Kolida FieldGenius Total Station Getting Started Guide

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Introduction   This guide describes how to start up Kolida FieldGenius, create a new job, perform an instrument occupation, take a backsight observation, and begin surveying.

Current Version   This guide was written using Kolida FieldGenius version 6.0.5.12. If you are using a different version, your screens may look differently than what is displayed in this guide.
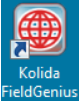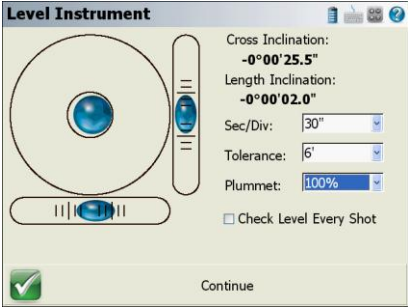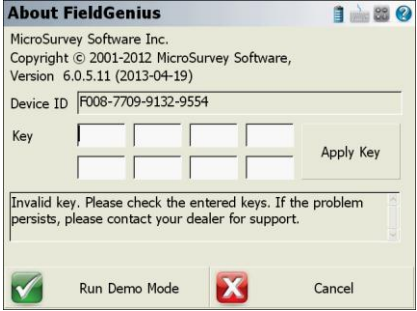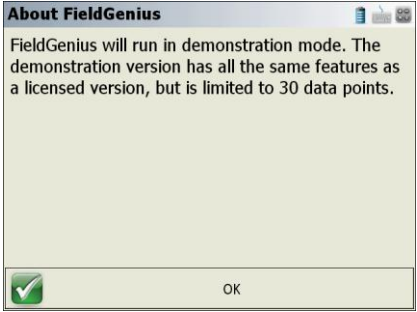
Kolida Startup	After starting your instrument, you will need to shut down any non-MicroSurvey software. Pressing the **ESC** button on the total station multiple times should bring you out to the instrument's desktop.

Step	Action	Display
1	From the Kolida KTS-472Rc's desktop: • Double-tap on the **Kolida FieldGenius** icon. This starts Kolida FieldGenius. After the splash screen has finished being displayed, you are taken to the Level Instrument dialog.	
2	From within the Level Instrument dialog: • Use the foot screws on your instrument to level it. • Press the **Continue** button when you are finished. You are taken to the About Kolida FieldGenius screen.	
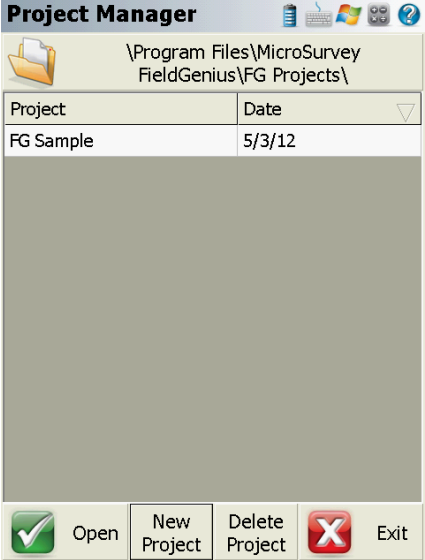
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Step	Action	Display
3	In the About Kolida FieldGenius screen: • Enter your license key in the **Key** field. • Press the **Apply Key** button when finished. **Important Note**: FieldGenius will remember your key; therefore, you will only have to enter your key once. Once a correct key is entered, you will not see this screen again. *License Keys are provided by our internet registration portal or your dealer.* *Please contact your dealer for information on **License Keys** and how to register your new software.* If you don't have a license key, you can continue in demo mode for a total of 30 points. • Press the **OK** button to continue. This takes us to the **Tip of the Day**. • Accept it. You are then taken to the Project Manager screen.	**About FieldGenius** MicroSurvey Software Inc. Copyright © 2001-2012 MicroSurvey Software, Version 6.0.5.11 (2013-04-19) Device ID F008-7709-9132-9554 Key Apply Key Invalid key. Please check the entered keys. If the problem persists, please contact your dealer for support. Run Demo Mode Cancel **About FieldGenius** FieldGenius will run in demonstration mode. The demonstration version has all the same features as a licensed version, but is limited to 30 data points. OK
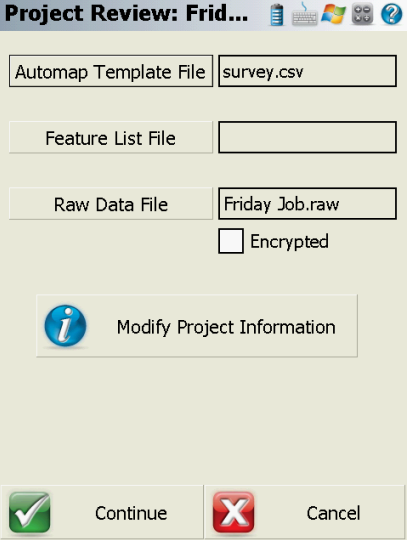
Step	Action	Display
4	In the Project Manager screen: We see all of our Kolida FieldGenius projects. Projects contain all of our measured data. Since this was a new installation, the only project displayed is the default project that comes with Kolida FieldGenius. We will create a new project. • Tap on the **New Project** button. This takes us to the Create New Project dialog.	**Project Manager** \Program Files\MicroSurvey FieldGenius\FG Projects\ Project	Date FG Sample	5/3/12 Open	New Project	Delete Project	Exit
5	In the Create New Project dialog: • Enter a name for your new project. In this example we will call our new project: *Friday Job*. • Tap on the **OK** button when finished. This takes us to the Project Review screen.	**Create New Project** Enter project name: Friday Job OK	Cancel
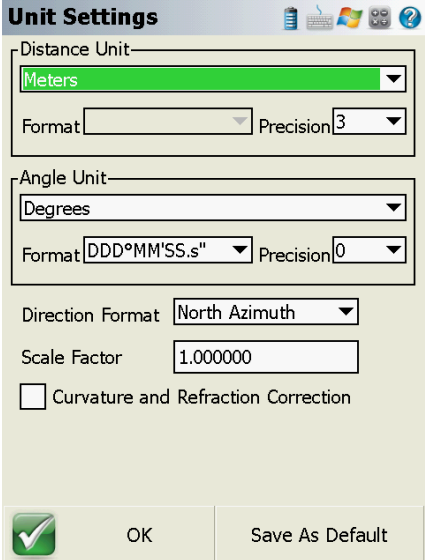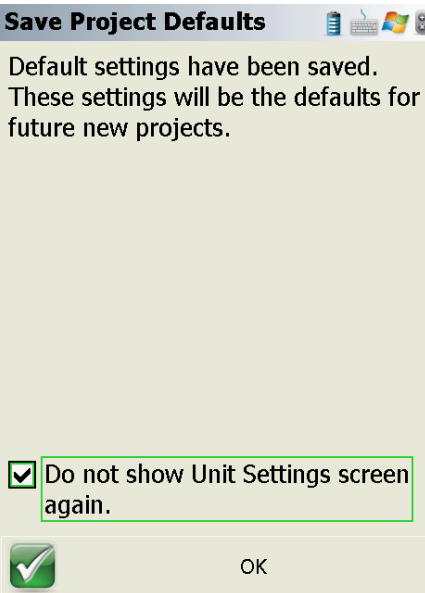
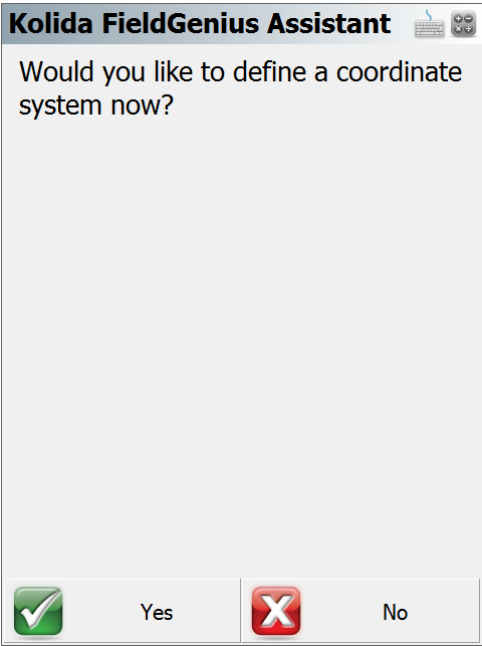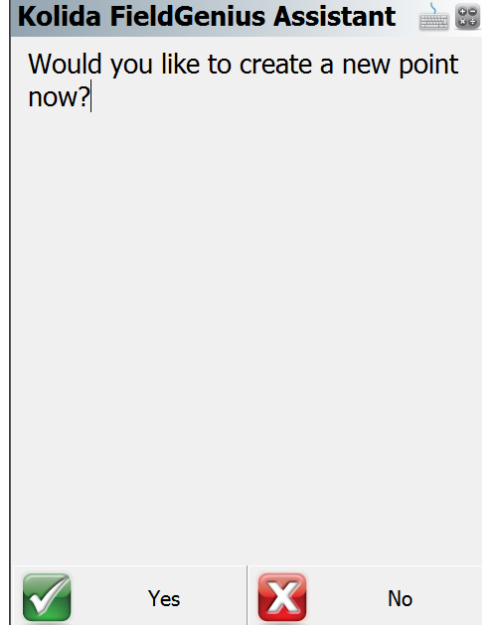| Step	Action	Display
6	In the Project Review screen: **Automap files** contain pre-defined descriptions that can be used in FieldGenius. The template library that you select will be copied into the project's folder with a name of ***yourprojectname***_automap.csv, and any changes that you make to the Automap Library will affect only the project library, not the template library. Use the **Feature List** field to select a feature list that you want to use with the project, for collecting GIS point attributes. The **Raw Data File** field indicates the name of the raw file that is going to be recorded. You can select a different one by pressing the button and either creating a new raw file or choosing an existing one to open. The **Modify Project Information** button will take you directly to the Project Information screen. There you can enter notes about the project. • Leave these fields as they are. • Press the **Continue** button. This takes us to the Unit Settings screen.	Project Review: Frid... Automap Template File survey.csv Feature List File Raw Data File Friday Job.raw ☐ Encrypted ⓘ Modify Project Information ✓ Continue ✗ Cancel

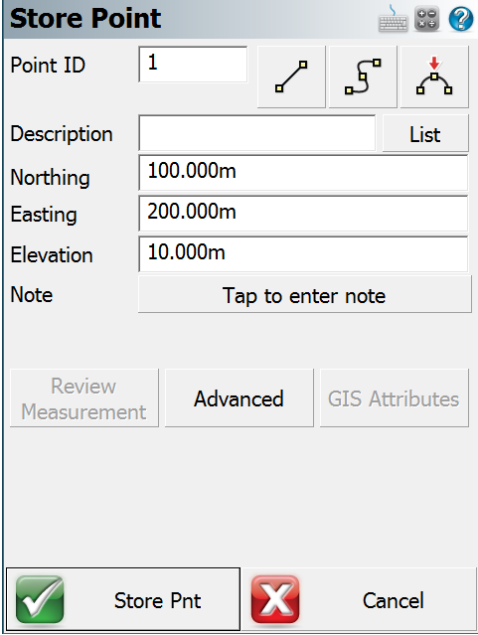| Step	Action	Display
7	In the Unit Settings screen: • Select which units you wish to use. Important Note: Once this has been set, you cannot change a project's units again. Since we typically prefer to work in these same units, we will press the **Save As Default** button. This will make whatever we select here the future default unit setting. • Press the **Save As Default** button. This takes us to the Save Project Defaults screen.	**Unit Settings** Distance Unit Meters Format ____ Precision 3 Angle Unit Degrees Format DDD°MM'SS.s" Precision 0 Direction Format North Azimuth Scale Factor 1.000000 ☐ Curvature and Refraction Correction OK Save As Default
8	In the Save Project Defaults screen: • Place a check mark in the **Do not show Unit Settings screen again.** check box if you typically always use the same units. This will save you a button press for future new projects. In this example we will put a check mark in this box. • Press the **OK** button. This returns us to the Kolida FieldGenius Assistant screen.	**Save Project Defaults** Default settings have been saved. These settings will be the defaults for future new projects. ☑ Do not show Unit Settings screen again. OK
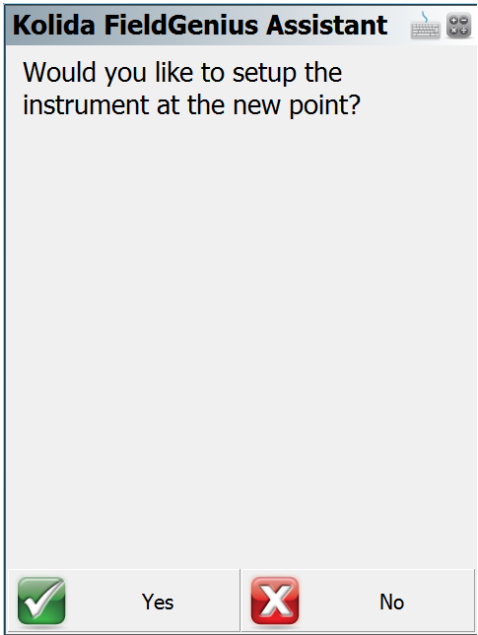
Step	Action	Display
9	In the Kolida FieldGenius Assistant screen: We are prompted to select a coordinate system. Since we will not be working with GPS data, we will not select a coordinate system. • Tap on the **No** button**.** This takes us to another Kolida FieldGenius Assistant screen.	**Kolida FieldGenius Assistant** Would you like to define a coordinate system now? ✓ Yes ✗ No
10	In Kolida FieldGenius Assistant screen: The first thing we will want to do is setup our instrument over a point. Since this is a new project, it has no points in it. We will create a new point and set up our instrument on it. • Tap on the **Yes** button. This takes us to the Store Point screen.	**Kolida FieldGenius Assistant** Would you like to create a new point now? ✓ Yes ✗ No

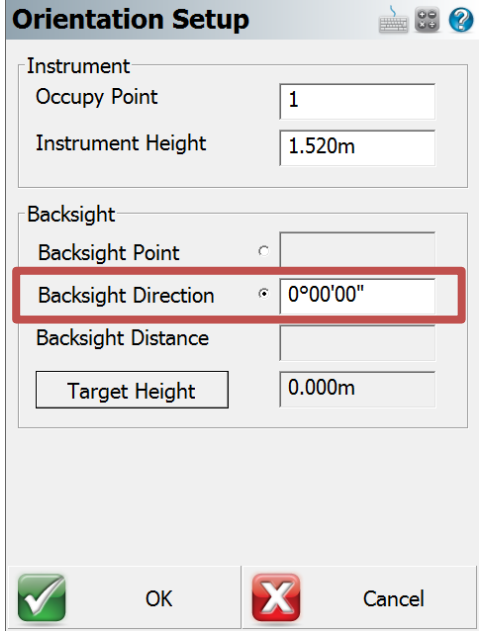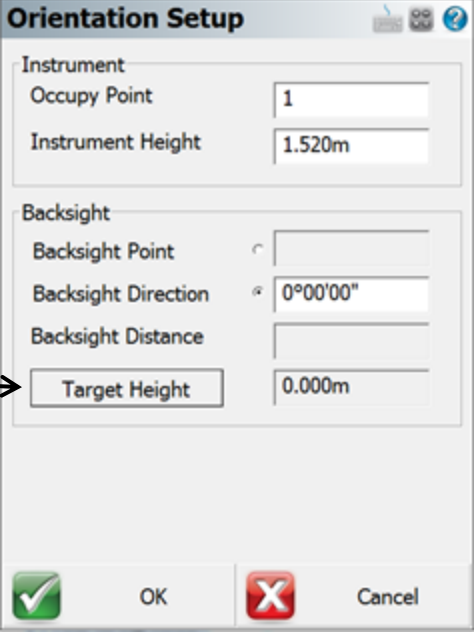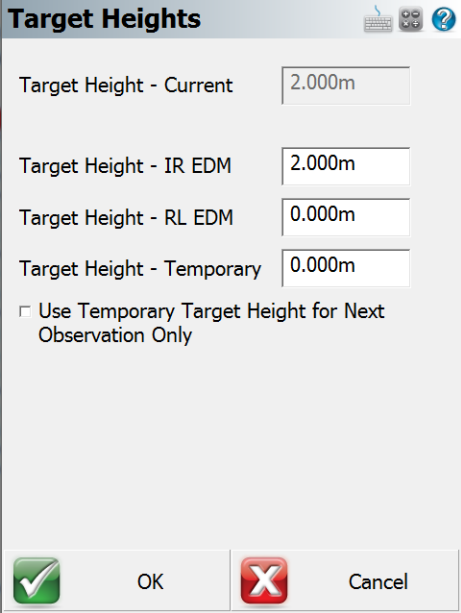| Step	Action	Display
11	In the Store Point screen: Here you can enter the coordinates of your instrument's occupation point.In this example, we will be starting with arbitrary coordinates of N100, E200, H10). • Enter your instruments's occupation point's coordinates. • Press the **Store Pnt** button when finished. This takes us to another Kolida FieldGenius Assistant screen.	**Store Point** Point ID: 1 Description: [blank] List Northing: 100.000m Easting: 200.000m Elevation: 10.000m Note: Tap to enter note Review Measurement · Advanced · GIS Attributes ✓ Store Pnt ✗ Cancel
12	In the Kolida FieldGenius Assistant screen: Yes we would like to setup our instrument over the new point. • Tap on the **Yes** button. This takes us to the Orientation Setup screen.	**Kolida FieldGenius Assistant** Would you like to setup the instrument at the new point? ✓ Yes ✗ No

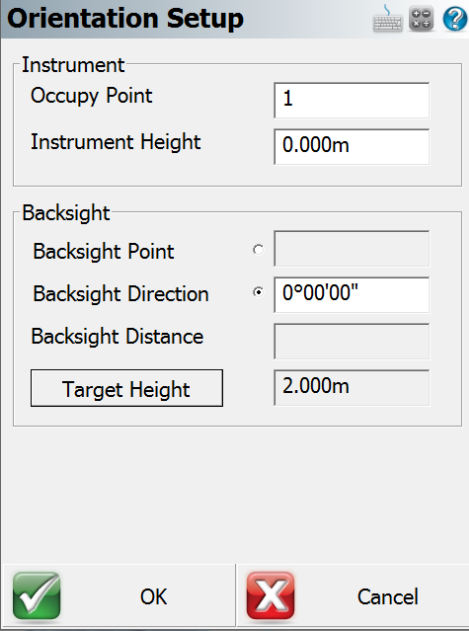| Step	Action	Display
13	In the Orientation Setup screen: We now see our newly created point *1* in the **Occupy Point** field. - Enter the height of your instrument above the occupation point in the **Instrument Height** field. In this example, we will enter 1.52 metres. In the **Backsight** section: In this example we will sight an arbitrary point that has no coordinates and call it north. We have set up a prism and tripod over this backsight point. - Select the **Backsight Direction** radio button. - Leave the default direction as **0° 00' 00".** This step continues on the following page.	**Orientation Setup** **Instrument** Occupy Point 1 Instrument Height 1.520m **Backsight** Backsight Point Backsight Direction 0°00'00" Backsight Distance Target Height 0.000m ✓ OK ✗ Cancel
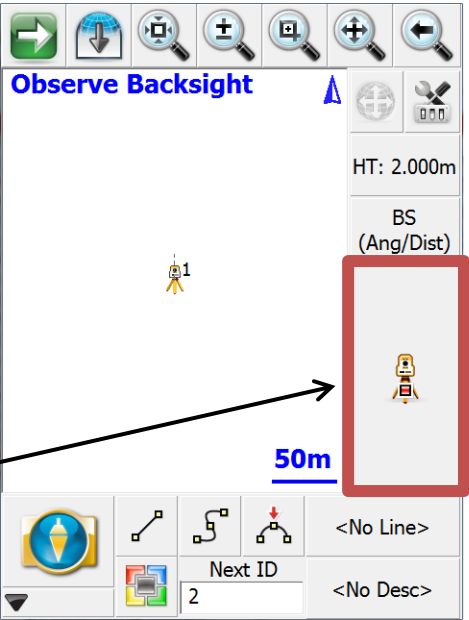
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Step	Action	Display
13	This step continues from the previous page: We should enter a height for our backsight target. • Press the **Target Height** button. This takes us to the Target Heights dialog.	
14	In the Target Heights dialog: In this example, we will enter a height of 2 metres in the **Target Height – IR EDM** field. • Enter a height for your backsight. • Press the **OK** button. This returns us to the Orientation Setup dialog.	

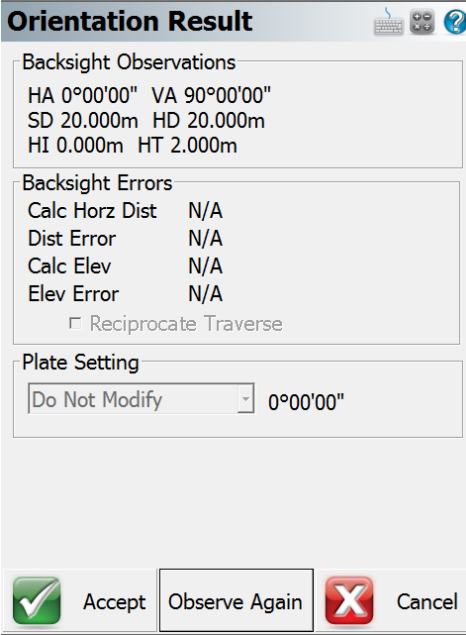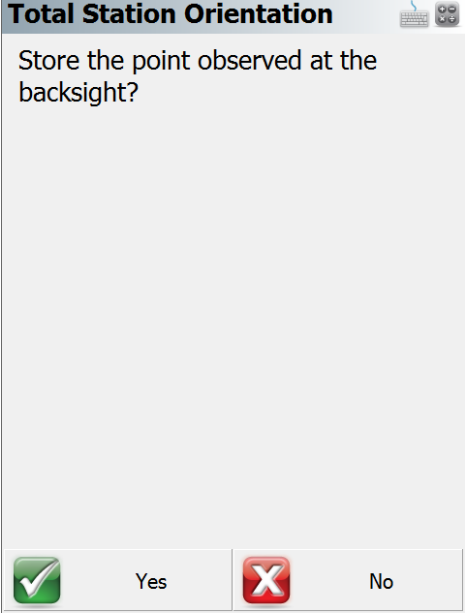| Step	Action	Display
15	In the Total Station Orientation dialog: We now see our entered target height in the **Target Height** field. Since we are pleased with these values, we will proceed. • Press the **OK** button. This takes us to the Mapview screen.	*Orientation Setup* dialog showing: Instrument — Occupy Point: 1, Instrument Height: 0.000m; Backsight — Backsight Point: (blank), Backsight Direction: 0°00'00", Backsight Distance: (blank), Target Height: 2.000m; OK / Cancel
16	In the Mapview: We see blue HUD (heads up display) text on our map informing us that we need to measure our backsight. • Point your instrument at your backsight target. • Press the **Measure** button when ready. This measures your backsight point and takes you to the Orientation Result dialog.	Mapview screen showing "Observe Backsight", HT: 2.000m, BS (Ang/Dist), 50m, Next ID 2, <No Line>, <No Desc>

Step	Action	Display
17	In the Orientation Result dialog: Here you can review your observation and decide if you should remeasure. In our example, we are pleased with this. • Press the **Accept** button. This takes us to the store orientation point screen.	**Orientation Result** Backsight Observations HA 0°00'00" VA 90°00'00" SD 20.000m HD 20.000m HI 0.000m HT 2.000m Backsight Errors Calc Horz Dist N/A Dist Error N/A Calc Elev N/A Elev Error N/A ☐ Reciprocate Traverse Plate Setting Do Not Modify 0°00'00" ✓ Accept Observe Again ✗ Cancel
18	In the store orientation point screen: Since we do want to store this point, we will press the **Yes** button. • Press the **Yes** button. This takes us to the Store Backsight screen.	**Total Station Orientation** Store the point observed at the backsight? ✓ Yes ✗ No

Step	Action	Display
19	In the Store Backsight screen: Here we see the coordinates of our backsight point. We can enter a description for the point in the **Description** field, but for this example we will leave it empty. • Press the **Store SS** button. This takes us to the Mapview.	
20	In the Mapview: You are now ready to continue measuring.	

Congratulations   You have successfully created a new project and created a point to setup your instrument over.

You then picked north as your backsight direction and measured a distance to the backsight target.

You finished establishing the orientation setup and are ready to start measuring with your Kolida total station.