## **New Functionality**

**GPS Measurements** – Two new options in Program Settings that will speed up the measurement process when using an RTK receiver.

## **Auto GPS Stats**

If this is turned on, during a measurement if the tolerances are met the store point screen will appear automatically. If this is off, then the user is required to press continue to get to the store point screen.

## **Auto GPS Store**

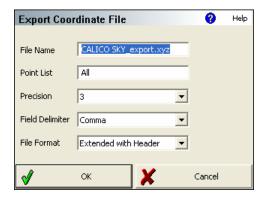
If this is turned on, the user will not see the store point screen. It is a fast way to store your GPS points and is useful when used in conjunction with the Auto GPS Stats option.

**Staking Turn To for Robotic Instruments** – There is now an option in Stake Settings that is useful for motorized instruments. If you turn off "Robotic Staking", then during stakeout, the instrument will display the angle to turn to and the distance that needs to be measured. It also gives you the option to have the instrument turn to the point. If it left on, then it will remain in the dynamic staking mode with continuous staking updates.

**Stake 3D or 2D for Motorized Instruments -** If you have a motorized instrument, including robotics, you can control how FieldGenius turns the instrument during stakeouts. If you want FieldGenius to compute the horizontal and vertical angle needed to stake your point, use the 3D (HA + VA) option. This will force the instrument to turn to both the HA and VA. If all you want is the horizontal angle to be turned and the vertical left alone, select the 2D (HA) option.

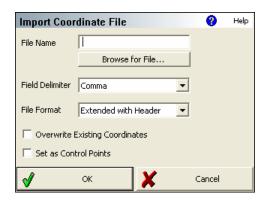
**OmniSTAR** - Support for Novatel GPS with OmniSTAR corrections now included with this version.

**ASCII File Export** – This has now been updated so you can now choose the delimiter type, comma or space. You can now export column headers, and if you choose the extended type, the WGS 84 position will also be included with the export. So you can now export WGS 84 GPS derived position data from FieldGenius in an ASCII format.

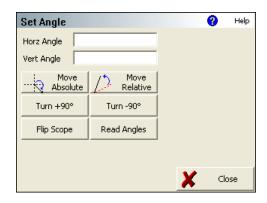


April 15, 2005 Page 1 of 6

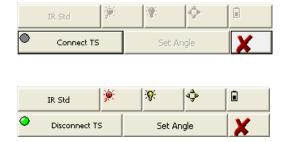
ASCII File Import – This has now been updated to allow import of space delimited files. It also now supports our new "extended" ASCII export so you can import WGS 84 position data into your project.



Set Angles Dialog - Can now dynamically read angles by using the Read Angles button.



**Instrument Connect** – On the instrument settings toolbar, the user can now connect to the instrument by pressing the **Connect TS** button.



Once connected you will see a green circle indicating a successful connection.

Pressing this button again will disconnect FieldGenius form the instrument.

**Topcon AP-L1A** – Support for this instrument has been implemented. You can now choose AP-L1A as an instrument type in version 1.2.

April 15, 2005 Page 2 of 6

## **Program Fixes or Updates**

**Non Numeric ASCII file import** – FieldGenius now supports importing ASCII files that have Alpha Numeric Point IDs. Example would be CP1, CP20, PI3.

**Select point from list** – This has been fixed so the description field can now be tapped to sort your list.

**3D View** – This has been corrected so if you select a new origin, the grid will be displaced correctly.

Select Point Toolbar - This will now always auto size the columns upon opening.

**Stake Settings** – These will be loaded automatically from the msurvey.ini file when a project is opened. Before, it would only be read in once a staking operation was executed.

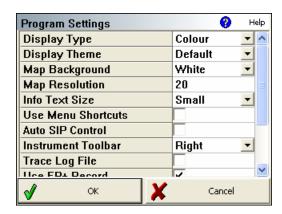
**FG Current Version** – The FieldGenius version number will now be stored in the raw file in JB record. It will appear directly after the job name.

JB,NMCALICO SKY(v1.2),DT04-14-2005,TM08:37:22

**Inverse a closed figure** – If the closed figure had an arc, an incorrect perimeter distance and enclosed area was being computed. This has been fixed.

FBK File - Point are now sorted numerically.

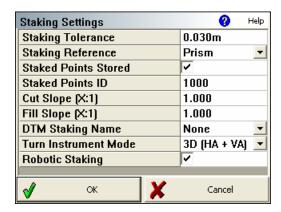
**Program Settings:** This has been updated to allow for easy implementation of future options. It now uses a grid style.



**Rotate Map -** Added functionality for rotating the map display by 180 degrees to support south oriented map projections such as those used in South Africa.

April 15, 2005 Page 3 of 6

**Stake Settings:** This has been updated to allow for easy implementation of future options. It now uses a grid style.



**Road Alignment** – When using the chain method to select existing figures or points, upon closing the alignment editor the point chooser toolbar would remain on the screen. This is now fixed.

**Emulator-** Window Focus problem when a Display Theme other than System Default is used, program must be End Task'ed and restarted often. This is now fixed.

**Open Project -** If you open a project, and then open a different project without closing FieldGenius. The Coordinate Database title bar would retain the old project name when a new project was opened. This has now been corrected.

**Review Project** – The select Raw File and Feature buttons will now default to FG Projects so the user doesn't have to browse from root.

**Import LandXML File** – The file chooser now defaults to FG Projects so user doesn't have to browse from root.

FBK Export – Will now automatically set FBK Job Name using the project name

**Inversing 2 points** – Results used to list GR as a distance (m or '), should be a %. This has now been fixed.

**Prism Offsets -** In the multiset routine, if a user has a backsight prism offset specified in their EDM Settings, it wasn't applying the offsets to the reverse shots to the backsight. This is now fixed.

**GPS Coordinate Display -** Using the button to toggle the GPS coordinate display will automatically display the results toolbar.

**Antenna Heights -** Fixed problem of an undefined number being calculated for the true antenna height. Bug occurred when measured height was less than horizontal offset.

**Stake Point Screen** – If the user defined an offset by direction and distance, and staked some points. When they exited the stake point screen, and used it again the values were not being "flushed" and set to zero for the offset direction and distance. This is now fixed.

April 15, 2005 Page 4 of 6

**Raw File** – All measurement "notes" now include the height or rod and is stored at the end of the observed values note in the raw file.

- --Occupy Notes
- -- Observed Values: HA 0 00'00.0" VA 90 00'00.0" SD 25.00' HD 25.00' HR 5.25'

**GPS Masks** – This has been updated so the Horizontal and Vertical RMS values are now used as a mask. It will compare the user specified values to those being computed by the receiver and the point will only be accepted if they are equal to or lower than those computed by the receiver. Before, FieldGenius would average all epochs and compare the averaged RMS to the mask settings.

**Perpendicular offset from a line to a point –** If the point chooser button is turned on but not active. You need to press the button twice to make it work. This has been corrected.

**Staking List -** When staking from the stakeout list, using the new feature where you can add to the list by selecting the point from the map and adding it to the list in the order selected, does not seem to operate properly. The points being pulled from the list are every other one. So if you select points 1, 8, 15, 7, 21 from the screen to stake, then set stake from list, only points 1, 15 and 21 would be pulled from the list. This is now fixed.

**Stake Points -** If you click Design Pnt & Pick a Point, the Elevation field is not being initialized. This is now fixed.

**ASCII Export** – Speed issues when exporting large files have now been resolved.

"No Link" Tolerance - This has been increased from 1 second to 2 seconds.

"No Link" Tolerance – Added ability to have a user definable "No Link" mask value in the msurvey.ini file. Value is only editable from a text editor, not from within FieldGenius.

**Novatel OEM4 -** Added carrier phase data logging functionality.

**Trimble 5600 Driver** – Updated the driver so it now can be used with the newer Trimble 2.4 GHz Radios.

**Trimble 5600 Driver** – Updated the driver so a user can now connect FieldGenius directly without having to remove the face plate. You have to set the model to "5600".

**ASCII Import -** The "Set as Control Points" toggle will now correctly set the SurveyRoleType to the Control attribute. Coordinate value can not be altered, but the point can still be erased.

**ASCII Import** – When an ASCII file is imported into a project, Store Point (SP) records will be written to the raw file. Also a comment will appear indicating the name of the ASCII file that was imported.

**Zeiss** - Removed Zeiss from the list of available total stations.

Battery Status - Selecting battery status now automatically opens the info toolbar.

Level bubble - Now maximized for size and numerical refresh is smoother.

April 15, 2005 Page 5 of 6

**Use EP+ Record -** When this is used the standard EP record type specified by the RW5 format will be slightly different. The main difference is that when turned on, the standard deviations for the Lat, long, and Height components will be stored. Settings this to on, is only required if you want to use FieldGenius with the OmniStar GPS service. This option can be found in the program settings.

**Stop Battery Save Mode -** When this is on, FieldGenius will disable the sleep mode on your device while FieldGenius is running. This can be set in the program settings.

April 15, 2005 Page 6 of 6