

# Leica Cyclone BASIC 9.1

## Comprehensive laser scan software for field & office

Easily manage which ScanWorld is visible in the ScanWorld Explorer



3D Limit boxes allow users to focus in on specific areas

Redlines enable better communication with others in the project

Ability to quickly measure between scan points and/or modeled objects

### Powerful yet affordable 3D point cloud visualization, measurement, mark-up, and data exchange software for professionals.

Leica Cyclone BASIC provides professionals with a set of tools for efficiently managing and executing laser scanning/ High-Definition Surveying (HDS) projects. Professionals can collect and analyze laser scan data, while collaborating for better informed project decisions.

In the field, Cyclone BASIC operates time-of-flight and phase-based Leica Geosystems scanners. Users can manage scan parameters, scan target acquisition, field QA, digital imaging, geo-referencing and more depending on scanner capabilities.

In the office, Cyclone BASIC provides viewing and navigating of point clouds and 3D models, as well as measurement and mark up/redlining. Cyclone BASIC is a versatile back office data exchange module, supporting imports and exports of a wide range of formats.

#### Features and Benefits

- Operates time-of-flight and phase-based Leica Geosystems scanners
- Fly Mode for smooth, 3D fly-through navigation, including 3D mouse support
- Measurements between scan points and/or modeled surfaces
- Mark up scan images with redline tools
- Field geo-reference, auto-registration, traverse, resection, and known point set up\*

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Leica Cyclone BASIC operates time-of-flight and phase-based Leica Geosystems scanners with a laptop control option: HDS2500, HDS3000, HDS4500, HDS6000, HDS6100, HDS6200, HDS7000, ScanStation, ScanStation 2, ScanStation C10 and ScanStation P15/P16/P20/P30/P40.

## Powerful 3D navigation & visualization

Leica Cyclone BASIC lets users work efficiently with rich laser scan data sets and for improved comprehension of 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 efficiently focus on specific areas of laser scan and model data.

Users can smoothly fly through and around point clouds, as well as pan, zoom, and rotate views. Cyclone’s Level of Detail graphics display engine provides highly efficient 3D visualization and manipulation of even the largest point clouds and models.

## Scan data management, measurement and mark-up

Import scan data from virtually any scanner and export in popular formats as needed. After import, users can access a rich set of tools for measuring directly between selected scan points and/or modeled surfaces. Measurements stored during one session can be recalled later and managed. Users can also easily mark-up scan images with redline tools to effectively communicate with others. Redline Manager allows users to handle multiple mark ups at once, including providing appropriate view points for individual redlines.

## Comprehensive scanner control plus versatile field survey options

Cyclone BASIC offers simple and advanced scanner control. Smart-Scan Technology™ provides fully adjustable, horizontal and vertical scan density control. Scripting allows different parts of a scene to be automatically scanned at different scan densities. Traditional traverse methods are supported including side shots. Traverse editor supports non-sequential station set ups and full reconfiguring and management of traverse data in the field and office. Targets are recognized and extracted and QA checked.

### Leica Cyclone BASIC Specifications\*

<b>Controls</b>	Vertical & horizontal scan density control Scripting capability for automatic sequencing of scans
<b>Workflow</b>	Automatic target acquisition, Traverse & Resection
<b>Control data</b>	Auto compare control data to scan data In-field data geo-referencing
<b>Camera</b>	Acquire and display digital image (scanner with internal or external camera)
<b>Viewing</b>	Full 3D fly, pan, zoom, rotate; including 3D mouse support. Control color mapping using intensity, true-color, gray scale, color by elevation, etc.
<b>Hardware</b>	Calibration check, Dual Axis Compensator management Control of: Leica HDS2500 and HDS3000, HDS4500, HDS6000, HDS6100, HDS6200, HDS7000, ScanStation 2, ScanStation C10, and ScanStation P15/P16/P20/P30/P40
<b>Import</b>	Point data formats: XYZ, PTS, PTX, LAS, E57, ZFS, DP Project data from Leica Geosystems HDS and Pegasus scanners Image and model data: COE, BMP, TIFF, JPEG, PNG Control data from ASCII & X-Function DBX
<b>Export</b>	Point data formats: XYZ, PTS, PTX, E57, DXF, PCI/CWF, DBX, Land XML Image and model data: COE, BMP, TIFF, JPEG, PNG Store in JetStream ProjectVault**

### Hardware and System Requirements

<b>Minimum Specifications</b>
<b>Processor:</b> 2 GHz Dual Core processor or better
<b>RAM:</b> 2 GB (4 GB for Windows Vista or Windows 7)
<b>Hard disk:</b> 40 GB
<b>Display:</b> SVGA or OpenGL accelerated graphics card (with latest drivers)
<b>Supported operating systems:</b> Windows 7 (32 or 64 bit), Windows 8 & 8.1 (64 bit only), Windows 10 (64 bit only)
<b>File system:</b> NTFS
<b>Recommended Specifications</b>
<b>Processor:</b> 3.0 GHz Quad Core w/ Hyper-threading or higher
<b>RAM:</b> 32 GB's or more 64 bit OS
<b>Hard disk:</b> 500 GB SSD Drive
<b>Large project disk option:</b> RAID 5, 6, or 10 w/ SATA or SAS drives
<b>Display:</b> Nvidia GeForce 680 or ATI 7850 or better, with 2 GB's memory or more
<b>Operating system:</b> Microsoft Windows 7 – 64bit
<b>File system:</b> NTFS

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\* Reference the Leica Cyclone 9.1 Technical Specifications document for a complete listing of product specifications.

\*\* Enabled if Generator is licensed and configured correctly on JetStream ProjectVault

Leica Geosystems AG

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- when it has to be **right**

**Leica**  
Geosystems