Simply Productive

Introducing Leica Viva...

Leica Viva is the latest Surveying equipment from Leica Geosystems. It is the most versatile surveying system available today and truly is a surveying system that knows no borders

…Let us inspire you

Leica Viva Newsletter 01

This first Leica Viva technical newsletter focuses on the field software "SmartWorx Viva", it contains an introduction to the software with a Video Tour and list of our top ten favourite hints, tips & tricks. Also you will learn about SmartWorx Viva LT and the different available apps.

In addition the final page of this newsletter contains our "Local Viva" section where there is a report from a specific country, region or customer. If you wish to feature in a future report please contact your local Leica representative.

The report in this first issue is news of an important new customer in Switzerland, the home of Leica Geosystems.
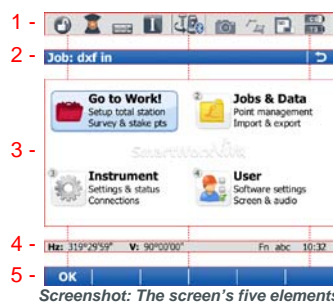
An Introduction & Video Tour of SmartWorx Viva

Leica Viva combines a wide range of innovative products designed to meet your daily challenges. One of the key products is the field software, SmartWorx Viva. This article briefly introduces the software…

SmartWorx Viva is the latest field software from Leica Geosystems, designed to help you complete your tasks with minimum fuss in the shortest time.

The goal for this software was to achieve high levels of usability whilst maintaining and expanding a high level of functionality. This can be seen throughout the software with the clear graphics, logical menus and the intelligent use of language, colour & sound. Influences of past software are blended with new controls and menus to create a pleasant, intuitive user experience.

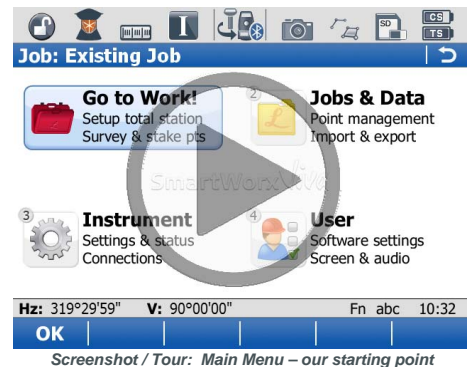Before conducting a tour of the menus, it makes sense to understand the screen:

Screenshot: The screen's five elements

The image above shows the screen split up, where:

1. Is the Instrument icon toolbar, providing live status information and useful links.
2. Is the title line for the current panel / app / job.
3. Is the main working area.
4. Is the Information line, showing measurement information (e.g. angles or CQs), the time, a "Function" button, a "Caps Lock" and additional pop-up information messages (shown in yellow).
5. Six 'soft key' buttons, used as touch screen buttons and indicators for the function of F1 to F6.

Now you know the screen layout, the tour can begin…

Screenshot / Tour: Main Menu – our starting point

The image above shows the main menu of SmartWorx Viva, click on this to begin the video tour.

The tour begins by following through the Start-up wizard to define the instrument and job to be used then setting up the TPS and using it to survey some points. The tour then continues by completing a simple task from each of the four main menu areas: Viewing data from 'Jobs & Data', editting the measurment mode from 'Instrument', describing the contents of the 'User' menu and computing a COGO calculation then staking the resulting point from 'Go to Work!'.

A similar tour can be replicated by:
1. Turning on the CS, completing the Start-Up wizard and connnecting to a TPS
2. Navigating to 'Go to Work' > 'Survey', and recording some measurements.
3. Navigating to 'Jobs & Data' > 'View & edit data' to see the surveyed points
4. Navigating to 'Instrument' > 'TPS settings' > 'Meas mode & target' to edit settings.
5. Navigating to 'User' and reviewing the options.
6. Finally selecting 'Go to Work!' again to enter into COGO, Stakeout or another desired app.

Remember: when repeating this tour, take a look around each menu to see what it contains.

Note: A full menu tree is available in the technical reference manual.

… let us inspire you

SmartWorx Viva & Viva LT

When viewing Windows CS on a Leica Viva CS there are two SmartWorx Viva icons:

The blue icon represents SmartWorx Viva, the full software where all licensed options & apps can be purchased and used.

The orange icon is SmartWorx Viva LT, a reduced version of the software where not all options & apps are available.

What's the difference…

Upon Start-up the first difference you notice is colour; SmartWorx Viva is blue and LT is Orange. However, the differences are more than this as the LT version is limited…

Features such as background CAD files, handling of multiple working styles, GPS Quality control and full functionality of every loadable app are only available in the full SmartWorx Viva software. A complete list of the differences is in the SmartWorx Viva Datasheet
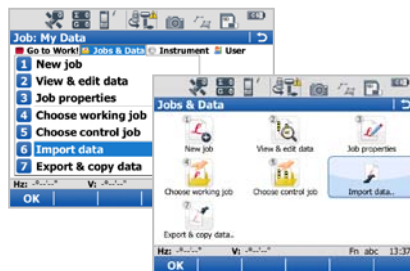
It's all about choice...

If you want the full functionality with the ability to use any option or app then go for SmartWorx Viva. If you don't need this or you have a smaller budget then maybe LT is for you…
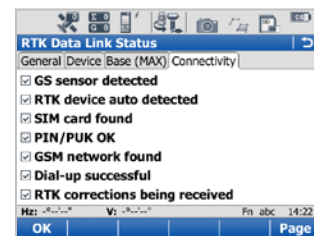

SmartWorx Viva: Hints, Tips & Tricks

This article introduces our top ten hints, tips & tricks in SmartWorx Viva to personalise your Viva experience and achieve more…

SmartWorx Viva is an incredibly easy to use, yet highly configurable software. Achieving both of these, almost contrasting, aims is a difficult balancing act so some settings are not immediately obvious at first. Here you will find a list of our top ten settings / options.

1 **Selecting between drop down and Icon driven menus**. In the 'General' page of 'User' > 'System settings' > 'SmartWorx options' the check box "Use drop down menus in the main menu" defines if your menus are displayed in a 'drop down list' or 'icon format'.

Screenshots: Drop down and icon menus

2 **Hiding the Icon bar to maximise the working area**. In the 'Screen' page of 'User' > 'System Settings' > 'Screen & audio' there is a check box "Minimise instrument icon tool bar". This controls if the icon bar is visible or not. When not visible you can tap in the top left hand corner of the screen to make the icon bar temporarily return.

Screenshots: Icon bar hidden and temporarily shown

3 **Check the RTK connection screen**. This panel contains a connection checklist, giving you the status of each element of the RTK connection. If an element is working correctly then a tick is displayed in the checkbox, if not then the checkbox remains empty.

The detailed status provided in this screen is very useful when checking connections or trying to identify problems. It is seen by going to the 'Connectivity' page of the RTK status page, which is accessed via 'Instrument' > 'Instrument Status' > 'RTK data link status' (or by clicking on the RTK icon in the icon bar).

Note: This panel is also in the RTK rover wizard, it appears in the final stage during the connection test.

Screenshot: Connectivity status

4 **Define your own Hot Keys and Favourites menu**. SmartWorx Viva can have a favourites menu for TPS and GPS modes defined. Also, if you have a CS15 you can define actions for the hot keys F7 to F12. The process of configuring the hot keys and user menus takes just a few minutes and only needs to be carried out once, but will save you time over and over again in the field.

The hot key and favourite menu configuration is done in 'User' > 'Work Settings' > 'Hot keys & favourites'. The defined functions are then accessed either by simply pressing the configured hot key or by entering the favourites menu via the keyboard's 'star' button.

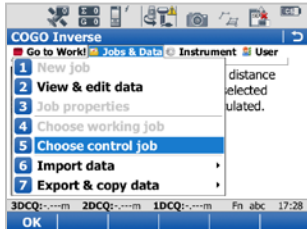*Note: to access the user favourites in TPS mode press 'Fn' before pressing the 'star' button.*

5 **Use the 'OK' button**. SmartWorx Viva software and CS field controller were designed to be used together. The software is created so that using the CS should feel natural, the OK button is not only central on the CS, but it is also central to this philosophy.

The OK button can actually be used in many ways depending on where you are and what you are doing, although it's action can differ slightly. Generally the OK button is mapped to perform the same functions as the first function key (F1 on the CS15). However, when that function key has no action assigned to it then OK will either act as enter (e.g. in a data entry field or drop down list) or as "OK" when there are onscreen messages which need to be confirmed.
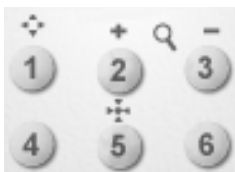
6 **Use the 'Home' key**. Another useful CS key is the home key. Pressing this key allows you to call up the 'drop down' version of the main menu from virtually anywhere in the software, allowing you to make changes and view settings on the fly, without having to leave the app you are already in.

Screenshot: After pressing the 'Home' key

7 **Use numeric keys in the map**. The SmartWorx Viva map is a very useful scree, as all your data can be seen and reviewed. The map screen uses a toolbar to aid navigation for zooming and centring the map. However, if you prefer not to use the touch screen and map toolbar, numeric keys can be used to for the required functions.

1 zooms to extents, 2 zooms in whilst 3 zooms out and 5 centres the map. Additionally the 0 key performs a map refresh where the map is completely redrawn.

8 **Access windows functions by holding Fn**. The CS controllers run on a Windows CE platform, so some options (e.g. volume) are controlled from inside Windows rather than having specific settings inside SmartWorx Viva. However, as you may not want to have to leave SmartWorx every time you wish to change one of these options (e.g. to increase the volume), so tools exist to access them directly.
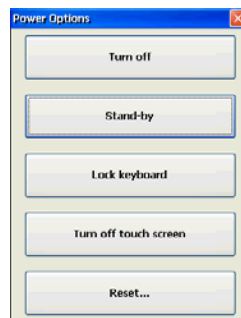
To access these 'quick' tools / shortcuts press and hold the Fn button on the keyboard then use buttons on the CS which have a 'green' icon printed next to them (e.g. '6' & '9' control volume, '4' & '7' control screen brightness and the 'Home' key brings up the Windows start menu).

9 **Use the 'Power Options' screen**. If you press and hold the power button for 2 seconds the Power options box is shown, here you can turn off the CS, put it into stand-by or reset it as well as being able to lock/unlock the keyboard and turn the touch screen on/off.

Note: The power button and the power options screen continue to work as normal even if the keyboard is locked and the touch screen is turned off.

Generally, the CS does not need to be turned off, as Stand-by minimises power consumption and allows for a very quick resume to working (ideal for breaks of almost any duration). To minimise power usage communication to other devices (e.g. BT to GS) are stopped when the instrument is in stand-by mode, so do not be surprised to see the blue BT light of your GS change to green once you put the CS into stand-by.

When selecting to reset the device from the Power Options screen you are asked to decide how you wish to reset. You can decide to have the system perform a simple off & on reboot or to have some settings reset during the reboot process e.g. you can reset the registry to remove all BT devices from the CS.

Note: A separate CS specific newsletter will discuss the different power options / modes and when to use them in more detail…

10 **Use The Wizards**. SmartWorx Viva contains wizards designed to make the software easier even for experienced users. The wizards lead you through a step-by-step configuration process, minimising the amount of effort and menu navigation required to setup something (e.g. RTK over NTRIP). So one of our biggest tips is to use these wizards as much as possible…

The following sections explain the wizards available within SmartWorx Viva and when you should use each one. Currently there are four such wizards, but watch this space as more are planned!

The StartUp Wizard: This wizard automatically starts when the system is turned on and helps get the instrument and software ready to work..
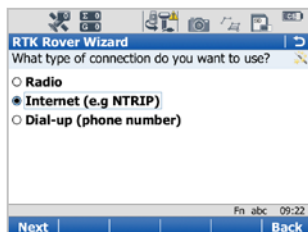
Screenshot: The 'StartUp' wizard

This wizard allows you to select what instrument and what job you want to use. Additionally, if TPS is the selected instrument you will also get the chance to check the TPS is level and enter the correct atmospheric parameters. Each panel in this wizard has the option "Don't show this panel during StartUp" as a check box, so this wizard can be customised to display only the screens you need.

Tip: Panels can be turned back on from: User > System Settings > SmartWorx Options

The RTK Rover Wizard: Setting up your RTK communication can be one of the most tricky configuration tasks, especially when using an Internet connection and NTRIP. RTK profiles are files containing the settings required to configure the instrument to receive RTK data in a certain way. The wizard helps you create, edit and load profiles for all your different RTK connections.
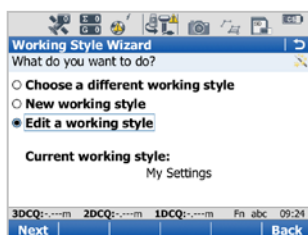
Screenshot: The 'RTK rover' wizard

The wizard should be used to manage your different RTK profiles. The wizard is found in the 'GPS Settings' section of the 'Instrument' menu.

Note: A separate newsletter will discuss RTK configuration and it's rover wizard in more detail…

The Working Style Wizard: A working style is a "saved version" of your configured settings and preferences within the SmartWorx Viva software.
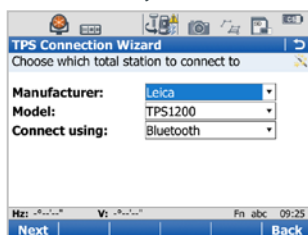
Screenshot: The 'Working style' wizard

The wizard allows you to run through the many configuration settings all in one place and helps you create, edit & choose a working style. The wizard is found in the 'User' menu.

Note: A separate newsletter will discuss Working Styles and the wizard in more detail…

The TPS Connection Wizard: This wizard assists you in establishing a connection between your CS and a Leica TPS. You select what TPS to use and how you want to connect to it – then the wizard advises you what to do next and tests your connection.

Screenshot: The 'TPS connection' wizard

The wizard is found in the 'Instrument connections' section of the 'Instrument' menu.

Note: A separate newsletter will discuss connecting to different TPS instruments in more detail…

Local Viva: Switzerland

The first local Viva report comes from Switzerland, with news of an exciting new customer, Swisscom.

Swisscom is Switzerland's leading telecoms provider, with 5.5 mn mobile customers and around 1.8 mn broadband connections.

When they were looking for high end GNSS measuring equipment, Leica Viva was presented to them. It quickly became clear that this solution would offer the high productivity, reliability and quality required for their asset management needs.

Following the tender process Swisscom have placed an order for 100 GNSS rovers, each rover set consists of a GS15 performance, a CS10 and SmartWorx Viva.

The equipment will be used to accurately plot the positions of new & existing cables and communication infrastructure. Knowing accurate positions for these helps Swisscom to reduce costs and public disruptions by minimising the risks of accidental damage and time spent onsite.

Deliveries of this order have now been received and the first round of the extensive training process completed, with positive results and feedback.

Next issue & future topics...

This first issue gave an introduction to the Leica Viva software, SmartWorx Viva. The next issues will complete a set of introductory newsletters, by providing introductions to the Leica Viva CS and GS hardware.

Please contact your local Leica representative if there are specific topics you would like to see covered in future Viva newsletters. We welcome all suggestions, so please get in touch…

- when it has to be right

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