FieldGenius 2012 –6.0.2 Release Notes

September 14, 2012

Release Notes

This new version does not require a new license key.

What's new in FieldGenius 2012 Version 6.0.2.5?

- **Level Bubble dialog** major changes and improvements. We added a lot more functionality to this dialog. If your instrument supports it, you can now set a tolerance for the level bubble sensor. If you exceed that tolerance then you will receive a warning message. We also added a sensitivity adjustment and you can now adjust your display to show 20, 30, and 60 second intervals. We also increased the possible display precision. If your instrument supports it, we will now display the bubble information to the one-half second. And you can now turn on instrument-level checking for the more important measurements. With this turned on, FieldGenius will verify that the instrument is within your leveling tolerance during every observation. **Note**: This may increase the time it takes to complete a measurement so we don't advise you turn this on for surveys such as topographic surveying where you need to collect very many points and they do not require having extremely precise measurements.
- **Leica ATR**: We now turn off ATR when doing an angles-only observation.
- **Leica CRT16 Bluetooth Radio support** for the CS10 and CS25. We added support for the **Leica RH-16** radio handle and **CRT16** Bluetooth cap.
- For Altus receivers, we changed the word **Veripos** to **TERRASTAR**.
- **Units and Setting dialog defaults**. We have received complaints that there are too many dialogs when creating a new project, and we listened. Now you have the option of no longer displaying the **Units and Settings** dialog when creating a new project, but you must press the **Save As Default** button first. In the following dialog, you will now see a check box stating "**Do not show Unit Settings screen again**". You can always turn this dialog back on by going into Settings| Options | Default Units and place a check mark in the **Show Unit Settings** check box.
- **You will receive an "Out of Level" message. If your** instrument is too much out of level, you will now see the error message: "Invalid Level Data".
- **Dialog name change**: The **Add User-Defined Coordinate System** button has been changed to say the **New User-Defined Coordinate System** button. This was done to maintain consistency within the program.
- **NavCom**: We hardcoded the **GDA94 parameters** for LBand transformations.
- **NavCom**: System now uses WGS84 instead of ITRF when not in StarFire mode.
- **NTRIP Sourcetable acknowledgement dialog has been removed.** Users suggested that they do not need to be told that they have successfully connected to a mountpoint but instead prefer to be told when the connection was not successful, and we listened. You are taken directly to map screen after a successful mountpoint connection.

- **3-Point Curve icon**. We updated this icon to better represent which point that is expected to be measured. We added a small arrow to the icon to better indicate which point on the 3-point arc are you measuring.
- **More ports available for Windows Tablet** versions. Com ports 1-10 will always be displayed, but now we enumerate available serial ports and display any others that are available.
- You can now enter **UTM coordinates for seed points** for manufacturer's specific corrections services such as NavCom (StarFire), Altus (TerraSTAR), and NovaTel (OmniSTAR).
- We now support the BIP 6000 data collector.
- We **improved the error message** for when using a coordinate system that FieldGenius does not recognize. If there is a missing file or path, the error message now informs you of this.

Improvements and Bug Fixes

- **Improved total station measurement error messages**. In the past you would on occasion either receive a general "Prism Searched Failed" or "Measurement Error" message, and wonder why they occurred. We have added more intelligence to these error messages in the attempt to provide you with better feedback. We have also added 227 specific Leica instrument error messages for Leica specific equipment.
- "**Averaging Stopped. Invalid Ref.**" error messages would sometimes wrongly occur with certain receivers. This has been fixed.
- The **Leica GeoCOM** driver has been improved with respect to prism searching. You will find prism searches to be a lot faster, more robust, and with improved feedback messages.
- We fixed an issue when you have **ATR (automatic target recognition) turned on** and press the **search prism** button, the instrument would turn, point at the prism, appear to lock onto it, and then you would receive a **Prism Search Failed** message. If you acknowledged this error message, you would immediately see that the instrument had found the prism, and was already locked onto it. This bug is now fixed and you no longer receive "prism search failed" messages when your instrument has indeed successfully locked onto a prism.
- **FOIF A20 antenna offset** was not being applied correctly. This is fixed.
- **NavCom UHF Reference Radio Issue**: The radio protocols were being displayed as a number. We changed this to text to better inform the user. There were occasional connecting issues, and these are now fixed, too.
- **NavCom –** The reference receiver profile wasn't being saved. This is fixed.
- **South GPS Reference** driver did not permit you to manually enter coordinates in the Reference Position dialog. This is fixed.
- The **Stakeout Offset** routine was doubling the offset distance. This has been fixed.
- We changed the button on the **Select Measure Modes** dialog from a **Cancel** button to a **Go Back** button. This was done to improve consistency within the program.

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- We changed the name of the **Survey Methods** button to **Survey Modes**. In the past, pressing the **Survey Methods** button took you to the **Survey Modes** dialog. This was done to improve consistency within the program.
- The **Stake Road** button was disabled until you tapped on the **DTM Surface** field in the road editor dialog. This made it appear as if the **Stake Alignment** routine was not working. This has been fixed and now behaves as it should.
- **Line Data** was not updating after editing the coordinates of an end node of the line. In the past the bug was that the project had to be reopened to see the update. This is now fixed and the update occurs immediately after pressing the **Store Point** button.
- **20 or more characters in Automap** descriptions caused the tablet version to **crash**. We now support up to **50 characters** and there is no crashing.
- When editing certain coordinate systems using our new coordinate system editor routine, **FieldGenius must be restarted** for these changes to occur. We added a warning message to ensure that users restart FieldGenius. Our display engine requires this restart.
- We changed many of our dialogs by removing the inappropriate-looking **red X button**, and added a more appropriate looking **green check mark button**. This was done to improve consistency within the program.
- We fixed an issue with DFX files and turning layers on or off many time would eventually cause a software crash. There was a limit on the amount times this could occur. When the limit was reached, a crash may occur. The limit has been removed and no more crashes.
- Continuing in this same thought, we changed the **Automap Editor** dialog from having one **Close** button with a **red X** to having two buttons (**OK** and **Cancel**). **OK** button accepts your changes and the **Cancel** button ignores them. Again, this was done to improve consistency within the program.
- We added a **missing Cancel button** to the **Automap Library** dialog.
- We fixed a bug for when you attempted to stake out an alignment offset without an instrument setup, you would receive an "**Incomplete Occupied Data**" error message. If you tapped on the **OK** button, the dialog would disappear and you were left wondering what to do next. After pressing the **OK** button, we now take you immediately to the **Instrument Selection** dialog where you can select and connect to your instrument, and then complete a set up.
- The **Averaging Position Measure** button would look enabled even when it was disabled. We adjusted the look of this button to appear more 'disabled' looking when in a disabled state.
- In the **Model and Communication** dialog, pressing the **Radio Settings** button would take you to the **Radio Modes** dialog. We renamed this to the **Radio Settings** dialog to improved consistency within the program.
- We also added more intelligence to the **Radio Settings** button. The button will now be disabled if there are nothing to select within its dialog.
- We fixed an issue where FieldGenius wasn't recognizing the **W** in a **western longitude value**. The W was being ignored and an eastern (non-negative) longitude was displayed.
- The **Chain Editor** had some **missing or distorted buttons**. These are fixed.
- It would appear as if FieldGenius was in an infinite loop **if a geoid model file was missing** when reattempting to perform a localization. Much **better file management is**

done and we now produce a much more information message alerting you of which file is missing, and where it should be stored.

- The **Greece coordinate system** had a wrong path for the grid shift file. This works properly now.
- The **ASCII exporter** wasn't recognizing any format other than files with a **TXT extension**. After you exported a file and then did it again, you would not see your initial exported file in the menu list unless it had a TXT extension. We now show all file types.
- We fixed an issue when using **NAD27**. The file paths were incorrect to the grid shift files.
- **Cross Sections** were not being displayed in the **Stake Alignment** dialog. This is fixed.
- **The** [Dbl Click] text was allowed to be a stored as a valid localization point ID. You now must enter a different name for the point because we made the text **[Dbl Click]** as an invalid point ID. This is another check we put in to the software to ensure that you don't make a mistake.
- **Surface settings colour TIN check box was not working**. Instead, the entire surface was coloured green. The colours in the TIN now properly represent the contours.
- **Storing a DXF node assigned the wrong icon to the point**. The correct icon should be the user-entered icon. This is fixed.
- Fixed a display issue in the **Stake Elevation** dialog where occasionally you would see the text "**Waiting for Cut**" instead of the correct "Waiting for Measurement".
- **Backsight Direction** in the **Orientation Setup** dialog would **default** to an angle and distance measurement despite that there is no distance with a direction observation. It now defaults to **BS Angle**.
- Pressing the **Red X cancel** button on the **Staking Toolbar** now takes you to the **Point Staking** dialog as you would expect. In the past you were then taken to the **Map** with the **Point Toolbar** active.
- When either **IR Fine** or **IR Rapid** were selected and **tracking turned on**, FieldGenius would turn tracking off after the measurement. Tracking now remains on after a measurement.
- Fixed a **zoom crash** that occurred with older builds. In the past you could zoom into a ridiculously small amount. This caused a crash. We put a zooming limit of about 3mm to prevent the crash.
- We fixed an issue when a robotic total station was locked onto a prism and the level bubble dialog had been called, you would receive an error message. We now disable the lock on a prism when someone is attempting to level the instrument. Lock is regained after completing the instrument leveling. This issue would also occur if your instrument was already looking at a prism when the leveling dialog was called. This is no longer an issue.
- We updated the warning message concerning **encrypting FieldGenius projects**. In the past the message basically told you not to do it because almost so software except FieldGenius could handle encrypted files. Actually all MicroSurvey products can handle encrypted FieldGenius projects and the new message reflects this.
- Made some general improvements to data handling especially when using large data sets.

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- In the Alignment staking routine closing the **Staking Toolbar** used to **return you to the Map screen** but almost everyone wants to be returned to the Stake Alignment dialog. **You are now returned to the Stake Alignment** dialog as you would expect.
- We removed support for the Sokkia ISX2700 receiver.
- We fixed a bug for when you **changed the path of where your projects were being stored** to another folder that contained no projects, the **Open** and **Delete** buttons **were still active.** Pressing either of them did nothing and left the user wondering what to do next. We now do a check within the folder before enabling/disabling buttons.
- If **LandXML** or **DXF** file paths **contained a period** (also called a dot) in their path, **FieldGenius would sever the link** the next time FieldGenius was opened, and the user was forced to reload the surface or alignment. This is now fixed and these files are now retained when restarting FieldGenius.
- When a coordinate system was selected that had a south orientation, FieldGenius was incorrectly calling North as South and East as West. This is fixed.

New Coordinate Systems and Geoid Models

- The **Korean geoid model** is now supported and posted on our web site.
- We added **Korean coordinate systems**.
- The **Malaysian geoid model** is now supported and posted on our web site.
- The Netherlands coordinate system is now called **Netherlands RDNAP2008**.
- We added a new datum type: **Molodensky-Badekas** for the Korean coordinate systems.