Leica SmartWorx Viva
Field Software
Datasheet

SmartWorx Viva

Simple to use

- Clear graphics, logical menu structures and wizards to help with more complex procedures
- Non-technical terminology
- Pick it up, turn on and start working

Packed with features

- Survey and code points, lines and areas
- Stake point, lines and areas, simple and complex alignments and DTMs
- Easy to configure to your working style

Additional Apps for specific survey and staking tasks

- For both GPS and TPS instruments
- COGO calculations, volume computations, building façade measuring and much more
- Road, Rail and Tunnel staking and checking

- when it has to be **right**

Leica Geosystems

Technical Specifications

Leica SmartWorx Viva Functionality included with SmartWorx Viva and SmartWorx Viva LT	SmartWorx Viva	SmartWorx Viva LT
General		
Job, data and full coordinate system management	●	●
Data import: ASCII, DXF, LandXML	●	●
Data export: Custom ASCII, DXF, LandXML, FBK, RW5, RAW	●	●
Full map view functionality within data management and Apps	●	●
Viewing of DXF files as background images	●	
Multiple working styles	●	
Support of various total stations: TS/TM30, TPS1200+, TPS1200, FlexLine instruments, TPS1100, TPS 800, 700, 400, 300	●	●
Field to Office data transfer using ftp	●	●
Icon bar to show full instrument status information at all times with option to hide icon bar if maximum screen space is required	●	●
Permanent display of Hz and V (TPS) or coordinate quality (CQ) values (GNSS)	●	●
Survey		
Thematical point, line and area coding and free coding with up to 20 attributes. Codes can be selected from pre-defined list, or manually entered	●	●
Smart and Quick Coding	●	
Jump between GNSS & TPS Survey with one button press	●	
Auto logging of points with quality control. Various methods including by time, distance, stop and go	●	o
User defined survey screen – define what information you want to see when surveying	●	●
Measuring of offset points (TPS only)	●	
Measuring of hidden points with support of numerous devices such as DISTO™ (GNSS only)	●	●
Stakeout		
Staking of points and DTMs	●	●
Navigate to point using various methods: North, sun, point, to and from total station	●	o
Quality control – checking of coordinate differences before storing	●	
Automatic selection of next closest point to stake	●	
Graphical selection of point from map	●	●
Edit heights and offset heights of points	●	
Acoustic "reversing beep" when getting closer to point	●	
COGO		
Various computation methods: Inverse, Traverse (distance and bearing), Intersections, Line and Arc Calculations, Line and Arc Segmentations, Shift, Rotate and Scale blocks of points, Area Division	●	●
Graphical selection of points from map view	●	●
Plot view of computed COGO calculation	●	●
Comprehensive reporting / cut sheets	●	
Determine Coordinate Systems		
Rigorous computation of Onestep,Twostep and Classic 3D coordinate systems	●	●
QuickGrid calculations for fast field calibrations	●	●
Computation, viewing and flagging of residuals	●	●
Automatic matching of common points	●	●
TPS Setup		
Various setup methods – Set Orientation, Known Backsight, Multiple Backsights, Height Transfer, Resection	●	o
SmartStation setups	●	
Update setups later with subsequently measured target points	●	●
Results and plot view of setup	●	●

● = All options, methods and functionality available

o = Limited options, methods or functionality available

Leica SmartWorx Viva Additional optional Apps	SmartWorx Viva	SmartWorx Viva LT
Reference Line		
Staking of linear and area objects: Lines, arcs, areas and simple alignments	●	o
Staking of slopes relative to lines and arcs	●	
Quality control – checking of coordinate differences before storing	●	
RoadRunner – Road		
Stake and check alignments: Stringlines, single cross slopes, double cross slopes, batters, surfaces	●	●
Graphical staking and quality control	●	●
Save unfinished tasks for quick and easy resuming of the same task	●	
Alignments can be manually created or converted from numerous design formats using LGO Design to Field component	●	●
Comprehensive reporting / cut sheets	●	
RoadRunner – Rail		
Based on RoadRunner with additional functionality and focus for rail construction work. Ideal for construction and inspection of rail tracks	●	
Suitable for simple designs and complex designs – including handling of multiple canted tracks with external centerline	●	
Comprehensive reporting / cut sheets	●	
RoadRunner – Tunnel (TPS only)		
Based on RoadRunner with additional functionality and focus for tunnel construction work. Ideal application staking tunnel faces, profiles, drilling rig orientation or profile check or scanning	●	
Visualization of design and as built data	●	
Comprehensive reporting / cut sheets	●	
Volume calculations		
Measure and compute surfaces and volumes	●	●
Various methods to compute boundary	●	●
DXF export of measured surfaces	●	●
Comprehensive reporting / cut sheets	●	●
Reference Plane / Face Scan		
Define planes and measure points relative to the plane, or define the boundary of the plane and automatically measure points across the whole plane	●	
Ideal application for building facade or quarry face measuring	●	
Comprehensive reporting / cut sheets	●	
Survey Cross Sections		
Define automatic coding of a cross section	●	
Ideal for measuring road, rail or river cross sections where repetitive coding is needed	●	
Traverse (TPS only)		
Measure, compute and adjust traverses including survey observations	●	
Comprehensive reporting / cut sheets	●	
Sets of Angles (TPS only)		
Measure multiple rounds of angles and distances	●	
Ideal application when many repeated measurements to the same targets are needed – dams, quarries, building facades, large constructions	●	
Comprehensive reporting / cut sheets	●	
TPS Hidden Point (TPS only)		
Allows hidden points to be measured with a total station using a hidden point rod	●	
Ideal application for measuring into catch pits, drainage lines and other inaccessible places	●	
Other Apps		
Many more apps are available. Contact your local Leica Geosystems representative to find out if there is an app for you	●	

Swiss Technology by Leica Geosystems

TQM ISO 9001 / ISO 14001

Total Quality Management – our commitment to total customer satisfaction.

Leica Geosystems AG
Heerbrugg, Switzerland

www.leica-geosystems.com

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