



NEW FEATURES

GroupCode – New feature to facilitate fast collection of repetitive features such as roadway cross sections or by a common theme. Full support of multiple concurrent linework figures and full automation of code selection is possible to increase productivity. [F2190]

Menu Updates – The main menus have been revised and updated to provide a more consistent user experience. [F3079, F3085, F3098]

Scene Manager – The Scene Manager was modified to allow quicker loading. [F3077, F3100]

RAW file encryption – The encryption setting for the scene RAW file is now automatically retained and saved to program defaults when the user toggles the setting. Once encryption is set as an option it will remain on for all subsequent Scenes recorded until disabled. [F3094]

RAW file notes – When entering a text note for a point record, the note can now be inserted into the raw file as a comment. A new setting controls this behaviour from *Settings – Options – Point Attributes – Write Notes to Raw File*. [F3112]

Disto specific workflows – A new *Disto/Laser* instrument type has been created with customized instrument toolbar and Mapping Methods menu. EvidenceRecorder supports the Leica Disto S910 and 3D Disto. [F3041, F3159, F3160]

Reference Point – New GNSS Mapping Method to set the scene reference point as a quick method of performing a GNSS local transformation. [F3178]

Alphanumeric Point IDs – Improvements made to how alphanumeric Point IDs are handled [F3038, F3080].

Includes:

- Sorting points within lists and tables by Point ID now makes use of a natural order sort.
- Specifying an alphanumeric Point ID range now produces a more predictable and reliable result.
- Point ID Range Minimum and Maximum values can now use alphanumeric Point IDs.

Multilingual Support – EvidenceRecorder now supports various different languages.



NEW AND UPDATED INSTRUMENT DRIVERS

Various instrument drivers have been added and improved.

GNSS

- **Champion Pro** – Added support for Champion Pro receivers [F3025]
- **Champion TK0** – Fixed issue with UHF radio communication [D8300]
- **ComNav T300** – Added Point to Point mode, and support for 5Hz update rate [F3048, F3167]
- **DT Research DT391GS** – Fixed delay issue with devices using Trimble GNSS module [D8262]
- **FOIF A30 Pro** – New Driver [F3155]
- **GENEQ SXPro GPS/GNSS and SXPad** – Removed automatic Link Configure [F3058]
- **GeoMax Zenith10** – Fixed issue with Satellite Plot and List display [D8183]
- **GeoMax Zenith 10/20** – Fixed issue with incorrect sign of BL records in raw file [D8215]
- **GeoMax Zenith15** – New Driver [F2977]
- **GeoMax Zenith25** – Added Galileo support [F3166]
- **GeoMax Zenith35** – Full Tilt Support and NTRIP Server Mode [F3012, F3157]
- **GeoMax Zenith35 Pro** – New Driver [F3012, F3115, F3117]
- **GINTEC G10** – Fixed Issue with Data Collector Internet [D8184]
- **Hi-Target V100** – New Driver [F3189]
- **Kolida K5 PLUS+** – New Driver [F3184]
- **Kolida K9 Mini** – New Driver [F3192]
- **Kolida S680/S680P** – New Drivers [F3179]
- **KQ GEO M8** – Added support for new OEM Firmware and fixed issue with time stamp [F3053, D8236]
- **Linertec LGN 100T/100N** – New Drivers [F3047]
- **NavCom SF3040/3050** – Fixed Issue with QuickStart, added support for new firmware [D8083, F3031]
- **Pentax G5** – New Driver [F3113]
- **Pentax G6** – New Driver [F3137]
- **Pentax G2100** – Added support for Pentax G2100N and G2100T receivers [F3023, D8221]
- **Ruide S680/S680P** – New Drivers [F3179]
- **Sanding S680/S680P** – New Drivers [F3179]
- **SatLab SL600** – Improved Satlab SL600 driver [F3043]
- **SatLab SLC** – New Driver [F3132]
- **Septentrio APS3G** – Fixed Issue with GSM PIN Setting [D8147]
- **South Galaxy G1** – Added elevation mask parameter [F3092]
- **South Galaxy G1/G1 Plus** – Added support for raw data logging [F3095]
- **South Galaxy G1 Plus** – New Driver [F3111]
- **South Galaxy G6** – Fixed Firmware Issues [D7977]
- **South S660P** – New Driver [F3034]
- **South S82-2013** – Fixed issue with setting raw data logging rate [D8111]
- **Stonex S8 Plus** – Fixed issue with Satellite Plot and List display [D8088]
- **Stonex S8 Plus / S9III / S10** – Added support for TRM100 radios and NMEA 4.1 [F3057, F3056]
- **Stonex S9i** – New Driver [F3107]

NOTE: All previously supported Trimble GNSS drivers have been retired in this version.



Total Station

- **FOIF RTS Onboard** – Improved FOIF RTS Onboard Total Station driver [D7985]
- **GeoMax Zipp20** – Fixed issue with setting “Foil” target [D8194]
- **Kolida CTS-660** – New Driver [F3119]
- **Leica iCON builder 60 Onboard** – Fixed issue with onboard installation on **iCON robot 60** incorrectly displaying options for **iCON robot 60** [D8148]
- **Pentax** – Fixed error with reading Angles formatted as Gons with Basic driver [D8355]
- **Sanding STS** – New Driver [F3044]
- **South NTS** – Fixed issue with distance units [D8173]
- **South NTS-370R10** – Fixed various issues for onboard
- **Stonex R1Plus/R2Plus** – Fixed various driver issues [D8104, D8192]
- **Stonex R2W+** – Fixed issue with reflectorless mode setting the EDM mode to reflective sheet [D8172]
- **Stonex R2W+ Onboard** – Added support for Windows EC 7 OS [F3114]

NOTE: All previously supported Geodimeter and Trimble Total Station drivers have been retired in this version.

Disto/Laser

- **Leica Disto S910** – New Driver with WiFi connectivity to Windows Tablet/PC [F3041]
- **Leica 3D Disto** – Updated driver to use new SDK for WiFi/USB connectivity to Windows Tablet/PC without requirement for Leica DISTO software [F3041]



COORDINATE SYSTEMS

- Added support for Ordnance Survey OSTN15 transformations and OSGM15 geoid, added [OSB36-OSTN15](#) coordinate system to pre-defined list in *European Systems* group. [F3046]
- Added support for Slovak JTSK2013 transformations, added [Slovak JTSK03](#) and [Slovak JTSK2013](#) coordinate systems to pre-defined list in *European Systems* group. [F3028]
- Coordinate systems [Merchich.NordMaroc](#) and [Merchich.SudMaroc](#) have updated limits. [D8155]
- Added Korean coordinate systems to pre-defined list in *Asian Systems* group. [F3097]
- Added Denmark coordinate systems to pre-defined list in *European Systems* group. [F2988]
- Added [Jamaica JAD2001](#) coordinate system to pre-defined list in *Caribbean Systems* group. [F3059]
- Added Nova Scotia MTM zones with modified false coordinates for NAD83(CSRs) 1997.0 and NAD83(CSRs) 2010.0 in *Canadian Systems* group. [F2917]
- Updated [HTRS96](#) coordinate system parameters in the *European Systems* group. [D7266]
- Selecting **RTCM Transformation** for Horizontal or Vertical System would cause an error. [D8200]
- User-Defined Coordinate System Latitude of Origin is now possible to set to 90 degrees [D7725]
- Coordinate system files updated to new version, the new names are:
 - **Map2_Datums** – formerly *Datums*
 - **Map2_Ellipsoids** – formerly *Ellipsoids*
 - **Map2_Systems** – formerly *Coordsys*
- *NOTE: Installer Packages no longer include all regional transformation files for coordinate systems. Separate downloads can be obtained through the [Grid Shift Files](#) download page. The MRT transformation files are still included, however GDC and GSB files must be downloaded separately.*

LANGUAGES

The following program interface language translations have been updated:

- Czech
- French
- German
- Italian
- Portuguese
- Spanish



DEFECTS FIXED

Scan File Transfer – The option to transfer a scan file from a Multi-Station to the data collector via Bluetooth has been removed. This would usually be impossible to complete before battery expired due to file size. [D8084]

AutoMap – The newest IMS Map360 AutoMap library files would create an erroneous entry. [D8157]

Full-screen dialogs – On Windows tablets when running Evidence Recorder full-screen, the Point Database, the AutoMap library, and some other screens would not get resized properly to stay on top of the Windows taskbar. [D8157]

Photo Notes – Photo Notes on some Windows Tablet/PC devices were not saved. [D7862]

Image Loading – Loading a large background image could crash the program, a check is now made to ensure memory allocation succeeds. [D8161]

DXF Display – DXF arcs with small radius were not displayed to prevent possible issues. The thresholds have been refined for improved balance of display and performance. [D8079]

DXF/DWG/DGN Import – Now copies imported files to scene folder, previously the files would not be copied and only the path would be stored in the scene files, which could create problems when importing from external storage devices. [D8275, D8255]

Target Manager – Shortcut keys to change targets could cause an error with some Total Stations. [D8389]

EDM Mode & Target Height – For some Total Station instruments, these settings were not read after exiting and re-opening the program. [D8417]

Nautiz X8 – Improved performance on Handheld Nautiz X8. [D8417]

KNOWN ISSUES

Shapefile Export – Evidence Recorder DBF files are not supported by ESRI products. A workaround is available until this issue is resolved, please contact MicroSurvey Support for more information.

Photo Notes – Camera rotation is not supported on Windows Tablets.



GROUPCODE FEATURE - OVERVIEW

Overview

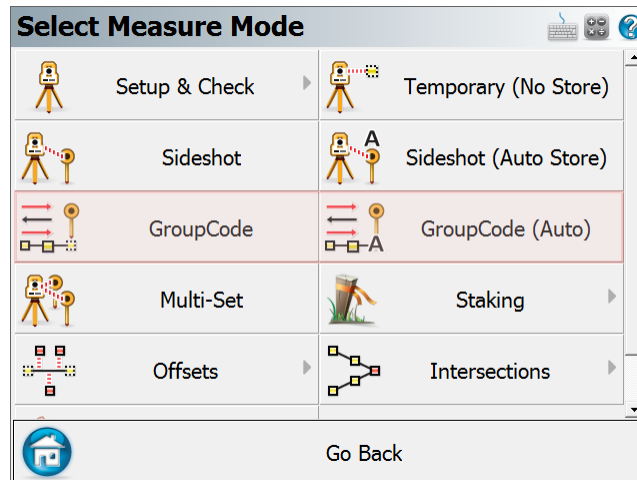
GroupCode is a Mapping Method that allows the user to set up a Group of Codes that have a common theme or purpose, and is ideal to increase productivity for repetitive feature collection. **GroupCode** allows:

- Creating multiple groups of codes
- Setting a pattern to automate code selection for feature collection in a repetitive sequence (such as road cross sections)
- Linework toggles for each code in the group allowing linework to be automatically completed for each feature in the group as separate figures without any effort from the operator
- Switching between a carousel display combined with the Map screen, or a full-screen button panel with the codes in the group
- Fast switching between groups with settings retained for each group
- Fast switching between **GroupCode** and other Mapping Methods and being able to resume collection within **GroupCode** with no additional steps

Operation Notes

For Total Station operation there are two Mapping Methods:

- **GroupCode** – This mode displays the “Store Point” screen to allow editing of Advanced Options or to confirm Code and Linework options.
- **GroupCode (Auto)** – This mode is similar to “Sideshot (Auto Store)” where the observation is automatically stored after the measurement is completed.





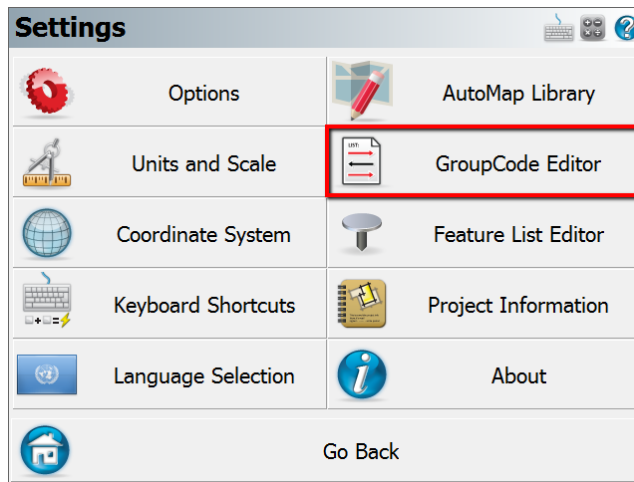
For GNSS operation there is only one **GroupCode** Mapping Method. The GNSS Tolerance Settings will be honoured to determine if the observation is automatically stored:

- Auto Skip Meas Stat – This option in the Tolerance Setting determines if the measurement statistics are displayed during the measurement process.
- Auto Store Meas – This option in the Tolerance Setting determines if the Store Point dialog will be displayed prior to storing an observation.

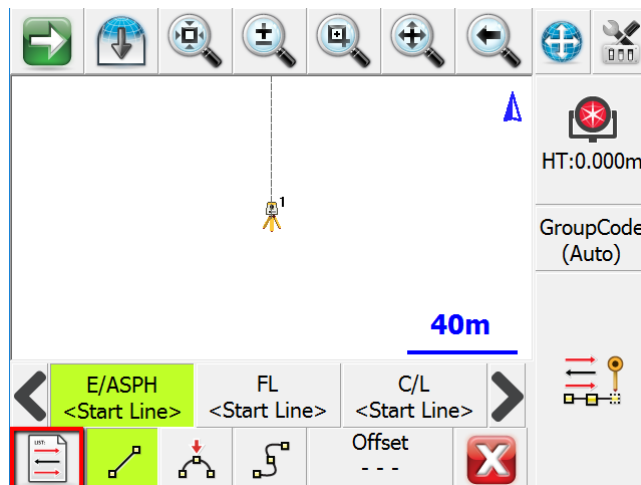
Setting up a Group

Pre-defined groups are included with EvidenceRecorder consisting of codes from the default AutoMap library. Default Groups are stored in the Settings.xml file, and those default groups will automatically be included when a new scene is created. There are two ways to create and edit Groups:

From Main Menu | Settings | **GroupCode Editor**

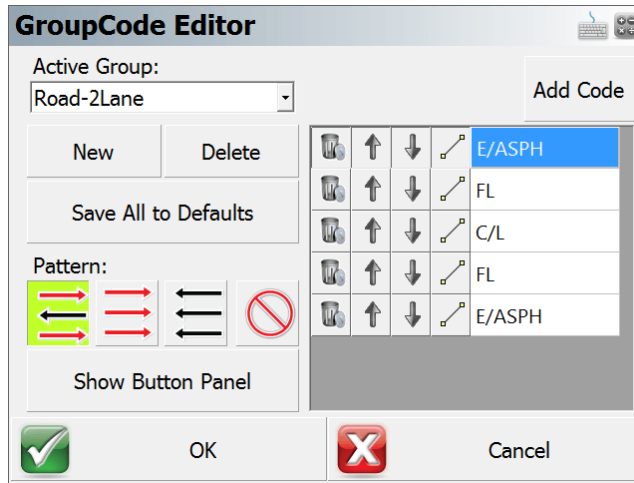


From within the **GroupCode** Mapping Method:



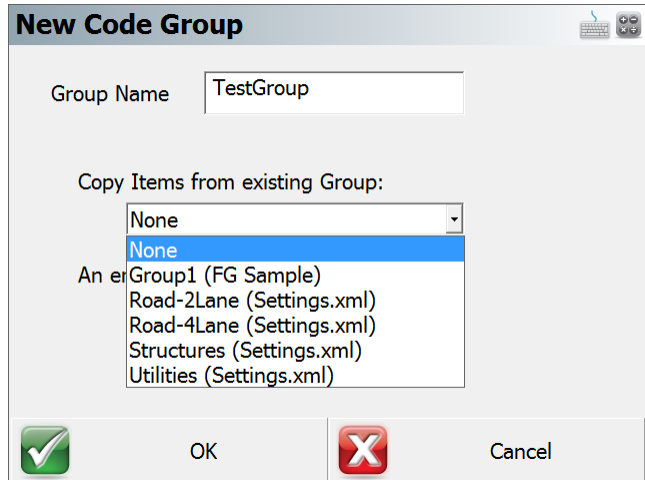
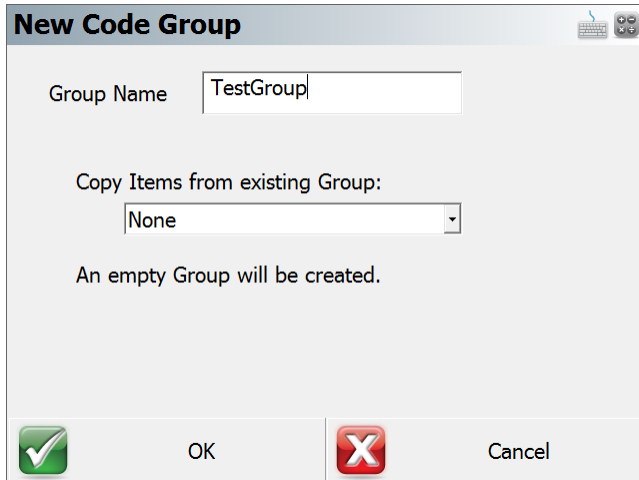


The editor shows the active group and the codes defined within the group. Toggles and options are also set from within the editor:



Creating a New Group

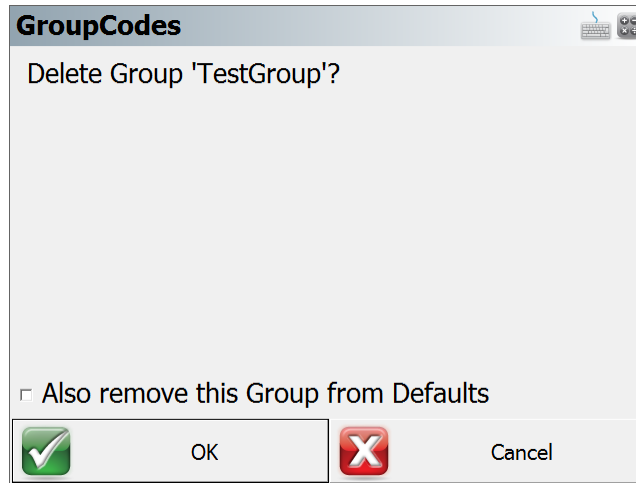
Pick "New" to create a new group. A dialog opens to enter a name for the group, and optionally copy the group items from another group in the current scene, or from the defaults stored in the Settings.xml file.





Deleting a Group

Pick “Delete” to delete the active group. A confirmation dialog is displayed.

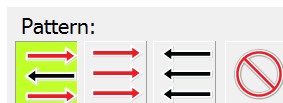


Saving a Group to Defaults

Pick “Save All to Defaults” to copy all groups from the current scene to the Settings.xml file.

Setting an Automation Pattern

Pick the icon of the Automation Pattern to set for the group. The pattern controls the automatic setting of the next active code after a measurement has been stored. The options are “Zig-Zag”, “Left to Right”, “Right to Left” and “None”.

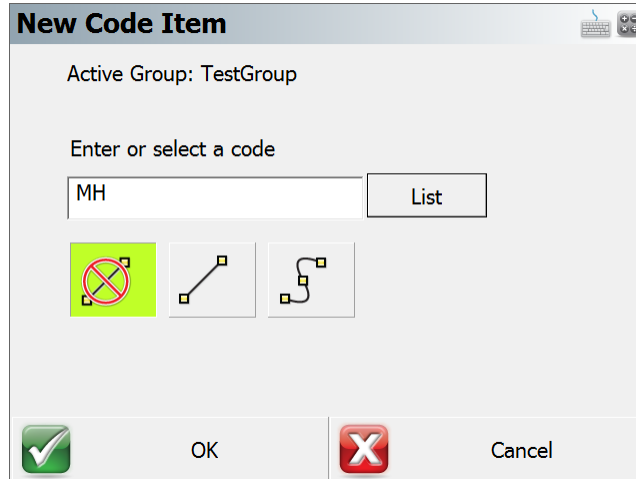


- Zig-Zag pattern will cycle through the group, then reverse back through, and repeat
- Left to Right pattern will cycle through the group in a forward direction
- Right to Left pattern will cycle through the group in a reversed direction
- None pattern does not auto-select the next code, it is up to the user to pick the code



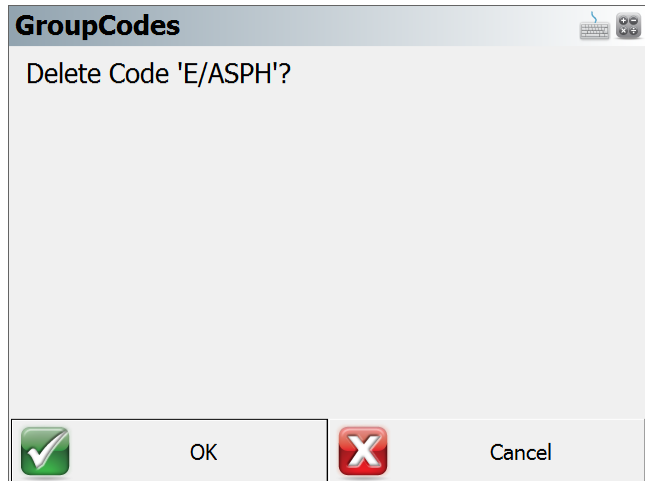
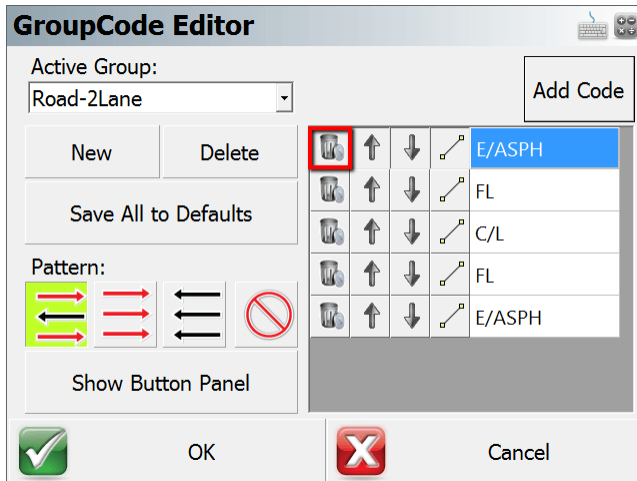
Adding Codes to a Group

Pick “Add Code” to enter a new code to the group. A dialog opens to enter the code (or pick from the AutoMap list) and to set the linework toggle for the code.



Deleting a Code from a Group

Pick the “X” icon of the code row to remove a code from the list. A confirmation dialog appears.



Modify Code Order

Use the Up and Down arrows to move the Code up or down within the group.





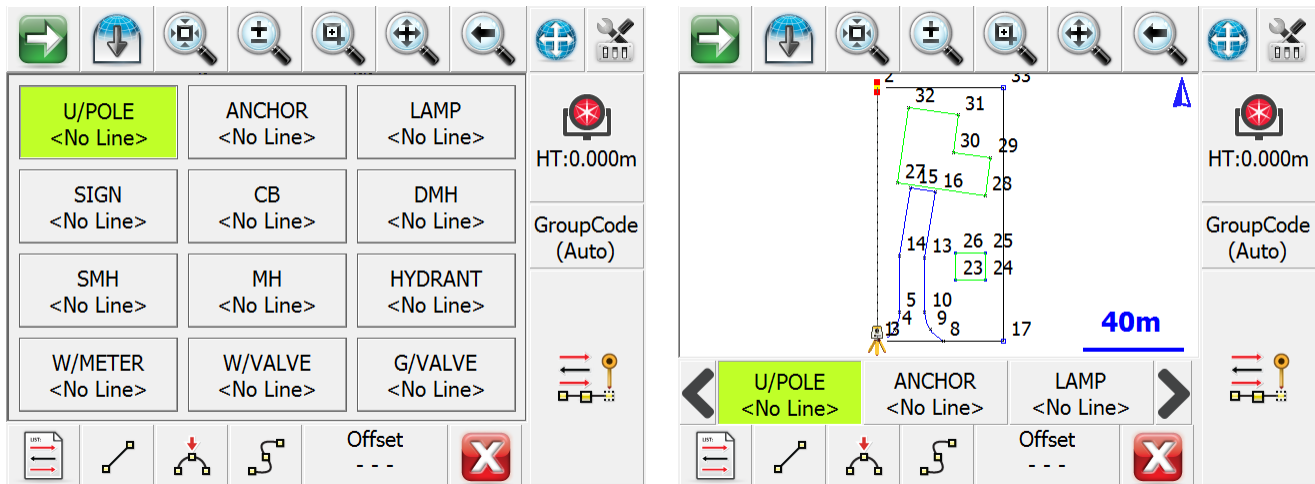
Toggle Linework

Use the Line Toggle to switch the current linework toggle for the code. The options of “straight line”, “second point on 3-point arc”, “spline”, and “none” are cycled.



Toggle Display

The “Show Button Panel” option can set the display mode to a grid of 12 buttons with the codes of the group. The default display mode is the code carousel with the Map Screen visible.



Workflow

The GroupCode feature is designed to allow fast measuring, and as such the automation of the code selection and multiple linework figures can reduce the task to a simple measurement button press. When no pattern is set, the user will manually need to select the next code to use, and line toggles will be necessary for drawing arcs.



Entering Offsets

It is possible to pre-enter distance offsets that will be applied to the next measurement. The Offset button will display the offset directions that will be applied if the offsets are set. Forward/Back, Left/Right, and Up/Down. For GNSS, the offsets are a direction, horizontal distance, and vertical distance.

GroupCode Offsets

Offsets viewed from: **Instrument** Prism

Forward Offset 0.000m X

Right Offset 0.000m X

Up Offset 0.000m X

All distances are with respect to the horizontal plane.

Apply offsets to: **All** Next Only None

OK Cancel

The offset entry screen has numerous toggles that can be used to set the values:

- Offsets viewed from Instrument or Prism
- Forward Offset / Back Offset – Right Offset / Left Offset – Up Offset / Down Offset
- Field Value Resets, X next to field
- Apply offsets to All Measurements, Next Measurement Only, or None



DISTO/LASER REFERENCE

S910 Disto

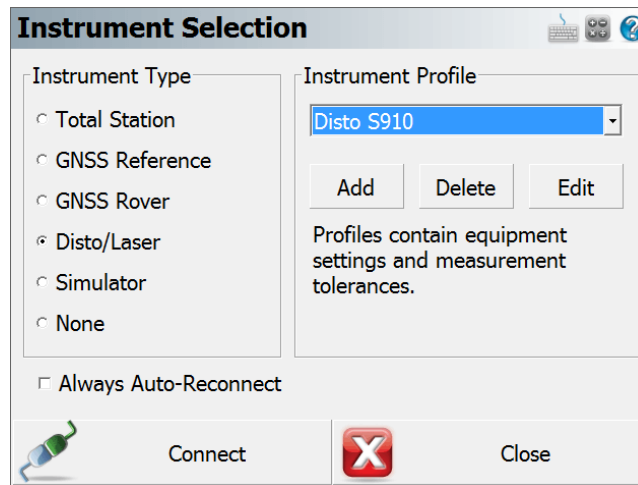
The Leica S910 Disto is fully supported using a WiFi connection. It can be operated using workflows very similar to a Total Station when combined with a tripod or stand. Without a tripod or stand, the S910 can be used to capture distances for various applications, including:

- The Drawing Tool
- Traverse / Intersection calculations
- Trilateration calculations

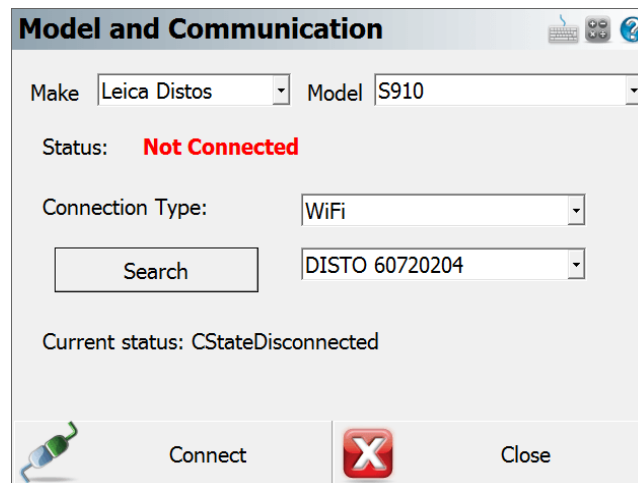
Disto S910 Connection Guide

The general connection procedure for Leica Disto S910:

1. Launch EvidenceRecorder and open a Scene.
2. At the Instrument Selection screen, pick the **Disto/Laser** type and choose the pre-configured **Disto S910** profile, then pick **Edit**:



3. Choose Model and Communication.
4. **WiFi** is the only supported Connection Type, pick **Search** to search for Disto S910 devices. If successfully found, pick **Connect**.



5. Complete.



Bluetooth Disto

EvidenceRecorder supports handheld Leica Distos with Bluetooth connectivity. Supported models include Disto A6 and D330i. Bluetooth LE is not currently supported (E7100i, E7500i, etc.). Supported models are able to capture distances for various applications, including:

- The Drawing Tool
- Traverse / Intersection calculations
- Trilateration calculations