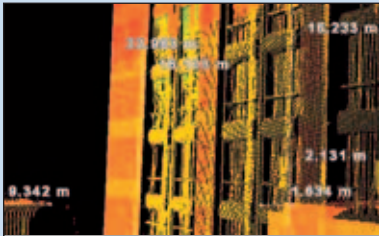


Leica Cyclone 5.8 VIEWER & VIEWER Pro

Powerful yet affordable 3D point cloud visualization, measurement, markup, and data exchange software for professionals



Accurate distance measurements can easily be created to enhance data analysis

Leica Cyclone VIEWER and VIEWER Pro

provide professionals with powerful 3D viewing and navigation of rich High-Definition Survey™ (HDS™) point cloud data and associated 3D models. Cyclone VIEWER is free standalone software for 3D viewing only, while affordable Cyclone VIEWER Pro provides additional, valuable measurement, markup, and data exchange capabilities. Professionals can analyze laser scan and 3D model datasets quickly and collaborate for better informed project decisions.

Powerful 3D Navigation and Visualization

Leica Cyclone VIEWER and VIEWER Pro have many features that let users work efficiently with rich laser scan data sets. Users can smoothly fly through and around point clouds, as well as pan, zoom and rotate views. Cyclone's Level of Detail (LOD) graphics display engine provides highly efficient 3D visualization and manipulation of even the largest point clouds and models.

For improved comprehension of dense point clouds, advanced visualization modes allow users to "see through" walls, apply shaded rendering, enhance edge display, and more. Additional visualization tools such as layers and 3D Limit Boxes allow users to focus in on specific areas of laser scan and model data.

Measurement and Markup

Cyclone VIEWER Pro's rich set of complex 3D measurement tools enables users to measure directly between selected scan points and/or modeled surfaces. Measurements stored during one "session" can be recalled and managed. Users can also easily markup scan images with redline tools to effectively communicate with others. "Redline Manager" allows users to handle multiple markups at once, including appropriate view points for individual redlines.

Collaboration via Databases

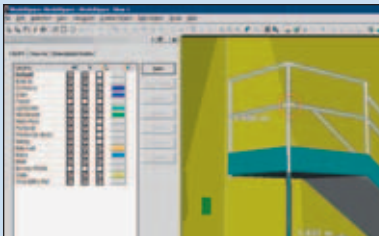
Cyclone's unique Object Database Client/Server architecture lets multiple users operate on the same scan data set simultaneously. Users can collaborate directly and share data across networks.

Data Management and Exchange

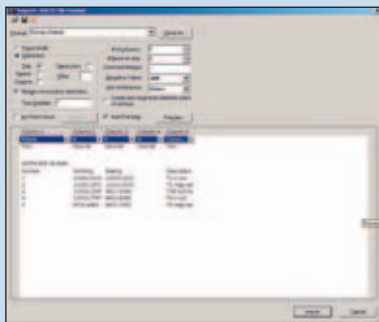
Leica Cyclone VIEWER Pro also serves as a versatile data exchange module. Numerous import and export formats are supported. Previously modeled content can be easily exported into industry standard formats for further use in other software. Industry standard, customizable and vendor-specific point cloud ASCII data export formats facilitate data exchange with other 3D point cloud processing and CAD packages.

Integrated Suite of Leica Geosystems Software Modules

Other modules include Leica Cyclone SCAN, Leica Cyclone REGISTER, Leica Cyclone MODEL, Leica Cyclone SERVER, Leica Cyclone II TOPO, Leica Cyclone PUBLISHER, and Leica TruView for free panoramic viewing-measuring-markup of laser scans by anyone. The Leica CloudWorx family of applications allows users to efficiently view and work with scan data directly within popular CAD applications.



Layers and red lines can be administered through "Manager" dialogues



The customizable Import Manager gives flexibility during data transfer

- when it has to be **right**

Leica
Geosystems

Leica Cyclone 5.8 VIEWER & VIEWER Pro

Features		Benefits
<p>Large Point Cloud and Model Support</p> <p>Visualization Navigation 3D Limit Box Manager for spatial navigation - set Limit Box by fence¹ Interactive visualization of large models and data sets Efficient loading Optional resampling of unified point cloud data set - User-specified average spacing (removes redundant points in overlap area) Cyclone Object Database Client/Server technology - Efficient data management</p>	<p>Visualization</p> <p>View point clouds with:</p> <ul style="list-style-type: none"> - Intensity mapping - True color - Elevation-based color mapping - One sided mode (front or back) - Silhouette mode (enhanced edges) <p>Map external photo to point cloud</p>	<p>Fast, Accurate, Comprehensive, Reality-Based As-built Data</p> <p>Efficient information extraction tools</p>
<p>Rendering</p> <p>Level of Detail (LOD) graphics "Single pick" point cloud density control Intelligent memory management Shaded lighting effects Environmental lighting</p>	<p>Data Import¹</p> <p>ASCII (XYZ, SVY, PTS, PTX, TXT, customized format) Zoller+Fröhlich ZFS, ZFC Riegl .3DD COE (Cyclone Object Exchange) AutoCAD, MicroStation via Cyclone COE Data - transfer plug-in (free) BMP, JPEG CGP Leica System 1200</p>	<p>Supports Wide Range of Plant, Civil, Architectural Applications</p> <p>Accurate 3D as-built models Engineering planning As-is condition assessment for range of applications including retrofit and revamp projects</p>
<p>Measurement¹</p> <p>Customizable Measurement Manager</p> <ul style="list-style-type: none"> - Save measurements - ΔX, ΔY, ΔZ distances <p>3D Linear Measurements</p> <ul style="list-style-type: none"> - Point-To-Point - Point-To-Centerline - Point-To-Unbounded-Surface - Center-To-Center - Geometric Object Volume - Cut/fill volume - Surface area - Elevation - Angle and back angle measurements 	<p>Data Export¹</p> <p>Seamless two-way data integration with AutoCAD and MicroStation enabled by:</p> <ul style="list-style-type: none"> - Leica's neutral file format, COE (Cyclone Object Exchange) - Cyclone COE Data Transfer plug-ins (free) <p>ASCII / DXF / COE (Cyclone Object Exchange) - AutoCAD, MicroStation via Cyclone COE Data - Transfer plug-in (free) BMP TIFF JPEG LandXML for civil applications SDNF and PCF export for pipes Leica System 1200 Cyclone II TOPO - *.cwf - *.pci Rectified, dimensionally correct orthophotos</p>	<p>Verify Designs with Detailed Point Cloud Data</p> <p>Facilitates adjustments to proposed retrofit designs for clash-free installation Supports construction monitoring</p>
<p>Markup and redlining¹</p> <p>Create redlines Redline Manager 3D redlining Create and manage object annotation</p>	<p>Trial Licensing</p> <p>Automatic one-time 5 day trial license period</p>	<p>Easy to Learn and Easy to Use</p> <p>Integrated into existing work processes Customizable interface, toolbars and keyboard shortcuts</p>
		<p>Workgroup Support</p> <p>Flexible licensing and enterprise usage options. Licensing options include node-locked, floating, or Leica EnterpriseElite subscription licensing. Database sharing via Cyclone-SERVER or via Terminal Server access.</p>
		<p>System Requirements</p> <p>Microsoft Vista* (32 or 64), or Microsoft Windows XP (SP1 or higher) (32 or 64), or Windows 2000 (SP3 or higher with up to date security patches) 2.0 GHz Pentium® 4 or higher/ Pentium® M Processor 1.7 GHz or higher 512 MB RAM (1GB or more recommended) SVGA or OpenGL accelerated graphics card Ethernet network card, for licensing</p>

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