

## RefSet

Automatic Reference Line and Stakeout Program for Leica TS15/MS50, TS16/MS60

## Release Notes

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<b>Version:</b>	<b>V3.2</b>
<b>Release Date:</b>	01 Nov 2024
<b>Changes:</b>	Add Map View to Stakeout functions Add Reference Line selection by line segment in Map View Improvements in DXF file read times Add DXF file conversion to simple DXF to ensure the DXF File is valid when adding/measuring points to the file Add Text and Arrow Labels in Map View for DXF files Add Background DXF in Map View for other data file types Add Point ID description character separator option to allow Point Descriptions in Point IDs
<b>Bug Fixes:</b>	Fix incorrect error message when Virtual Geocom not installed on instrument
<b>Known Issues:</b>	See v3.0 below

<b>Version:</b>	<b>V3.1</b>
<b>Release Date:</b>	20 Apr 2022
<b>Changes:</b>	Add Distance Units setting in Config for metres or feet Add ASCII data file type Add DXF option to save data to a provisional CSV file for faster subsequent loading of DXF files Add Auto Start Delay setting in each stakeout functions config to delay start of auto stakeout Add Auto Survey to Survey function for automatic recording of points based on instrument movement
<b>Bug Fixes:</b>	Fix DXF file not reading 2D Polylines and not reading and applying Extrusion Transformation Fix crashing if Profiles Folder was empty
<b>Known Issues:</b>	See v3.0 below

<b>Version:</b>	<b>V3.0</b>
<b>Release Date:</b>	09 Oct 2018
<b>Changes:</b>	Remove Suspend and Shut Down buttons from start screen on TS16 or MS60 instruments which causes Captivate to crash Program name change from “RefSet Viva” to “RefSet” Add Target Type selection to Survey Rig/Holes function to enable using prisms as well as Reflectorless measurement
<b>Bug Fixes:</b>	Fix problems with upper/lower case alpha character input
<b>Known Issues:</b>	On TS15 instruments with Smartworx firmware version 6.03 or higher RefSet has problems when Smartworx is left running in the background, so on these instruments you <u>MUST</u> Exit the Leica Smartworx program and not just Minimise it before running RefSet

<b>Version:</b>	<b>v2.9</b>
<b>Release Date:</b>	22 Feb 2018
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Fix RefSet not working on TS16 or MS60 instruments with v3.0 or later of the Captivate firmware
<b>Known Issues:</b>	On TS15 instruments with Smartworx firmware version 6.03 or higher RefSet has problems when Smartworx is left running in the background, so on these instruments you <u>MUST</u> Exit the Leica Smartworx program and not just Minimise it before running RefSet

<b>Version:</b>	<b>v2.8 Beta</b>
<b>Release Date:</b>	20 Sep 2015
<b>Changes:</b>	Add support for TS16/MS60 instruments
<b>Bug Fixes:</b>	Nil
<b>Known Issues:</b>	Nil

<b>Version:</b>	<b>v2.7</b>
<b>Release Date:</b>	22 Jun 2015
<b>Changes:</b>	<p>Add <i>Stakeout Laser</i> function to install alignment lasers on curved and straight development drives</p> <p>Add <i>Stakeout Profile</i> function to check and stakeout development drive profiles on the drive face</p> <p>Add <i>Grade Display</i> options in the main RefSet configuration (V:H, H:V, %) to set the way grades are displayed</p> <p>Add <i>Screen Options</i> in the <i>Survey</i> functions to enable the information displayed to be changed</p>
<b>Bug Fixes:</b>	Fix map view display when data file has negative coordinates
<b>Known Issues:</b>	See v2.6

<b>Version:</b>	<b>v2.6</b>
<b>Release Date:</b>	18 Jul 2013
<b>Changes:</b>	<p>Change the <i>Check Drill Rig</i> function to <i>Survey Rig/Holes</i> to include the survey drill holes function including producing a drill hole report file for the survey</p> <p>Add <i>Offsets</i> option to the <i>Survey</i> function to offset a measured pt</p> <p>Add <i>Use Common Data File</i> option in the RefSet configuration</p>
<b>Bug Fixes:</b>	<p>Fix laser turning off after auto stakeout in firmware version 5.0</p> <p>Fix to stop level check when the TPS compensator turned off</p>
<b>Known Issues:</b>	Previous versions of RefSet before v2.5 will not work with version 4.6 or above of the firmware (Leica SmartWorx) installed. This version will run on instruments with any firmware version including 4.6 and above however a new Leica Virtual Geocom key is needed for version 4.6 and above.

<b>Version:</b>	<b>v2.5</b>
<b>Release Date:</b>	16 Jan 2013
<b>Changes:</b>	<p>Added <i>Survey</i> function for doing survey pickups using continuous reflectorless mode with coord check before point storage</p> <p>Added map view for point selection in all stakeout functions and working job display in <i>Survey</i> function</p> <p>Auto stakeout speed improvements</p>
<b>Bug Fixes:</b>	Fixed problem with auto stakeout in arc gradelines
<b>Known Issues:</b>	Previous versions of RefSet will not work with version 4.6 or above of the firmware (Leica SmartWorx) installed. This version will run on instruments with any firmware version including 4.6 and above however a new Leica Virtual Geocom key is needed for version 4.6 and above.

<b>Version:</b>	<b>v2.0</b>
<b>Release Date:</b>	02 June 2012
<b>Changes:</b>	<p>Major program update – completely revised program interface</p> <p>Added <i>Maximum Auto Search Time</i> to limit the search time in all auto stakeout modes</p> <p>Added <i>Stakeout Patterns</i> for auto ring stakeout and function for using a set <i>Auto Stakeout Height</i> in auto ring stakeout</p> <p>Added <i>Measured Line</i> and <i>Arc</i> grade line definitions</p> <p>Added <i>Check Drill Rig</i> function for checking the orientation (azi &amp; dip) of drill rigs</p>
<b>Bug Fixes:</b>	n/a
<b>Known Issues:</b>	This version will ONLY run on instruments that have at least version 3.5 of the firmware (Leica SmartWorx) installed

<b>Version:</b>	<b>v1.8</b>
<b>Release Date:</b>	17 Oct 2011
<b>Changes:</b>	Added reading of dxf files
<b>Bug Fixes:</b>	<p>Fixed “No Distance Measured” dialog appearing when a valid distance had been measured</p> <p>Fixed reading string files with points with no point description</p>
<b>Known Issues:</b>	This version will ONLY run on instruments that have at least version 3.5 of the firmware (Leica SmartWorx) installed

<b>Version:</b>	<b>v1.7</b>
<b>Release Date:</b>	26 Sep 2011
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Fixed program crashing when +/- key pressed in a blank textbox Fixed negative interval values not working as expected on ARef
<b>Known Issues:</b>	This version will ONLY run on instruments that have at least version 3.5 of the firmware (Leica SmartWorx) installed

<b>Version:</b>	<b>v1.6</b>
<b>Release Date:</b>	19 Sep 2011
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Fix program appearing to not work when there were no valid data files in the data folder
<b>Known Issues:</b>	This version will ONLY run on instruments that have at least version 3.5 of the firmware (Leica SmartWorx) installed

<b>Version:</b>	<b>v1.5</b>
<b>Release Date:</b>	05 Sep 2011
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Fix program crashing when measuring new points in v1.4 Fix slow point selection when using large data files Various fixes to key input and item selection
<b>Known Issues:</b>	This version will ONLY run on instruments that have at least version 3.5 of the firmware (Leica SmartWorx) installed

<b>Version:</b>	<b>v1.4</b>
<b>Release Date:</b>	23 Aug 2011
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Fix distance measuring problem when measuring to mesh, etc Fix data file selection when no memory card installed
<b>Known Issues:</b>	This version will ONLY run on instruments that have at least version 3.5 of the firmware (Leica SmartWorx) installed

<b>Version:</b>	<b>v1.3</b>
<b>Release Date:</b>	13 Apr 2011
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Fix Meas/Input Point not being stored in correct data file in some instances

<b>Version:</b>	<b>v1.2</b>
<b>Release Date:</b>	08 Mar 2011
<b>Changes:</b>	Add ability to save automatic setout points to a Log file
<b>Bug Fixes:</b>	Minor auto setout speed improvements

<b>Version:</b>	<b>v1.1</b>
<b>Release Date:</b>	24 Dec 2010
<b>Changes:</b>	Nil
<b>Bug Fixes:</b>	Various fixes to improve performance Various minor fixes to program operation & configuration

<b>Version:</b>	<b>v1.0</b>
<b>Release Date:</b>	08 Dec 2010
<b>Changes:</b>	Initial release
<b>Bug Fixes:</b>	Nil