

# Leica Cyclone BASIC 9.1

## Comprehensive laser scan software for field & office



Easily manage which ScanWorld is visible in the ScanWorld Explorer



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

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

Redlines enable better communication with others in the project

### Powerful yet affordable 3D point cloud visualisation, 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 analyse 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
- Powerful, smooth 3D fly-through navigation
- Measurements between scan points and/or modelled 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 9.1

## Point cloud scanning, visualisation, measurement, mark up and data exchange



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 and Visualisation

Cyclone BASIC lets users work efficiently with rich laser scan data sets and for improved comprehension of point clouds, advanced visualisation modes allow users to see "through" walls, apply shaded rendering, enhance edge display and more. Additional visualisation 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 visualisation 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 modelled 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

Leica 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 recognised and extracted and QA checked.

Leica Cyclone BASIC Specifications*		Hardware and System Requirements
<b>Controls</b>	Vertical & horizontal scan density control Scripting capability for automatic sequencing of scans	<b>Minimum Specifications</b>
<b>Workflow</b>	Automatic target acquisition, Traverse & Resection	<b>Processor:</b> 2 GHz Dual Core processor or better
<b>Control data</b>	Auto compare control data to scan data In-field data geo-referencing	<b>RAM:</b> 2 GB (4 GB for Windows Vista or Windows 7)
<b>Camera</b>	Acquire and display digital image (scanner with internal or external camera)	<b>Hard disk:</b> 40 GB
<b>Viewing</b>	Full 3D fly, pan, zoom, rotate; panoramic, full-dome viewing options Control color mapping using intensity, true-colour, gray scale, colour by elevation, etc.	<b>Display:</b> SVGA or OpenGL accelerated graphics card (with latest drivers)
<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>Supported operating systems:</b> Windows 7 (32 or 64 bit), Windows 8 & 8.1 (64 bit only), Windows 10 (64 bit only)
<b>Import</b>	Point data formats: XYZ, PTS, PTX, LAS, E57, ZFS, DP Project data from Leica HDS and Pegasus scanners Image and model data: COE, BMP, TIFF, JPEG, PNG Control data from ASCII & X-Function DBX	<b>File system:</b> NTFS
<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**	<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

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[www.leica-geosystems.com/hds](http://www.leica-geosystems.com/hds)



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