System Viva – How to Load a Format File and Export a Custom Data Format

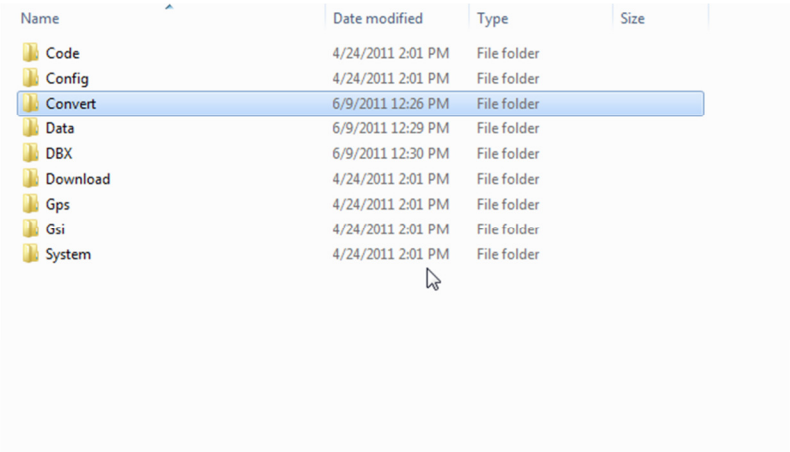
System Viva Firmware Version 3.50
JUN11

The explanation in this guide is for loading a Leica format file into the system and using it to export a custom ASCII file for extracting data from a SmartWorx survey job. You can create your own custom format files to generate needed reports and data exports.

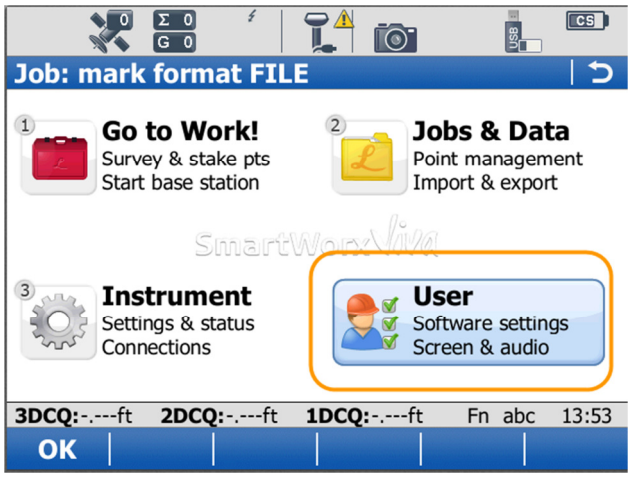
Transferring a Format File into SmartWorx Viva

In this example a format file used for exporting information about points located in a GNSS network for gaining detailed information about each point. This could be used for generating a data report for points located for survey control points on project sites or for ties to know local control monumentation. The format file beings used is named Network Point Report. FRT. This format file was created by G360, LLC by using the Format File Manager in Leica Geo Office version 8.10.

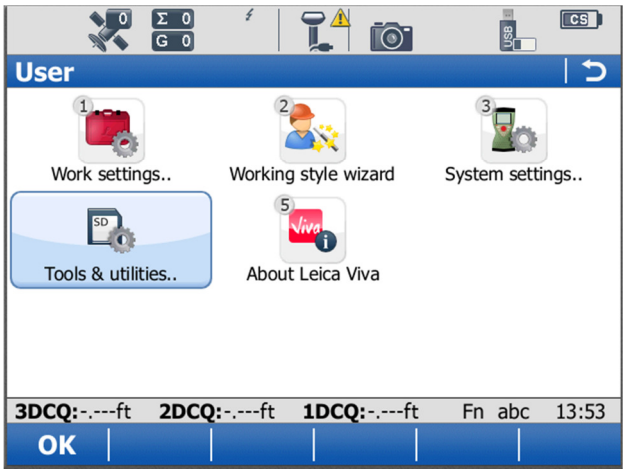
The first step is to transfer the format file to the internal memory of your CS controller or TS instrument. To do this copy the format file (.frt) into the **\Convert** folder on the memory device you are using for data transfer. For example, if you are using a USB memory stick to transfer file, place the .FRT file in the **\Convert** folder on the formatted UDB stick and place it into the Viva unit.



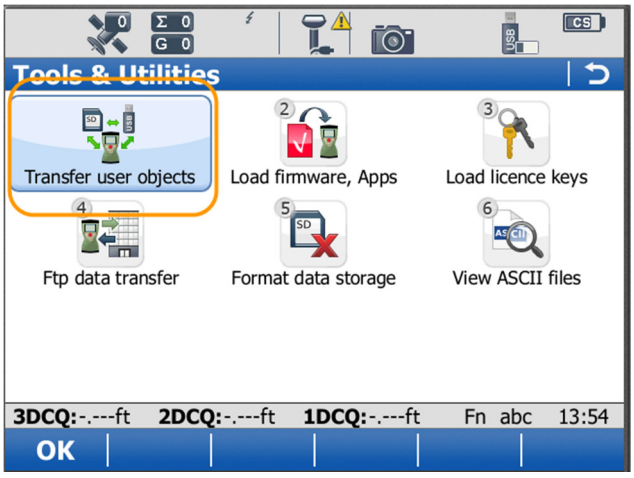
Next, from the main menu select the **USER** icon….



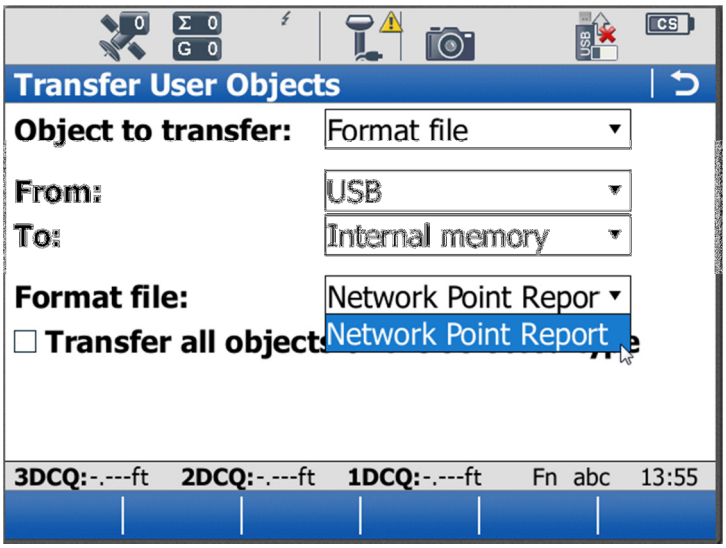
Next, the select the **Tools & utilities…** icon...



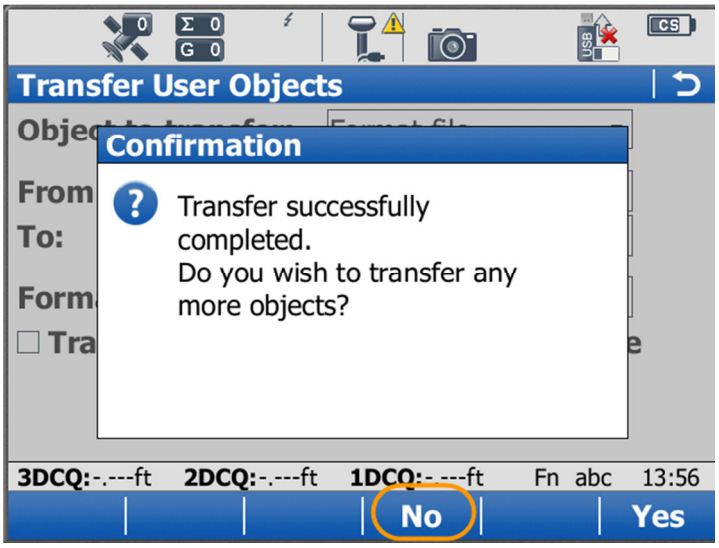
Next choose the **Transfer user objects** icon….



The format file needs to be transferred from the USB stick to the internal memory of the unit so that it can be used to export data. In the **Object to transfer:** field select **Format file**. In the **From:** field select **USB** and in the **To:** field select **Internal memory**. The **Format file:** filed will populate with the name of the format file if it is the only file in the \Convert folder on the USB stick. If you have multiple files you will need to highlight this field and select the Enter key to list all available files for transfer. Select the **OK** function key to transfer the format file to the units internal memory.

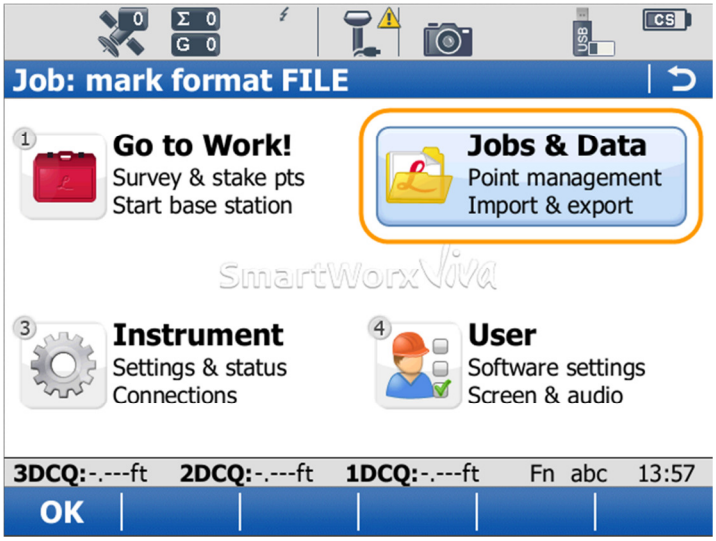


The system will prompt you to choose to transfer more objects if needed. Select the **NO** function listed and return to the main menu.

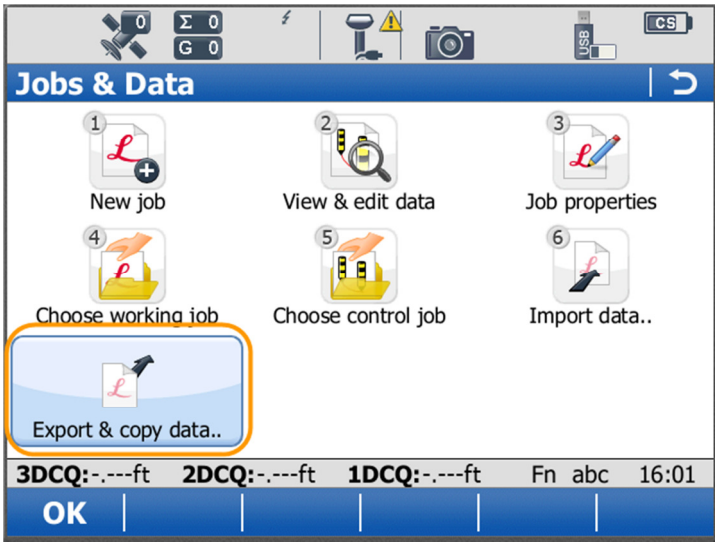


Export Report File from the Working Job

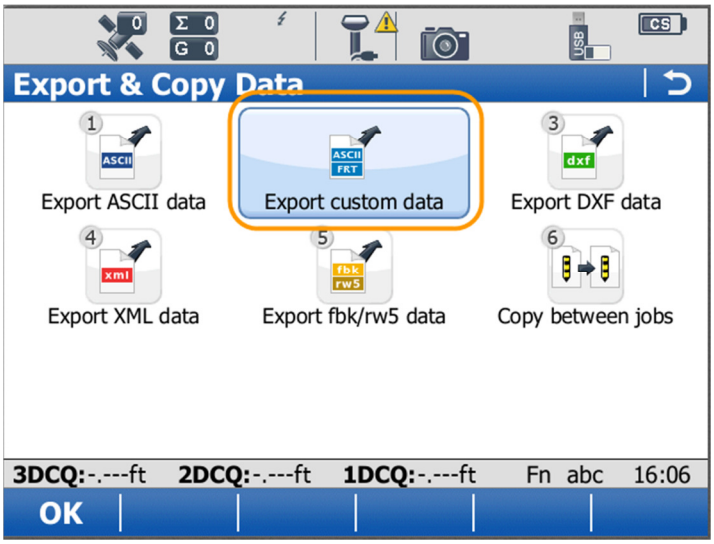
To export data from the current working select the **Jobs & Data** icon….



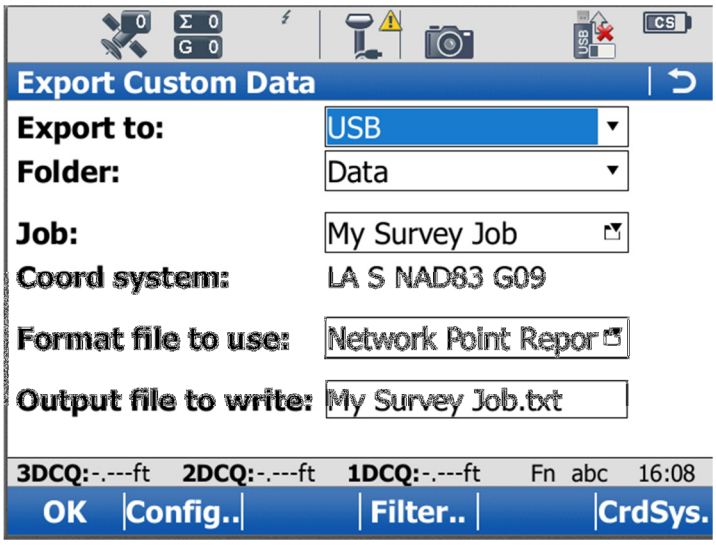
Next, choose the **Export & copy data…** icon…



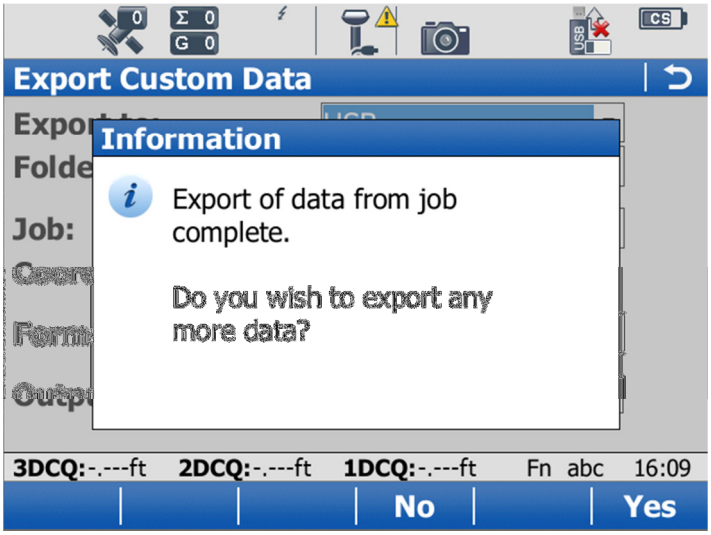
Next, choose the **Export custom data** icon…



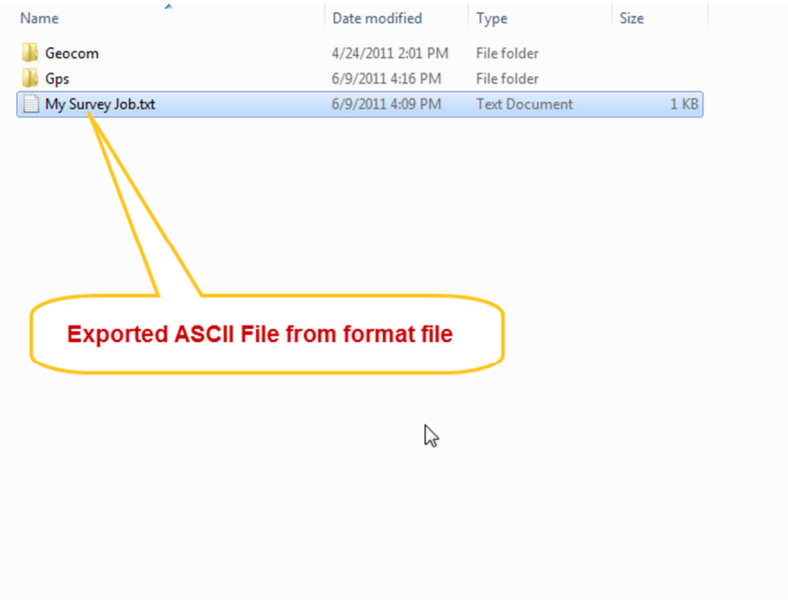
To export the data set the **Export to:** filed to USB and the **Folder:** field can remain at the value of **Data** to save the file to the \Data folder on the USB stick. The **Job:** field will default to the current Working Job. The coordinate system attached to the current working job is displayed i the **Coord system:** field and cannot be edited in this screen. The **Format file to use:** field should be selected and the format file needed for the export chosen. The **Output file to write:** field will default to the same name as the working job selected. This field can be edited in desired. Finally, select the **OK** function to export the file.



The system will compile and export the ASCII file for the data. When the system prompts if you would like to export more data, select the **NO** option.



The file exported was save to the \Data folder on the USB stick attached to the unit. You can transfer this file to a PC for additional use or editing if needed.



A portion of the file exported from this example is shown. The advantage of the Leica database is shown here in that the report was designed to export detailed information from RTK positions recorded in a GNSS network. There are many specialized fields recorded in the Leica database.

GPS Network Observation Report

_____

RTK Network Information for Point ID: PT 1

Network Connection for Observation:

IP Address: smartnet.la.leica-geosystems.u
Port Used: 10000
Mountpoint Used: RTCM3_MAX

Network Type at Observation
Network Type (Max, I-Max, Nearest, VRS): MAX
Network Soution Type at Observation (Single Baseline or Newtwork): Network solution
RTK Data Format Received (RTCM3, Leica, CMR+, etc.): RTCM_V3
Number of Reference Stations Used in Soultion (1 Master + n auxiary): 6

For Leica SmartNet Network (No Values Shown if Type not MAX)

Master Auxillary station for Solution: 544
Minimum Number of Common Satellites between Reference and Rover: 11

For Single Baseline (Nearest, IMAX) or VRS Network:

Physical reference Station ID (Master) for I-Max or VRS: 544
VRS Non-Physical Refrence Station ID if Using VRS: --------

Satellite Info:

GPS Satellites Tracked: 7
GPS Satellites Used in Solution: 7

GLONASS Satellites Tracked: 4
GLONASS Satellites Used in Solution : 4

Point ID - PT 1
Date of Observation (Day/Month/Year): 2 /6 /11

Time of Observation (24 Hour): 6 :51:28.09

Local Coordinates (Projection):

Northing: 781683.2822
Easting: 3333188.0075
Ortho Height: 92.376

Geoidal Seperation Used (N): -89.320

Point Code: RTK Point

Antennae Height Used at Observation: 6.562

Number of RTK Positions Observed: 8

Coordinate Quality Values at Observation:

3D CQ: 0.080
2D CQ: 0.036
1D CQ: 0.071

Local Geodetic Postion:

Local Latitude (DMS): 30 °38'57.5869" North
Local Longitude (DMS): -91°10'0.6542" West
Local Ellipsoid Height: 3.056

DOP values at Time of Observation:

GDOP: 1.85
HDOP: 0.80
VDOP: 1.40
TDOP: 0.90

----------End of Point Report ----------

If you have Technical Support questions, please contact us at G360…..

Technical Support: 225-683-6170

Email: support@geomatics360.com