TruSpace viewing window provides intuitive, panoramic viewing so users can comprehend point clouds better. TruSpace also enables users to manipulate point clouds faster and directly “jump to” nearby scanner locations. The unique object database architecture even lets multiple users access all the scan data without having to segment it.

CONCEIVE AND DESIGN IN CONTEXT WITH THE EXISTING ENVIRONMENT

Design teams can conceive, design, visualize, and dynamically interact in context with the real-world, “as-found” point cloud conditions. Users experience a virtual site presence within Smart 3D.

POWERFUL POINT CLOUD MANAGEMENT AND MEASUREMENT

Quickly and effectively manage vast amounts of point cloud data. “Cut Plane Slices and Half-Space Sections” and/or “Limit Boxes” provide a quick and easy way to navigate point cloud data. Take measurements with familiar Smart 3D measuring tools.

3D AS-BUILT MODELING

Pipe center lines and diameters are automatically generated by selecting a single cloud point on the pipe surface. Using these construction lines and the Smart 3D native modeling tools, users can create catalog-based, intelligent, as-built piping systems. You can
also use the point cloud points to model structures, duct work, electrical tray systems, vessels, and equipment.

**AUTOMATED POINT CLOUD CLASH DETECTION AND REPORTING CLASH MANAGER**

Smart 3D provides powerful clash detecting and reporting tools for checking point clouds against modeled objects. Interfering points are visually highlighted and itemized, with clashes stored in the database for managing, tracking, assigning, and classifying. A powerful navigation feature lets users easily pull up isolated views of any clash.

**MULTIPLE SCANNER FORMAT SUPPORT**

CloudWorx for Smart 3D users can take advantage of spatial scan data from any laser scanner via direct import of industry-standard data formats. In addition, CloudWorx for Smart 3D directly accepts, without any data format conversion steps, compact native data formats from the industry's most popular scanners. These include all models of Leica Geosystems HDS laser scanners.

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**ABOUT INTERGRAPH**

Intergraph helps the world work smarter. The company’s software and solutions improve the lives of millions of people through better facilities, safer communities, and more reliable operations.

Intergraph Process, Power & Marine (PP&M) is the world’s leading provider of enterprise engineering software enabling smarter design and operation of plants, ships, and offshore facilities. Intergraph Security, Government & Infrastructure (SG&I) is the leader in smart solutions for emergency response, utilities, transportation, and other global challenges. For more information, visit www.intergraph.com.

Intergraph is part of Hexagon (Nordic exchange: HEXA B; www.hexagon.com), a leading global provider of design, measurement, and visualization technologies that enable customers to design, measure, and position objects, and process and present data.

For more information, visit www.intergraph.com.