

# 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   | SmartWorx Viva | SmartWorx Viva LT |
|--|----------------|-------------------|
| Functionality included with SmartWorx Viva and SmartWorx Viva LT   |                |                   |
| <b>General</b>   |                |                   |
| 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)   | ●              | ●                 |
| <b>Survey</b>  |                |                   |
| 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  | ●              | ○                 |
| 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)   | ●              | ●                 |
| <b>Stakeout</b>  |                |                   |
| Staking of points and DTMs   | ●              | ●                 |
| Navigate to point using various methods: North, sun, point, to and from total station  | ●              | ○                 |
| 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   | ●              | ●                 |
| <b>COGO</b>  |                |                   |
| 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   | ●              | ●                 |
| <b>Determine Coordinate Systems</b>  |                |                   |
| 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  | ●              | ●                 |
| <b>TPS Setup</b>   |                |                   |
| Various setup methods – Set Orientation, Known Backsight, Multiple Backsights, Height Transfer, Resection  | ●              | ○                 |
| SmartStation setups  | ●              | ●                 |
| Update setups later with subsequently measured target points   | ●              | ●                 |
| Results and plot view of setup   | ●              | ●                 |
| ● = All options, methods and functionality available<br>○ = Limited options, methods or functionality available  |                |                   |

| Leica SmartWorx Viva  | SmartWorx Viva | SmartWorx Viva LT |
|---|----------------|-------------------|
| Additional optional Apps  |                |                   |
| <b>Reference Line</b>   |                |                   |
| Staking of linear and area objects: Lines, arcs, areas and simple alignments  | ●              | ○                 |
| Staking of slopes relative to lines and arcs  | ●              | ●                 |
| Quality control – checking of coordinate differences before storing   | ●              | ●                 |
| <b>RoadRunner – Road</b>  |                |                   |
| 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  | ●              | ●                 |
| <b>RoadRunner – Rail</b>  |                |                   |
| 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  | ●              | ●                 |
| <b>RoadRunner – Tunnel (TPS only)</b>   |                |                   |
| 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  | ●              | ●                 |
| <b>Volume calculations</b>  |                |                   |
| Measure and compute surfaces and volumes  | ●              | ●                 |
| Various methods to compute boundary   | ●              | ●                 |
| DXF export of measured surfaces   | ●              | ●                 |
| Comprehensive reporting / cut sheets  | ●              | ●                 |
| <b>Reference Plane / Face Scan</b>  |                |                   |
| 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  | ●              | ●                 |
| <b>Survey Cross Sections</b>  |                |                   |
| Define automatic coding of a cross section  | ●              | ●                 |
| Ideal for measuring road, rail or river cross sections where repetitive coding is needed  | ●              | ●                 |
| <b>Traverse (TPS only)</b>  |                |                   |
| Measure, compute and adjust traverses including survey observations   | ●              | ●                 |
| Comprehensive reporting / cut sheets  | ●              | ●                 |
| <b>Sets of Angles (TPS only)</b>  |                |                   |
| 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  | ●              | ●                 |
| <b>TPS Hidden Point (TPS only)</b>  |                |                   |
| 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   | ●              | ●                 |
| <b>Other Apps</b>   |                |                   |
| Many more apps are available. Contact your local Leica Geosystems representative to find out if there is an app for you   | ●              | ●                 |



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