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Carlson GIS360

GIS & GNSS map creation tools

user's guide

for Windows Mobile and Windows CE 6

version 1.1

Carlson
Europe ▪ Middle East ▪ Africa
SINCE 1983

www.carlson-gis360.com
www.carlsonsw.com
www.carlsonEMEA.com

CARLSON GIS360

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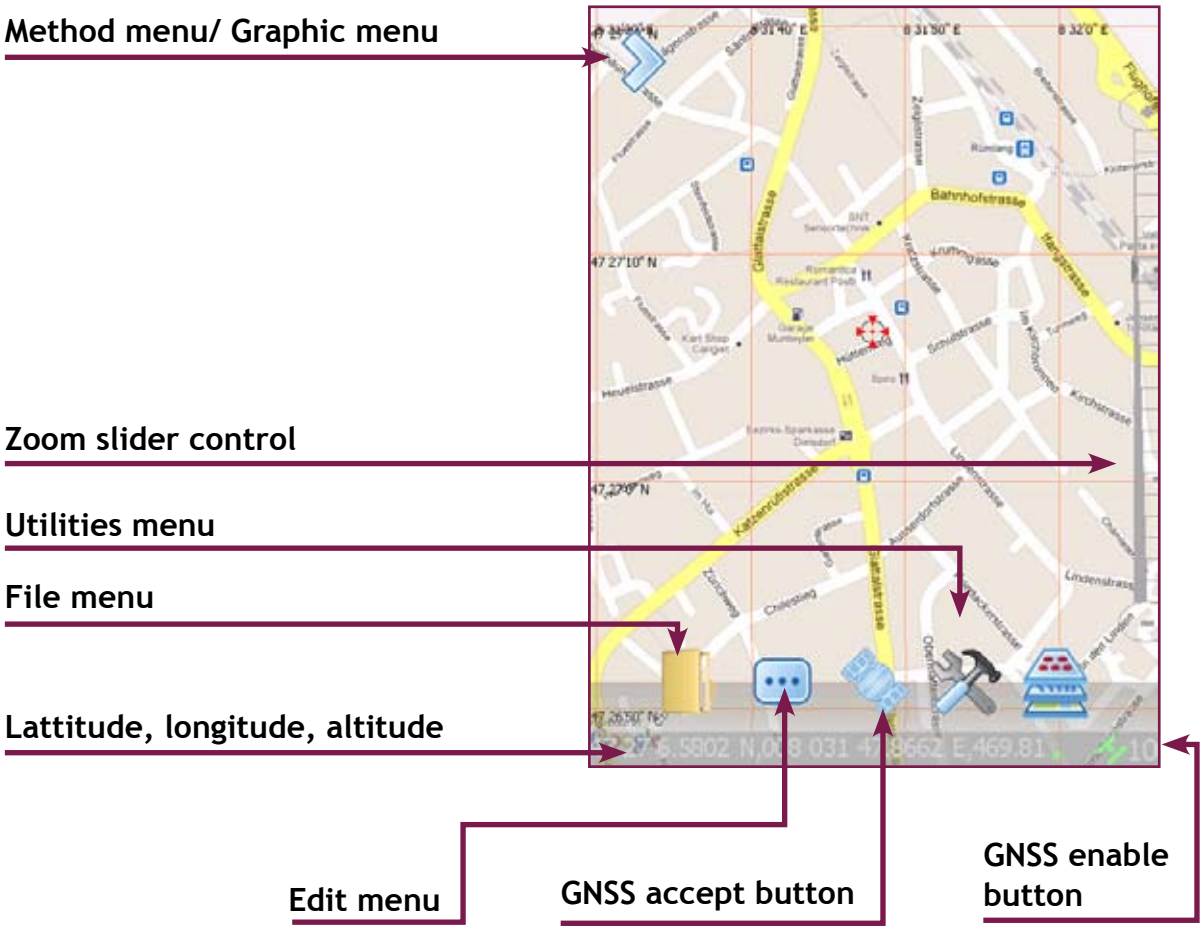
* Only available in the professional version

Introduction

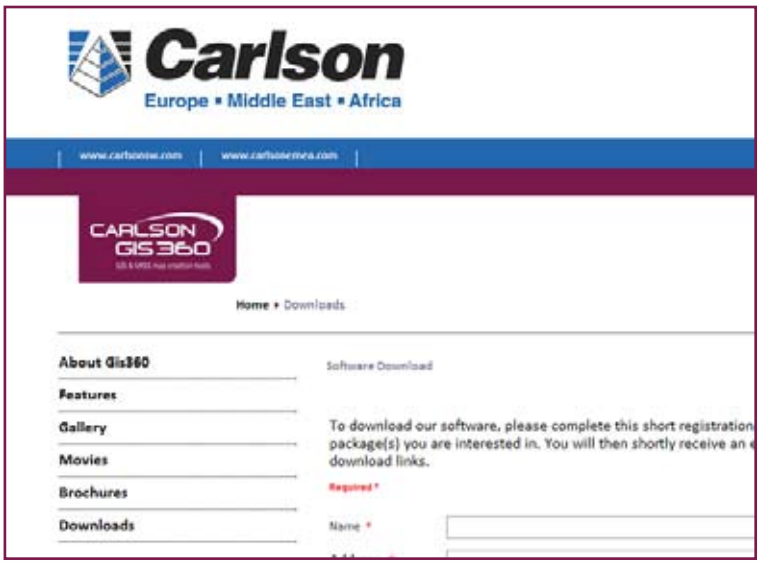
GIS360 is designed as a Geographical Information System recording and logging facility. Lists of attributes can be specified by the user to describe the information being stored. These attributes can then be used to collect data at positions that the user wants. The information can then be attached to areas, points and linear objects in a geographical area. These areas are described on a back drop of either satellite imagery or maps from 14 different map servers. Attributes and geometries may be saved and used in other situations like rendering them onto Google Earth ™ for examplee. Attributes may be edited and GNSS used to accurately place the geometric elements onto the map.

This system is made for Mobile PC and Tablet PC although there is no problem using this system on a Desktop PC either. All the examples shown in this brief guide are for the Mobile PC environment. GIS360 has a list of equipment which we have been able to test this system with. Whilst every care has been taken to conform to conventions, there is a variability in the features and performance of many mobile devices so we can not guarantee that our software will work on every product.



GIS360 Installation - download from GIS360 website

Go to **http://www.carlson-GIS360.com** and choose to download the GIS360 product.



Fill in the form and you will be given the link to download the GIS360 software.

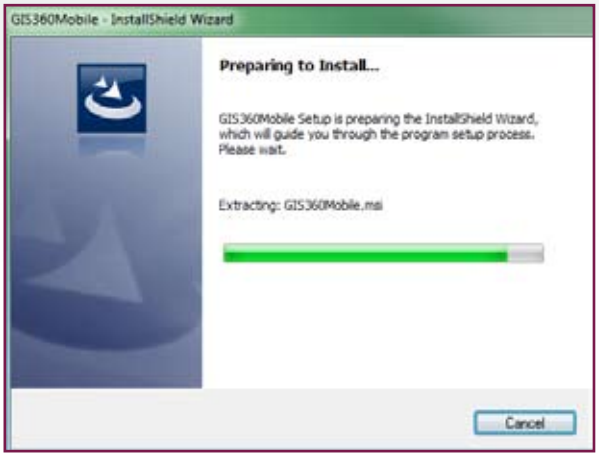
GIS360 first time installation

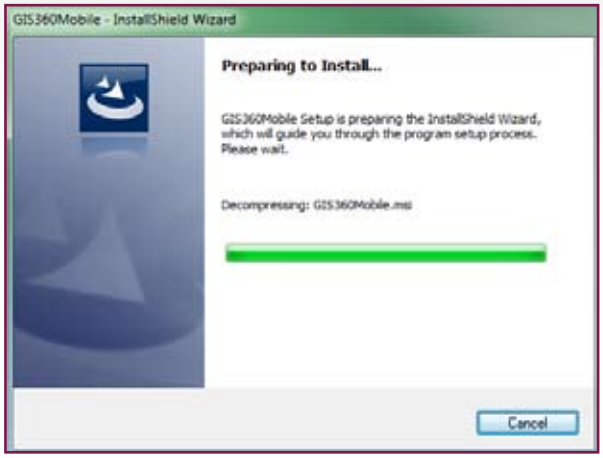
Important note: The installation procedure in this manual describes the installation of GIS360 on a Windows Mobile 6.5 device.

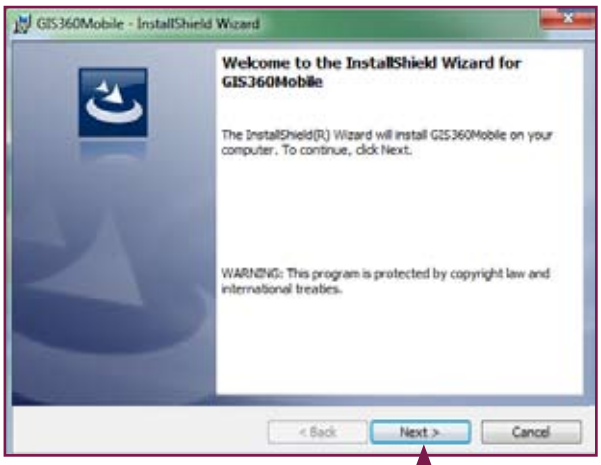
After you have downloaded the GIS360 software on your computer, here's what you get:

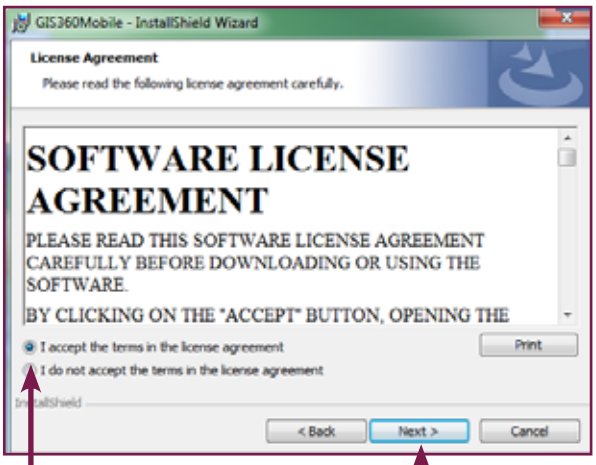
You have linked your mobile device to your computer with "Mobile Device Center" (Windows 7), or with "Active Sync" (Windows XP, Windows Vista).

Double click the Setup icon to start the installation. The following images illustrate the procedure which you will be guided through.







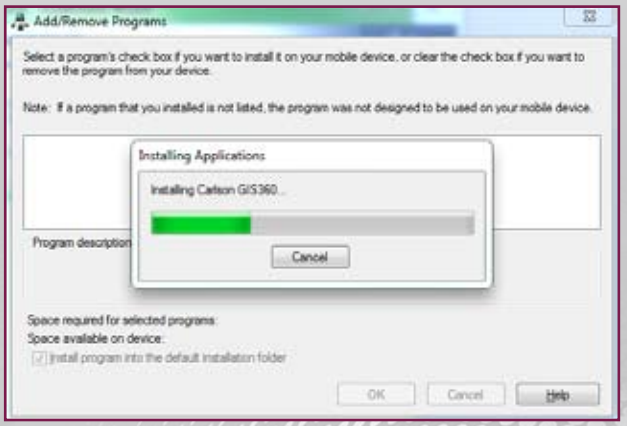


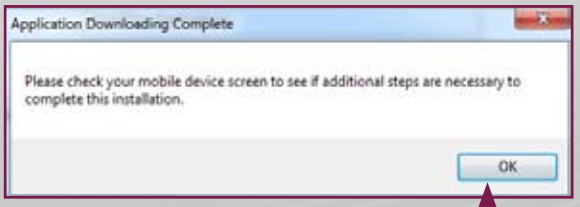
Click "Next" Select acceptance Then click "Next"

GIS360 first time installation

Select “Typical”, then click “Next”

Click “Install”

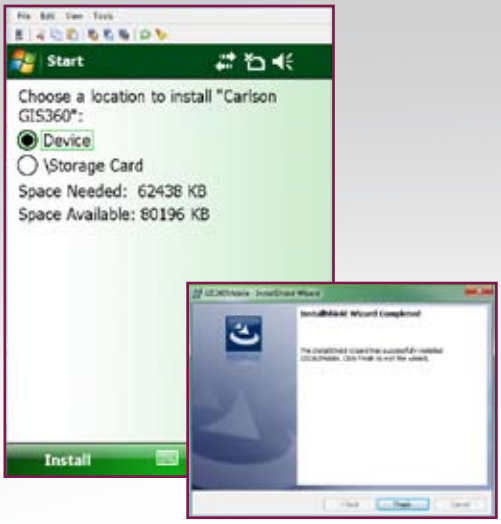




You can click “OK” and from now on the following steps happen on your mobile device.

GIS360 first time installation

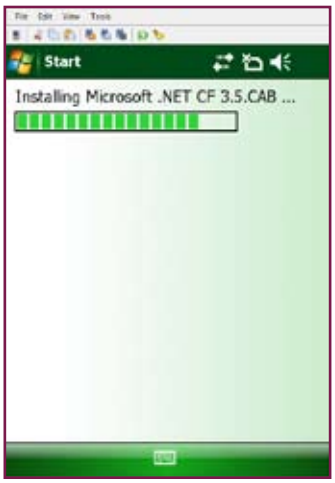
Choose the location, device or storage card (if available), then click "Install"



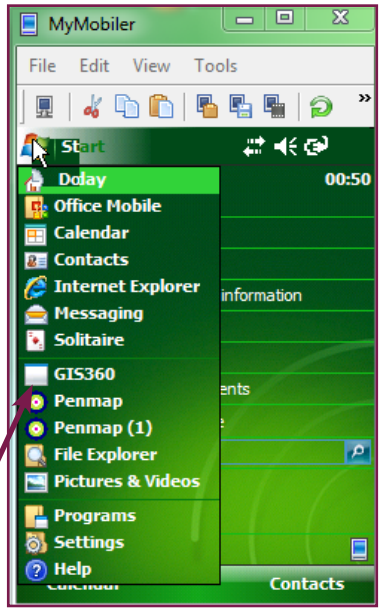
In the meantime, on your computer screen, you can click "Finish"

The installer will also install "Microsoft .NET CF 3.5". Select the same location as for the GIS360 Software.

Then click "Install"



Click "OK" to finish



Click the GIS360 Icon on your windows mobile device to launch the application.

Installation of a new GIS360 version

In case GIS360 is already installed on your device, you must first remove it before installing a new version.

Double click on the installer on your computer with your mobile device connected to your computer with either “Mobile Device Center” (Windows 7) or “Active Sync” (windows XP or Wondows Vista).

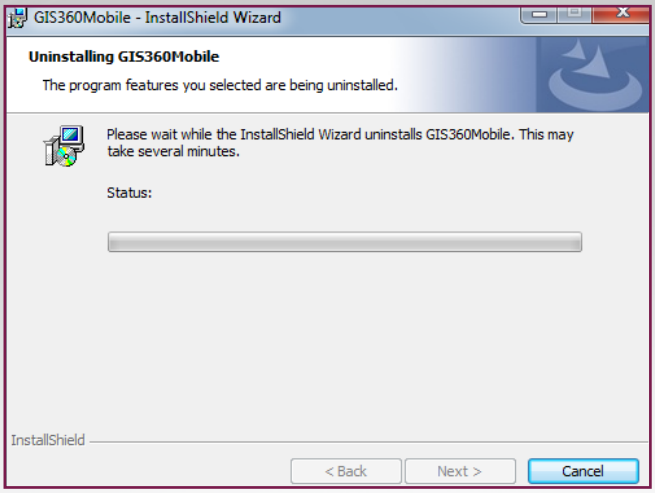
You will be guided through the following uninstall procedure:

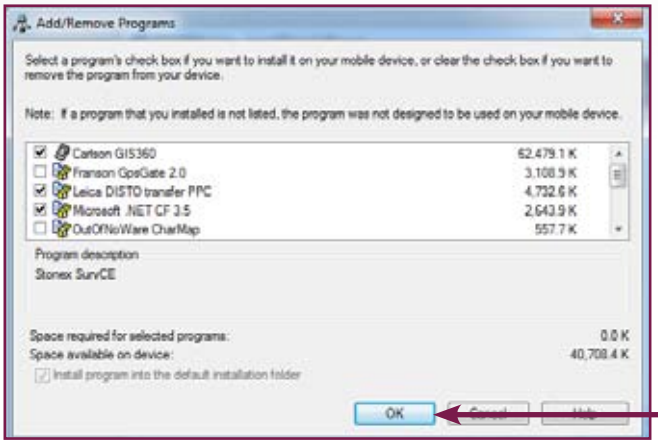
Click “Next”

Select “Remove”, then click “Next”

Confirm that you wish GIS360 be removed from your device

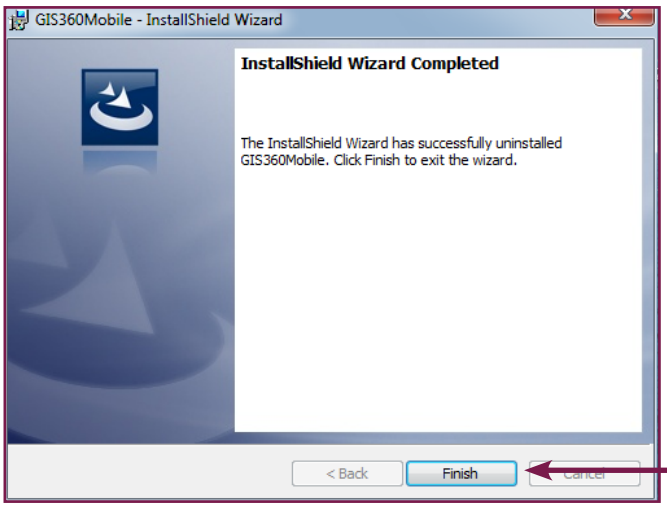
Installation of a new GIS360 version





Clear a program's checkbox if you want to remove it from your device.

Then click "OK"



Click "Finish"

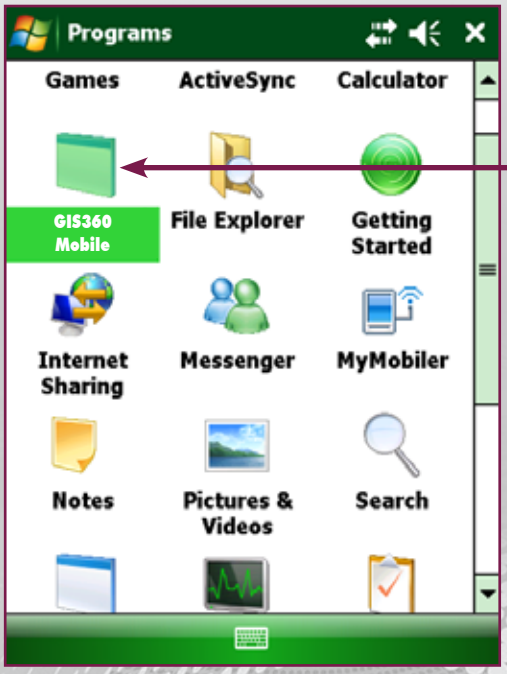
GIS360 has been successfully removed from your device.

You can now begin with the installation of a new version.

GIS360 First time launch

Special note: Whilst every effort has been made to keep up to date with the most recent version of the software, some changes inevitably will be made before the manual changes. Please keep up to date by downloading the most recent manual from our site.

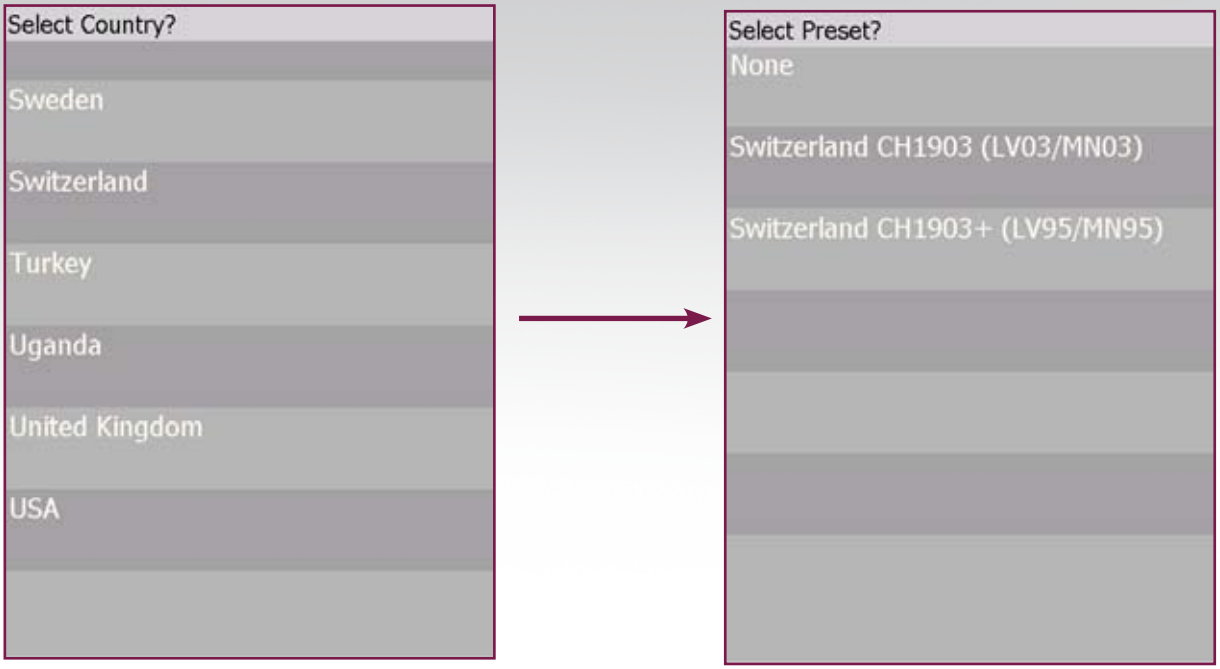
When you have downloaded the GIS360 Software from http://www.carlson-GIS360.com to your your mobile device, you get the following screens on Windows Mobile:

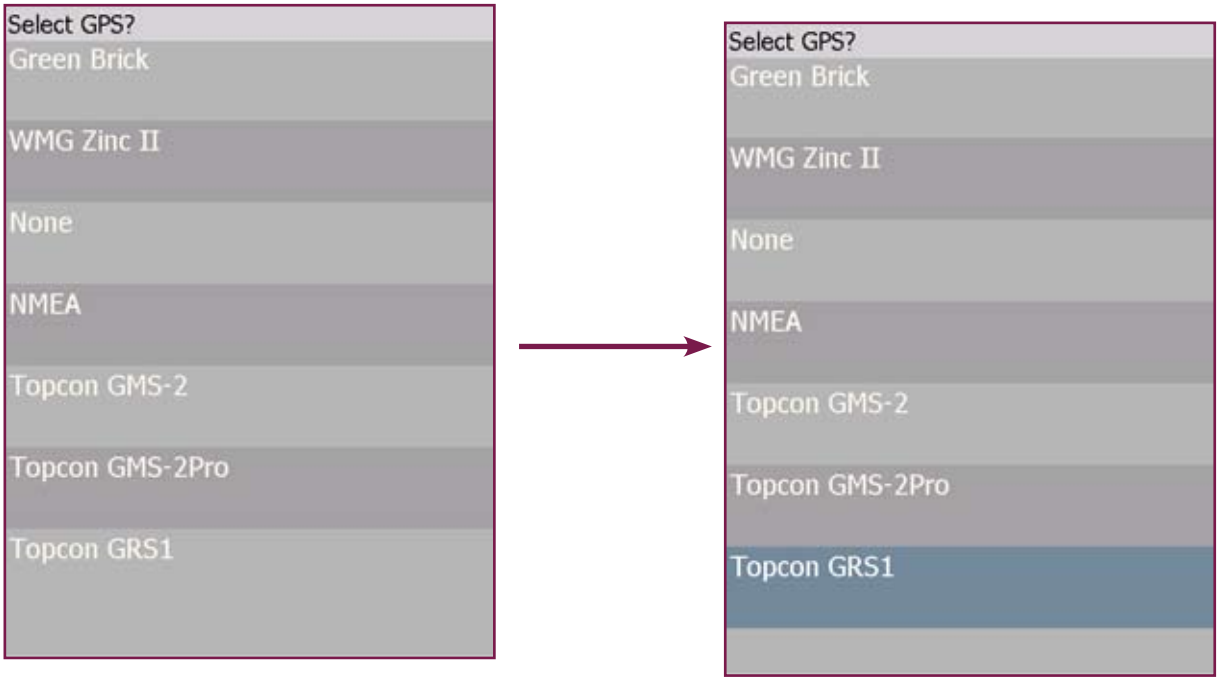


The first time you want to run GIS360, you will have to click on "**Programs**" and click on "**GIS360 Mobile**"

GIS360 First time launch

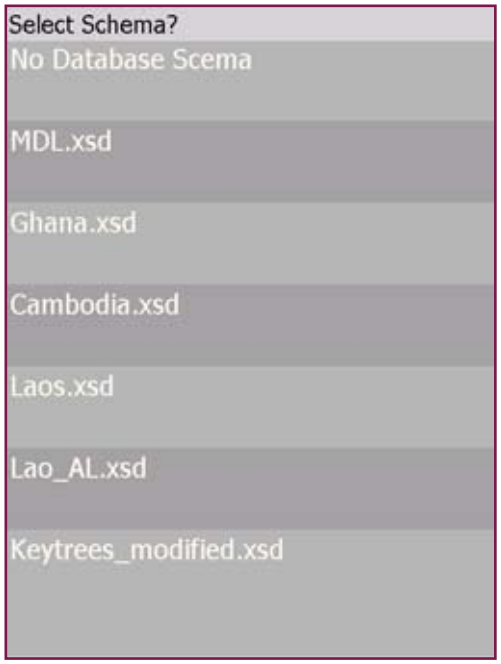
You are now guided through the steps that will enable you to configure GIS360 according to your requirements. Select the parameters corresponding to your country/area and to your device configuration.

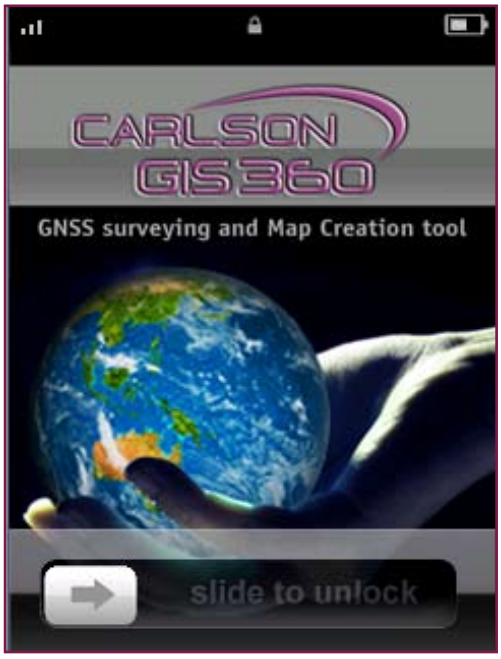




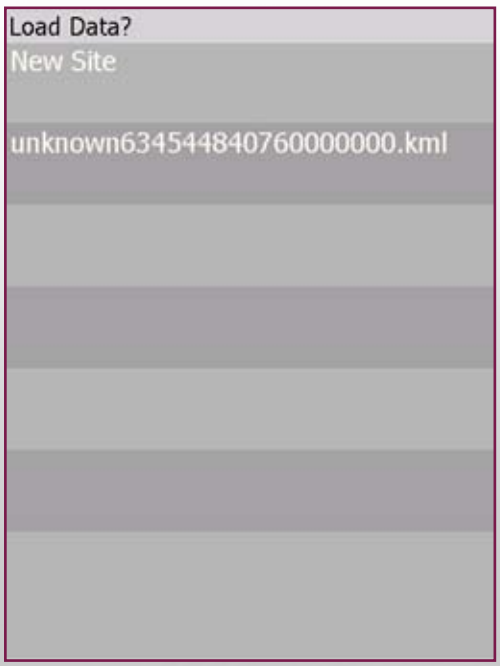
In case your device is not listed here, choose NMEA.

GIS360 First time launch





Slide to unlock



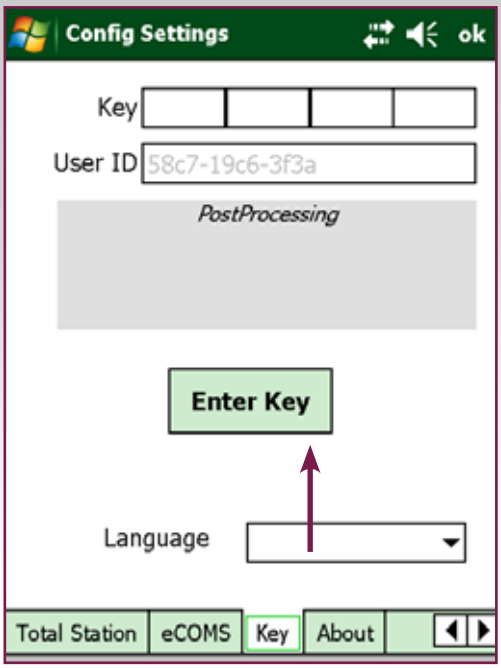
Load your data

This is the final screen after the GIS360 launch, with your desired settings and maps.

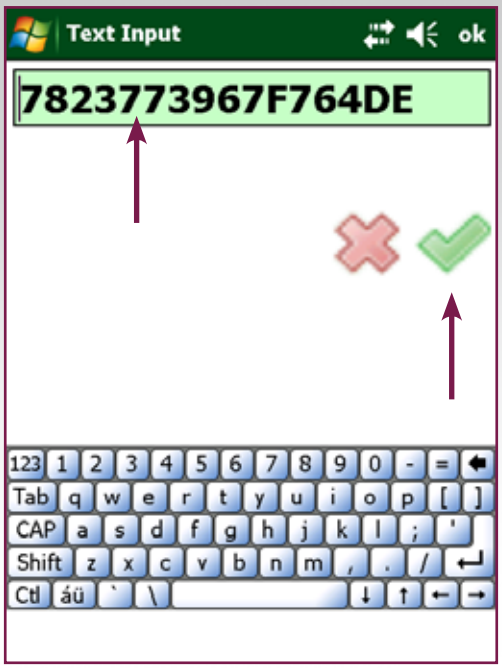
Now we will set up the parameters to allow GIS360 to work with your GNSS receiver. To do so, enter the utilities menu

GIS360 First time launch - Enter Software key

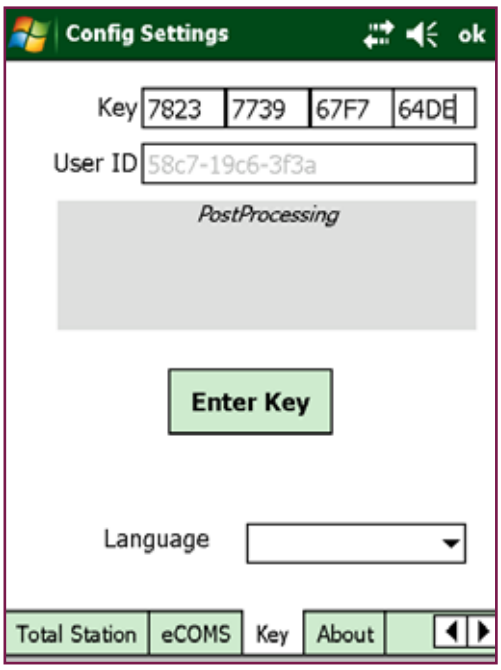
It is essential to first enter your software key, in order to enable all GIS360 functionalities.



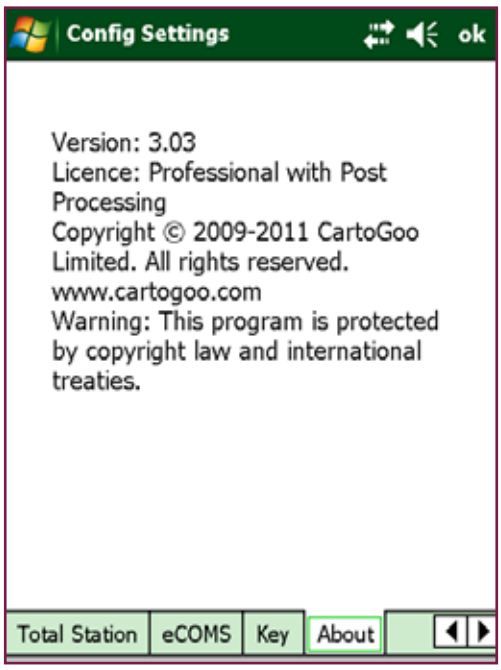
In the utilities menu, go to the "Key" tab. Click "Enter Key"



Enter your key in the highlighted green field. Confirm with the green button.

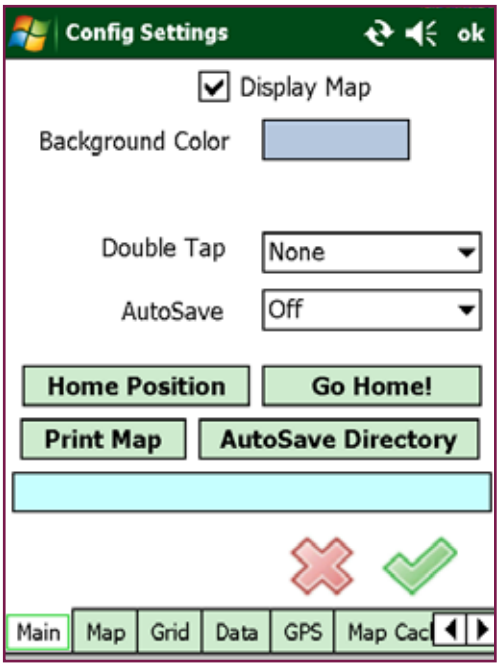


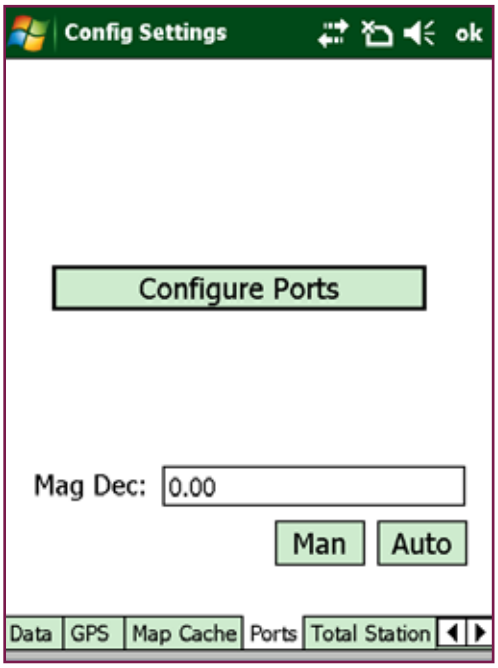
Your license is now activated.



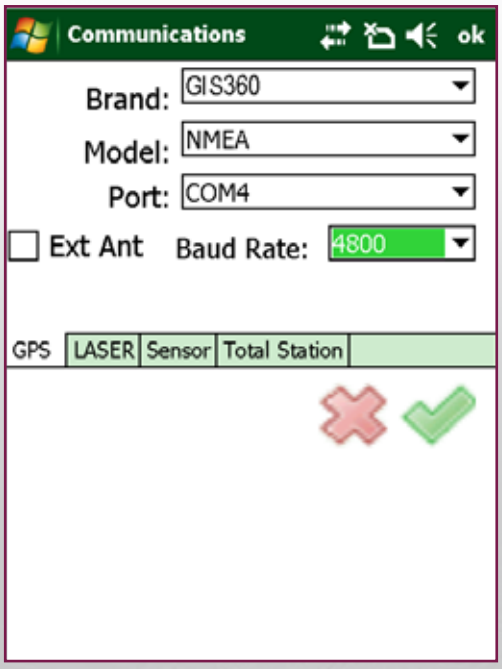
In the "About" tab you can see that you are now using a full license.

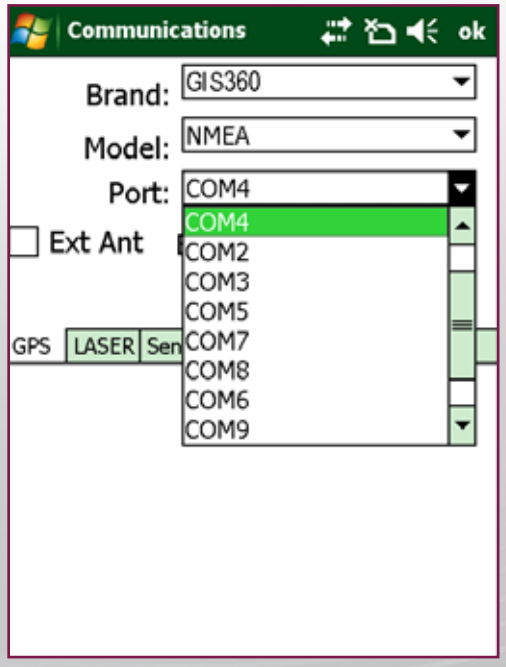
GIS360 First time launch - Communication ports





You first have to set up the communication parameters between the instrument and GIS360 in order to receive the GNSS signal.

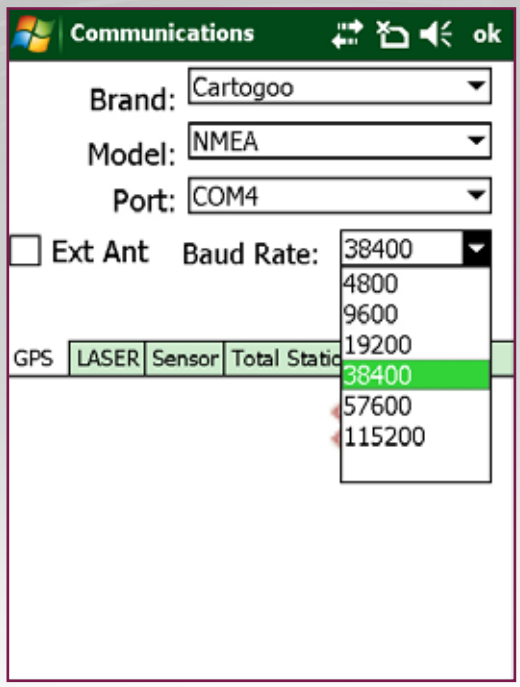


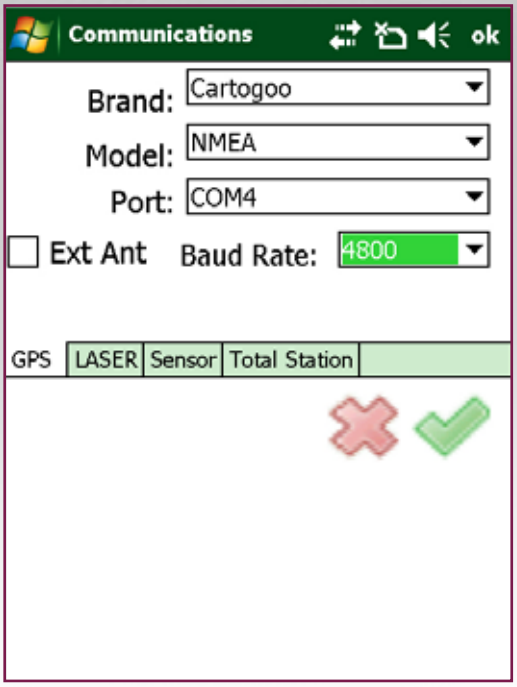


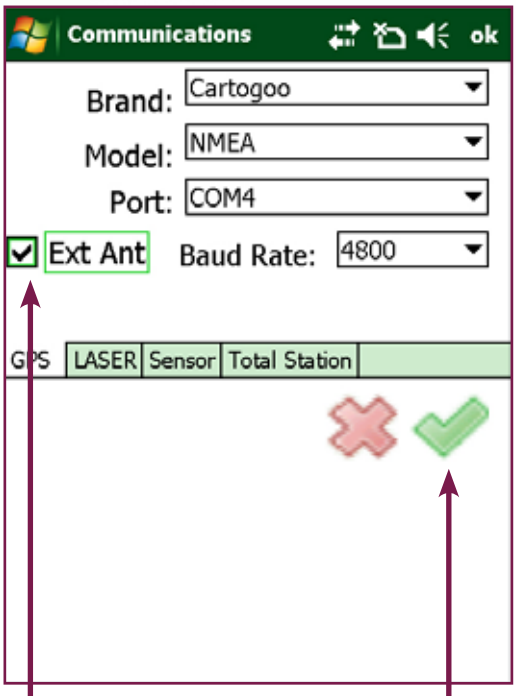
Chose the instrument from list, else choose NMEA to allow for GIS360 to communicate with your GNSS receiver.

You will have to determine the communication port and the correct baudrate until GIS360 confirms you have set the correct parameters.

In this example, we are setting up a Handheld Nautiz X7 to use the internal receiver with GIS360.

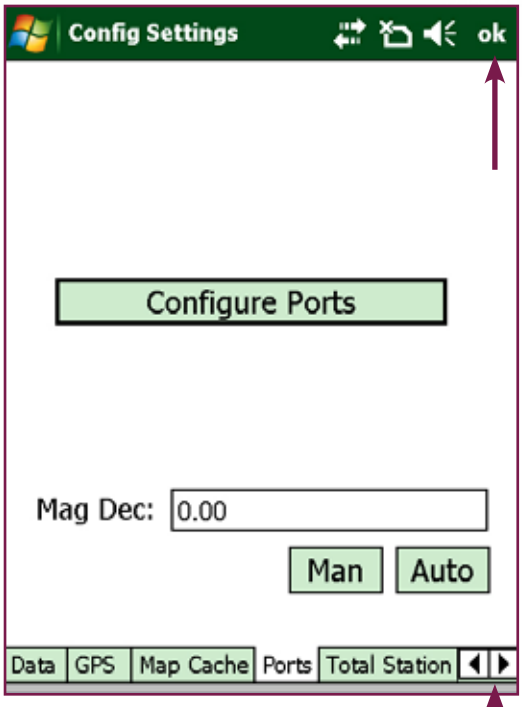






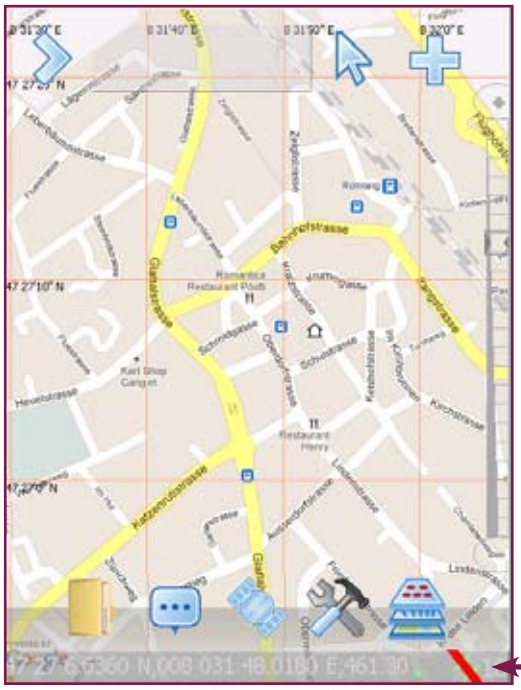
In case you are working with an external antenna, check this box.

To confirm your settings, click the green button

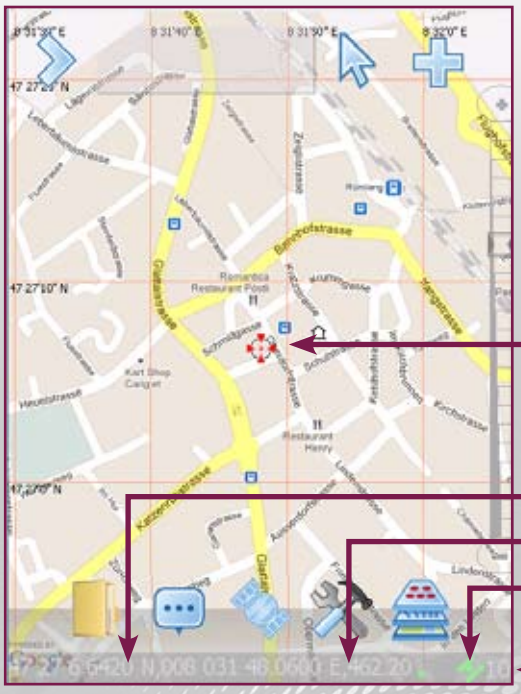


Once your settings are correct and you have confirmed with the green button, you are now back in the main utilities menu. Here you can click “ok” or navigate to the “Main” tab (left side of the screen). Use the arrows to navigate to the “Main” tab if needed.

GIS360 First time launch - Enabling GNSS



Upon exiting the utilities menu, here's what you get. The red bar on the bottom right of the screen has to be clicked in order to enable the GNSS.



We can now see the GNSS cursor indicating our position.

Several informations are now displayed at the bottom of the screen:

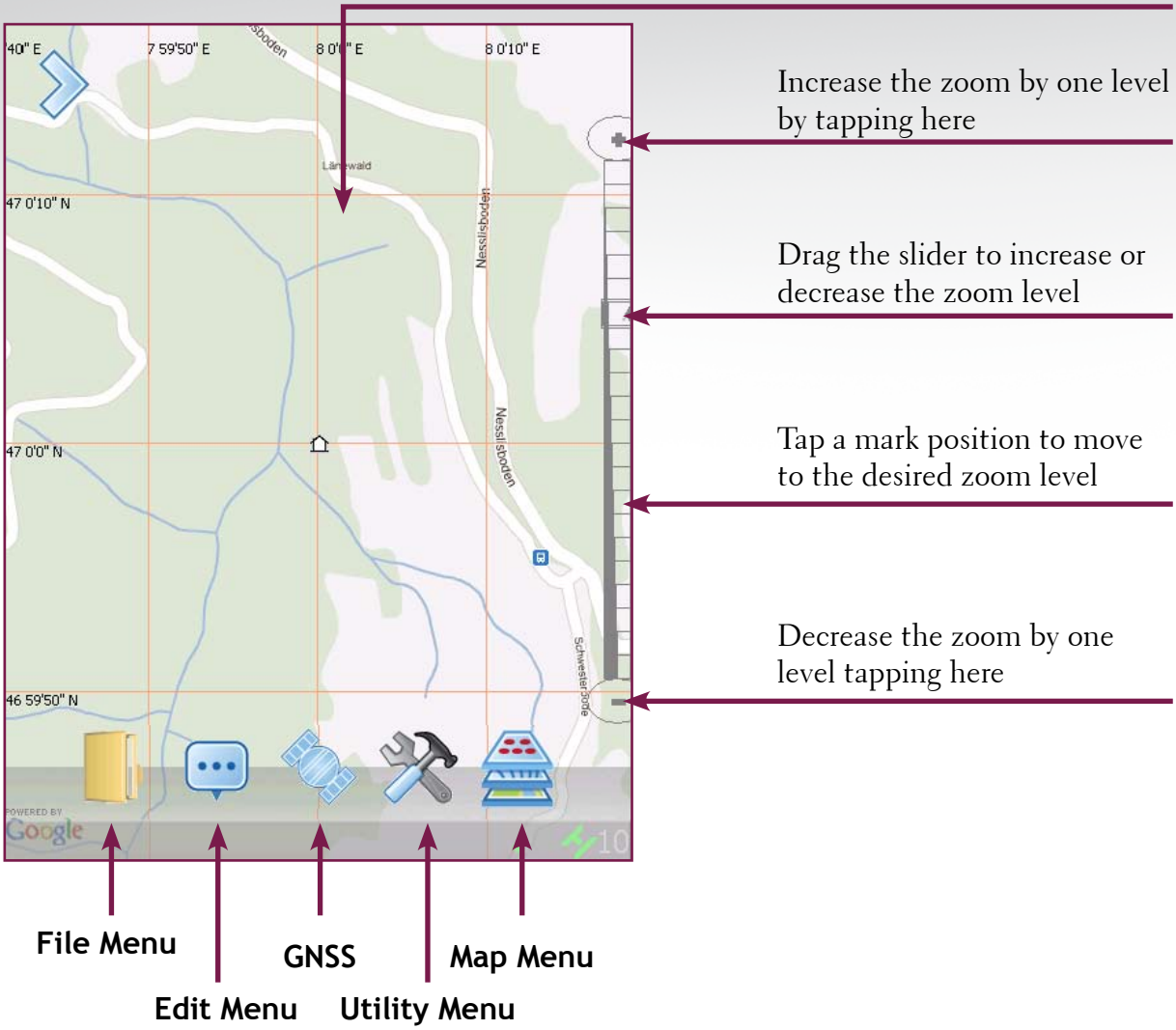
- the coordinates
- signal correction if availabe
- GNSS enabled (no red line)
- number of satellites

Basics

GIS360 is an intuitive Software with an easy to use main menu screen.

Here are the main functionalities. The menus will be explained in detail in the following pages.

Method Menu

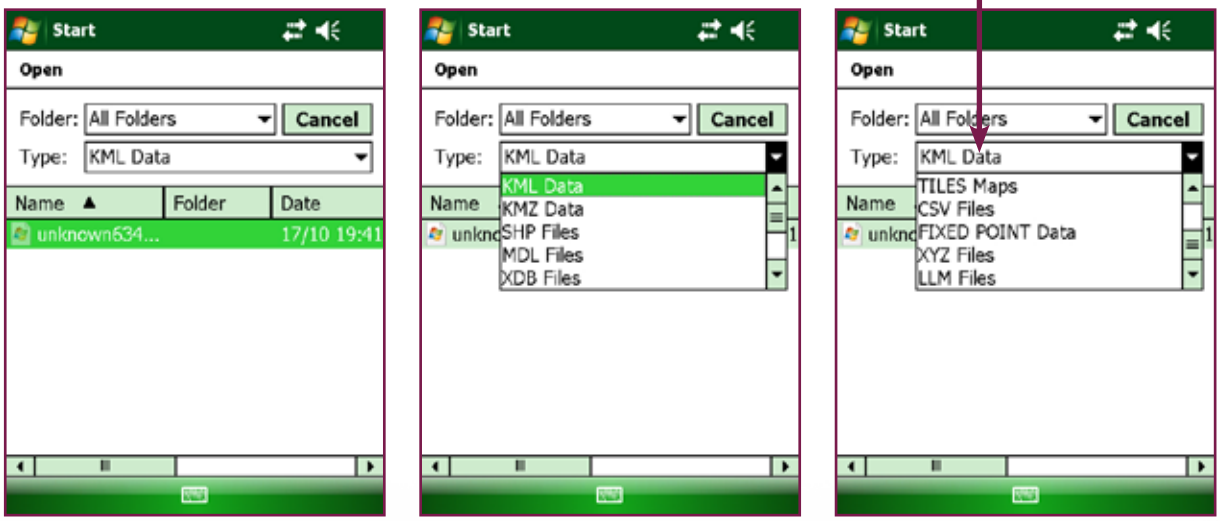


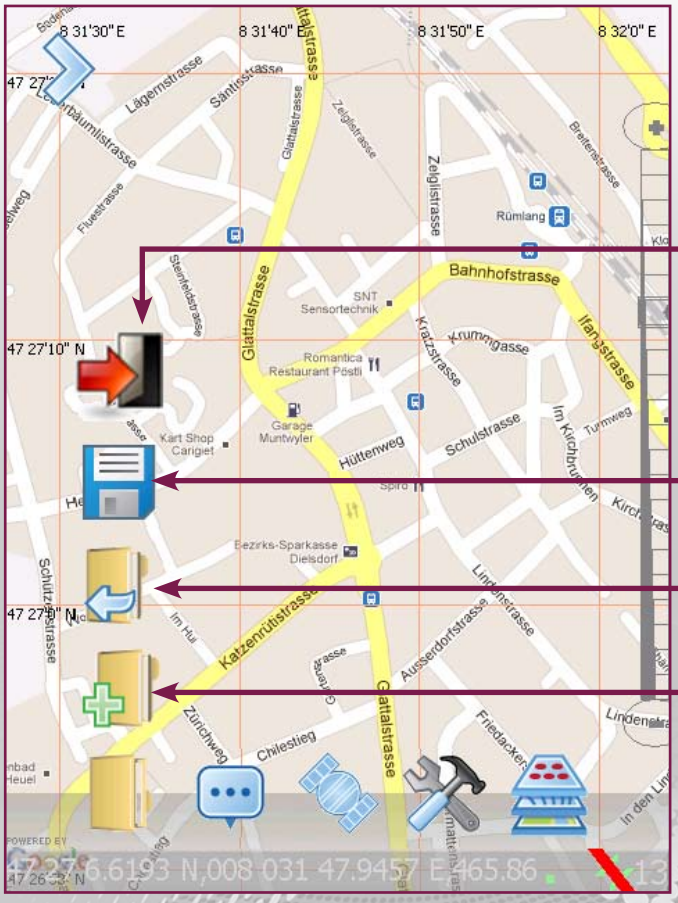
Grid lines may be turned on/off using the configuration dialog on the **utility menu**

File menu

The File types include KML,KMZ, SHP and Tiles format respectively. KML is the format you load and save your surveys in.

SHP allows you to import data from an ESRI Shapefile and Tiles* allow you to load local map data for use in wireless blocked regions





Click this button to exit the application.

Save survey: Saves the current data set as a survey to disk. The file will be saved as a KML compatible file.

Load survey: Load a saved survey in from disk. The file must be a KML, SHP or Tiles* compatible file.

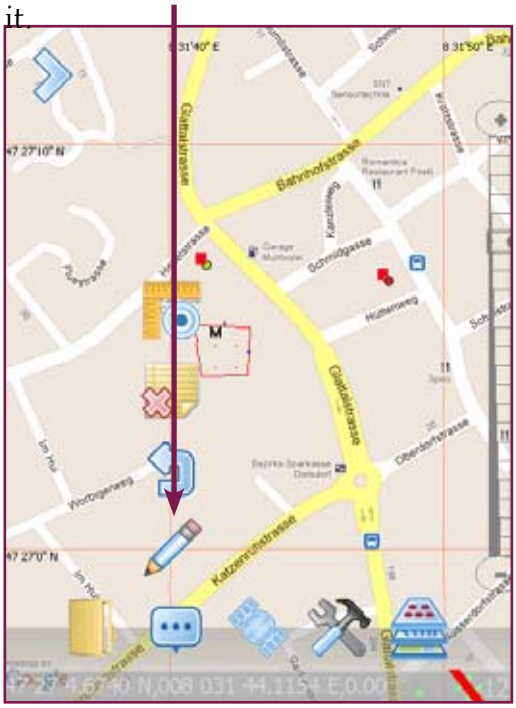
New survey: Start afresh from the HOME point. All existing data will be erased first. Make sure you have saved the existing survey first.

* only available on the professional versions

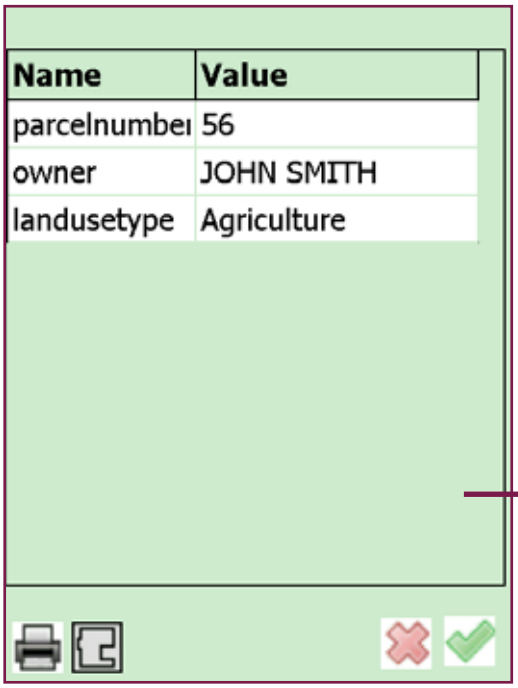
Edit menu: Edit

Edit Attribute data: Allows attribute data already collected by the application to be altered. Click to enable feature

Edit Attribute data: When enabled, please note it is not possible to 'drag' the map. To re-enable the map drag, you must click this feature again to disable it.

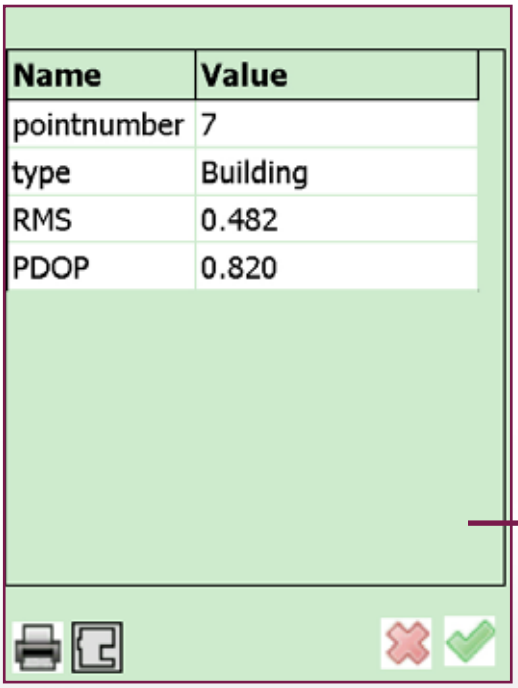


Edit Attribute data: After changing **Map Mode** we get:

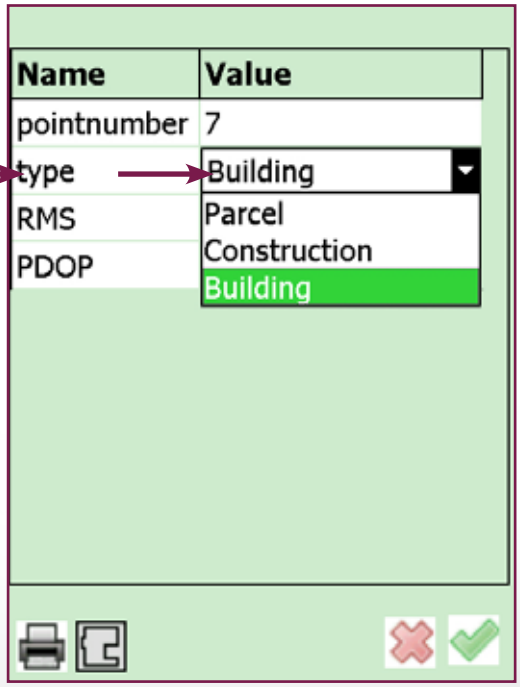


Edit menu: Edit

Edit Attribute data: Clicking the tip of the pin-point show the attributes:



Edit Attribute data: Double Clicking the Name or Value of Cause allows you to change the attributs:



Edit Attribute data: Double clicking a field with numeric values will display the keypad.

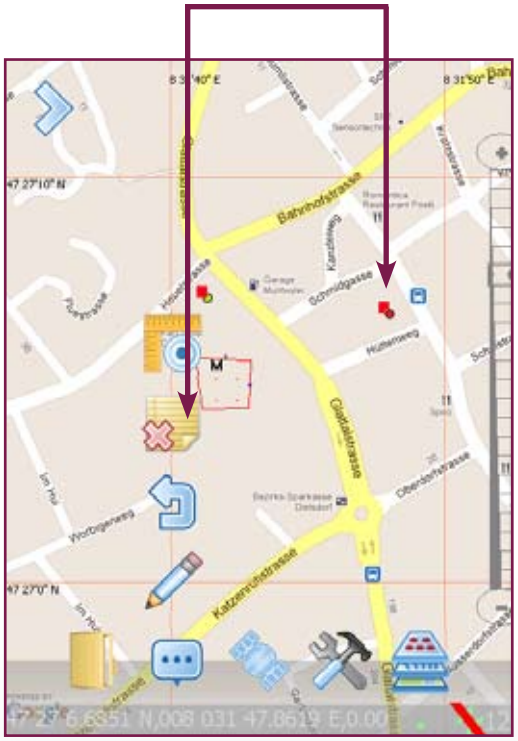
Edit menu: Undo

Undo: Deletes the last graphical feature added along with the attribute data.

Undo: Clicking the button removes the last graphical feature added.

Edit menu: Delete

Delete: Deletes the graphical feature along with the attribute data.



Delete: Click the base of the Pin Point or Marker that you require to be deleted. This item will flash.

Delete: The graphical feature will be removed along with any attached attributes.

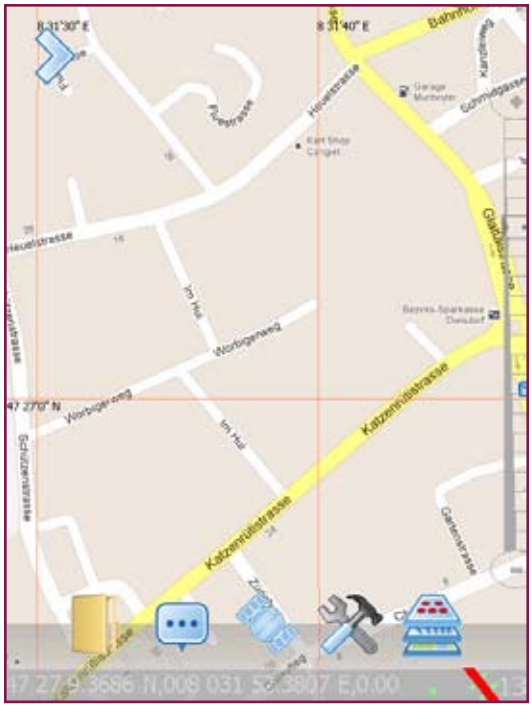
Delete: If your ITEM is covered by this window, just DRAG it away, then Click YES

Edit menu: Delete

Delete: Deleting areas and line items require you to point and select the base of the required marker

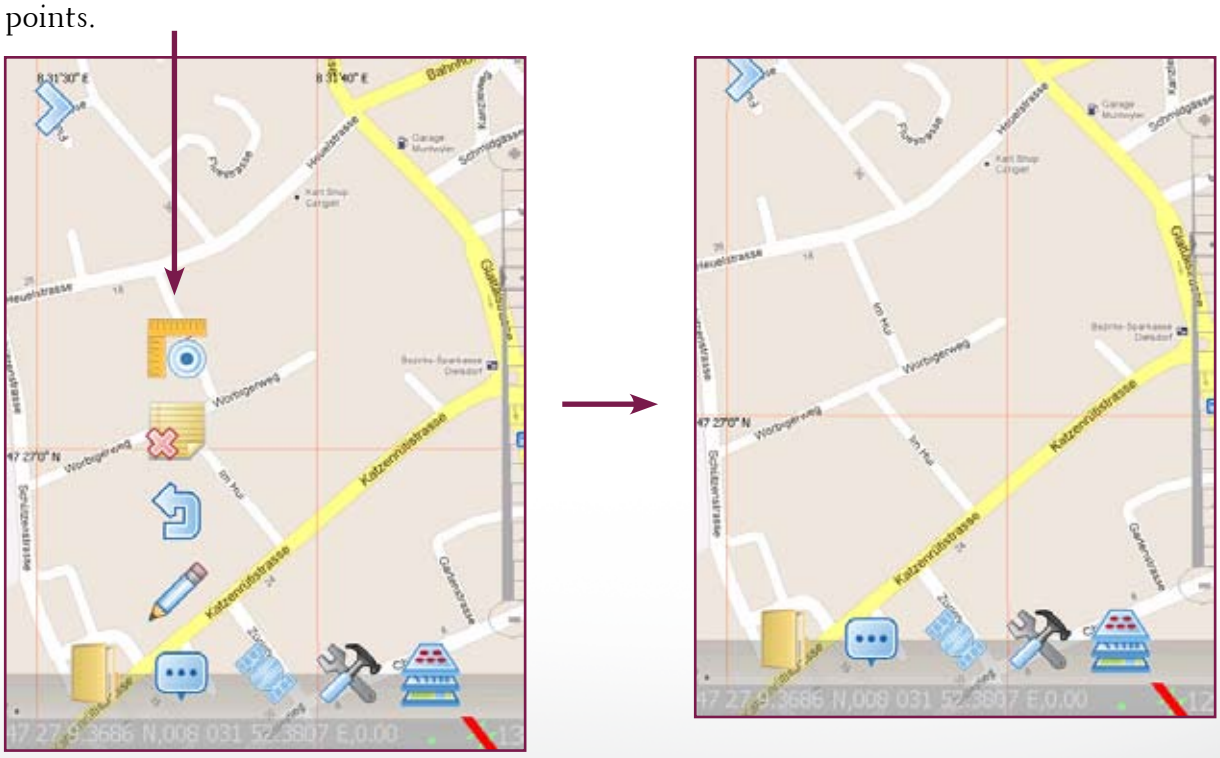
Delete: By selecting **Yes**, the graphical feature is removed along with any attached attributes.

Delete: The entire item should flash.



Edit menu: Measure

Measure: Select the **Measure icon.** The measurement can be done clicking on the map or snaping to two known points.

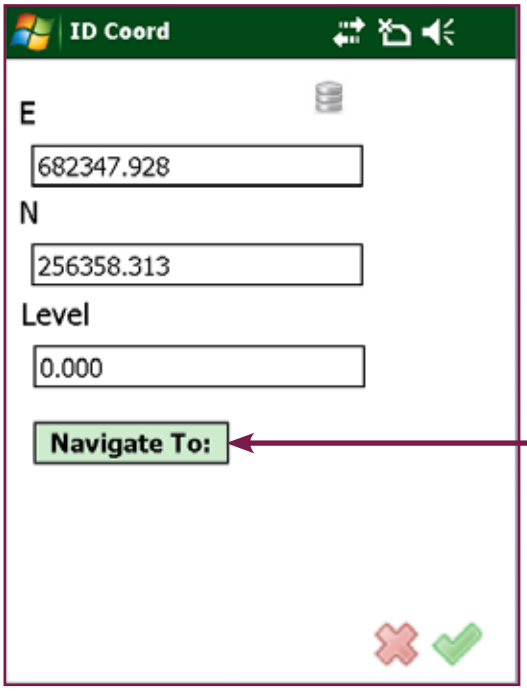


Measure: Selecting the **Measure icon** again will erase the measured distance between two points.

Edit menu: Display coordinates and stakeout

As for "Edit Menu: Measure", select the Measure symbol, then double tap the point on the screen you wish to know the exact coordinates.

The coordinates are displayed. GIS360 can display Lat/Lon/Alt, or...



... the same coordinates in Easting/ Northing/ Level (the coordinates can be set in the "utilities menu" in the "Grid" tab). Click on the green button to return to the map view.

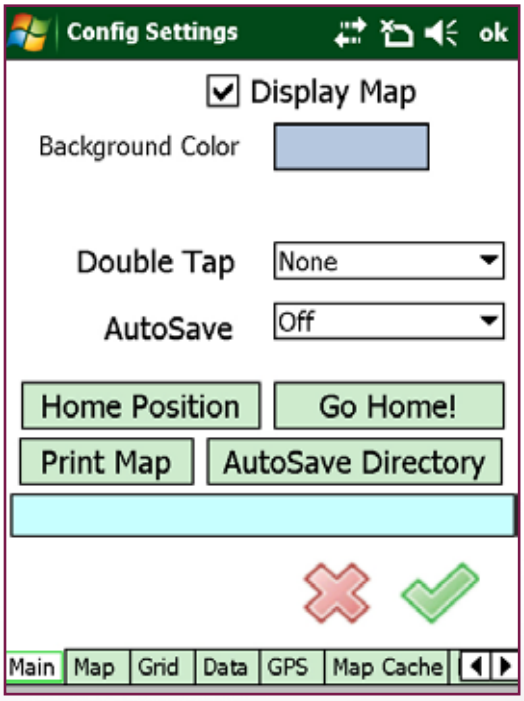
If you wish to stakeout, click on "Navigate To:"

The screen displays now a circle with your position around the point to stake out.

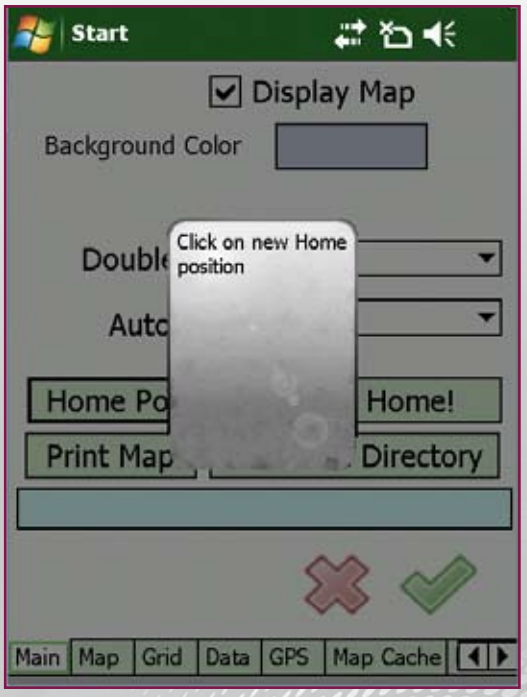
Edit menu: Home Marker

Home Marker: The house symbol depicts the base position of the survey. When you start up or select New Survey it draws the map centralised around this point. This is the default position of an earlier session.

This marker can be moved. To do so, go to **"Utility Menu"**.



Click on "Home Position"

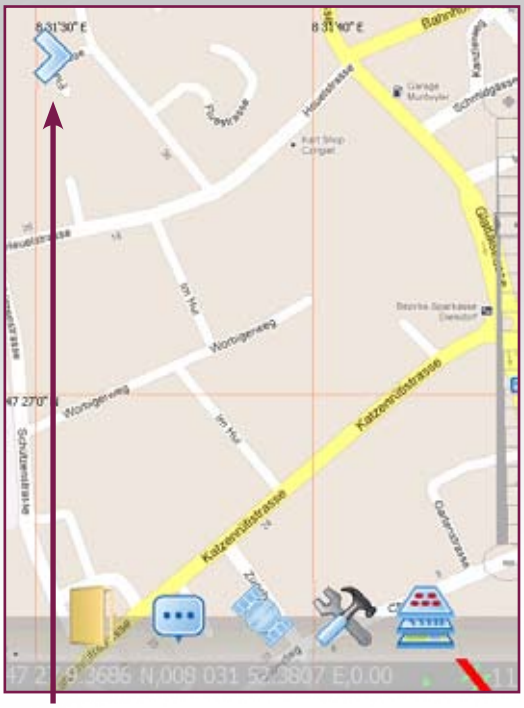


GIS360 dispays this screen for 2 seconds, asking you to tap the screen at the position of the new home position. Once you have taped, you are shown the original "Utility menu" screen, where you can confirm with the green button.

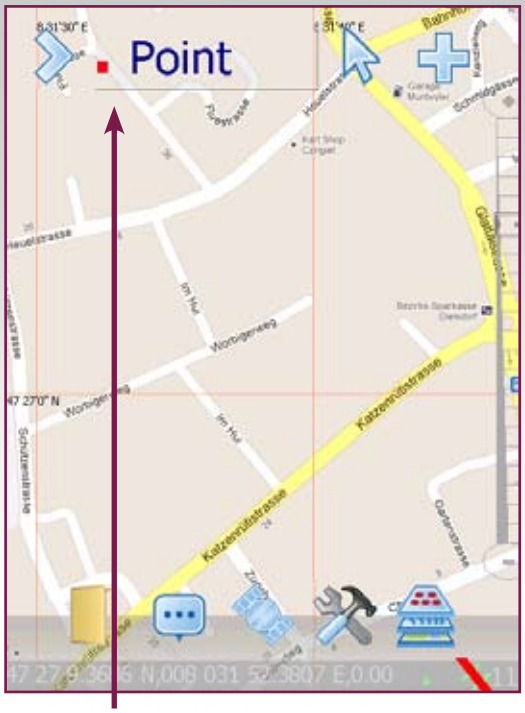
Now you see the new position of the Home Marker

Method Menu

The purpose ot the Method Menu is to define:
- What has to be measured
- How to measure, by GNSS, Total Station, Distancemeter, Tape or manually

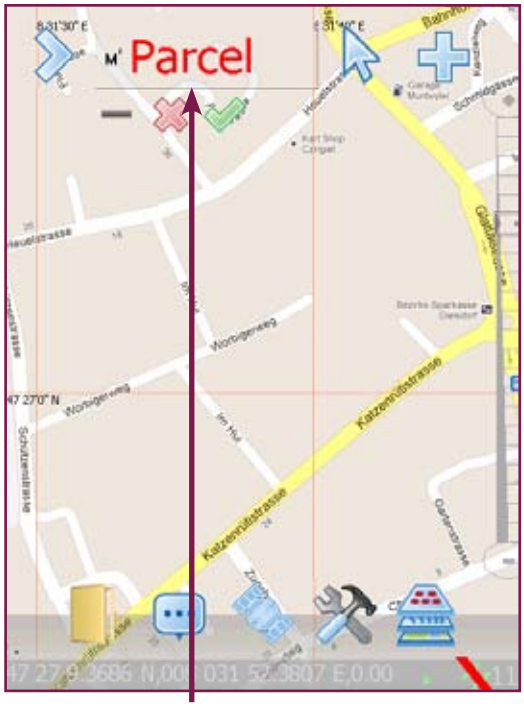


Click on the arrow to enable the Method Menu



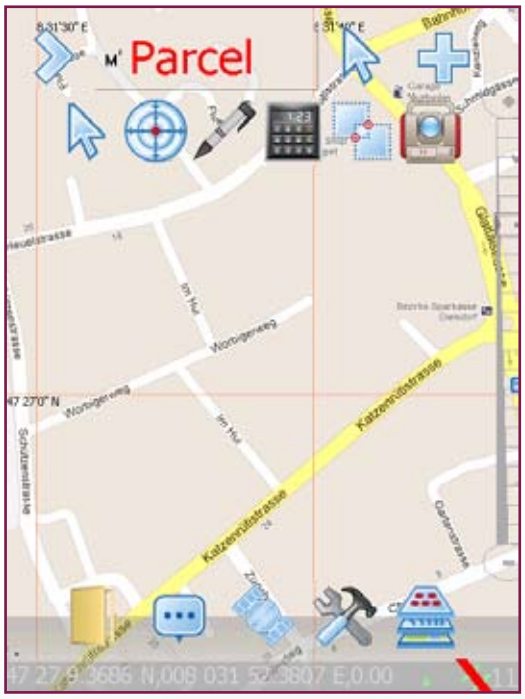
Clicking on the schema will display the list of items that can be measured. This list can be defined individually (see chapter DataDesigner)

List of items that can be measures



Clicking on the arrow will display the measuring methods. These will be explained in the following pages

Method Menu: Snap Point



Snap Point: First, select your graphic type then select the Snap button. While this is selected, the closest survey point to the tapped point will be selected if it is within the search radius.

Snap Point: Allows you to glue a position in your graphic construction onto a point of an existing item. If we already have these three linear objects, we may want to start at a used point for the next linear object.

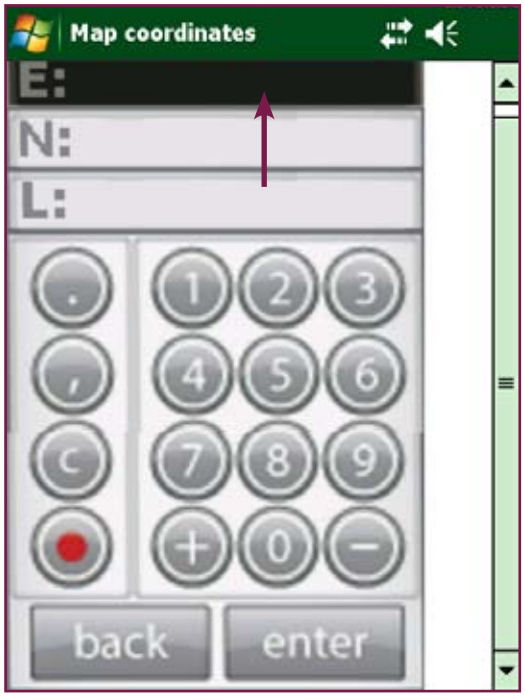
Tap Point: Select this button to put the application into **Tap Point** mode. This allows **both** tapping on the screen to select a new position **and** using the GNSS when it is enabled.

Tap Point: When you tap a point or select an enabled GNSS position, this leaves a tap point in the survey area.

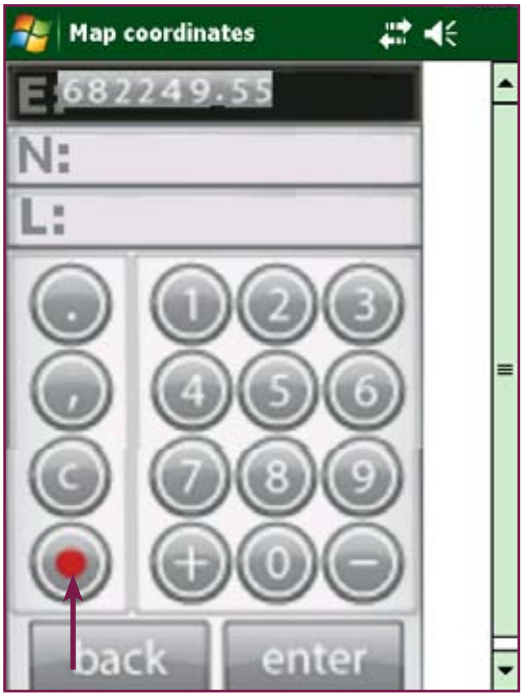
Method Menu: Enter Point

Enter Point: Select this button to put the application into **Enter Point** mode. This allows coordinates to be added by Easting, Northing and Level (Altitude above Mean Sea Level).

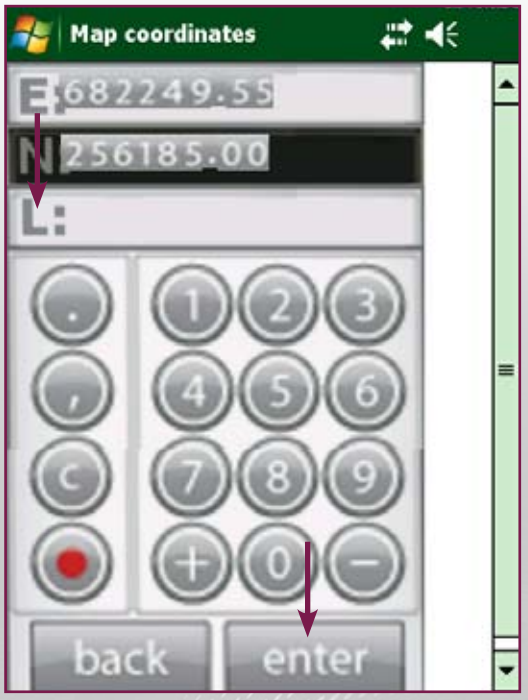
Note: You can only enter the Map coordinates of Easting, Northing and Level. Map coordinates are calculated from Latitude, Longitude and Altitude. This depends on the transformation and projection used which varies from country to country and the map system used there. You can change the projection/datum being used by reselecting it in the **Utility Menu.**



Enter Point: Highlight this text bar then key in the Easting value in metres (could possibly be US feet). Please note you can highlight **Easting** (E) **Northing** (N) **Level** (L) in any order and go back and edit them later until you finally click the **Enter button** or **Cancel button** to complete this data entry.

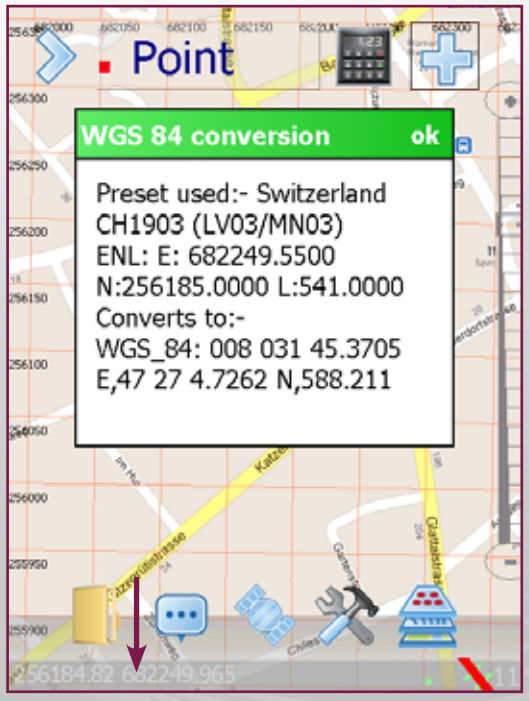


Cancel button

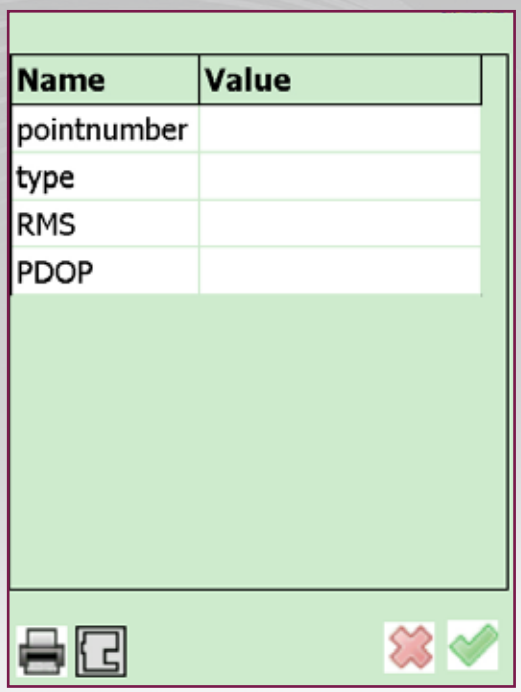


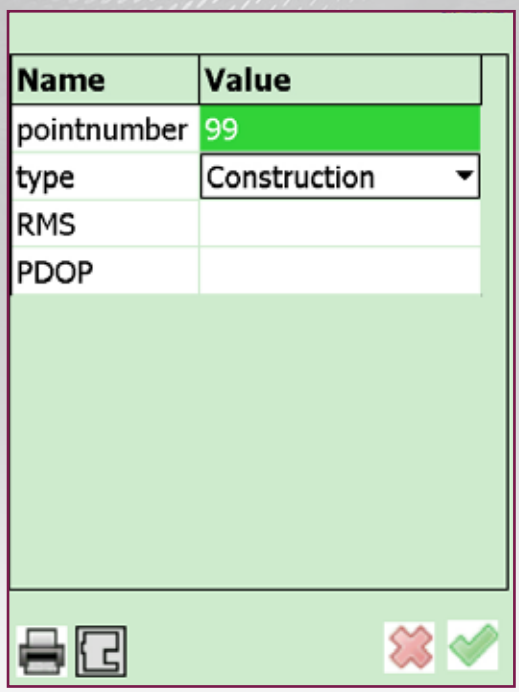
Enter Point: Once all the entries have been entered, click Enter to create the point on the map sheet.

Please Note: In this version of the software, the **Level** is interpreted as the **Altitude from Mean Sea Level .**



Please Note: Due to space restrictions, it is not possible to show the Easting Northing and Level simultaneously with the Latitude Longitude and Altitude on the MobilePC platform. However you can see both sets of coordinates on a PC.


Name
Value
pointnumber
type
RMS
PDOP


Name
Value
pointnumber
99
type
Construction
RMS
PDOP

Method Menu: COGO

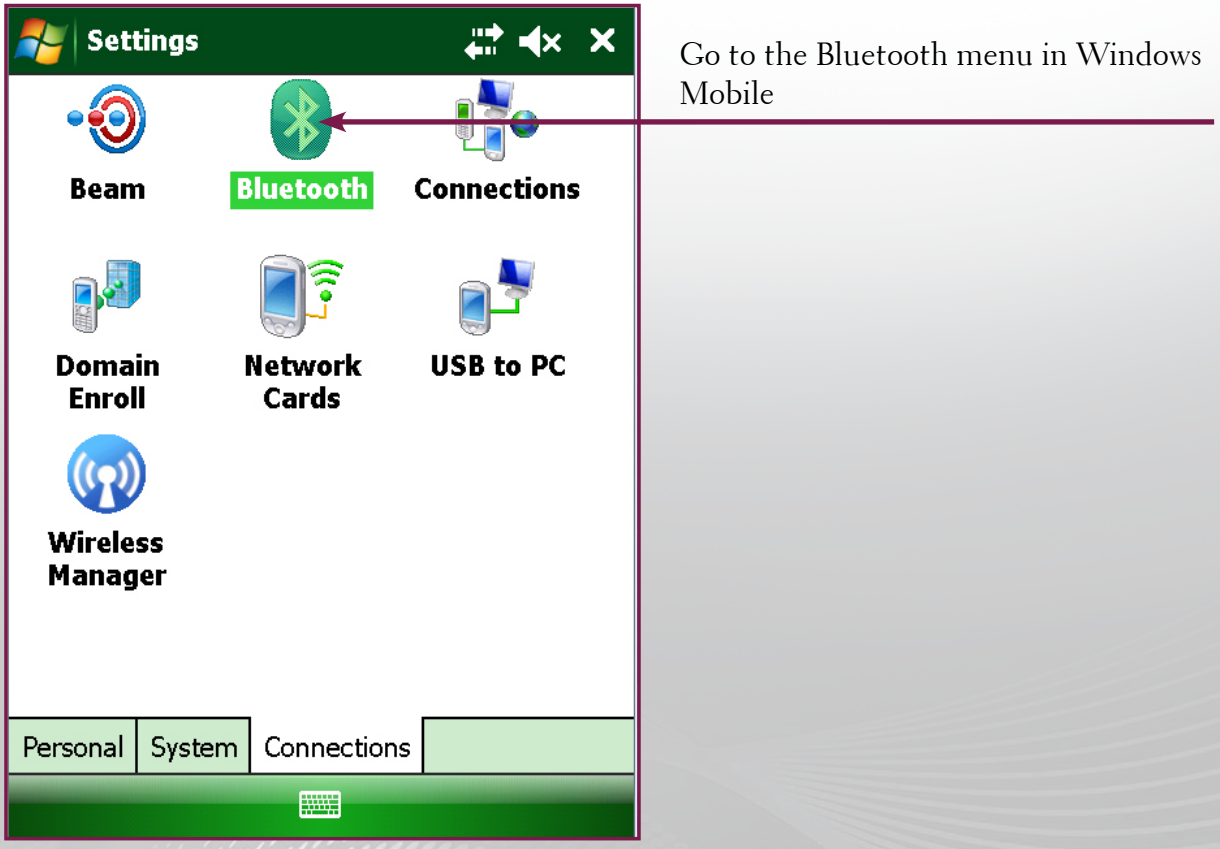
There are several possibilities to enter data, for instance manually by using tape or distancemeter, or with a distancemeter and Bluetooth connection. We will now look in details at the latter method.

First step: enable Bluetooth on the GRS1 in the Bluetooth Manager. Once enabled, the blue Bluetooth led at the bottom of the GRS1 will light up.

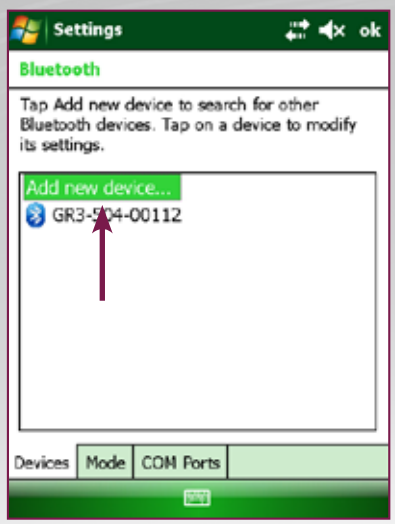
Important Features COGO: Using a Laser

First we need to pair the distancemeter with the device.

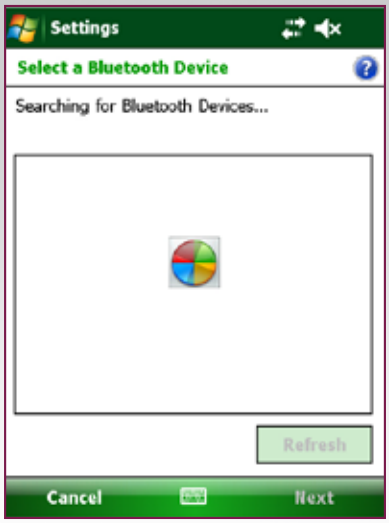
Also you will need to Software "Disto Transfer" from Leica in case you're using a Disto with Bluetooth (http://ptd.leica-geosystems.com/en/Support-Downloads_6598.htm?cid=12799&linkid=QMNH).



Important Features COGO: Using a Laser

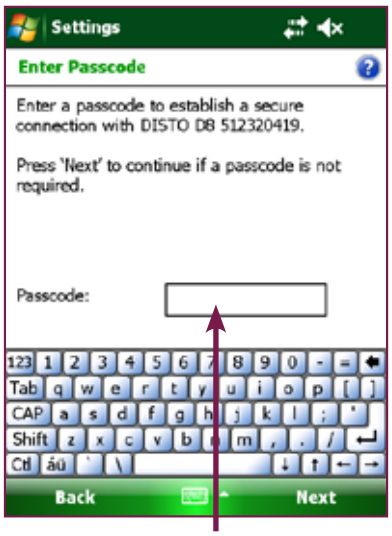


Click "Add new device".



Make sure to have activated Bluetooth on both the Disto and the handheld device. The system is looking for Bluetooth devices

The Disto has been detected. Select it and click "Next"



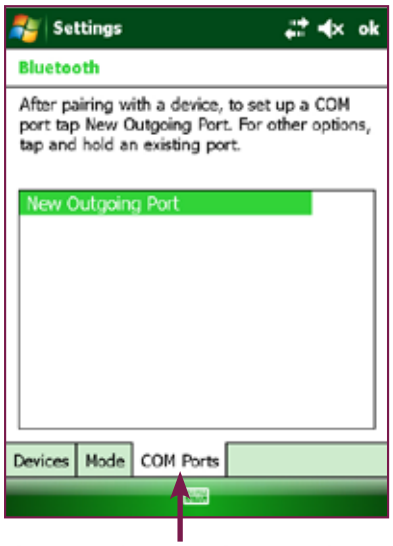
Enter the passcode (this code is often either 0000, 1111, or 1234)

The Disto has been connected

It is now visible in the list. Now click on "Mode"

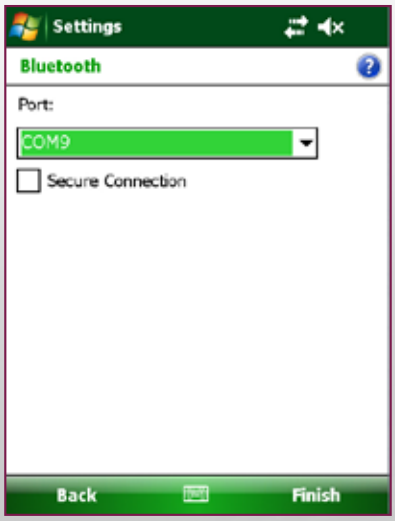
Important Features COGO: Using a Laser

Activate Serial Port, click Save

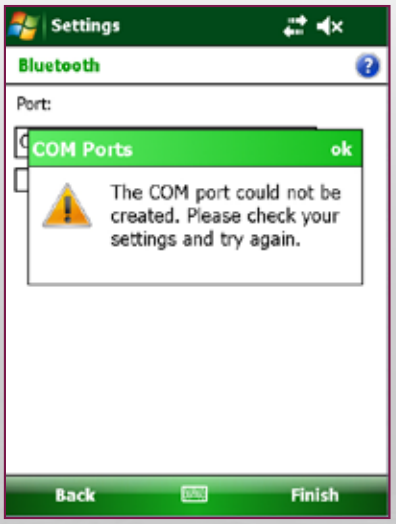


Click “New Outgoing Port”

Click “Next”



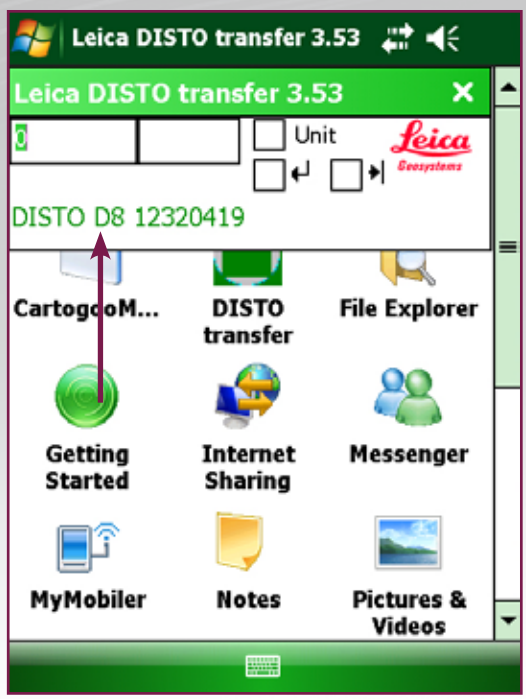
Choose the correct port. You might have to try until the system doesn’t display any error messages. This port is different for each device.



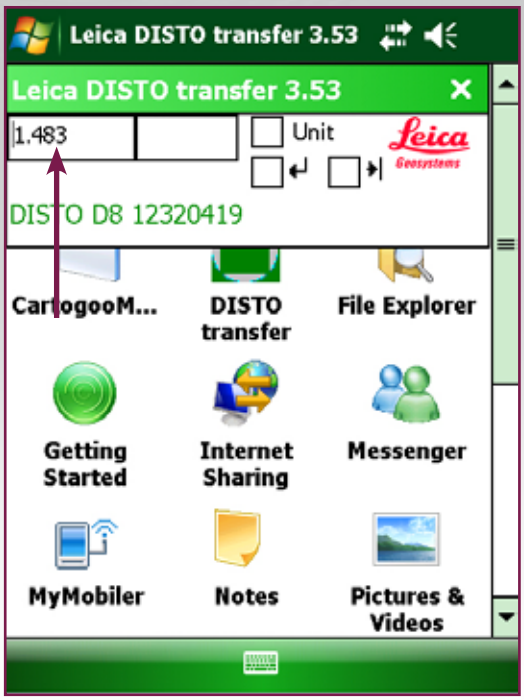
Example of an error message

The correct port has been set (here COM4)

Important Features COGO: Using a Laser



Once the settings are correct, the DISTO will appear on your screen



You can test the transmission by measuring a point and pressing the Bluetooth button (Disto D8) for transmission. The measure shall appear as in the screen.

Start GIS360 once the connection is established

Select now the COGO tools

Important Features COGO: Using a Laser

Select the Cogo tools.

Draw a circle around your first point, the next screen will appear automatically

you can enter the values by hand or by pressing the Bluetooth button on your Disto to automatically enter the measure

The first circle appears on screen with the right diameter

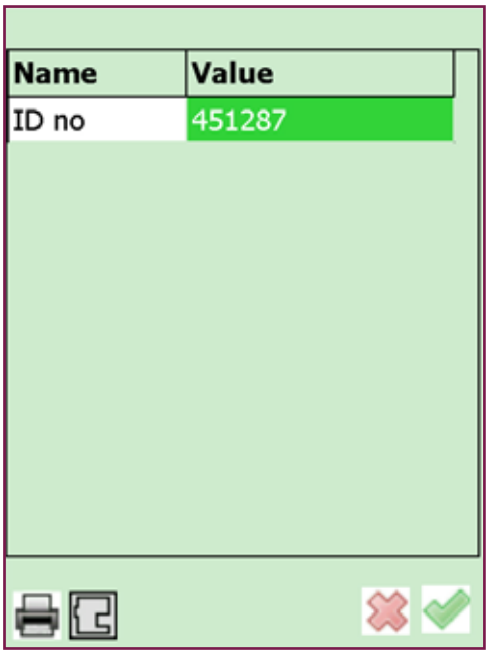
Draw a second circle for the second point

The values can be entered as for the first circle

Important Features COGO: Using a Laser

The 2 circles no appear on screen, with intersections clear and visible

Select the snap tool Click on the intersection that you wish to register as your point



GIS360 will ask you now for the other attributes that you have set up for this point

Important Features COGO: Using a Laser

You probably wish to have the point only and want to delete the construction. Click on the Edit Menu, then select delete

Here you only delete the constructions

The point now appears with its attributes, but without the constructions

Important Features COGO: Using a Laser

You can use the Cogo tools to draw a line or a polyline

We want to draw a line between these 2 points

Select the Cogo tools, then select the line

Cogo and line are selected

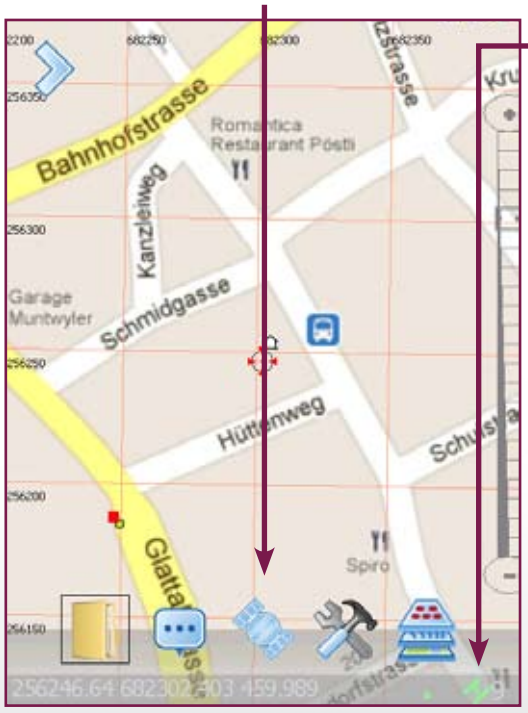
Draw a line on your screen with your pen between the two points

GIS360 will draw this line precisely

GNSS Method

GNSS Method: Make sure you have got the GNSS device connected to the correct port. Instructions are under Utility Menu: GNSS Port.

GNSS Accept: Click this button whenever you need to record a position at the GNSS cursor.



GNSS Enabled: The current GNSS position is shown by this cursor:

GNSS Enabled: Click this button to enable the GNSS.

GNSS setup: Please note this version of the application assumes that the GNSS device will automatically transmit NMEA instructions at a baud rate of 115'000, com 7, Port 7, 1 start bit, 8 data bits, 1 stop bits and no parity.

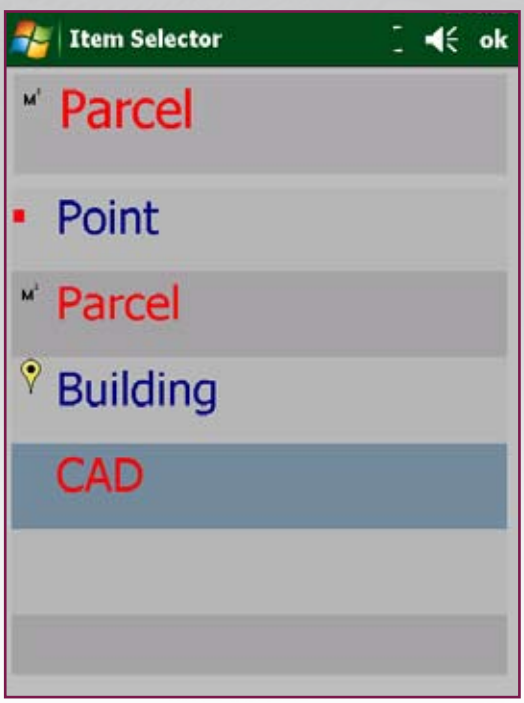
If you use Bluetooth ™ these values are not important. **You must also have the upgrade to support this service.**

GNSS Accept: For instance if the Graphics was set to **Parcel mode,** a trail would be created joining consecutive **Accepted GNSS points.**

GNSS Enabled: Select your Graphics Mode to create new objects from selected points using **GNSS Method.**

Graphics Menu CAD

Graphics: If accepted, you will be offered the list of attributes available for that Graphics Mode.



After pressing the **single point item,** a new sub menu will appear with the choice of Single Point Mode, Linear Mode and Area Mode

Single Point Mode: A single point item will be created in this mode.

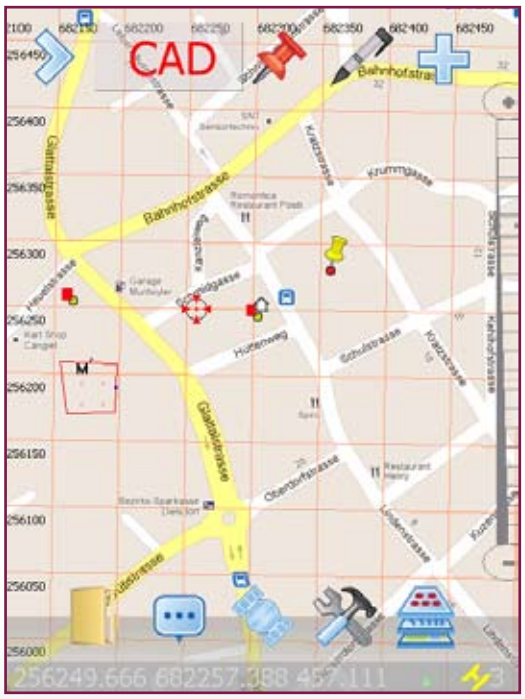
Linear Mode: A trail of points will be created indicating a pathway or boundary of some type.

Area Mode: A trail of points will be created that will always be a closed pathway or boundary of some type.

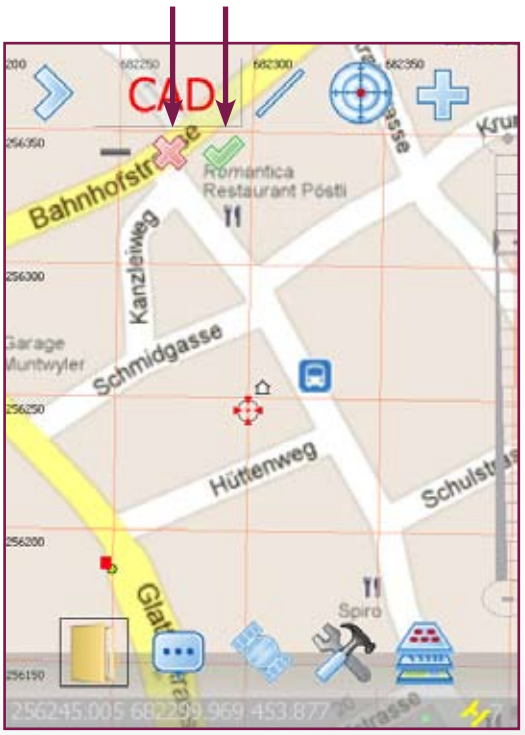
Please note: Once you select a mode, it is only valid for the lifespan of creating the new graphic item. To use it again to create another item, you have to reselect the mode in question, by pressing at big PLUS.

Graphics Menu CAD

Note: Single Point Mode items do not require closure, they are automatically accepted but may be removed later using Edit: Undo.

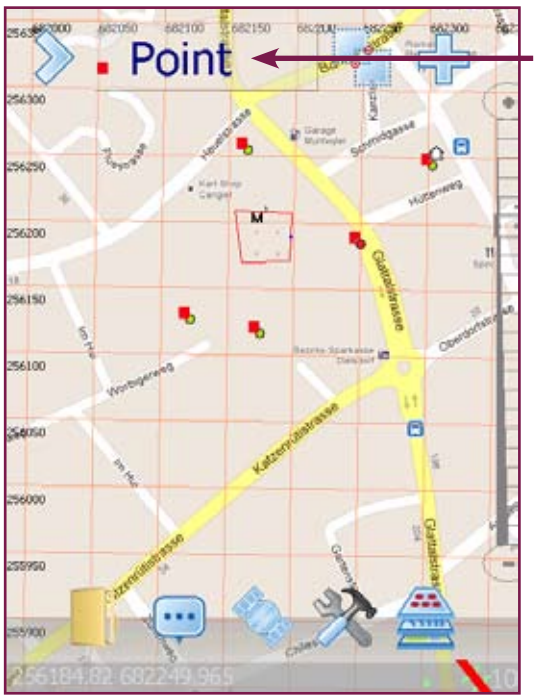


Graphics: When a new Graphics Item has been constructed, you can Accept the data or Cancel it.

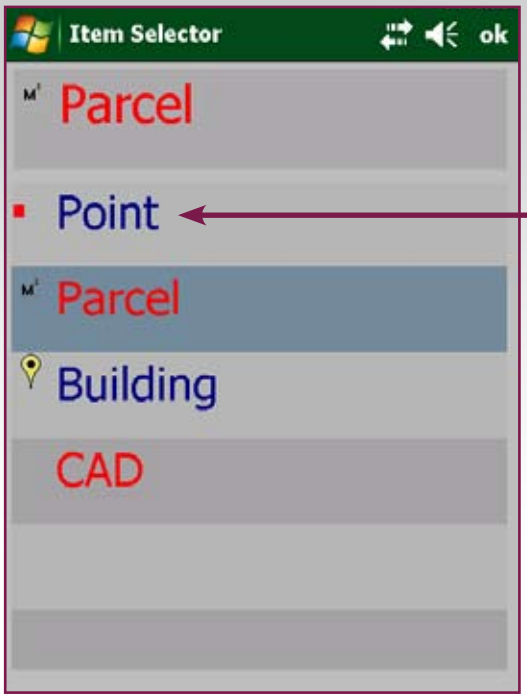


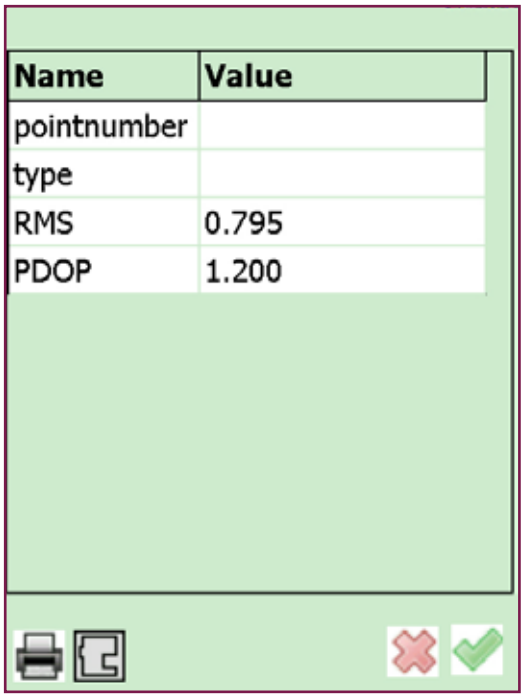
Graphics Menu: GIS

Single Point Mode: A single point item will be created by selecting this button. When a new point is added to the map sheet, a new Pin Point symbol will be created.



Single Point Mode: Select your position using tap point, snap point, enter point or GNSS point. The next screen frame to be shown is the one where you must choose which GIS. If you choose <CAD> the feature will not have any GIS fields attached to it.



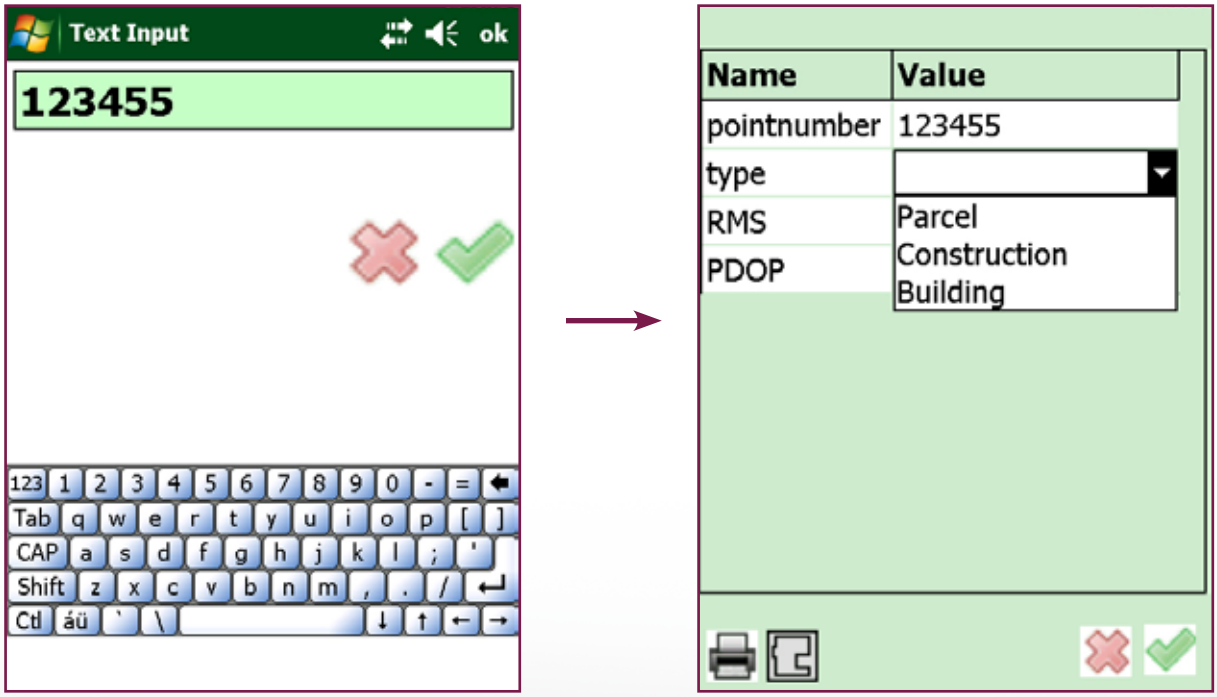


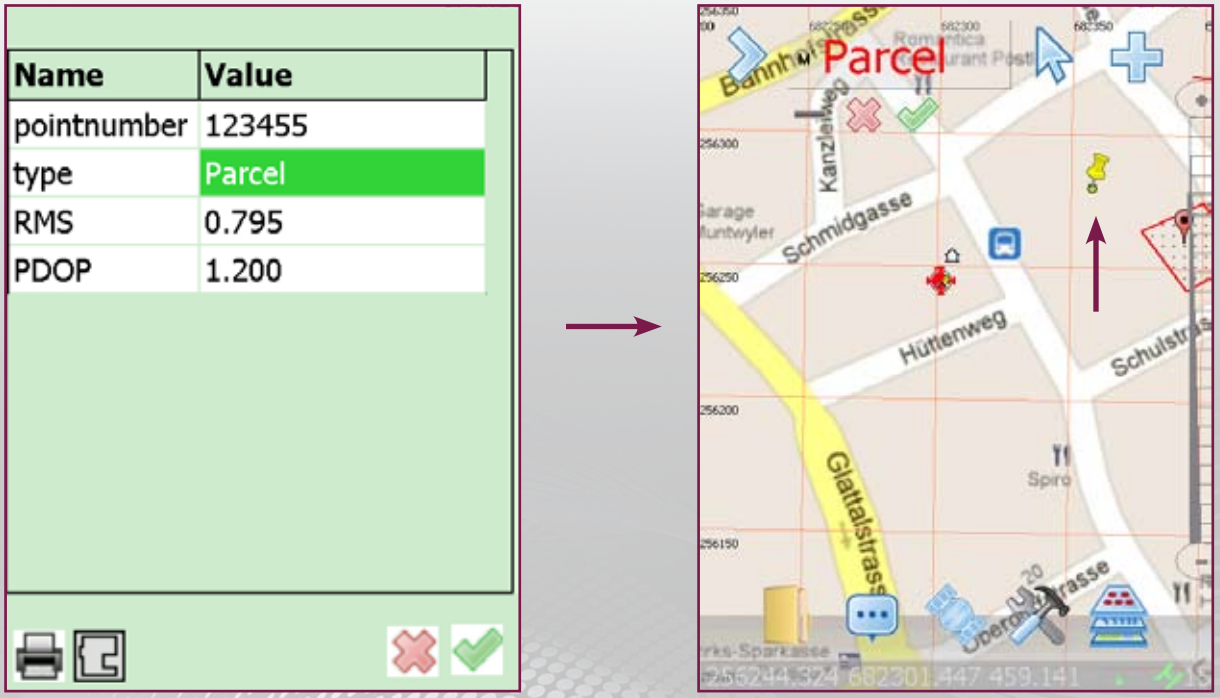
Graphics: Finally the table of the chosen database can be populated with relevant data. if the Accept button is clicked otherwise Cancel bypasses this operation.

Note: The style of these entries can be set in the Form Generator which creates Schema (*.XSD) files that control the way data is requested and edited.

Graphics Menu: GIS Single Point

Single Point Mode: Populate the fields according to relevant values then click the tick mark to accept the entries.

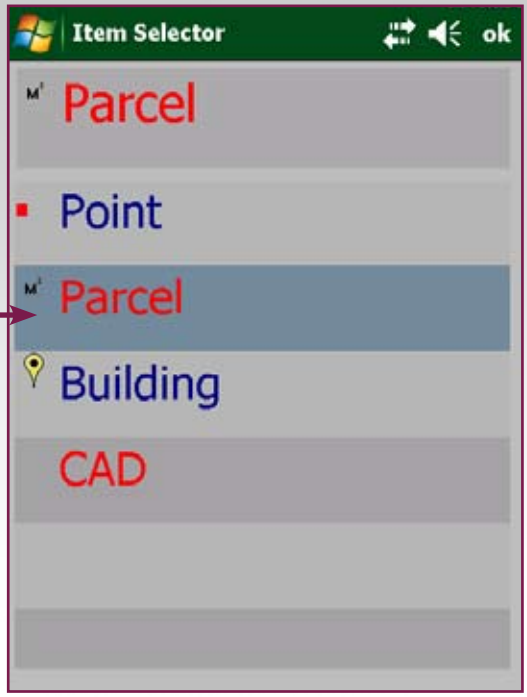




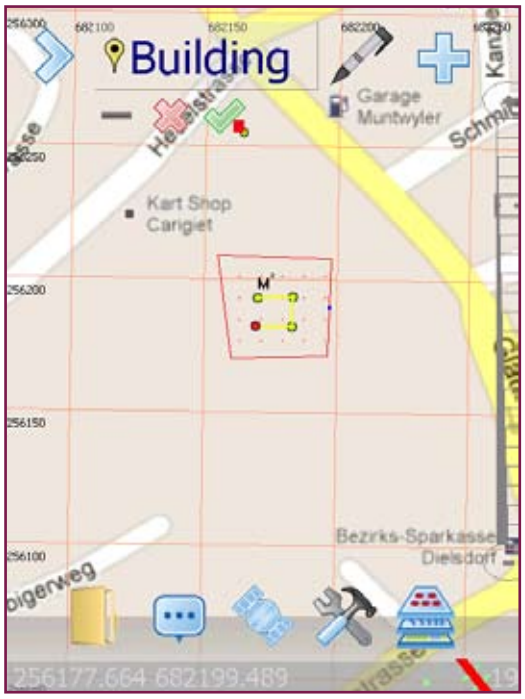
Single Point Mode: After refreshing the map area, the data pin point should appear.

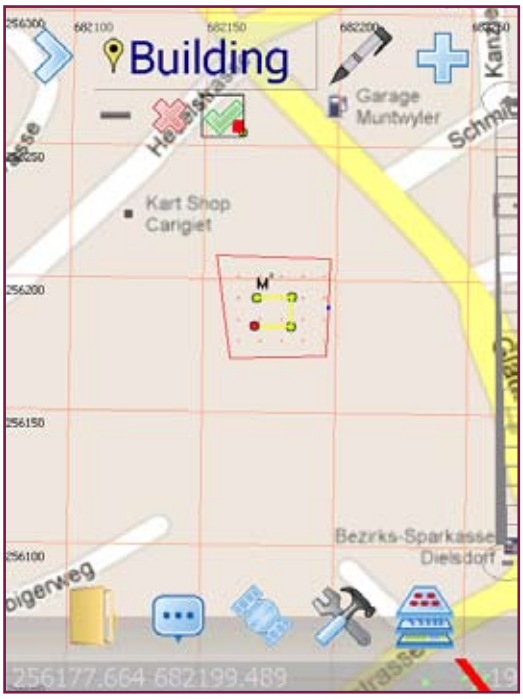
Graphics Menu: GIS Area Mode

GIS Mode: Tapping in this window will list all options available:

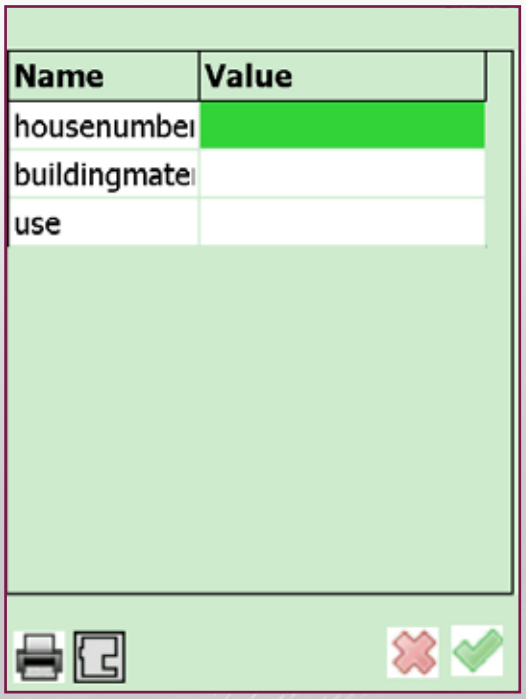


Note: The style of these entries can be set in the DataDesigner which creates Schema (*.XSD) files that control the way data is requested and edited. For more details, see chapter DataDesigner.

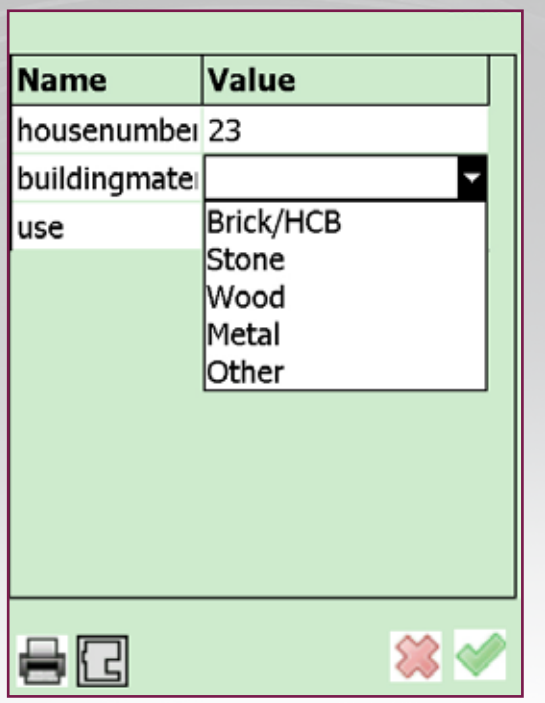


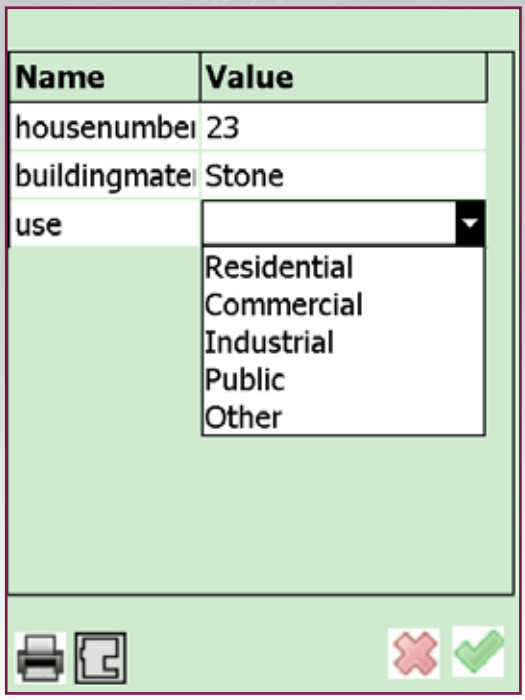


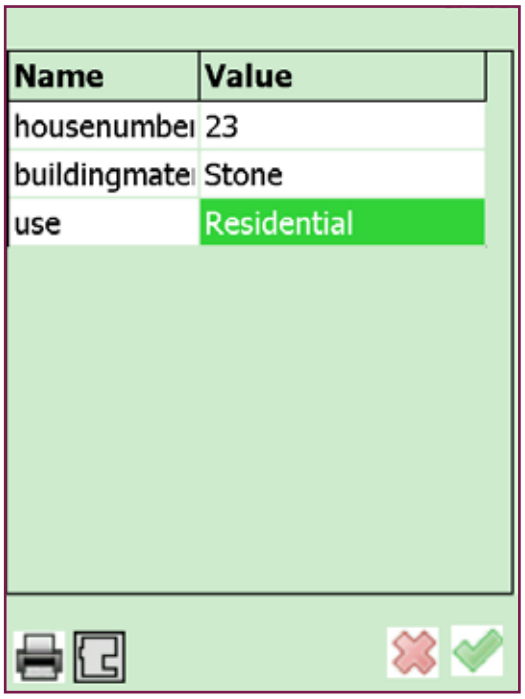
Measure your points with the appropriate method, then confirm with the green button

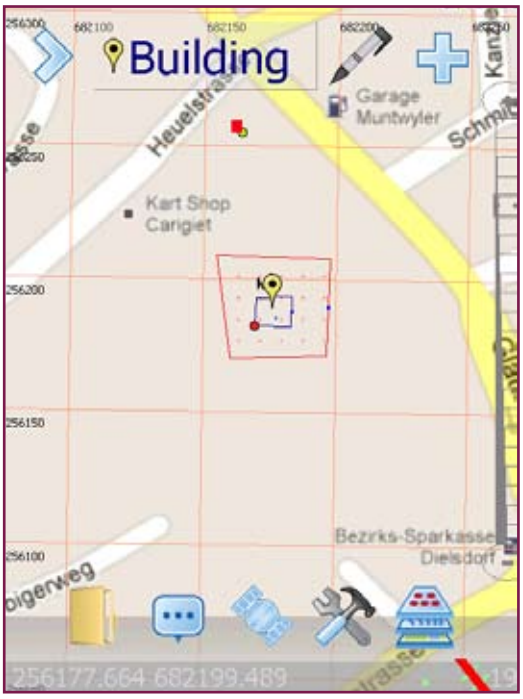


GIS360 will guide you to enter the values you have set up for the chosen item.





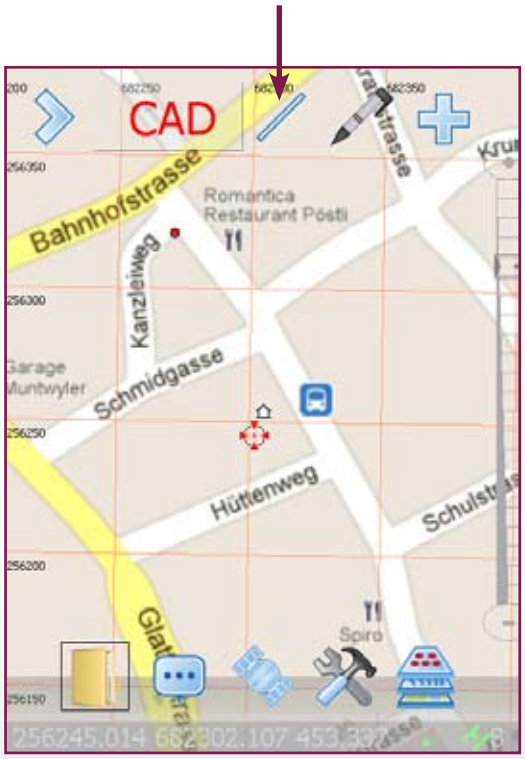




Once all values entered, the item appears on screen with all its attributes

Graphics Menu: Linear Mode

Linear Mode: A linear type item will be created by selecting this button. When new points are added to the map sheet and accepted, a **new Linear Mode** Item will be created.



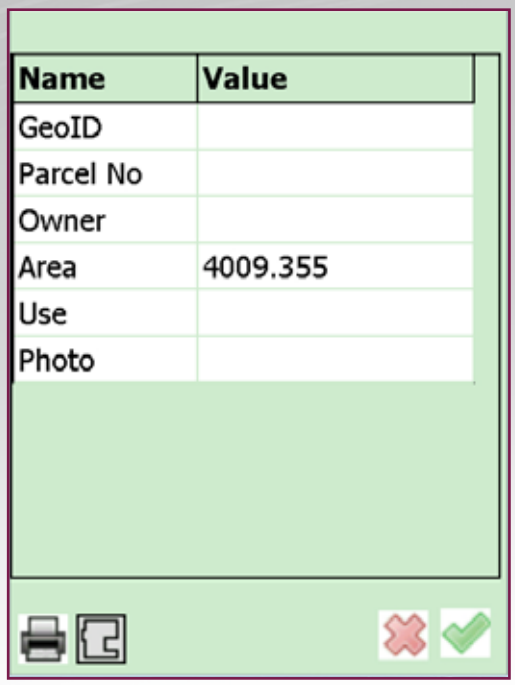
By clicking accept, if you have selected a database, the next screen will pop up

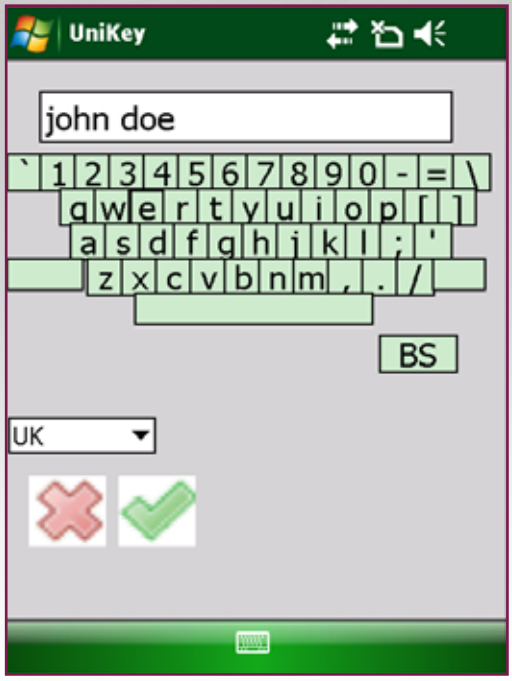
Linear Mode: Finally, the linear item (polyline) will be shown along with a marker. This marker is used to identify the item and allow the attributes to edited or viewed in the future. Also the entire linear item and attributes may be removed (see **Edit Menu: Delete** for details).

Note: The style of these entries can be set in the DataDesigner which creates Schema (*.XSD) files that control the way data is requested and edited.

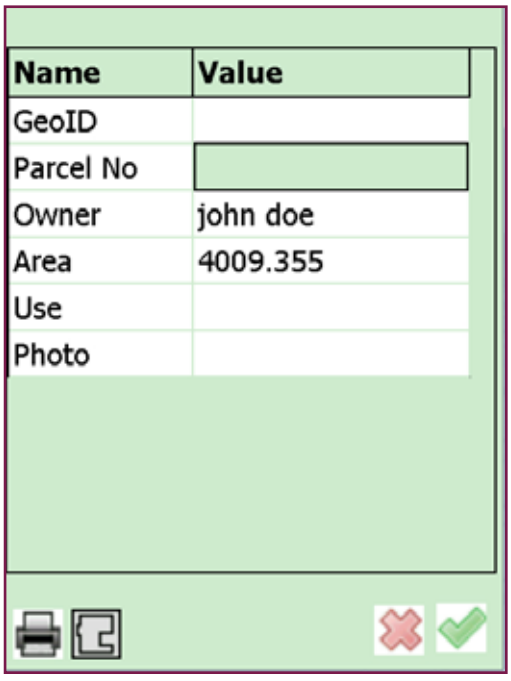
Linear Mode: Use the point method you have selected (can be altered any time during the operation in this mode), to trace out the path of this linear object. Use the closure buttons to complete or cancel the polyline.

Graphics Menu: GIS Area Mode

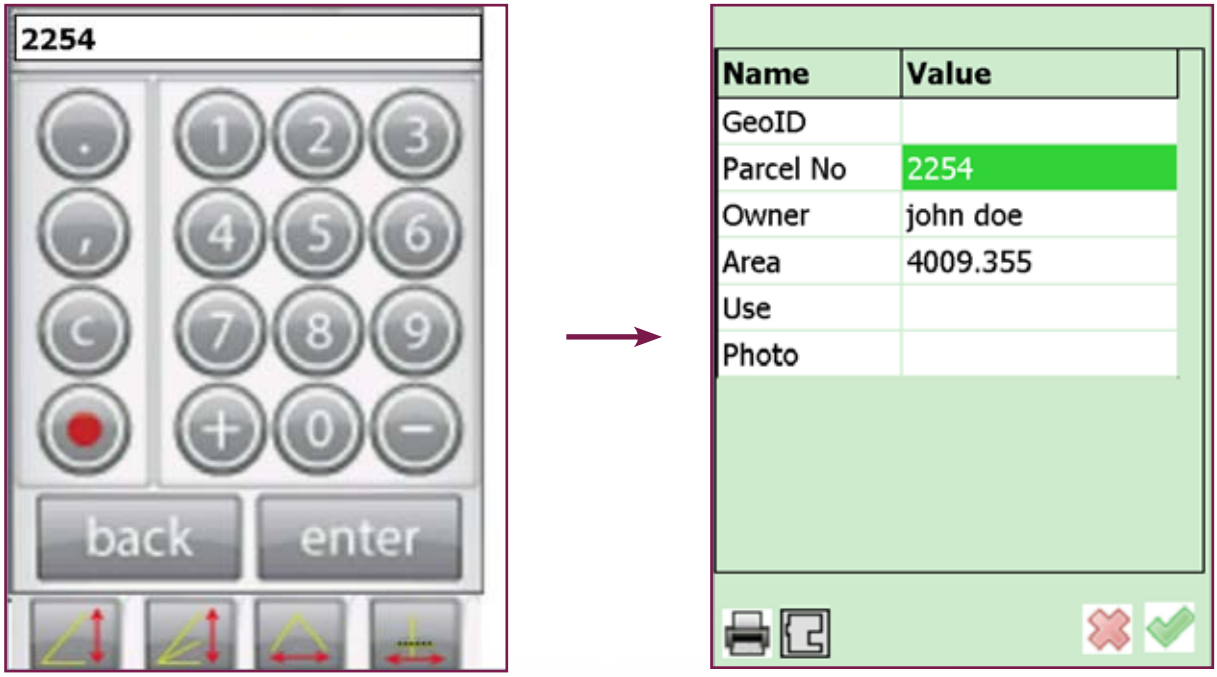


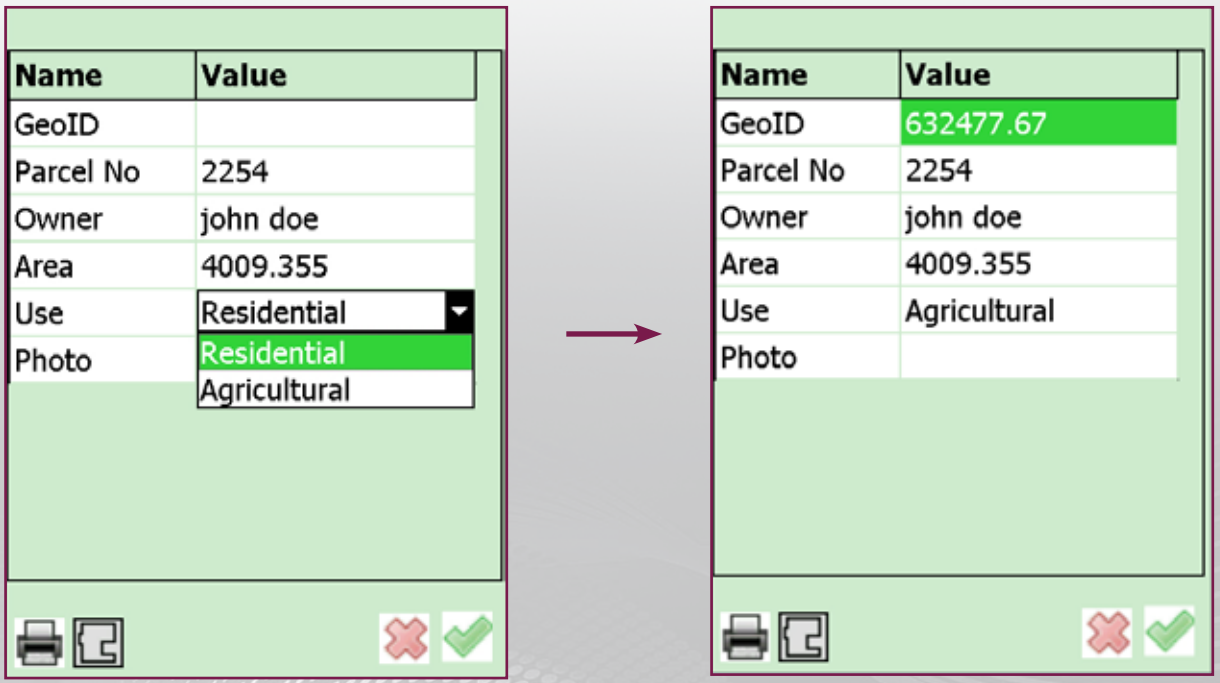


All values can be entered or skipped. For each field, either a list menu, or a keyboard, or a numeric pad will pop up.



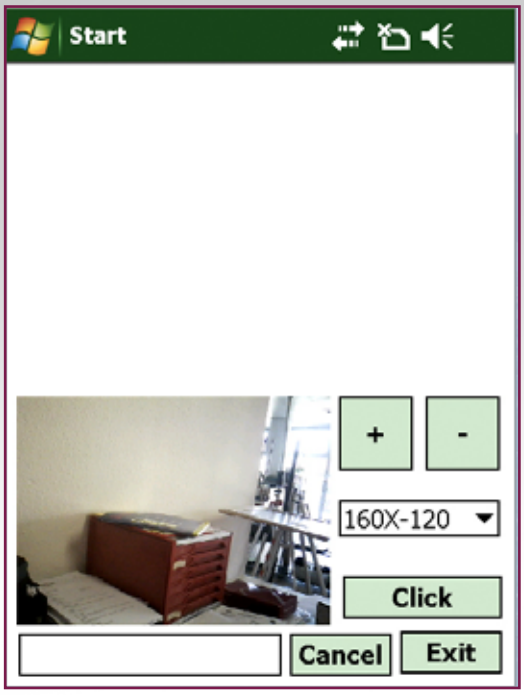
Graphics Menu: Area Mode



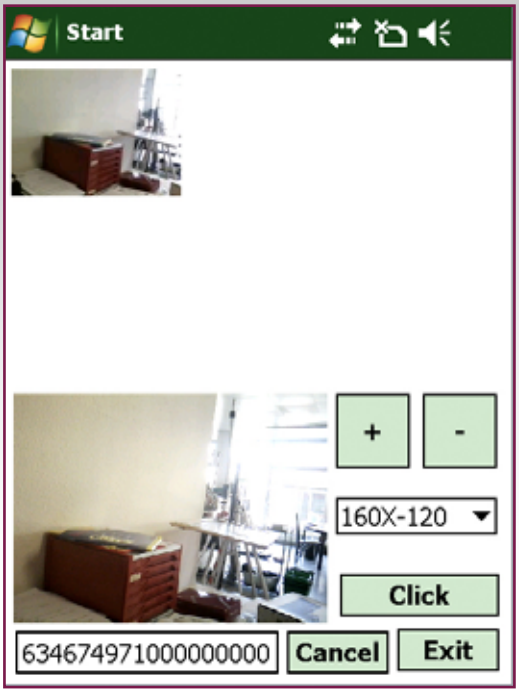


Graphics Menu: Area Mode

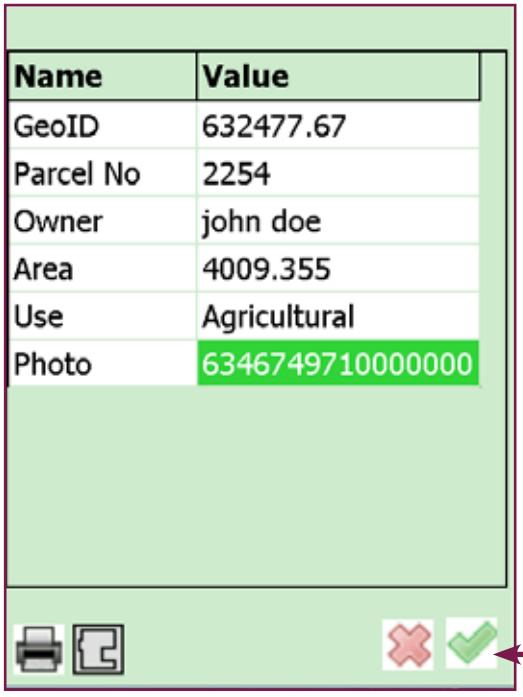
If your device is equiped with a camera, you can simply double click the “Photo Field”



“Click” to take the picture



You can verify that the picture corresponds to your expectations, then “Exit” to register and exit this mode

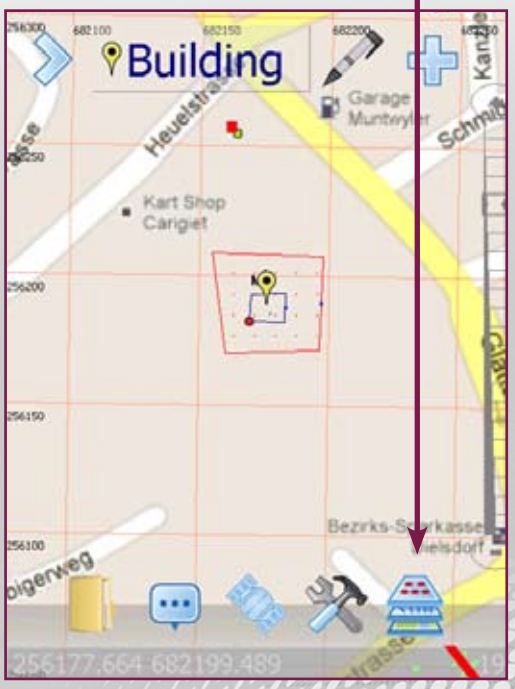


Name	Value
GeoID	632477.67
Parcel No	2254
Owner	john doe
Area	4009.355
Use	Agricultural
Photo	6346749710000000

All attributes are now given, click the green button to save and return to the map view

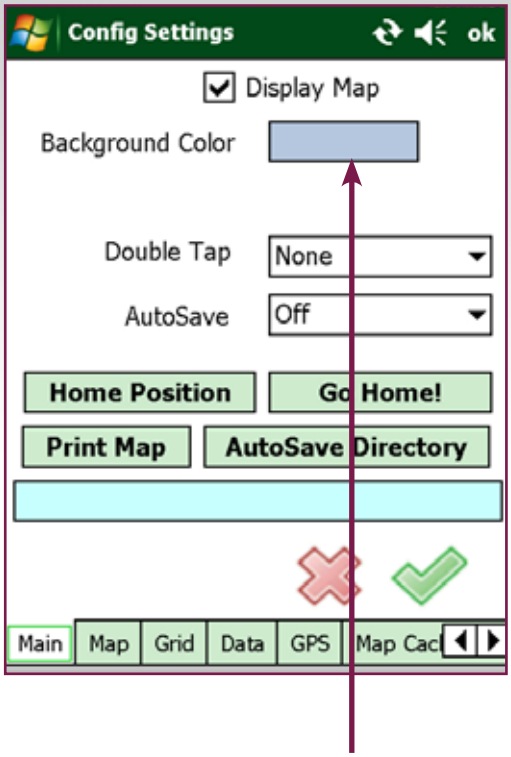
Map Mode

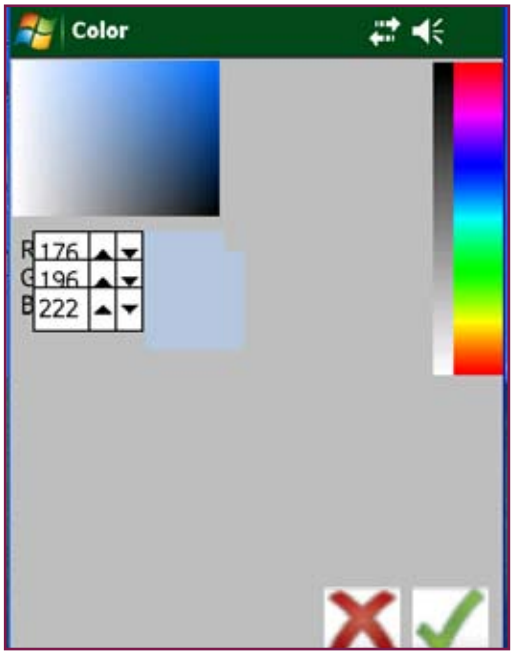
Map Mode: Clicking this button will produce a change in the type of background map being used.



Utility Menu: Configuration Main

Configuration: Clicking this button will allow you to view the available configuration properties and the ability to store some local maps for use in wireless shadow regions*.

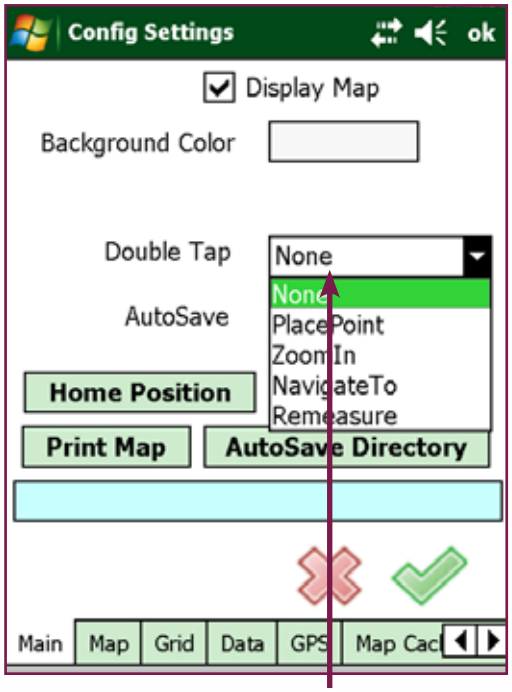




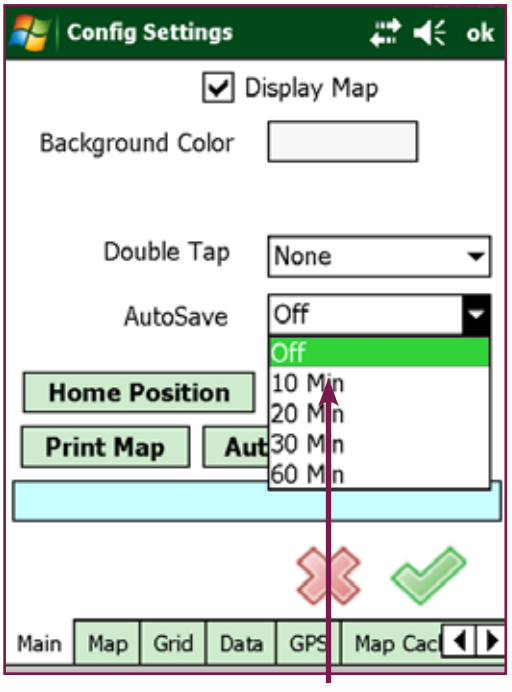
You can choose the background color. When clicking in the area from background color, you will be given the choice of colors

* Only available in the professional version

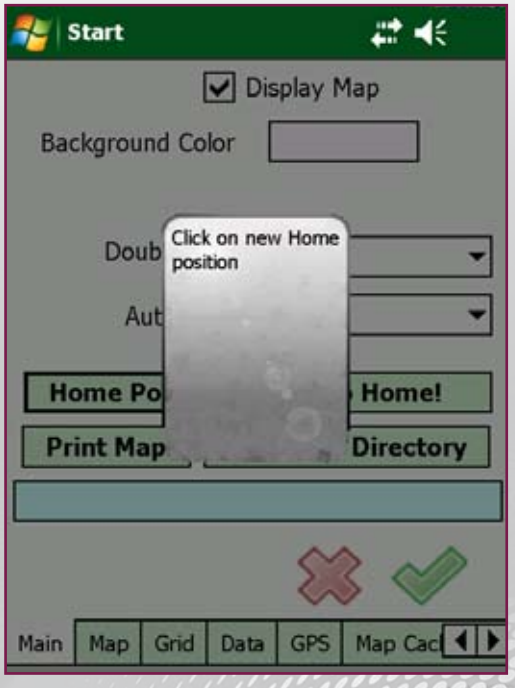
Utility Menu: Configuration Main



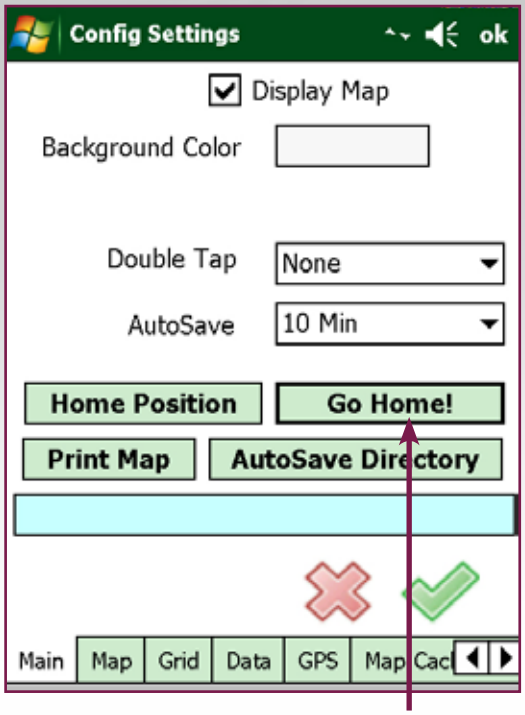
The double Tab function allows the user to place to point, to zoom , or to navigate to...



...Autosave



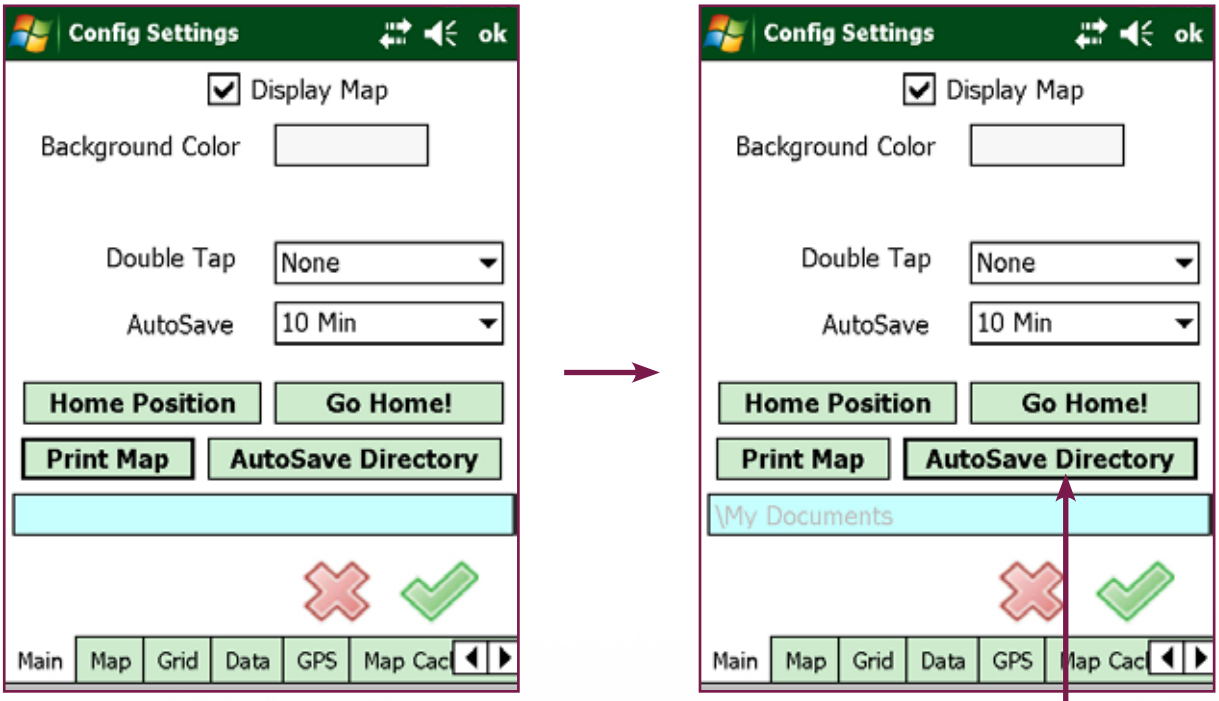
Utility Menu: Configuration Main



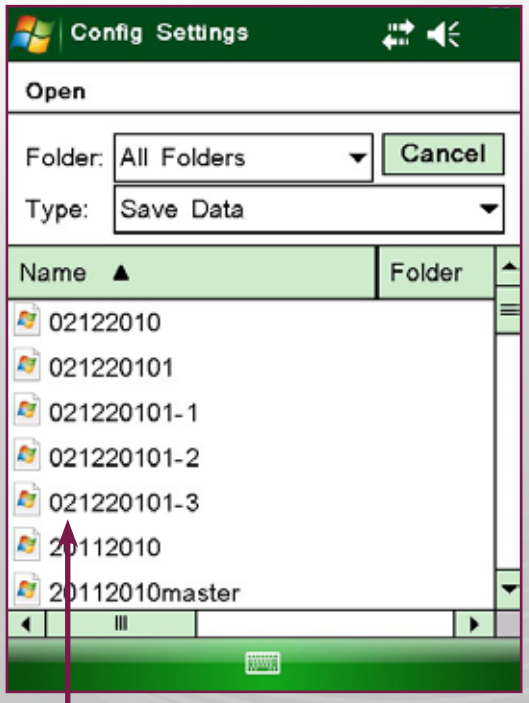
If you “loose” yourself, please go to Config Settings and press the Go Home button

As a result, your whole map will be moved around your Home symbol

Utility Menu: Configuration Main

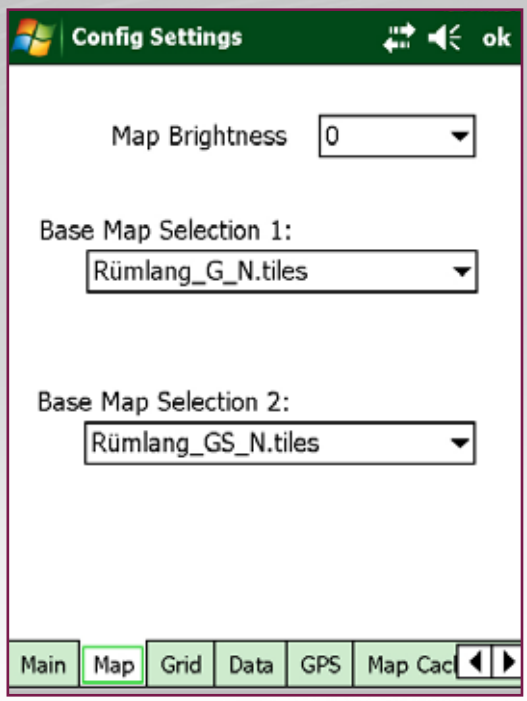


Autosave Directory

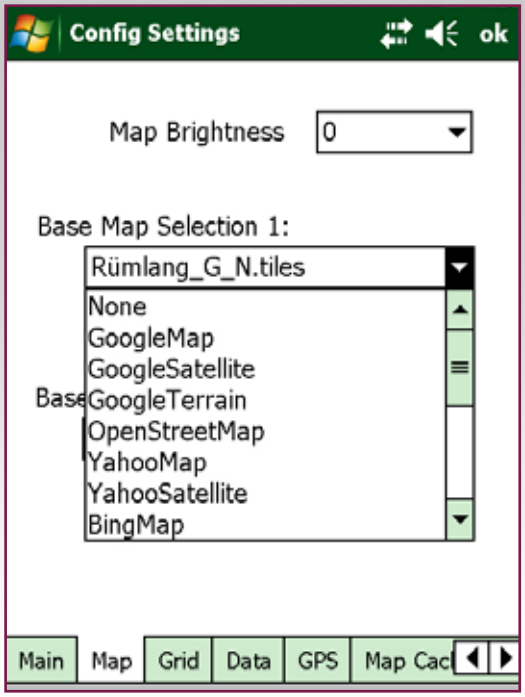


Where to save the data

Utility Menu: Configuration Map



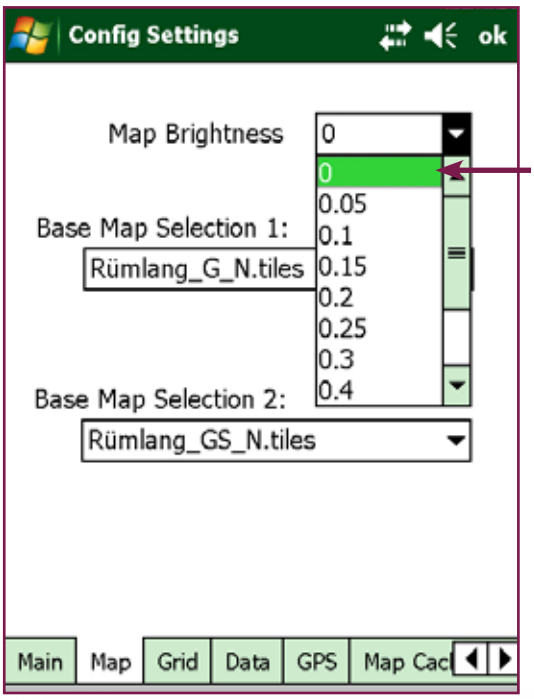
We will now set the maps to display...



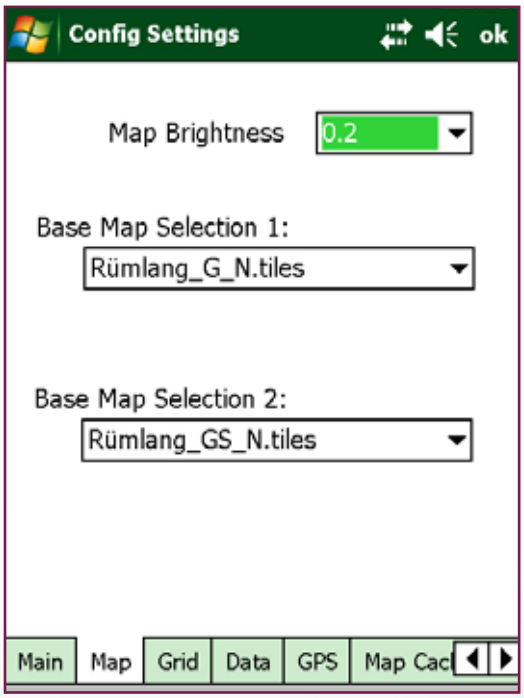
clicking on the Base Map Selection will display the list of maps available

Clicking on the Map Menu will switch from one map view to the next

Utility Menu: Configuration Map



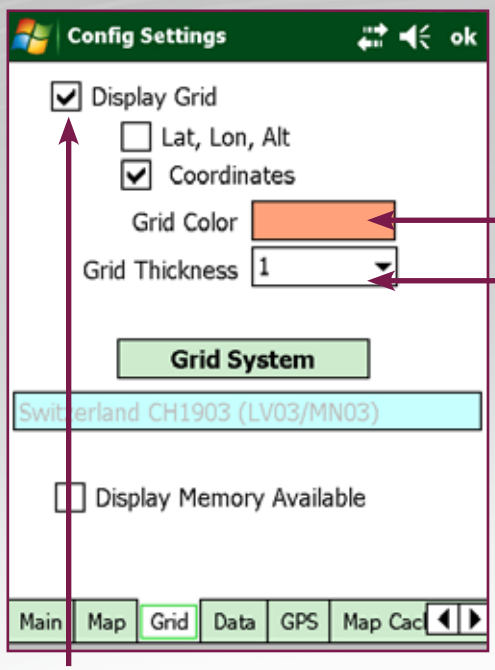
When clicking on “Map brightness”, you will be able to set the value anywhere from 0 to 0.8. This function is essential, should the map be too light or too dark.



Before brightness application

After brightness application

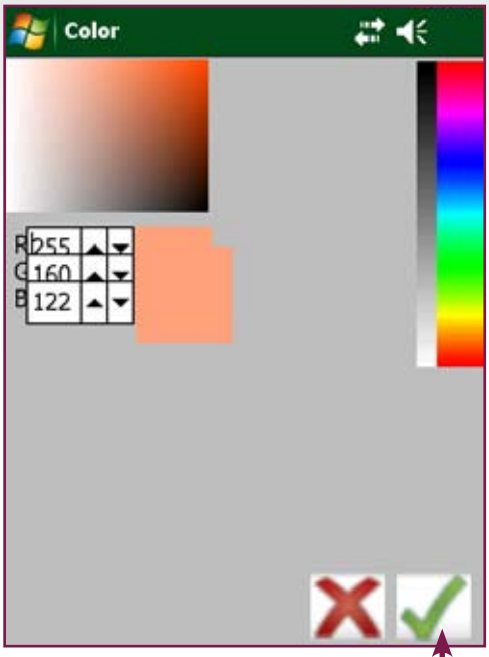
Utility Menu: Configuration Grid



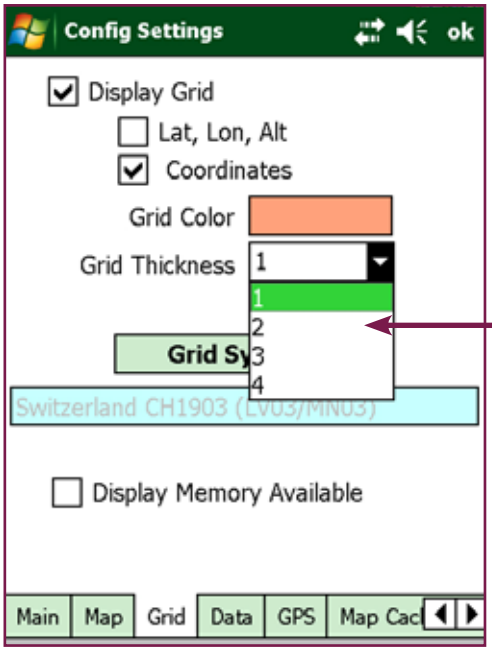
Show Grid: Show or Hide the grid lines on the screen area.

By clicking on grid color, you can choose the convenient color for your grid, as displayed in the next image.

You can also choose the grid thickness

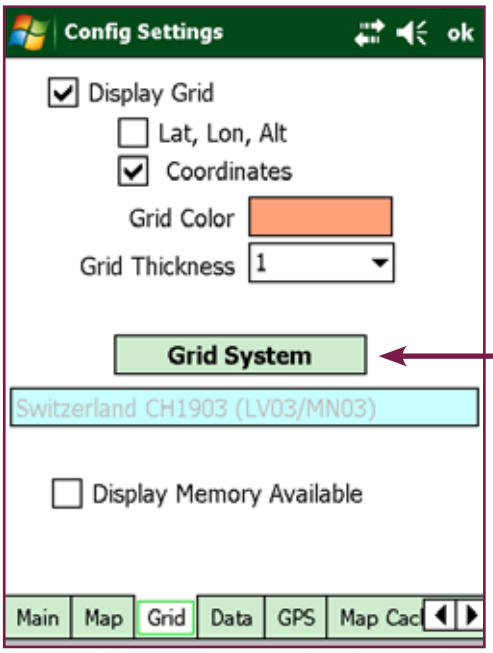


Confirm with OK

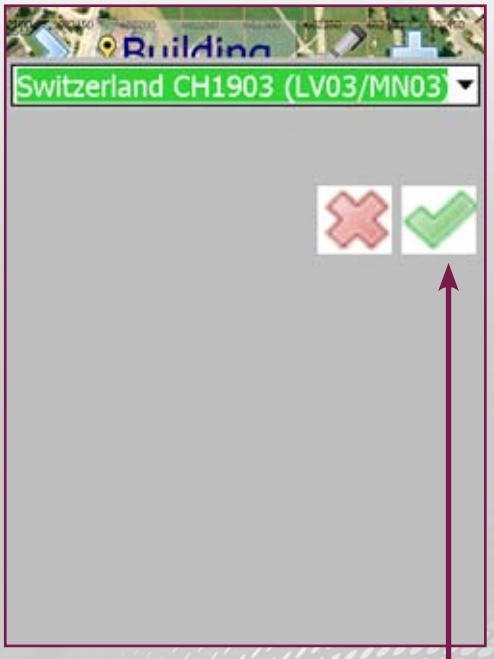


You can also choose the grid thickness

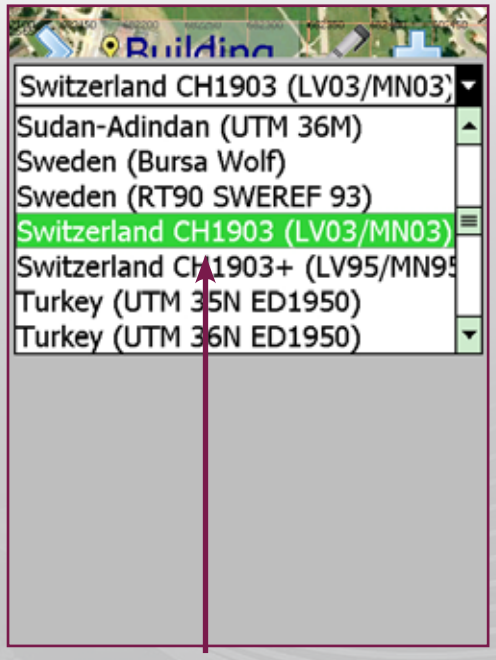
Utility Menu: Configuration Grid



If you need to change the Gris system, click on “Grid System” to display the list of available grids:

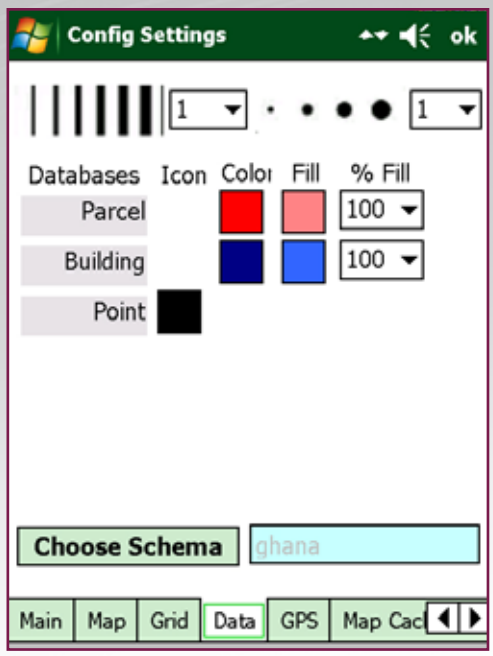


Confirm with OK

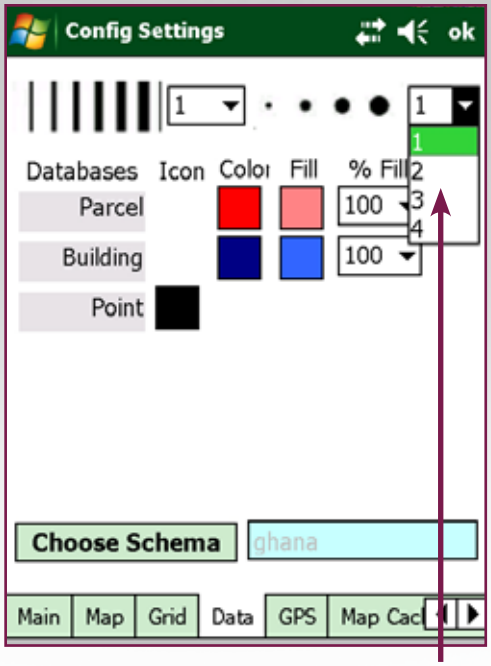


Grid Systems

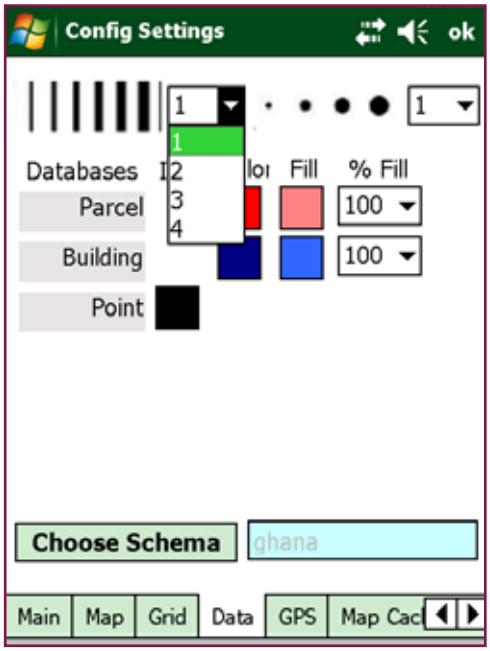
Utility Menu: Configuration



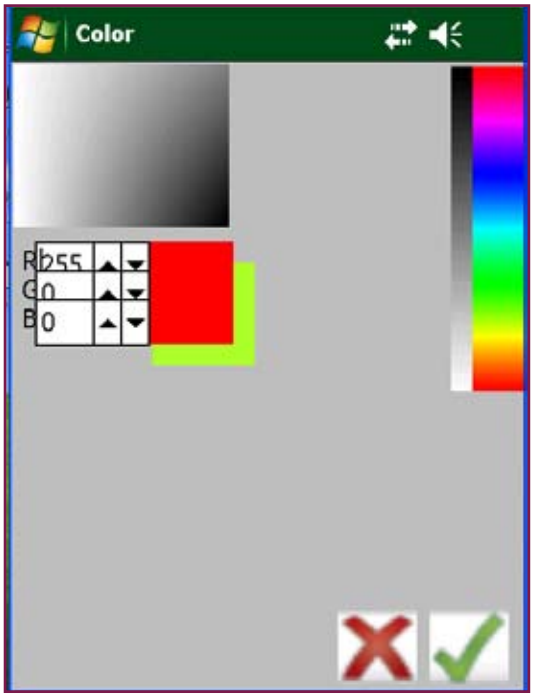
Main Data Configuration screen



Define point size

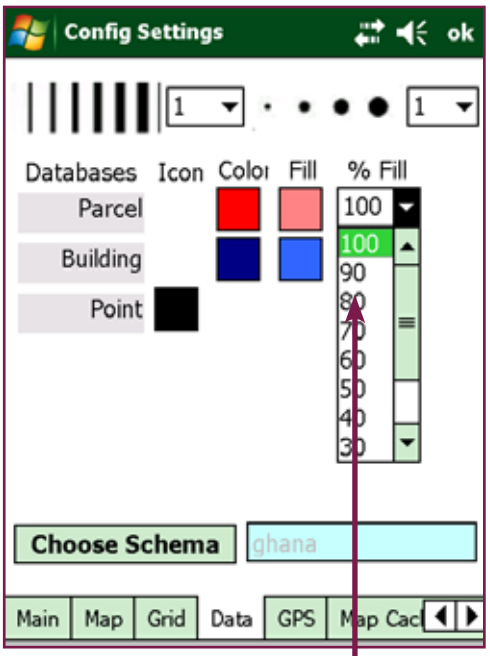


Define the line thikness. When clicking on the attribute, you will be asked to choose the desired color

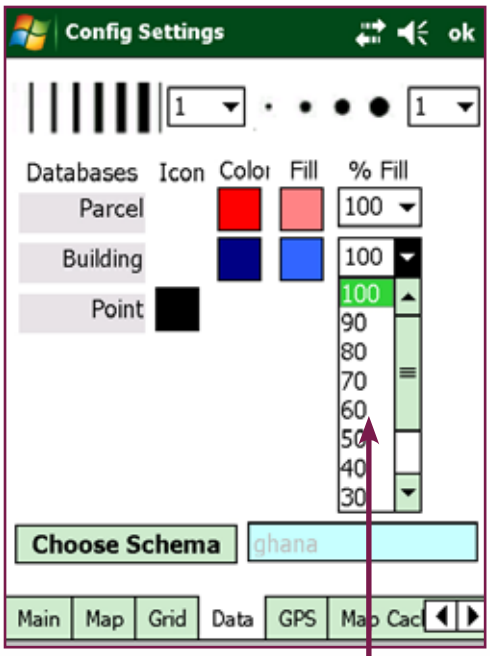


Choose the color and confirm

Utility Menu: Configuration

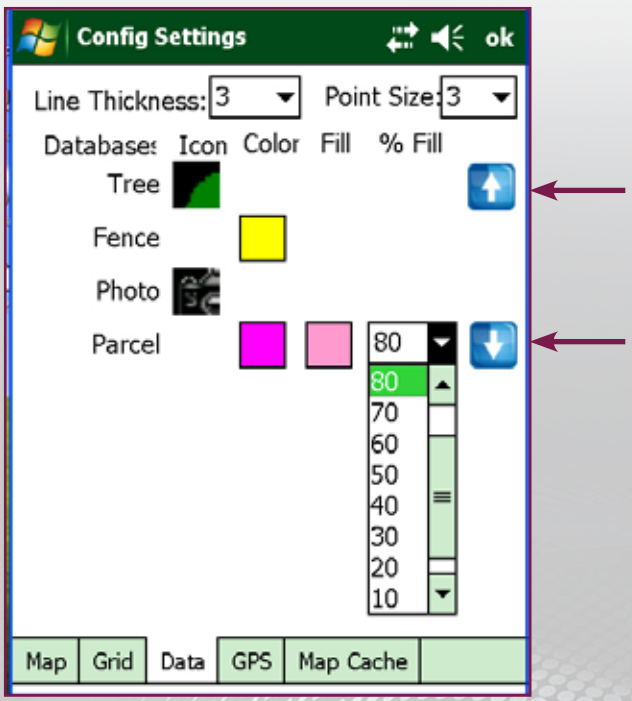


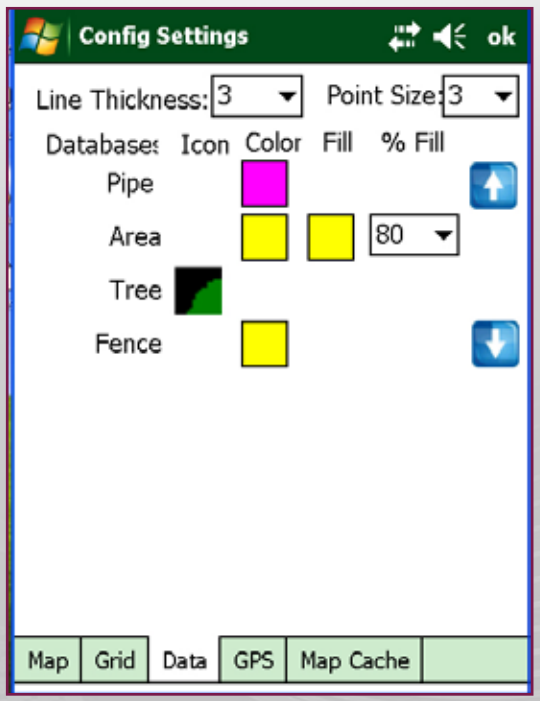
choose the opacity



choose the opacity

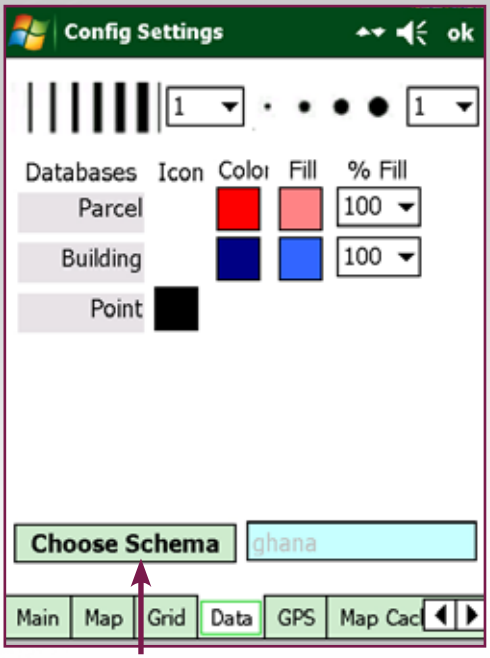
The Data module allows you to configure the settings of your choice. The blue arrows allow you to navigate through the attributes.



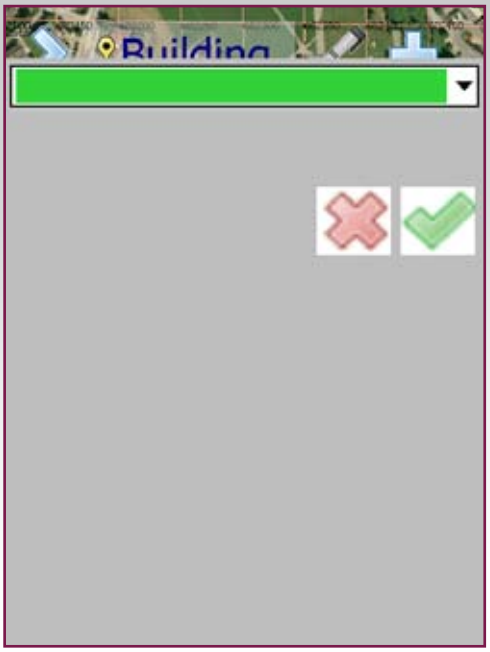


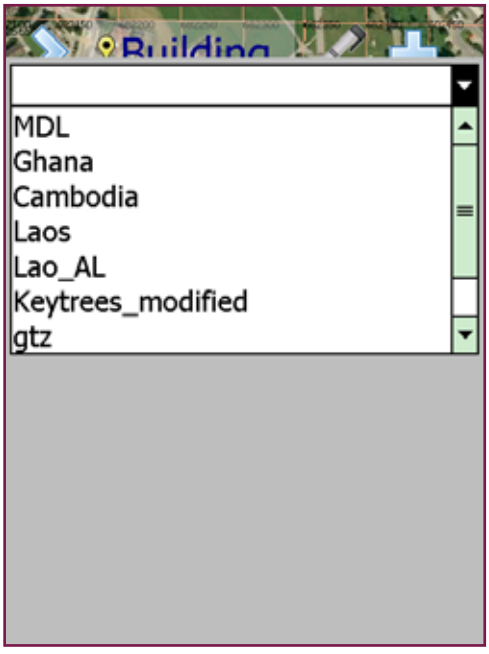
The blue arrows help for the navigation through your attributes, if you have more than 5 or 6 attributes

Utility Menu: Configuration



Choose Schema

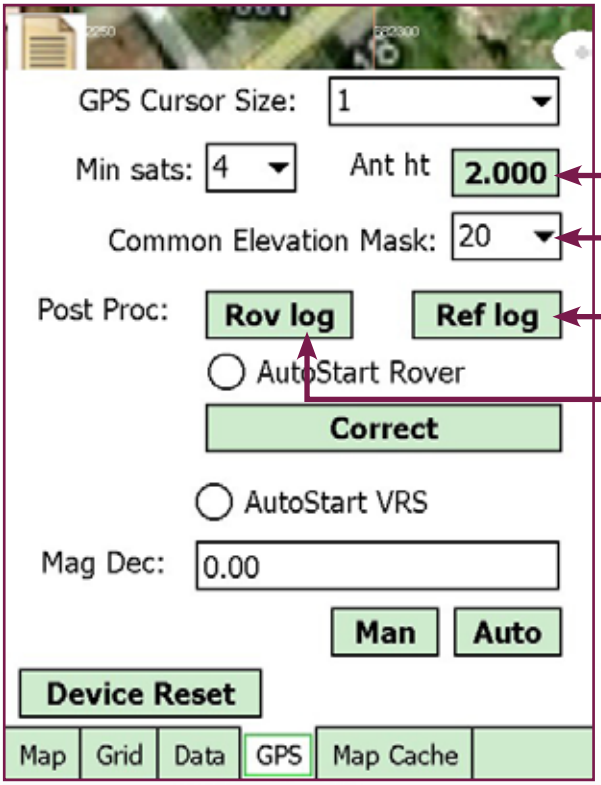




Note: The style of these entries can be set in the DataDesigner which creates Schema (*.XSD) files that control the way data is requested and edited.

For more details, see chapter DataDesigner.

Utility Menu: Configuration



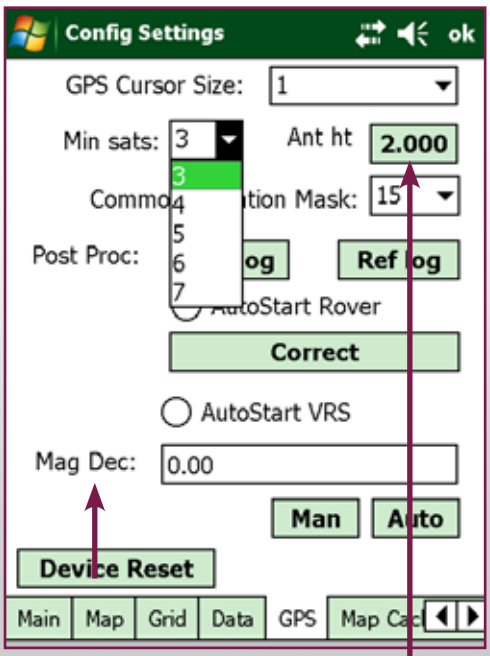
Min Sats: Minimum used satellites to have a GNSS position.

Antenna height

Elevationmask

For Base station data, choose “Ref log”

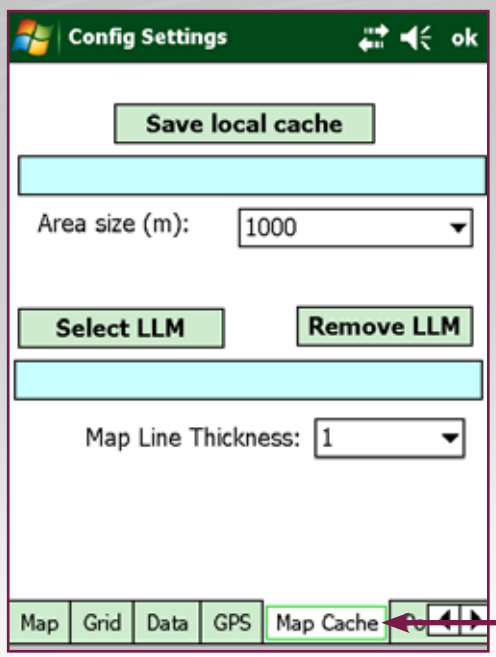
For rover data, choose “Rov log”



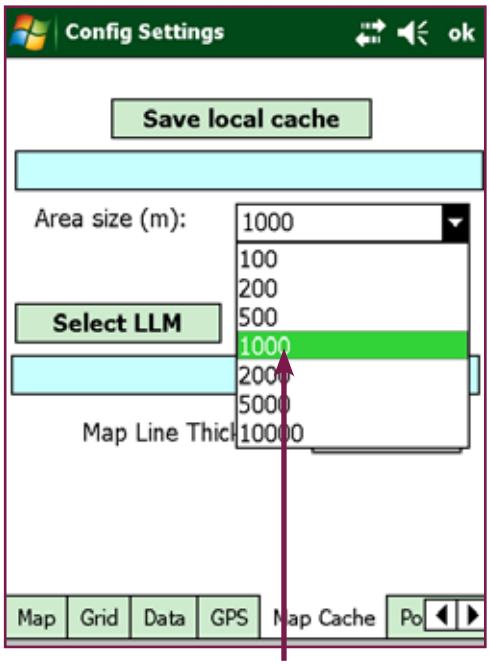
Mag Dec (dgs): The difference between Magnetic north and True north.

Clicking on “Ant ht”, you can set the antenna height with the next screen

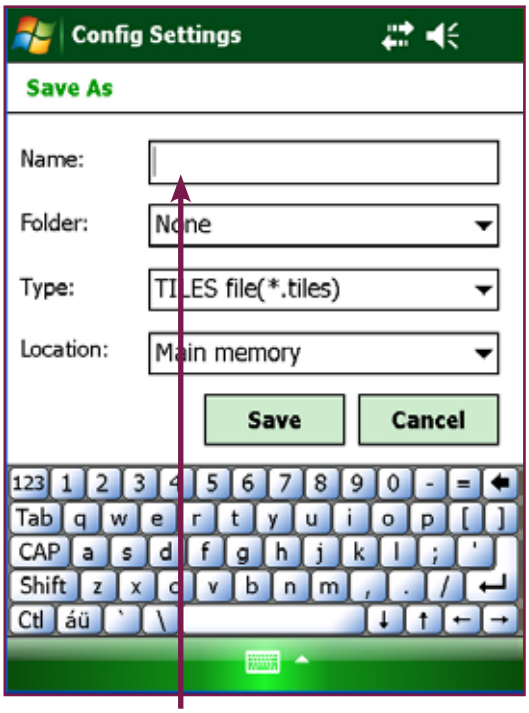
Utility Menu: Configuration



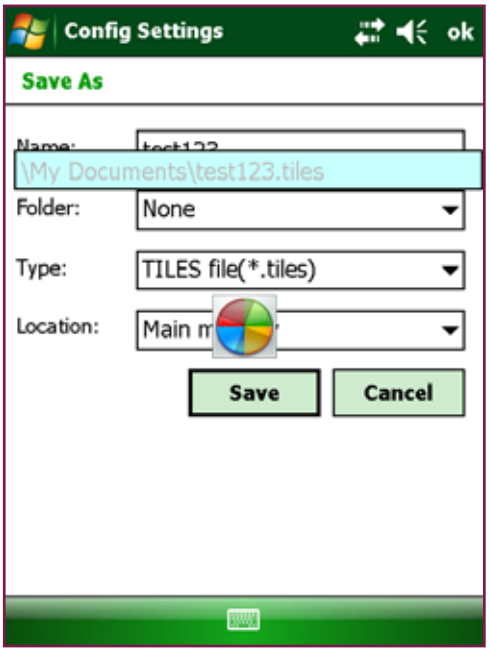
Save local area map: Click this button to save the tiles into a file for use in wireless blocked areas. The area fragment stored is a square of this edge length in metres. Make sure before you save you have repositioned your **Home Marker** to the centre of the area that you are interested in.

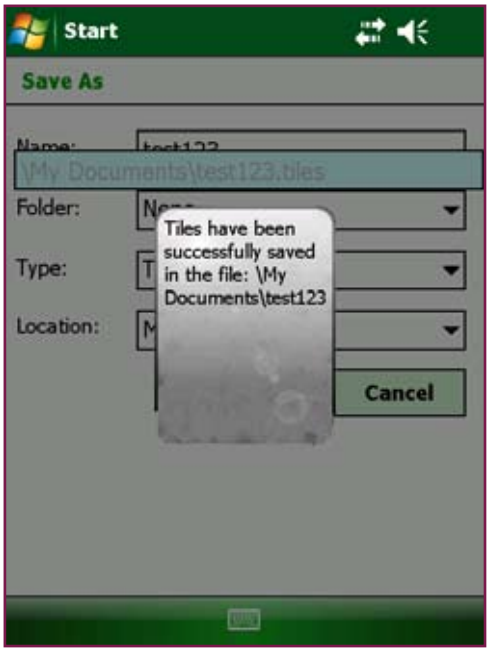


Choose the size of the background map



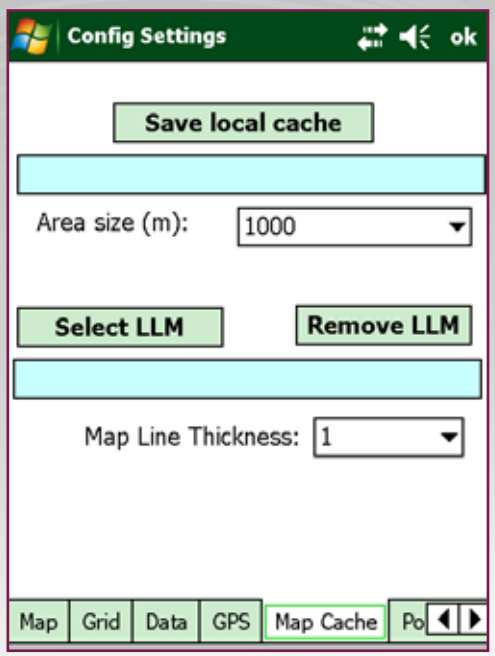
Choose the name of the background map before saving



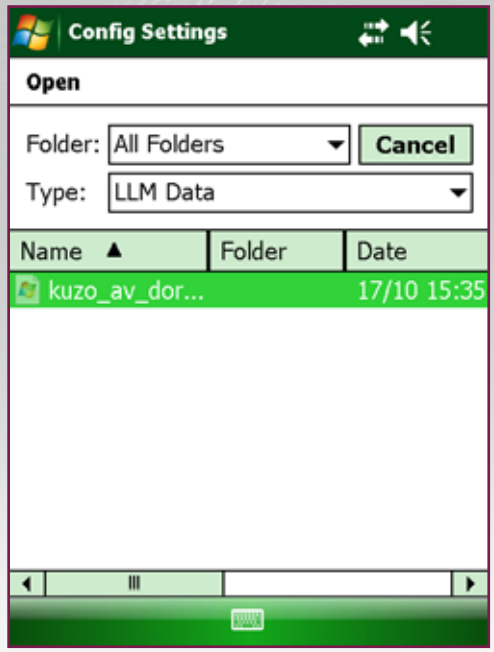


The tiles are always saved into “My Documents”, which is also where you shall put any tiles you intend to use.

You can now use these tiles or choose to use them later

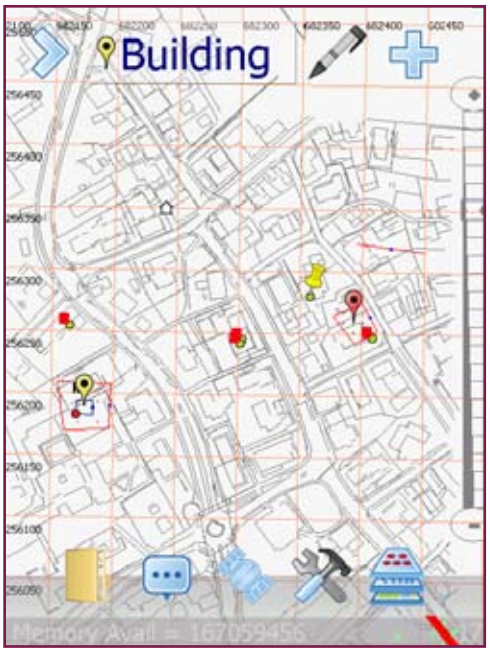


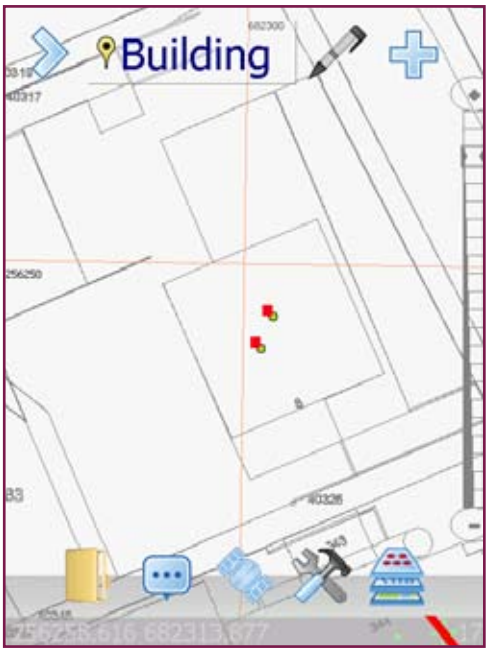
To load LLM tiles, click "Select LLM"



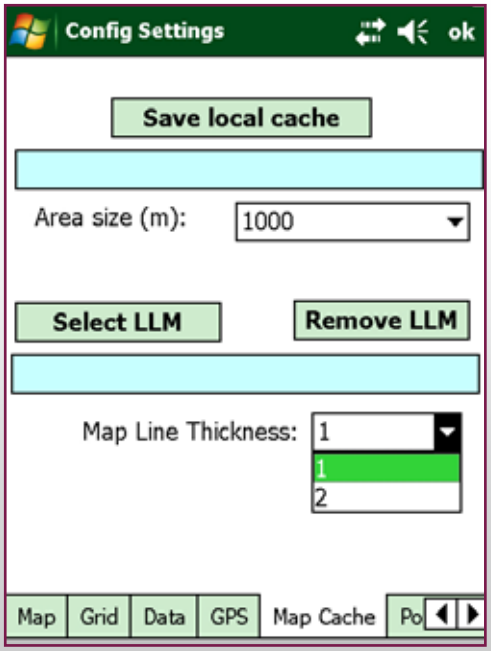
You are now choose your file or browse another folder and select the file you intend to use

Click "OK" to use the file



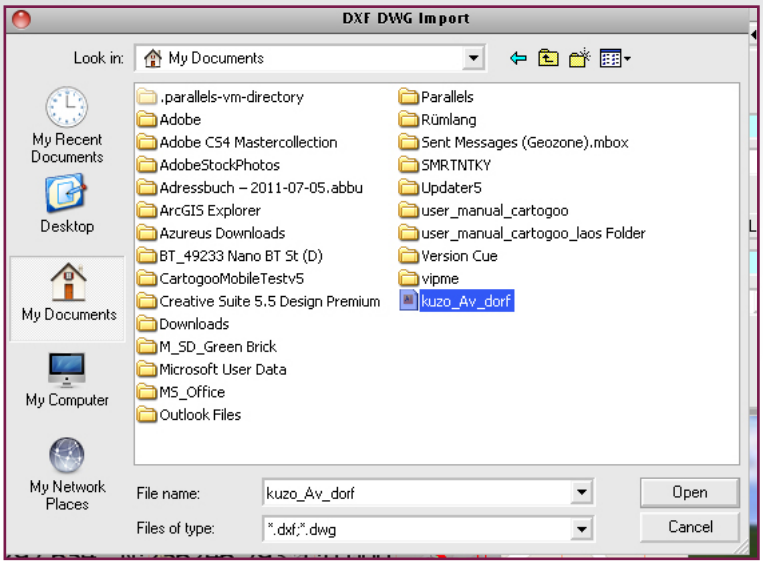

Building


Building
Bahnhofstrasse
Schmidgasse
Humenweg


Config Settings
ok
Save local cache
Area size (m):
1000
Select LLM
Remove LLM
Map Line Thickness:
1
1
2
Map
Grid
Data
GPS
Map Cache


E:682297.654, N:256246.793 L:0.000


E:682297.654, N:256246.793 L:0.000

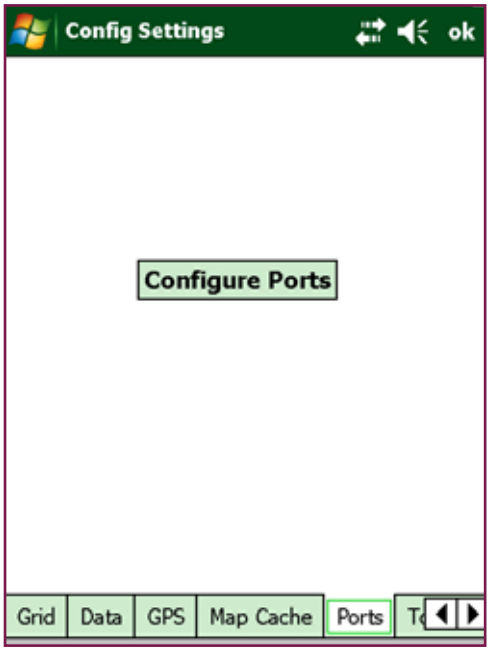

DXF DWG Import
Look in:
My Documents
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
.parallels-vm-directory
Adobe
Adobe CS4 Mastercollection
AdobeStockPhotos
Adressbuch – 2011-07-05.abbu
ArcGIS Explorer
Azureus Downloads
BT_49233 Nano BT St (D)
CartogooMobileTestv5
Creative Suite 5.5 Design Premium
Downloads
M_SD_Green Brick
Microsoft User Data
MS_Office
Outlook Files
Parallels
Rümlang
Sent Messages (Geozone).mbox
SMRTNTKY
Updater5
user_manual_cartogoo
user_manual_cartogoo_laos Folder
Version Cue
vipme
kuzo_Av_dorf
File name:
kuzo_Av_dorf
Files of type:
.dxf;.dwg
Open
Cancel


DXFConvert
Load DXF DWG
kuzo_Av_dorf.dxf
Clear
Tile size (m):
200
Small tile threshold (m)
3
Ignore small objects less than (m)
0
\\psf\Home\Documents
Convert to XYZ
Convert to LLA
Convert to LLI


DXFConvert
Load DXF DWG
kuzo_Av_dorf.dxf
Clear
Tile size (m):
200
Small tile threshold (m)
3
Ignore small objects less than (m)
0
\\psf\Home\Documents
Convert to XYZ
Convert to LLA
Convert to LLI
Assembling elements


DXFConvert
Load DXF DWG
Clear
Tile size (m):
200
Small tile threshold (m)
3
Ignore small objects less than (m)
0
\\psf\Home\Documents
Convert to XYZ
Convert to LLA
Convert to LLI
Conversion completed with 35 non-empty

Utility Menu Ports



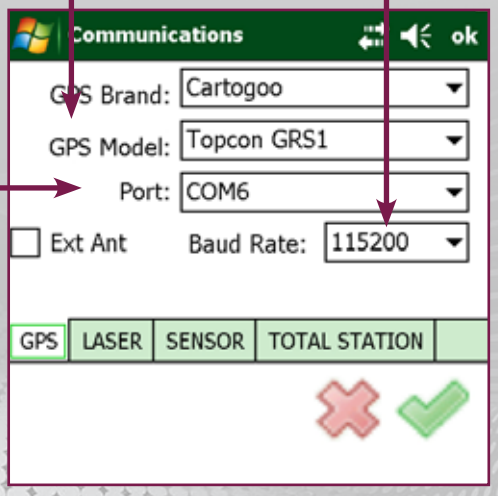
Please note: To display the GNSS cursor on the screen, confirming all communication parameters are ok, you need to tap this red line to make it disappear and see the GNSS cursor. If the cursor is off the screen, it will refresh it centred on the GNSS current position.*

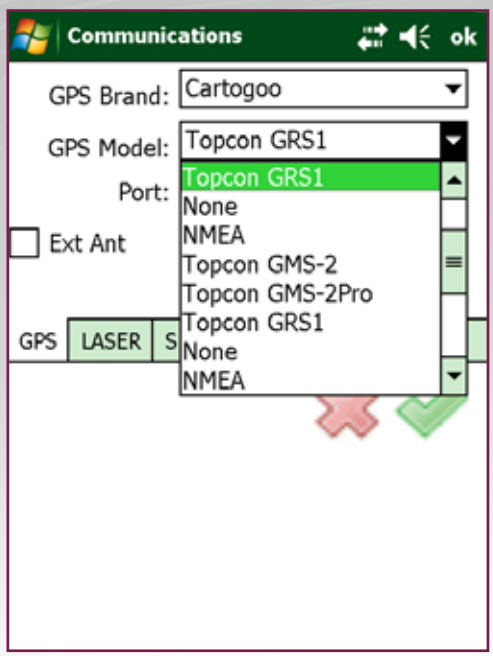
* Only available on the professional version

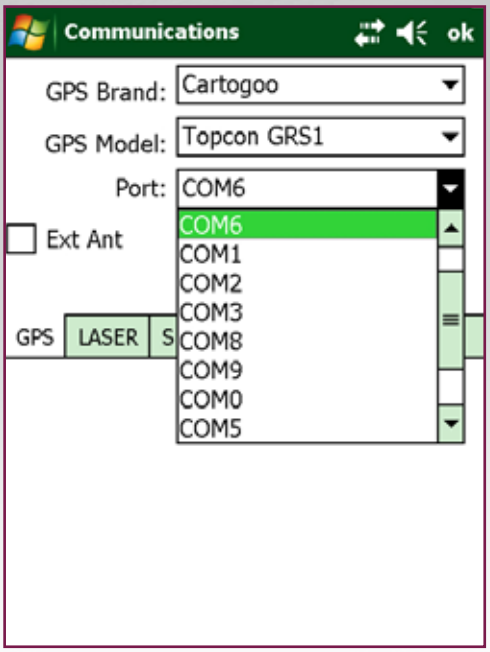
GNSS baud rate: This has to match the data rate of the GNSS device. (9600 is the default).

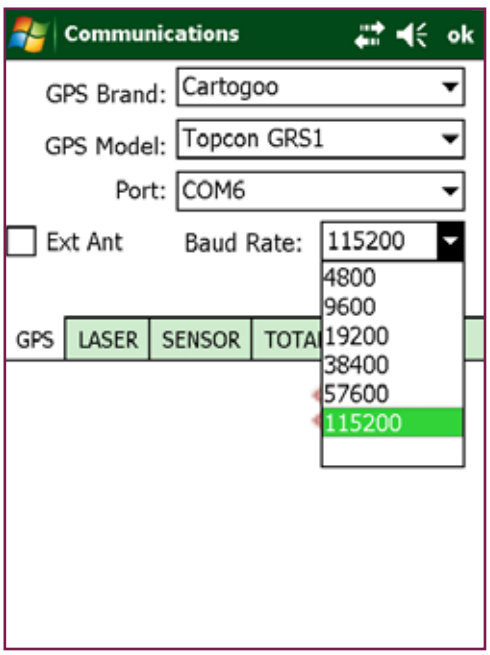
GNSS type: This allows you to select the type of communications you have with your GNSS. (NMEA is the default).

GNSS Port: Choose the port that your device is going to use to link to the GNSS. <GNSS script> means that the GNSS data is saved in a text file. In the case, before operations begin, the name of the text file will be requested and GNSS input will proceed as if it were coming from a true GNSS port.





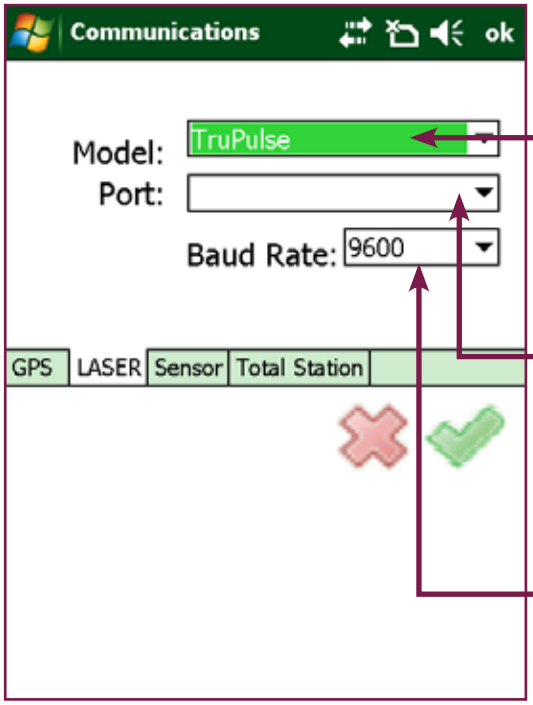




This example displays the paramters with a Topcon GRS1 device.

Each device might use different ports and Baud Rate. You have to find the correct parameters for your device

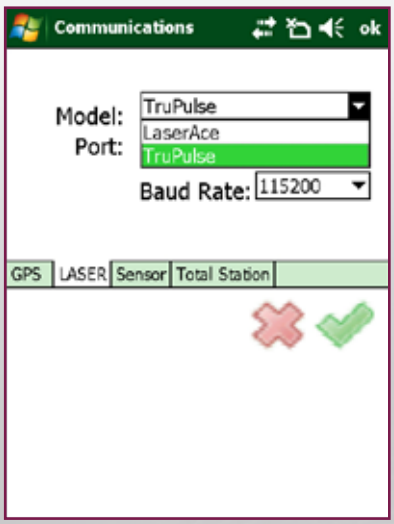
Utility Menu: Ports

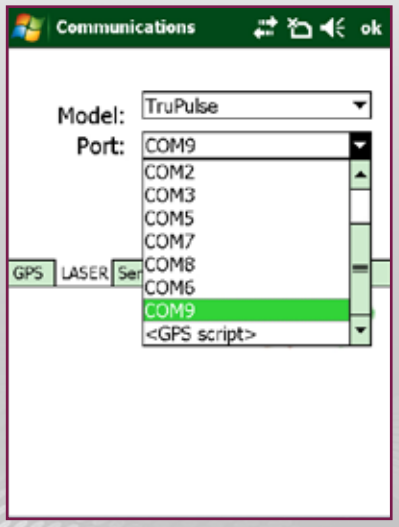


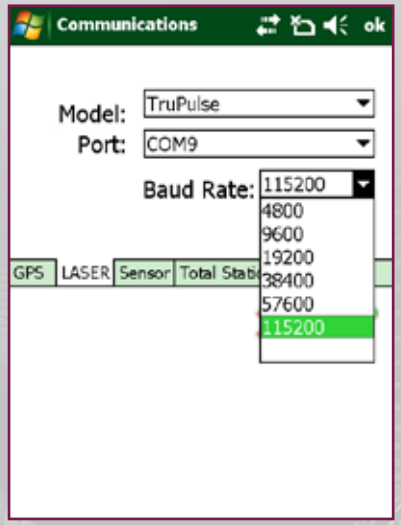
LASER type: This allows you to select the type of communications you have with your LASER.

LASER port: This allows you to select the port that your LASER is connected to.

LASER baud rate: This has to match the data rate of the LASER device. (9600 is the default).

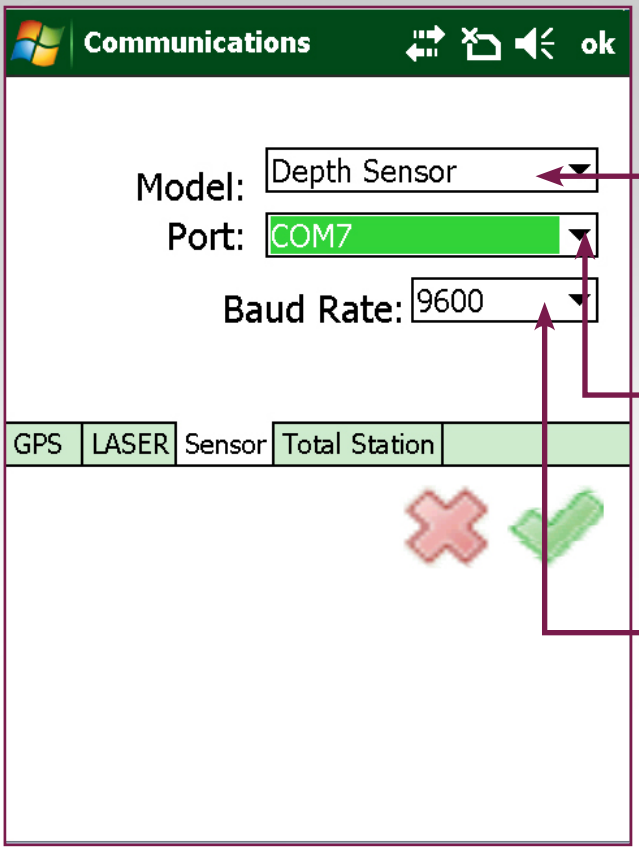






The same procedure as for the lasers applies to the sensors. Choose the model, then the port and baud rate.

This menu allows to choose between several available sensors.



Sensor type: This allows you to select the type of communications you have with your SENSOR.

Sensor port: This allows you to select the port that your SENSOR is connected to.

Sensor baud rate: This has to match the data rate of the SENSOR device. (9600 is the default value).

Utility Menu: ECOMS

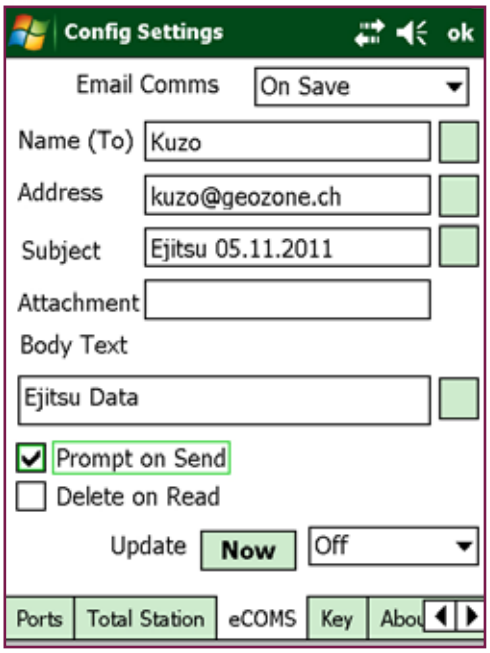
GIS360 can be configured to send periodical emails with the saved fieldwork. This feature allows the office to be precisely informed about the work progress.

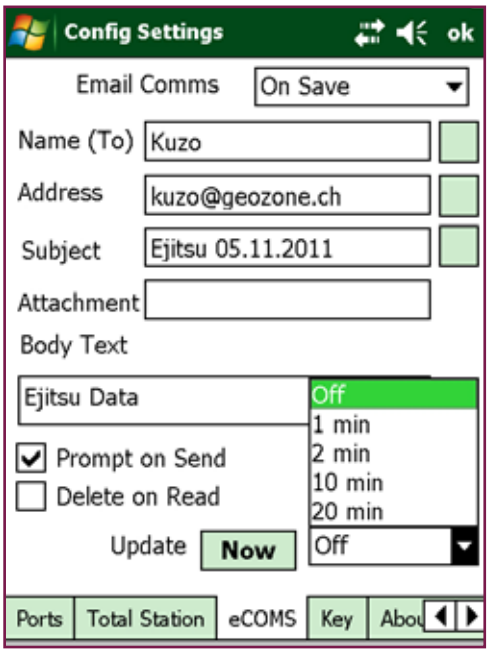
Click on the arrow next to “Email Comms” to see the list of possibilites

To set Name, Adress and Email of adressee, tap in the green box to show the keypad

Enter the corresponding information

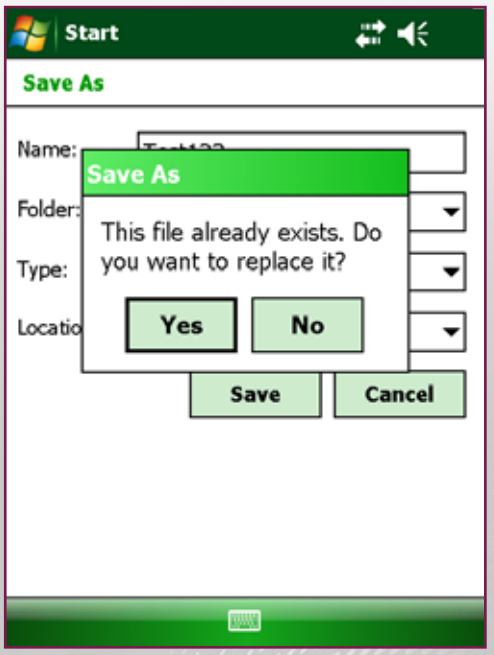
Enter all necessary information





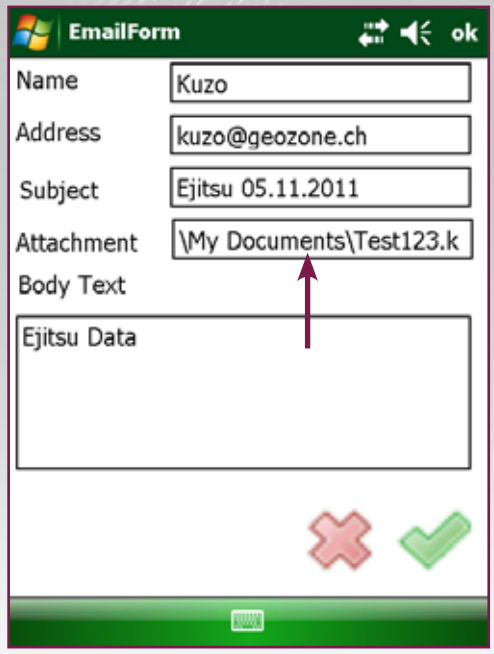
To test the Ecoms settings, will shall save the work in order to send the file

Enter Name, Tape of file, Folder and Loction, then save



If this file is already existing, a pop up message will ask if you want to replace this file, if yes, your file will be saved

Upon saving, a message confirming that the file shall be sent



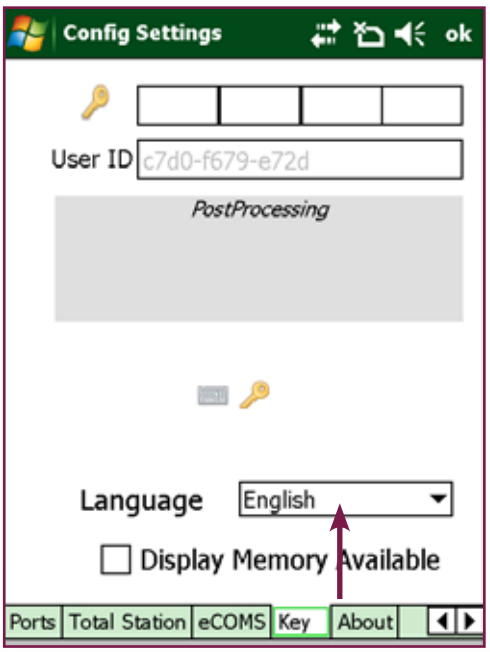
Now the file is shown in the "Attachement"

If you have set the Ecoms on "Individual Record", the data will appear as in the next screen

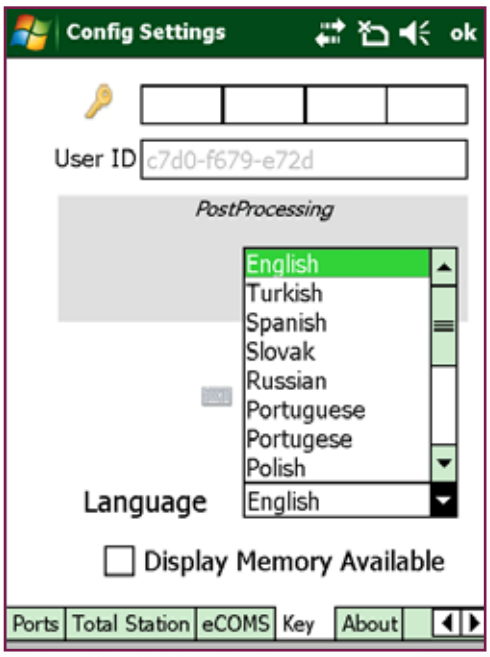
Confirming with the green arrow will send the file by email

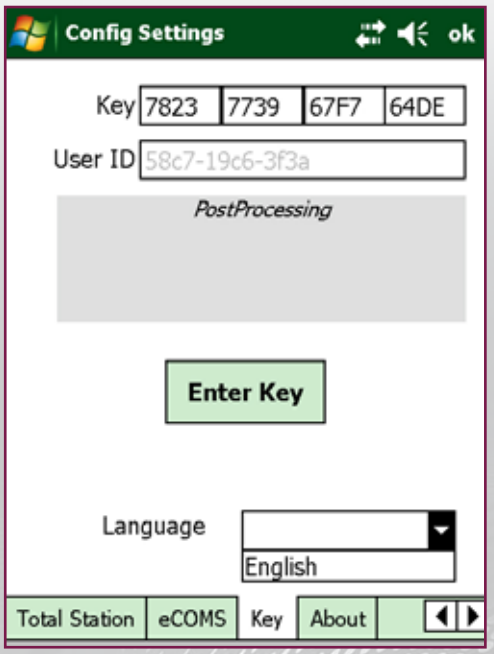
Utility Menu: Key

This is where you enter your software key and also where you set the language



Tap in the language menu to display the list of languages available



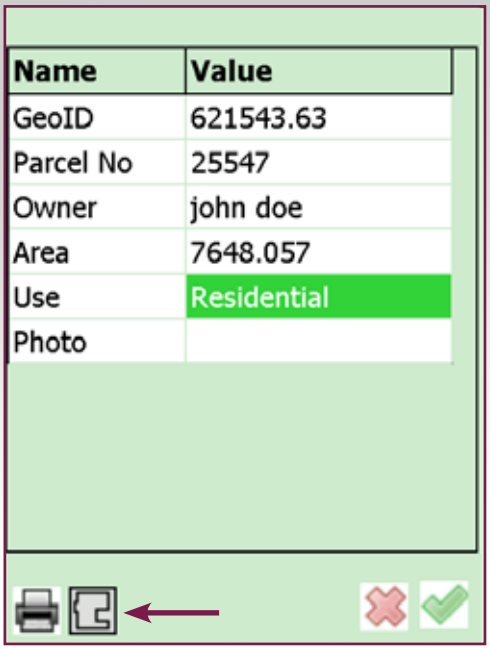


Tap on “Enter Key” to see the keypad in order to enter your software key

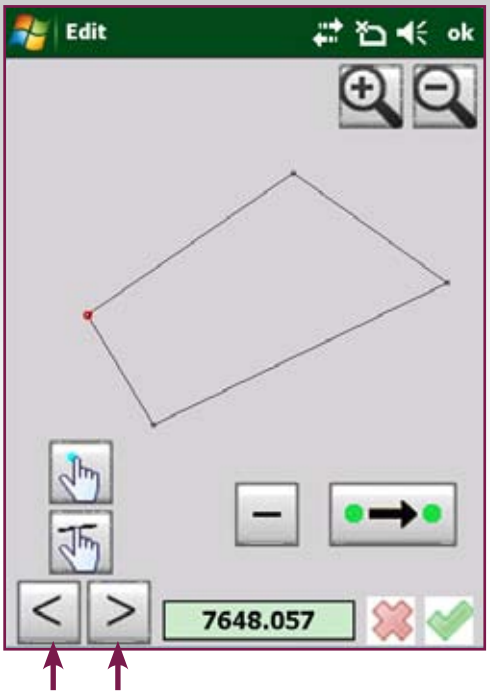
Once the key entered, click on the green button to confirm

Walk Mode

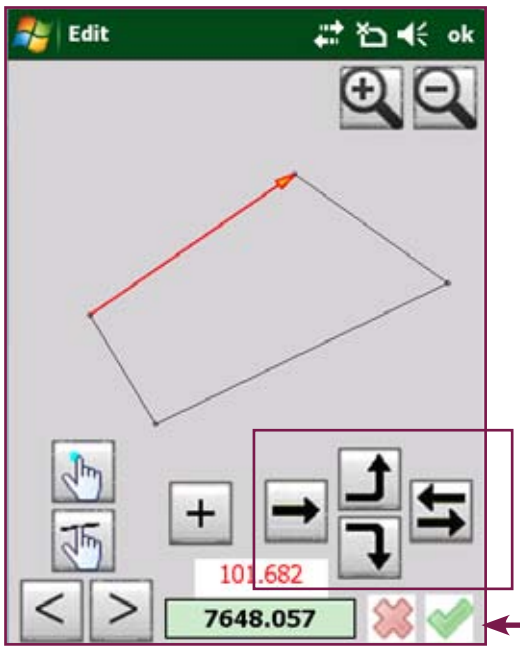
Walk Mode: A trail of points will be created, which will always be a closed pathway or boundary of some type. It will always be forced to have boundaries that are parallel or at right angles to one another. This is useful for creating building outlines.



Click on Walk Mode

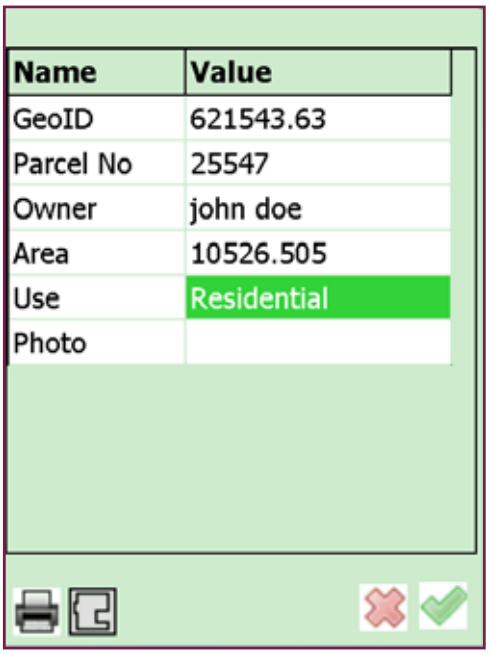


This window appears. Click either Left or right arrow to start the walk mode



Each time we will determine to walk either straight, left or right, or change direction

Clicking on the direction, you are prompted to enter the distance. Confirm with enter and you come back to the previous screen. Draw the building or parcel you need, then once finished confirm with the green button



The walk mode designed area appears with its attributes.

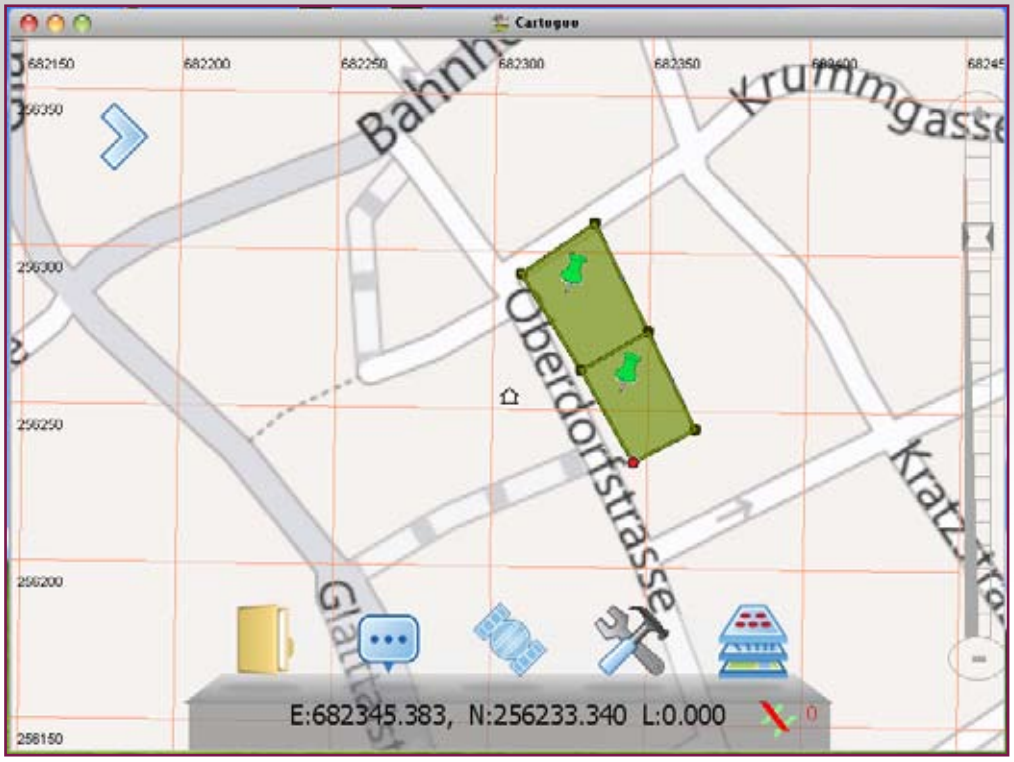
Click the green button to confirm

The new construction appears on the screen

Important features: Saved

Saved data: When you save data to disk, it will be in a KML format. This format is compatible with being shown on Google Earth ™ and other Google Map ™ applications. For instance saving the data as shown in this example...

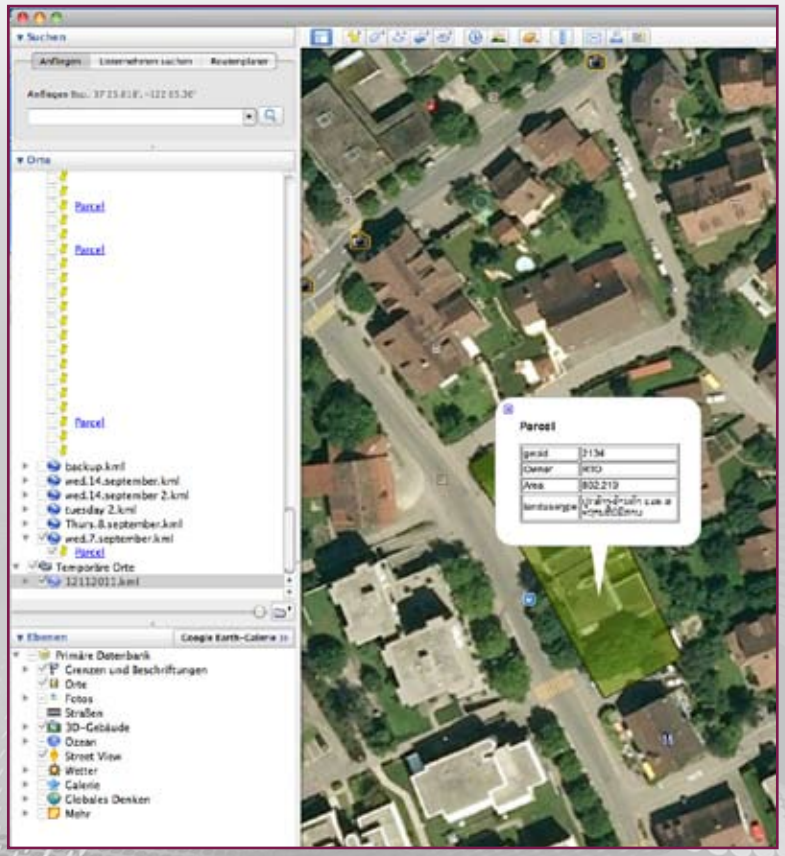
(map drawn on the PC version)



Important features: Saved

Saved attributes: Data with attributes will be saved in KML format. This format is compatible with Google Earth ™ and other Google Map ™ applications. For instance saving the data as shown in this example...

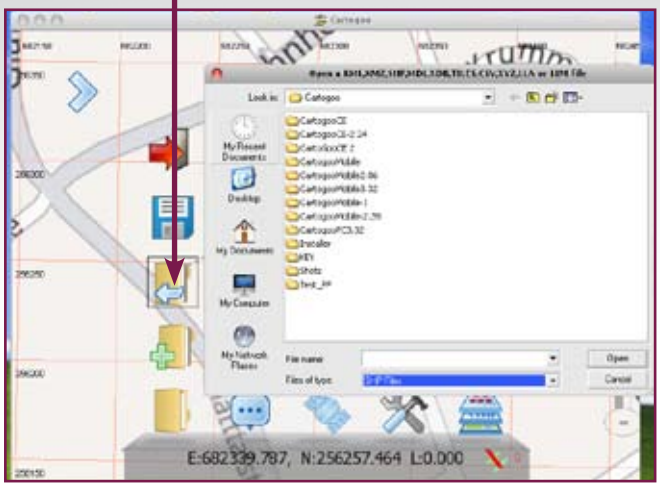
Saved data: ...will display like this on Google Earth™



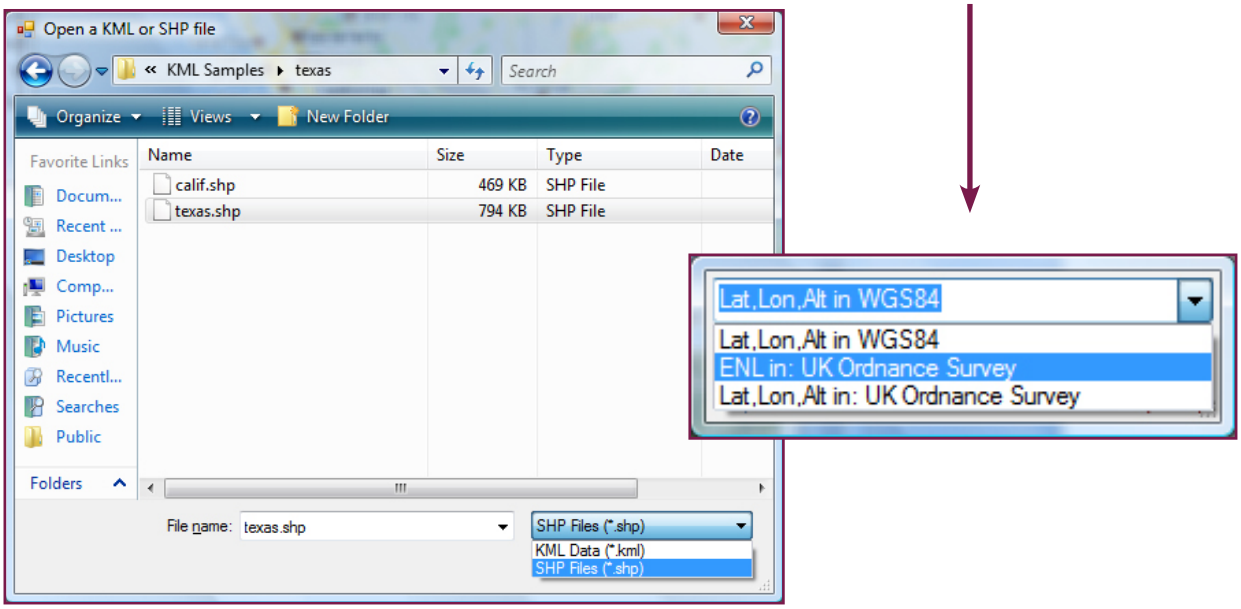
Important Features: Importing Shape Files

Importing Shape Files: These files are generated by **ArcGIS™**, **ArcPad™** and similar **ESRI™** products. Please see www.esri.com for details. This application needs two basic files to be available with extensions *.dbf (for attributes) and *.shp (for geometry). These files usually give no indication regarding the coordinate system. You have to select the type from a conversion list to proceed.

Importing Shape Files 1: Start Loading your SHP file by using the **Load Survey** button. Please note that both *.shp and its accompanying *.dbf file must reside in the same directory. This operation actually loads both files.



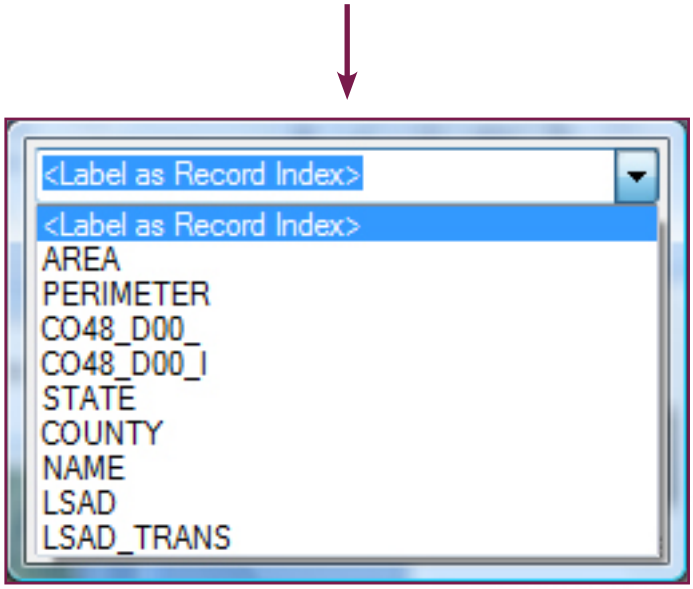
Importing Shape Files 2: Select the file extension choice and pick the file you want to import. Then click Ok to load it.

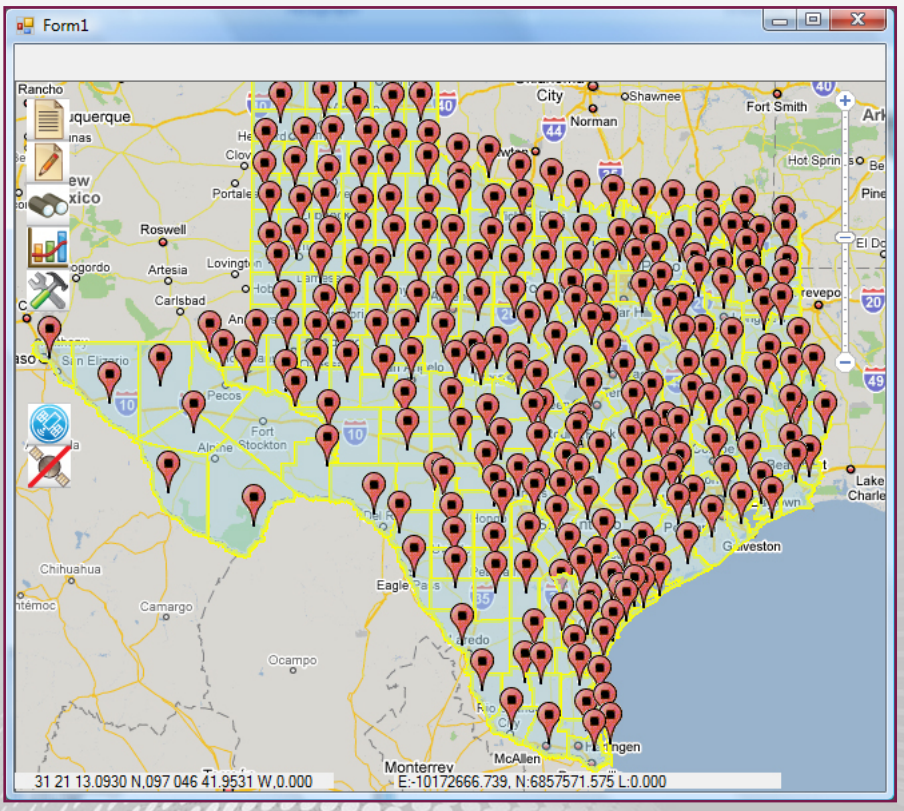


Importing Shape Files 3: Select the way Shapefile ™ have the coordinates. Note: The 'datum' can be altered in Utils (slide 33).

Important Features: Importing Shape Files

Importing Shape Files 4: Select the **Primary** field name from the list. The field value from the selected field will be used in **Google Earth™** to identify the record being examined. If you used **<Label as Record Index>** then the index position in the file is used to identify the object. Click the tick mark to proceed.

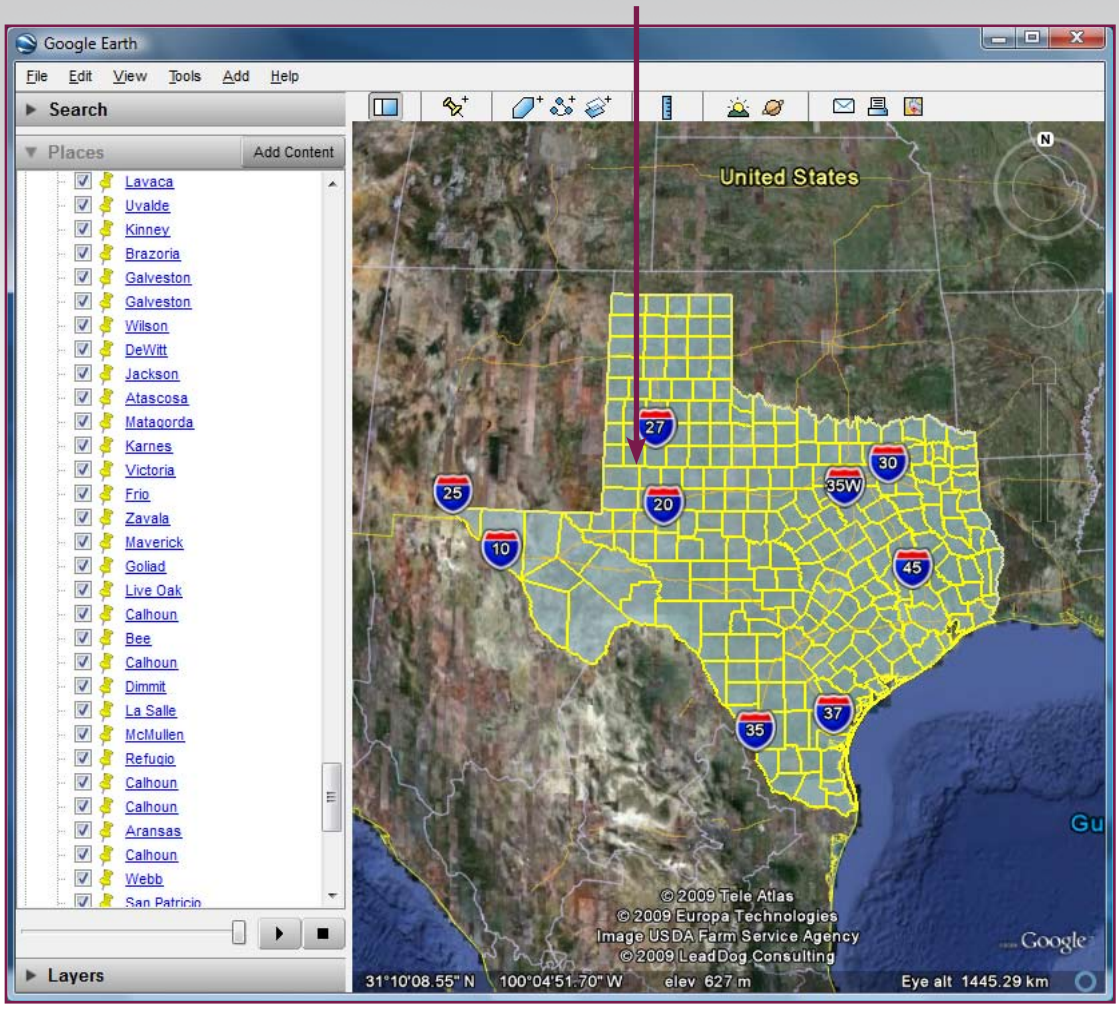




Importing Shape Files : Use File: Save Survey to save the file as a KML file.

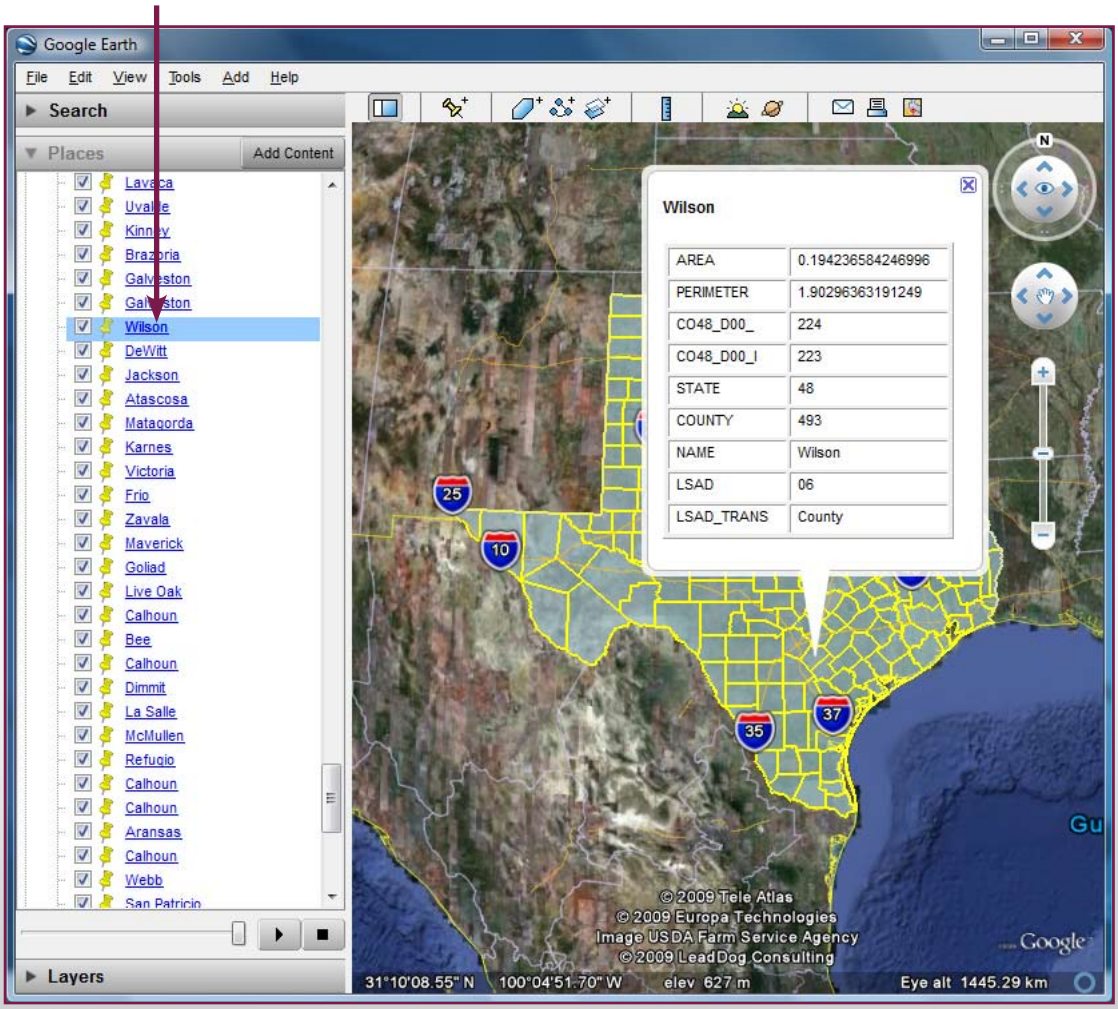
Important Features: Importing Shape Files

Importing Shape Files: Double click the chosen filename from the saved directory to automatically load Google Earth™ with the data you have just saved.



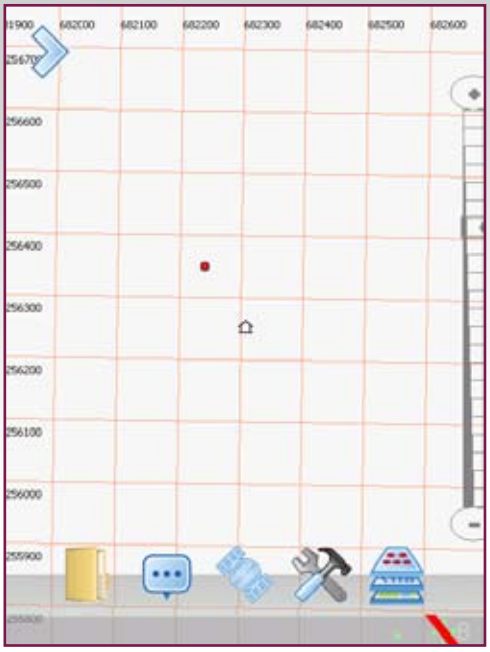
Important Features: Importing Shape Files

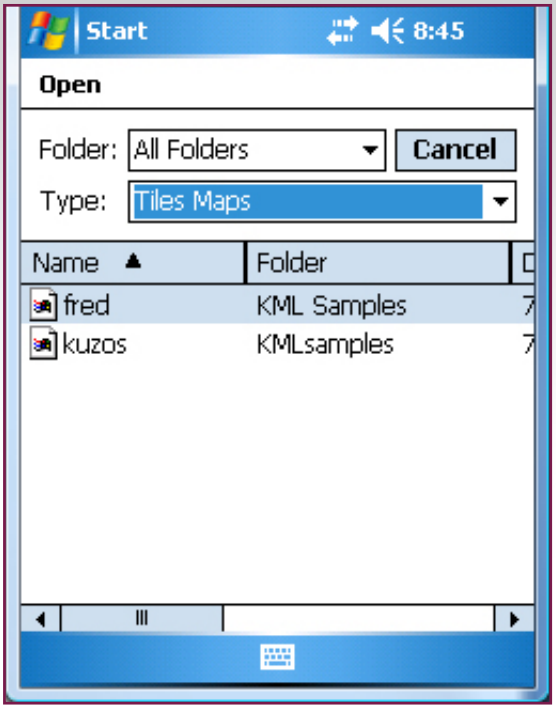
Importing Shape Files: To view attributes, just click on the Primary Attribute in the list in **Places** to bring up the data.



Important Features: Operating in a wireless blocked region*

Please note: This facility allows you to use your mobile PC to collect data in areas whitout wireless coverage. To enable this functionality, you must have a temporary background Tiles file previously stored using: **Utility Menu: Configuration.**





The area of interest will appear centralised on the **Tiles** files **Home Marker.**

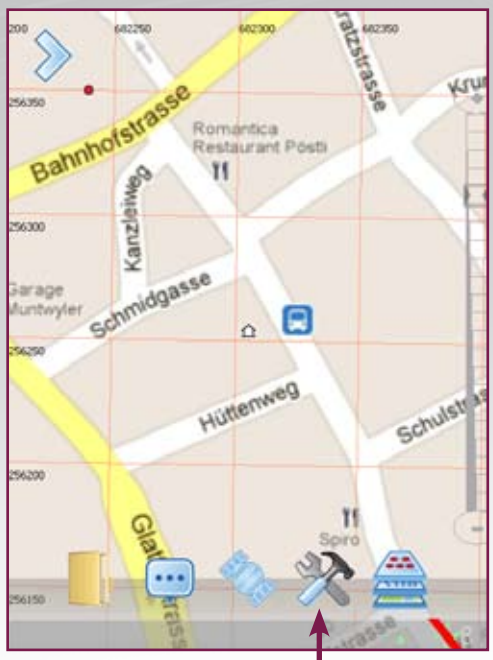
* Only available in the professional version

Important Features: Operating in a wireless blocked region*

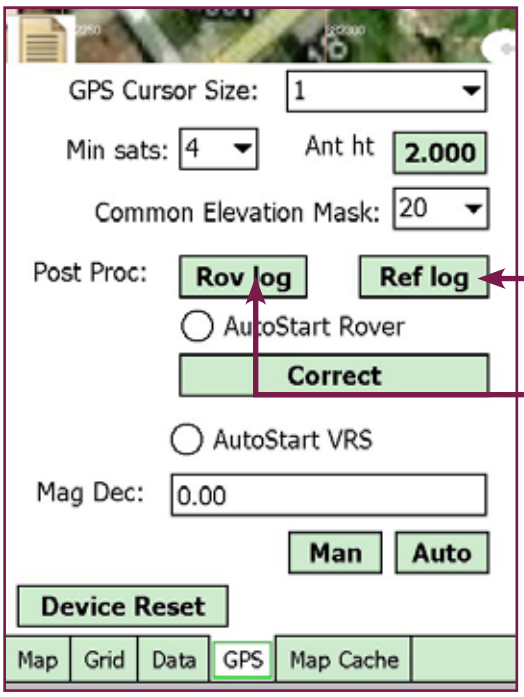
Zoom into a working level.

Zoom further, alter to satellite images for example, then load in your previous unfinished survey for continued updating.

Datacollection for Postprocessing



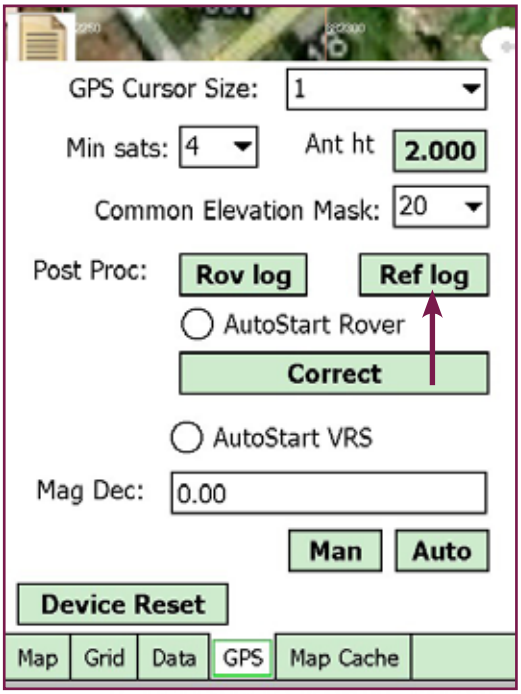
Click on the “Utilities Menu”



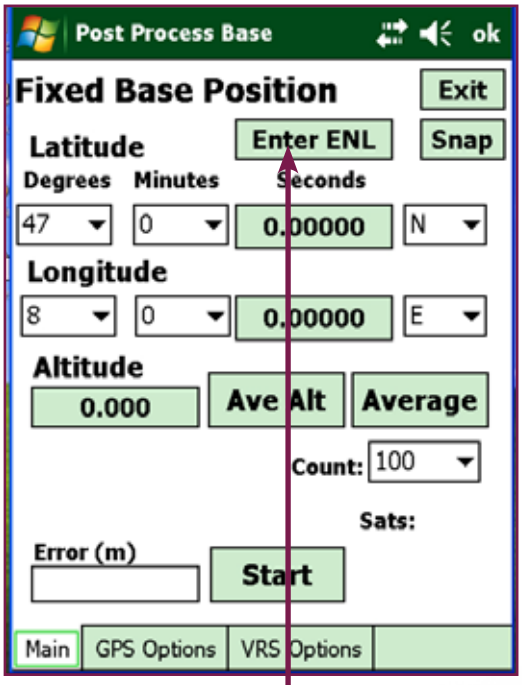
For Base station data, choose “Ref log”

For rover data, choose “Rov log”

Datacollection for Postprocessing

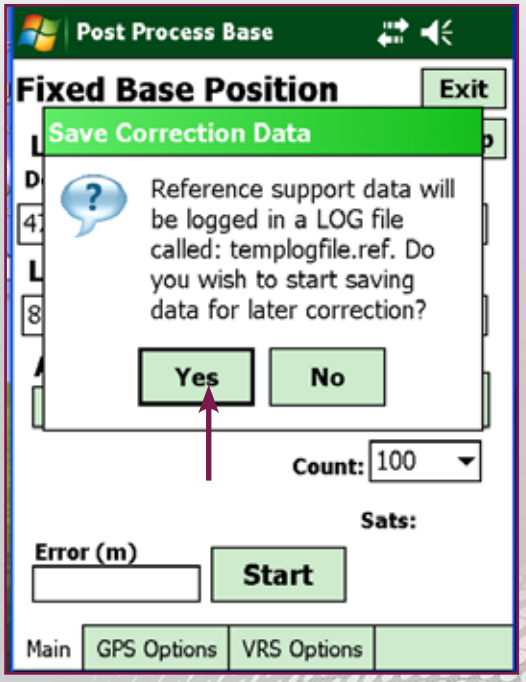


Click on "Ref log" to start saving base station data for post processing



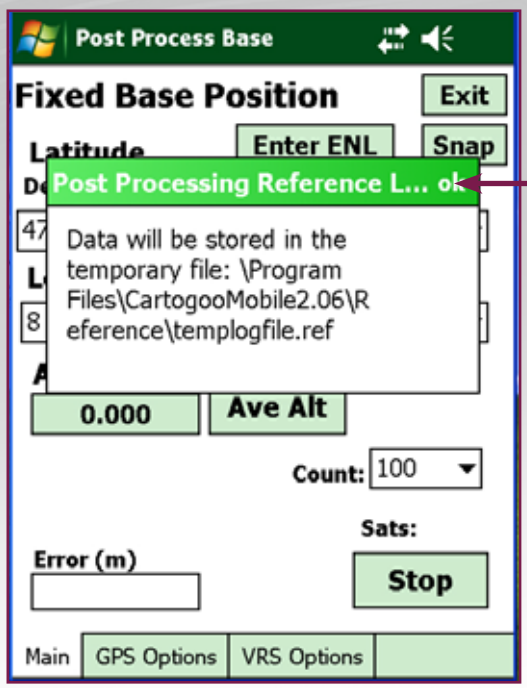
When pressing "Enter ENL", you can enter the base station coordinates for easting, northing and level

Click "Start"

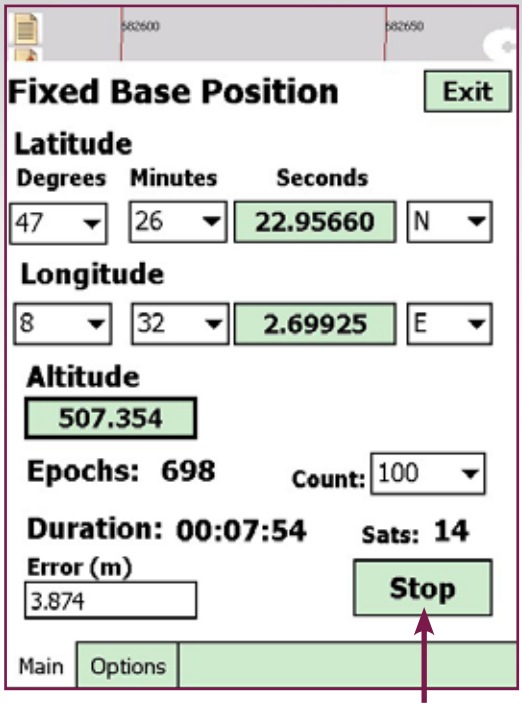


If you wish to start collecting and saving data, click "Yes"

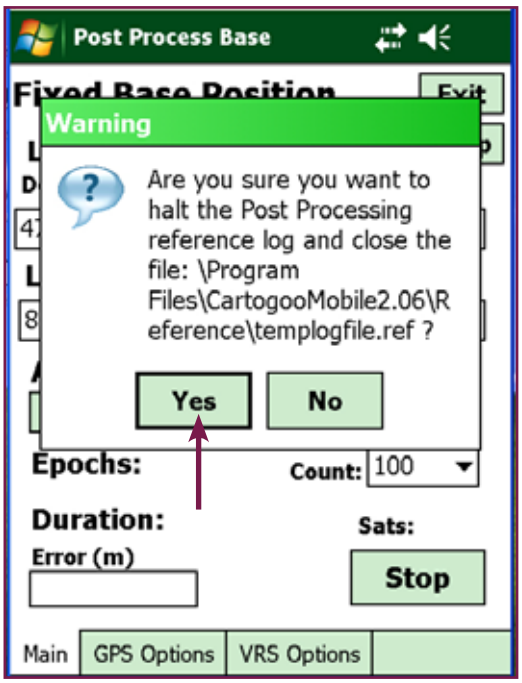
Datacollection for Postprocessing



Location of data storage
Click “OK”

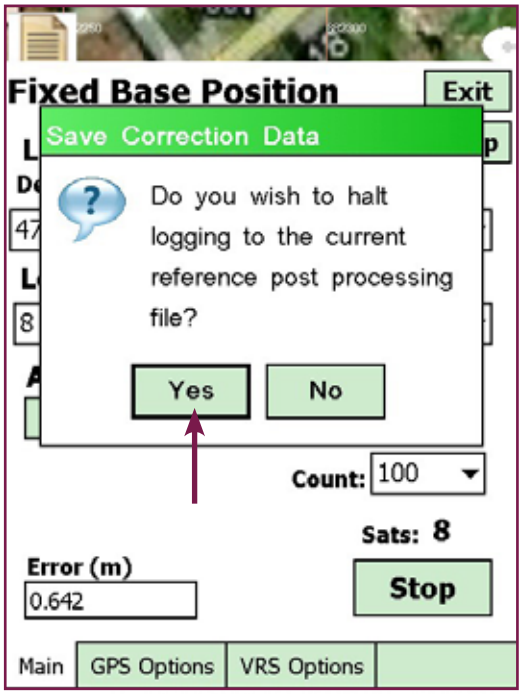


At the end of the working day, press “Stop”

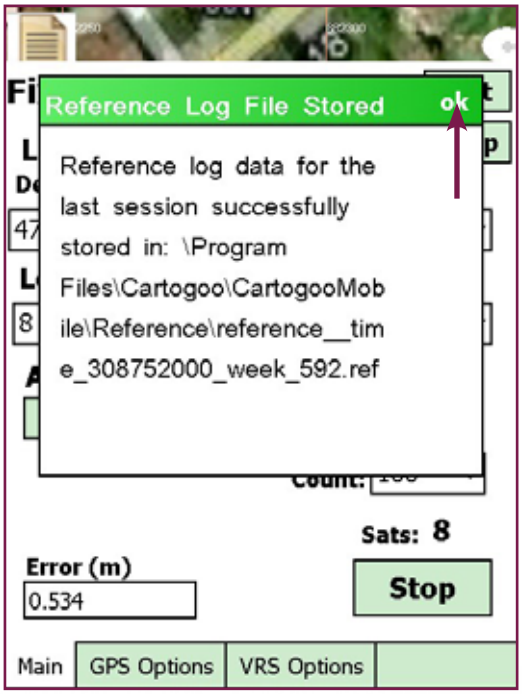


Confirm with “Yes” if you really wish to stop

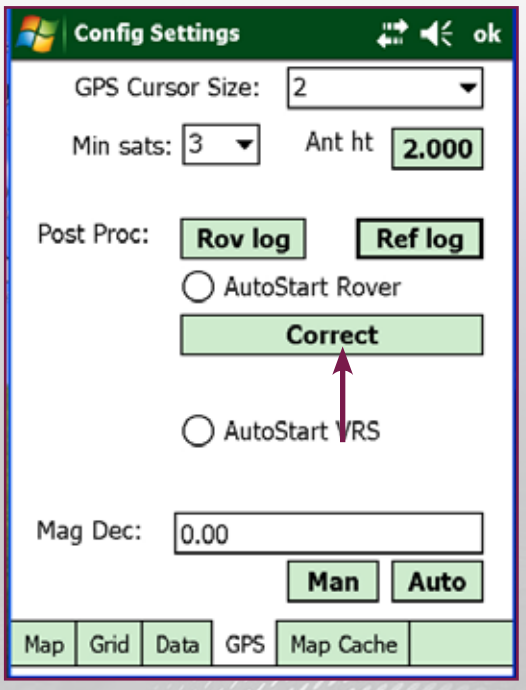
Datacollection for Postprocessing



You want to stop: Click “Yes”



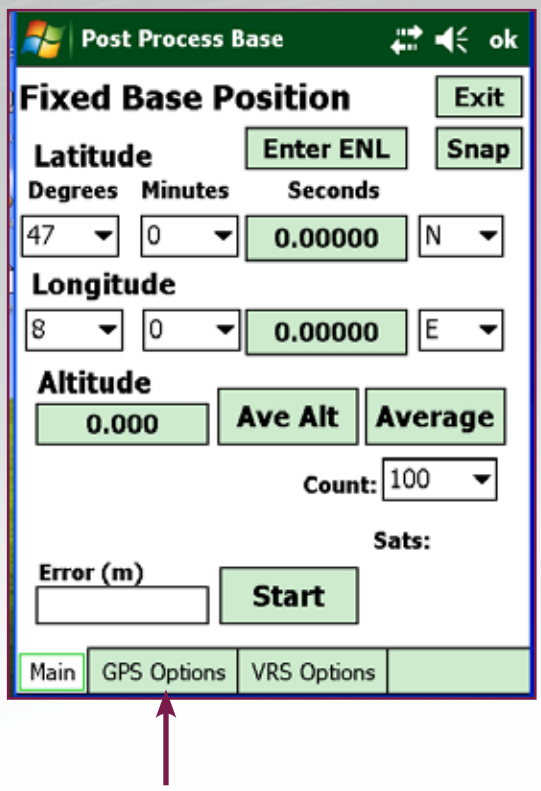
File location: click “OK”

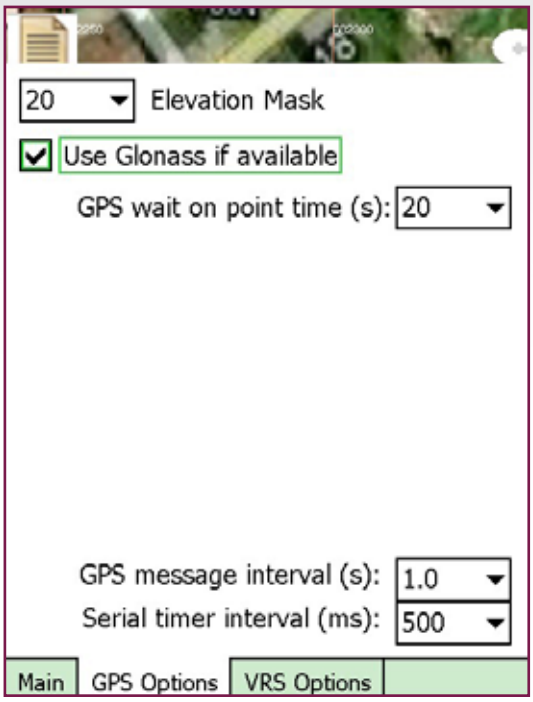


Press “correct”

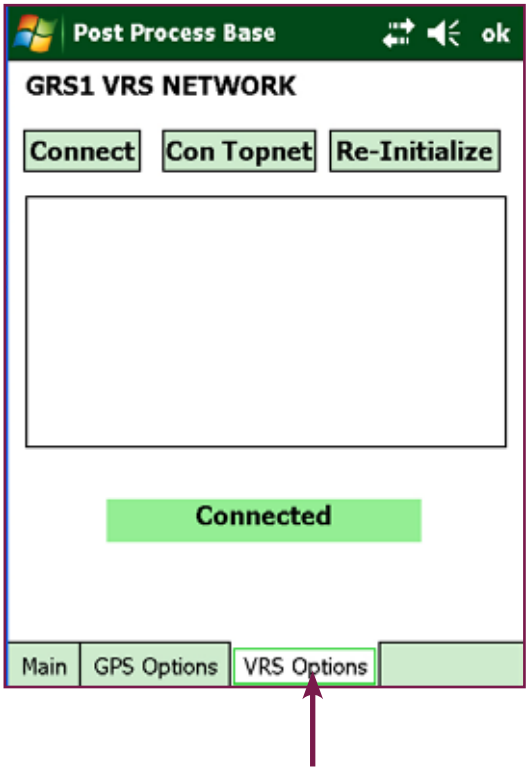
Note: it will be important to place the base station data into the same location as the rover data.

Postprocessing: GNSS + VRS Options



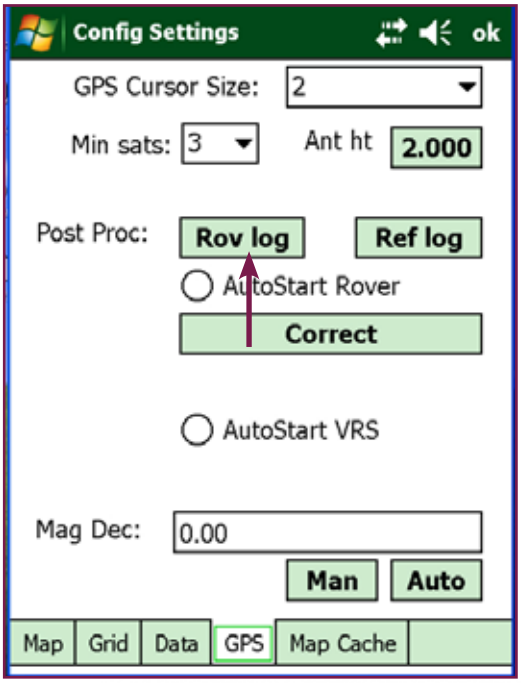


GNSS options allow the user to define the satellite constellation and to increase the postprocessing accuracy.

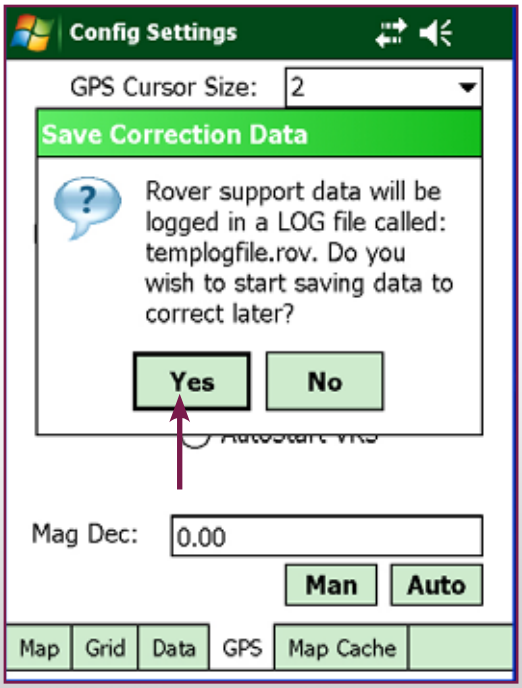


VRS options allow to define the login parameters to the VRS network

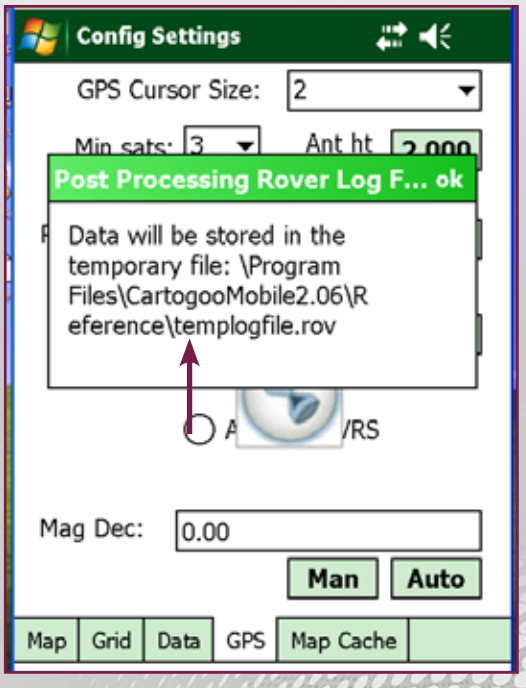
Datacollection for Postprocessing: Rover



Click on "Rov log" to start saving rover data for post processing



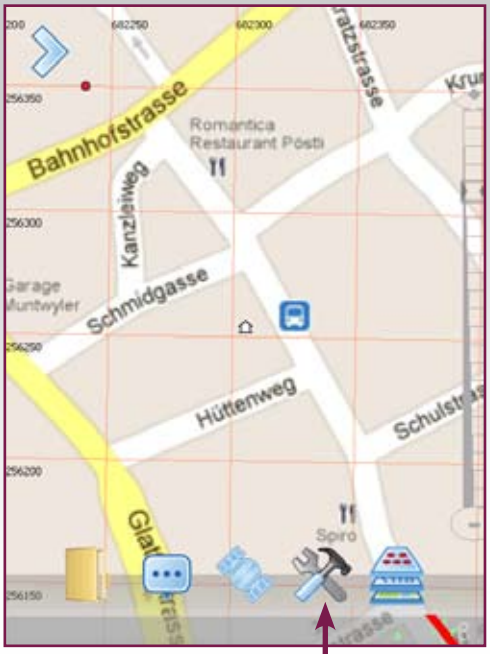
Click "Yes"



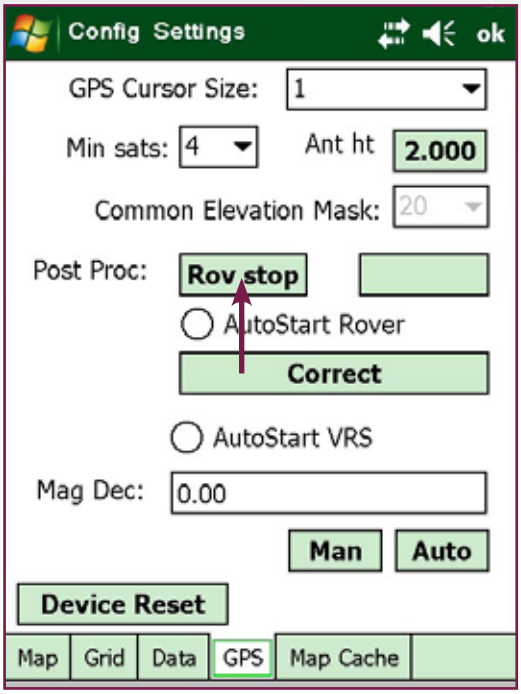
Location of data storage

Datacollection for Postprocessing: Rover

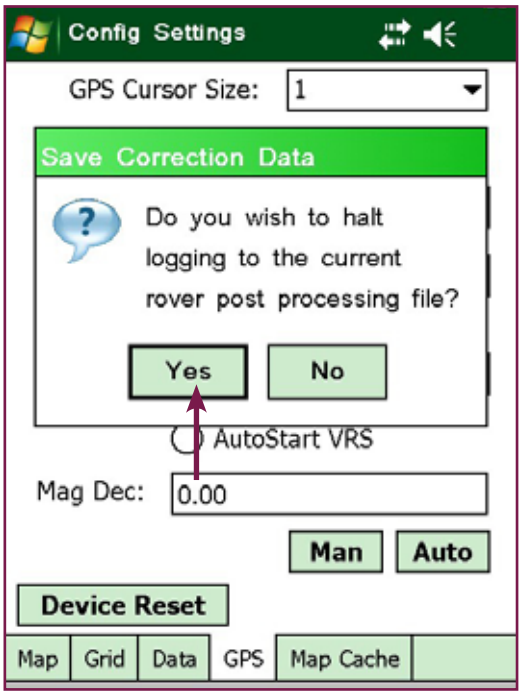
If you wish to stop the registration of postprocessing data for the rover, go to:



Choose “Utilities”

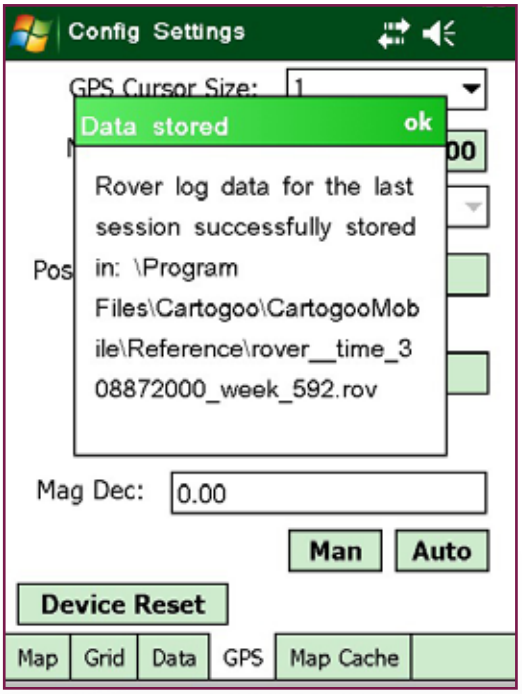


Click “Rov stop”



Confirm that you wish to stop by clicking “Yes”

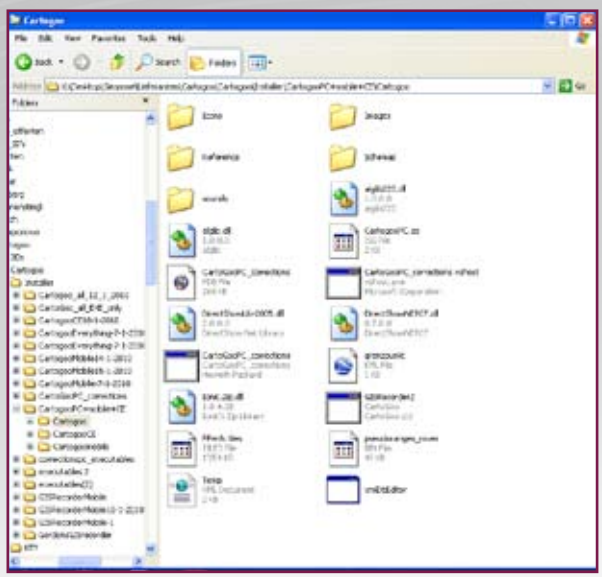
Datacollection for Postprocessing: Rover



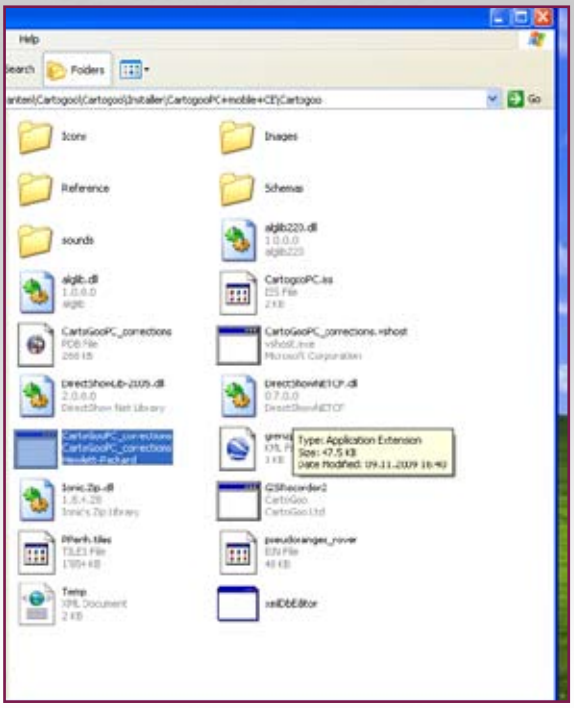
Here you have the information regarding the storage location of your rover data

Note: it is important that you copy your rover postprocessing files into the same location as your base station postprocessing data

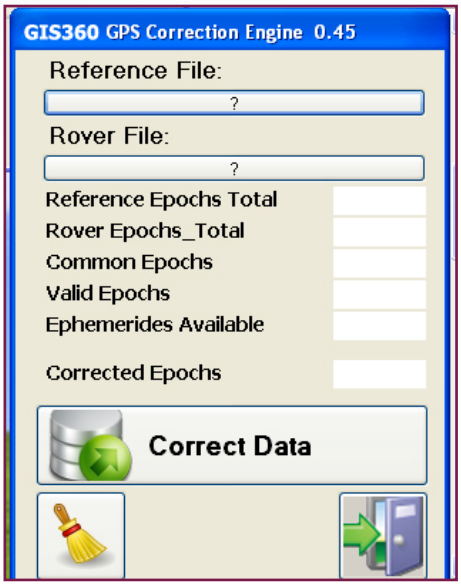
Postprocessing: Base + Rover Data



Look for the directory where your GIS360 PC version is installed.



To start the postprocessing program, click on the executive file "GIS360PC_ corrections"



This is the Postprocessing program window

The Correction engine will default to the recommended settings so most of these options can be ignored. However the most critical is the Epochs selector which is the number of Epochs to be averaged together to form the final position on each point. If you stayed on the point for 20 seconds each time then select 20 seconds in the Epochs. You may then continue by pressing OK at the bottom of the Options menu.

The other options are as follows….

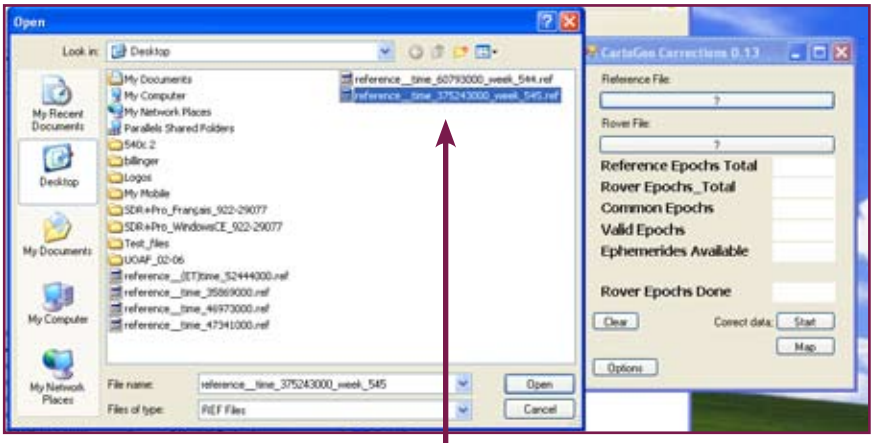
Filter: Single difference filtering tends to work best for most data sets.

Elevation Mask: This can be adjusted to ignore satellites below a certain elevation.

Correction Method: Single Difference is a Hatch filter and works best for mast cases.

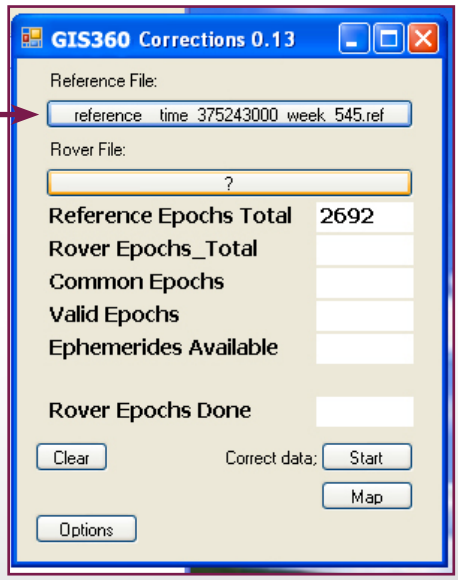
Show Correction Rover Links: On the plot it will show the link between the point where the button was pressed and the corrected point

Postprocessing: Base + Rover Data

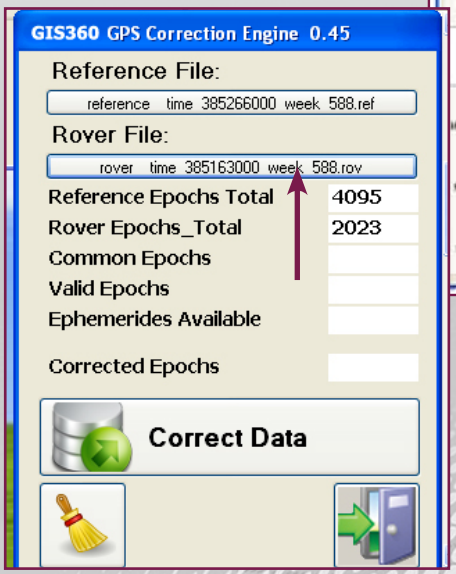


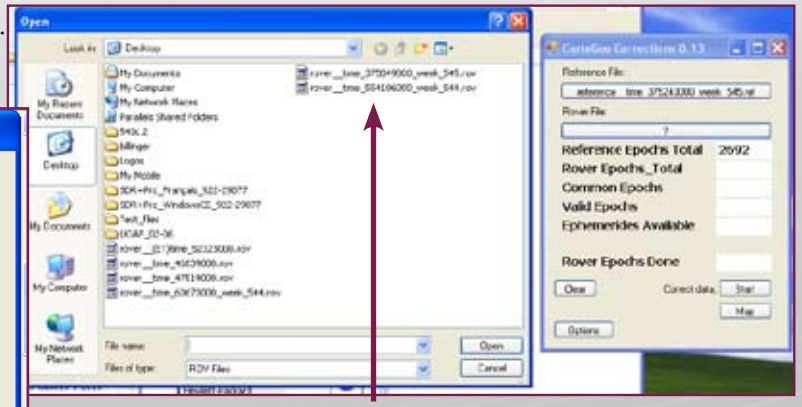
Look for your reference files (.ref) by pressing here

... choose the Reference File you want to apply postprocessing to



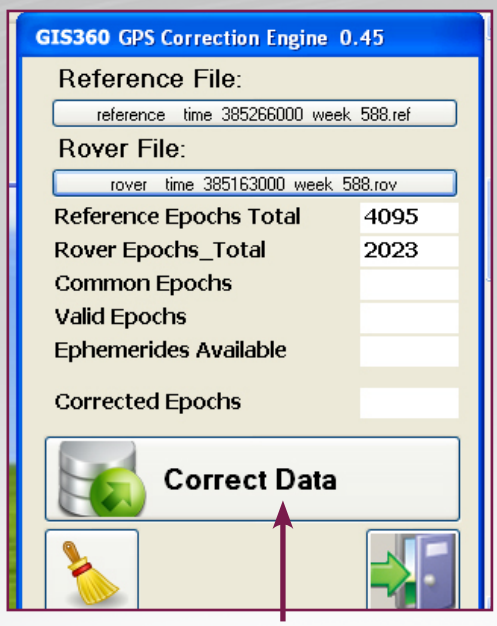
Look for your rover files (.rov)...



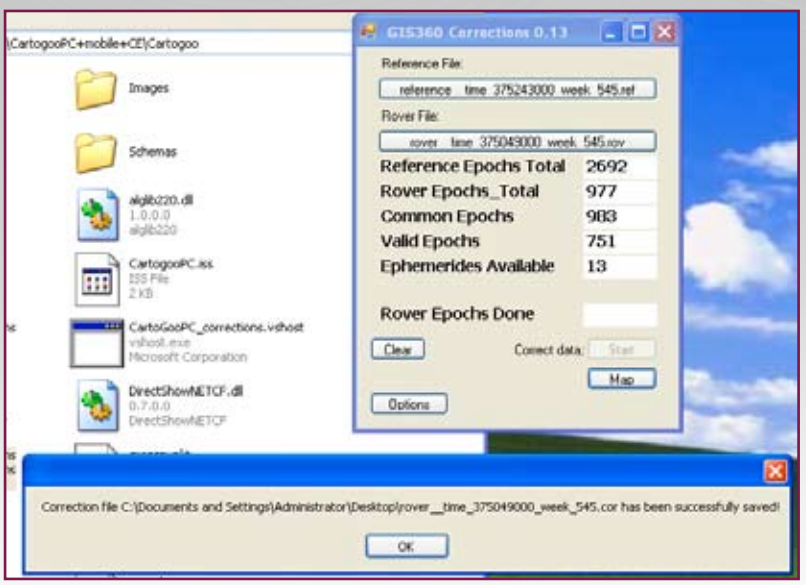


... choose also the Rover File you want to apply postprocessing to

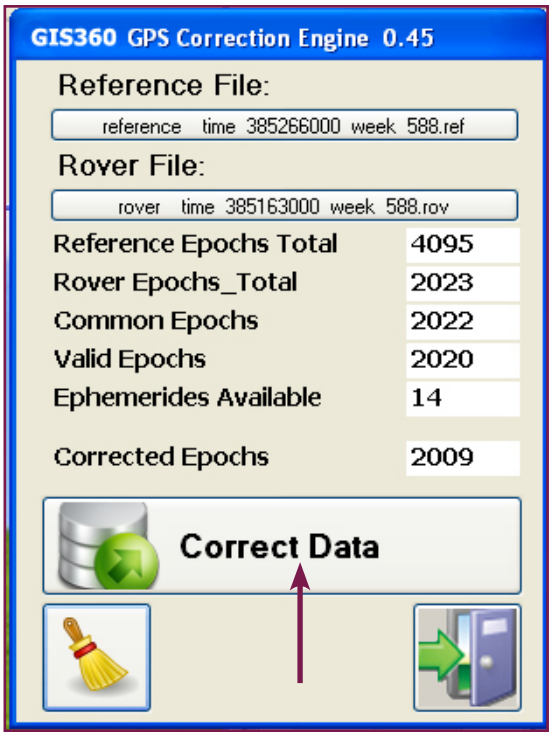
Postprocessing: Base + Rover Data



Once you have your rover and reference files, click on **Correct Data**



This is the confirmation of your saved data, click ok

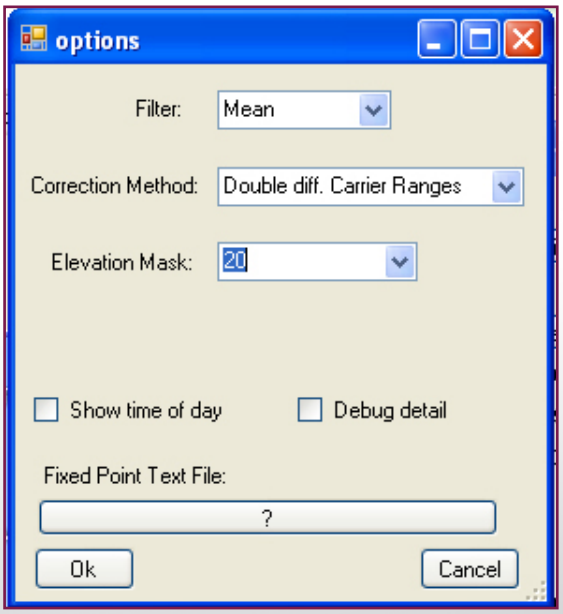


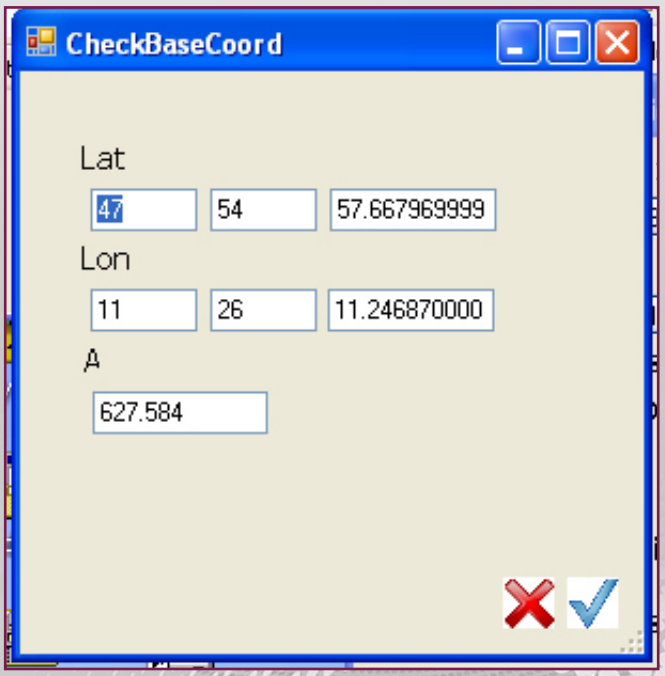
To see the map of your raw data, click on map

On this map you can see how your Rover and Base data look like. These are pure 1 second data. Blue dots are Topcon values and Crosses are corrections.

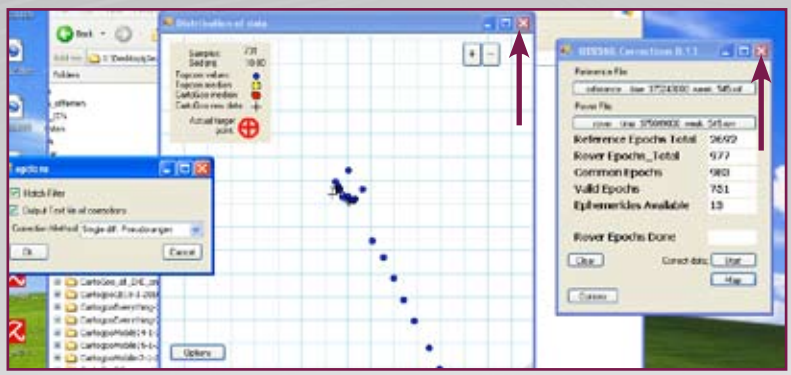
Postprocessing: Base + Rover Data

With the + and - you can zoom in and out to see the map of your raw data.



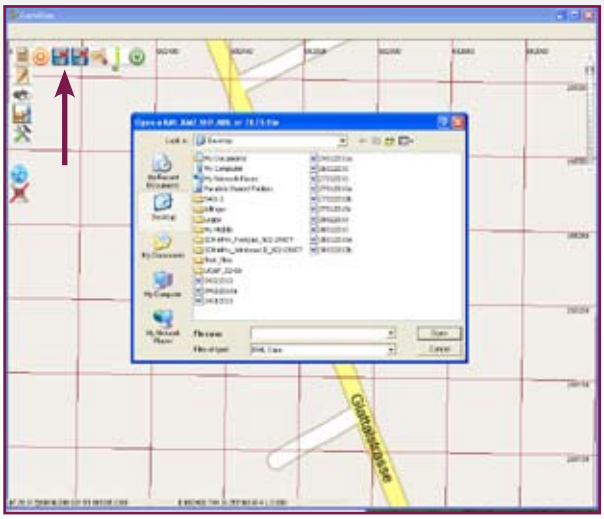


Postprocessing: Base + Rover Data

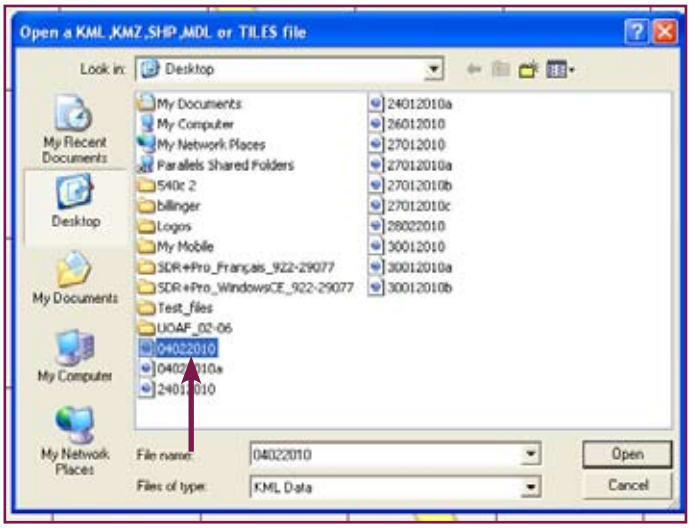


To end this view, simply click on X The same applies to closing the postprocessing program

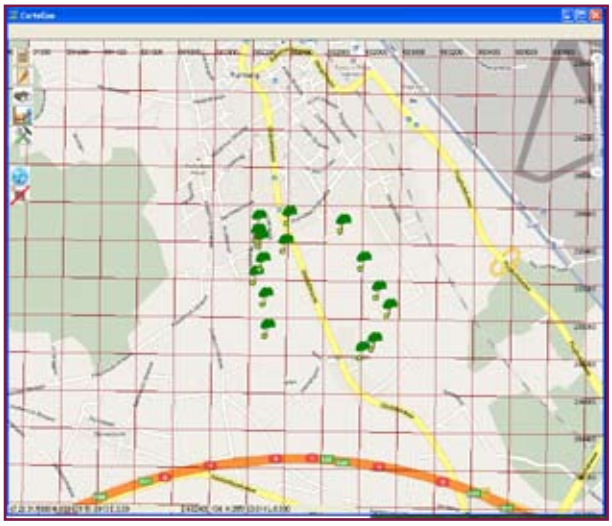
Important Note: Your Post Processed ROV file has been saved in the directory "Reference" and has a .COR extension.



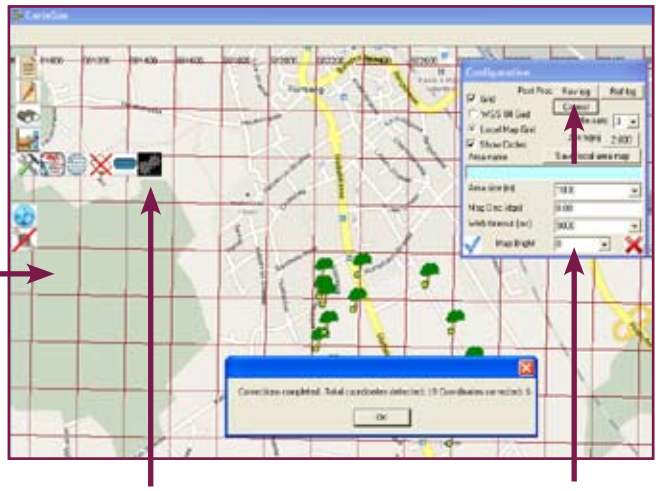
In the GIS360 PC version, click on the OPEN FILE button and look for your kml files, then select the one you wish to process



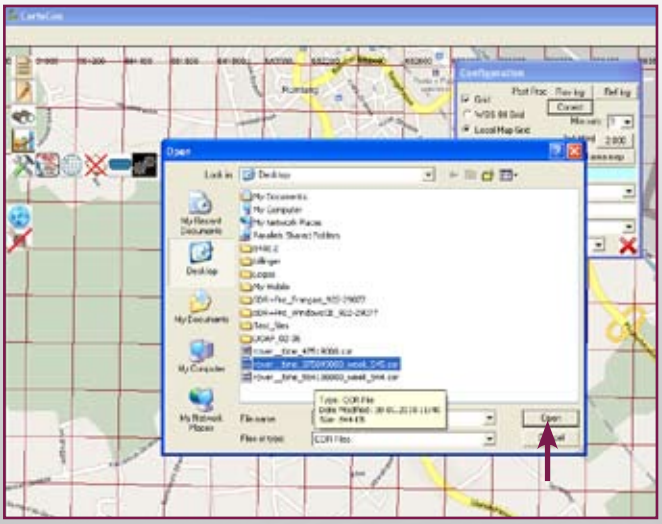
Postprocessing: Base + Rover Data



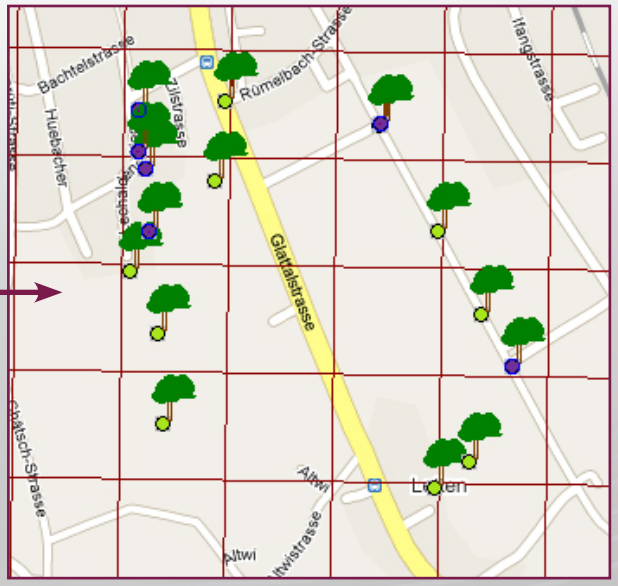
After opening your KML file, this is your raw KML data in GIS360, as surveyed in the field. Now you want to apply the postprocessing corrections



Click on "**utilities**" to see the following "**dialog box**", where you click on "**correct**"



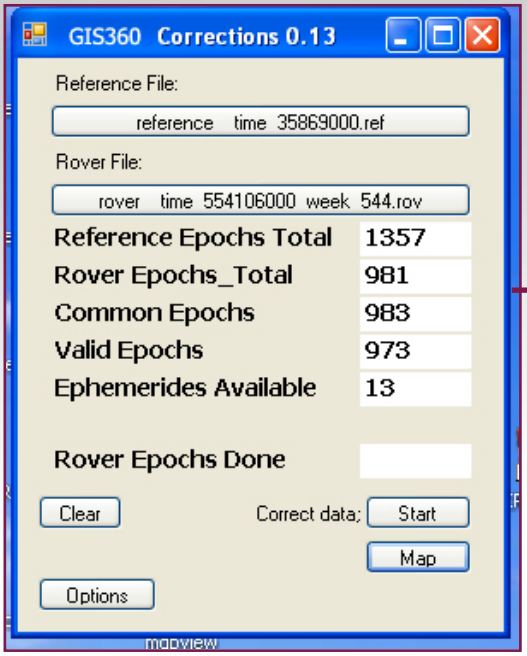
You can now choose the correction file (extention .cor) and click "open"



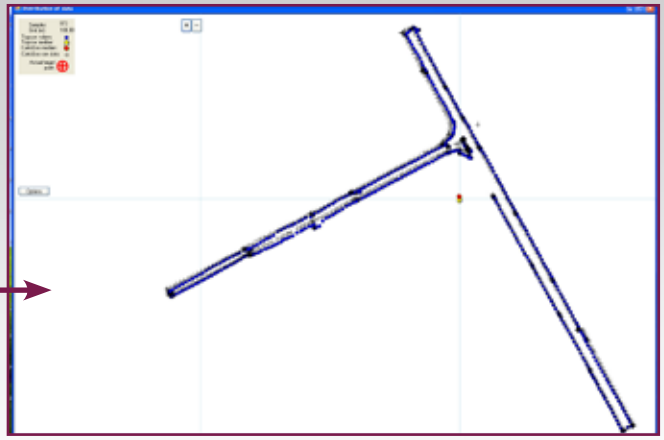
You can now see that the corrected points have a different color. In this example only 6 points have been surveyed, and we see 6 corrections.

Postprocessing: Base + Rover Data

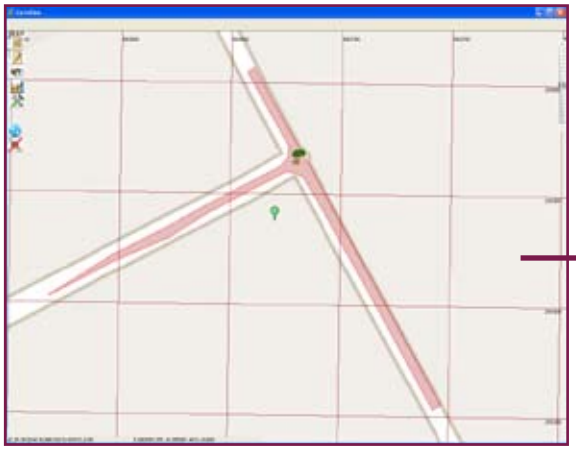
Here an example with a Polygon, following the same procedure as previously for single points. Without going as much in details as for single points.



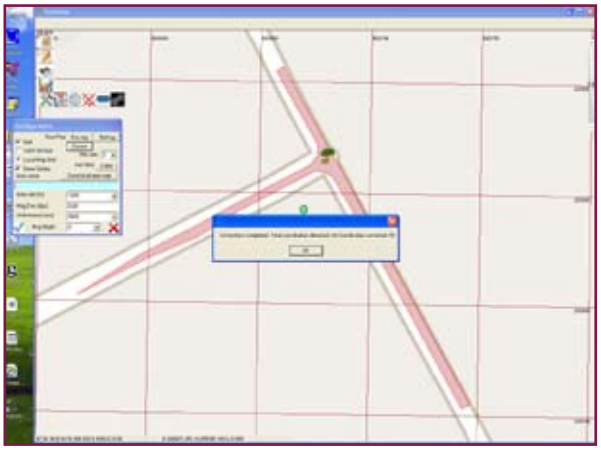
Start the rover and reference files



Map view of raw data



View of your field KML Field data



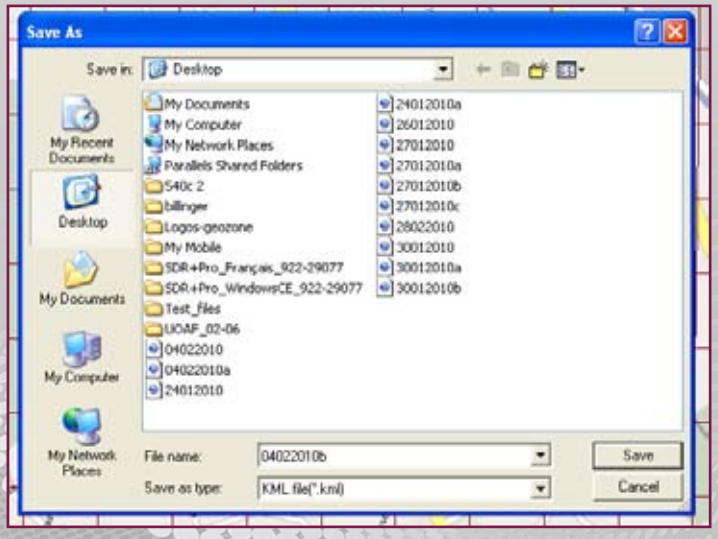
Here you can import COR file.

Postprocessing: Base + Rover Data

This image displays that the corrections have worked and that “old” points moved to the new positions, but with aerial image in the background.

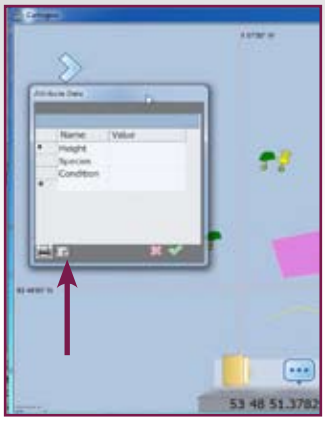
Here we see that the corrections have worked and that “old” points moved to the new positions.

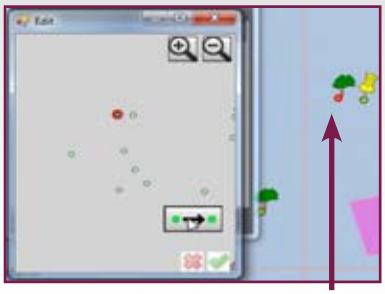
Don’t forget to save your “NEW” KML file. We sugest to use the same name as the original KML, but adding and a “sufix” like a ,b or c. Now you can export your NEW KML file into Google Earth.



Method Menu: Editing Tool/ Point editing

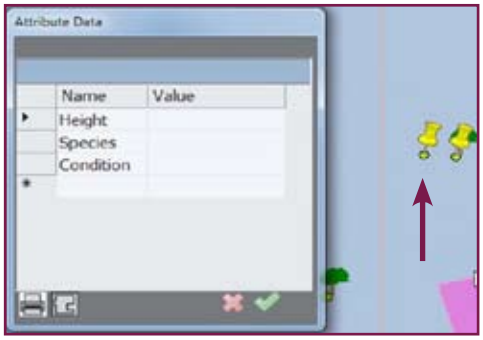
Point editing: Choose editing button and then tap on the point to be edited





Point editing: Choose the WALK button then press on the point (TREE) to be edited

Point editing: Choose this button and tap on the new point

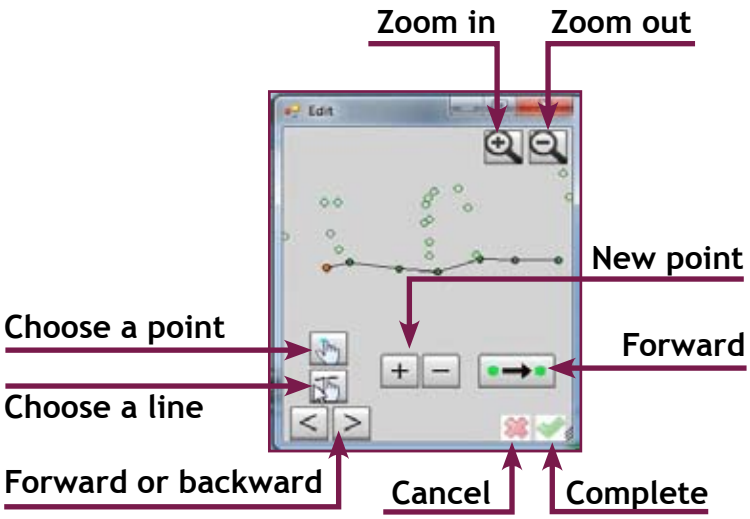


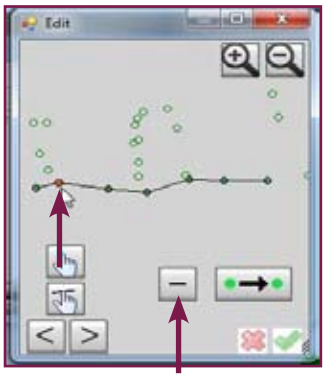
Point editing: As you can see, the TREE symbol changes place and point editing is finished

Method Menu: Editing Tool/ Line editing

Line editing: Choose LINE to be edited editing button and then press on the LINE to be edited

Line editing: Choose LINE to be edited

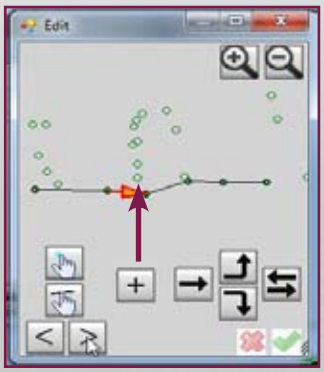




Press MINUS to delete one point on the LINE.
Choose the Point

As you can see, the point is not anymore part of our LINE.

And the “new” changed LINE looks different now



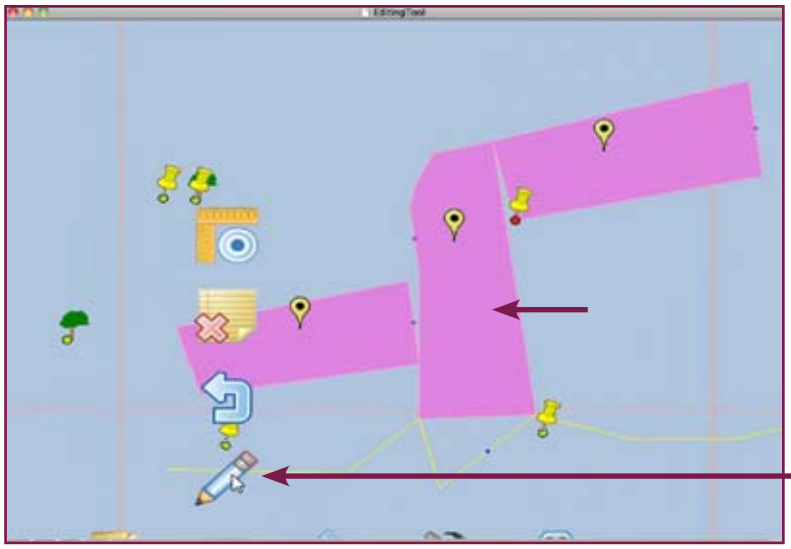
Line editing: Choose points to be added

Line editing

Method Menu: Editing Tool/Line editing/Line extension

Line extending: Choose the last point on the line, choose new point and the line will be extended

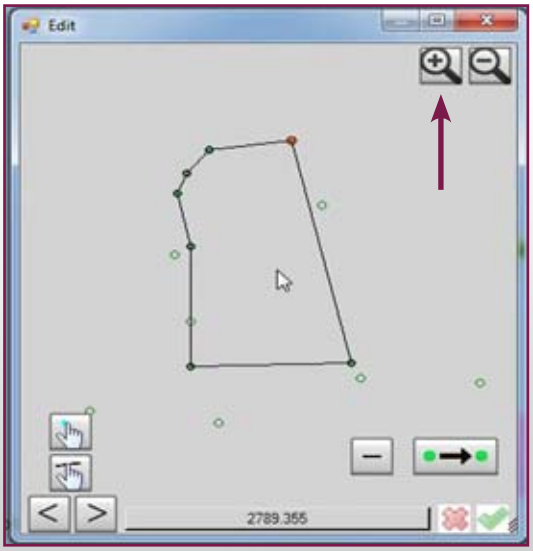
Method Menu: Editing Tool/ Parcel editing



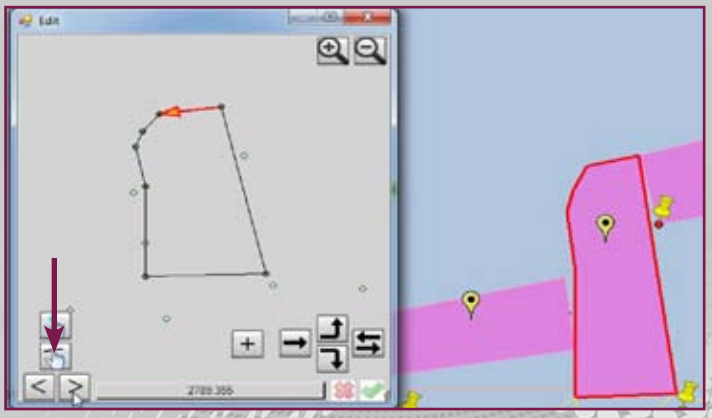
Parcel editing: Choose the parcel to be edited

Parcel editing: Choose EDIT

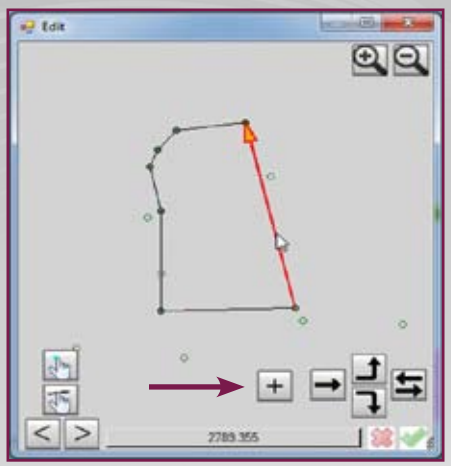
Parcel editing: The GIS Table apears. Press the Walk Mode button



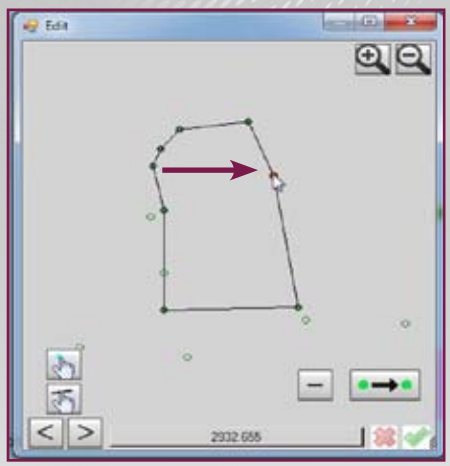
Parcel editing: Zoom and Pan choosen parcel to fit your screen



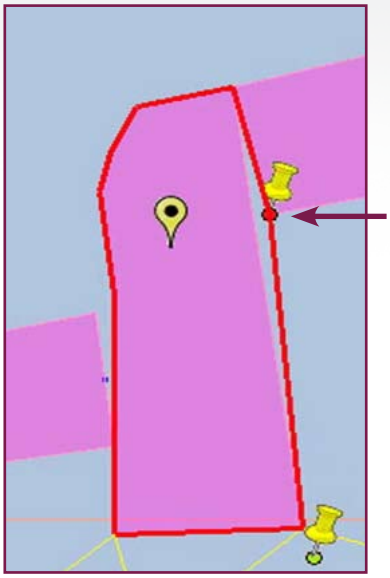
Parcel editing: Press the Line tool and choose the desired line

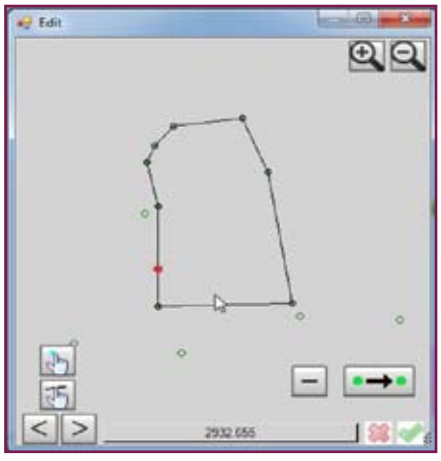


Parcel editing: After selecting the proper line press + and select the new point to be added

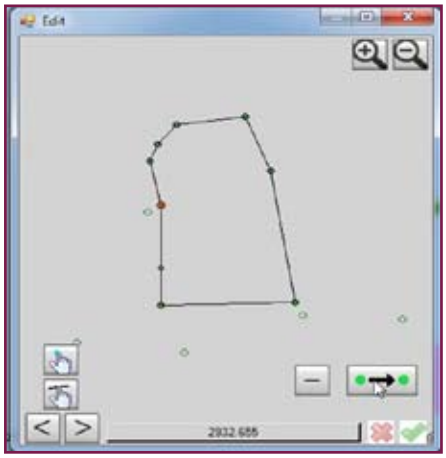


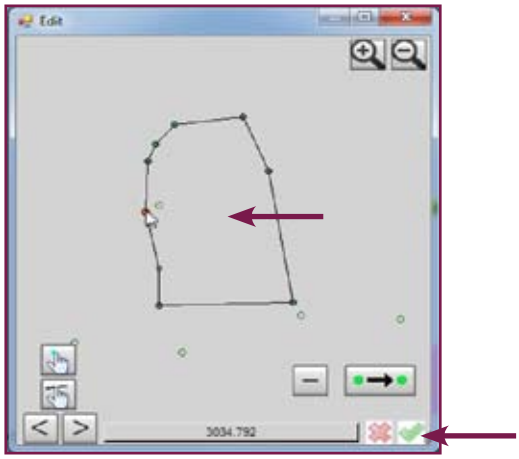
Parcel editing: the new point has been added



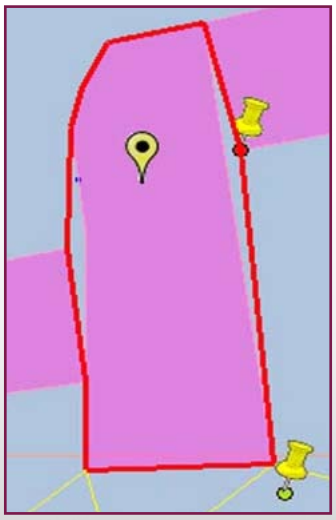


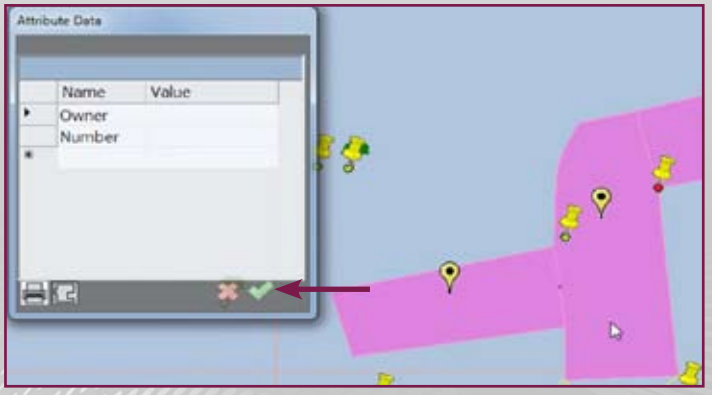
Parcel editing: repeat the same procedure for all points involved





Parcel editing: until your edited parcel doesn't get a proper shape. When finished press YES

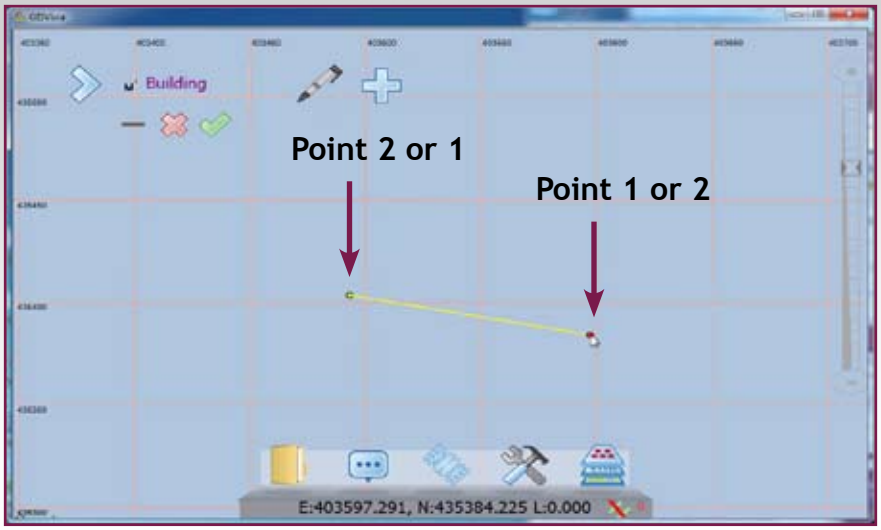




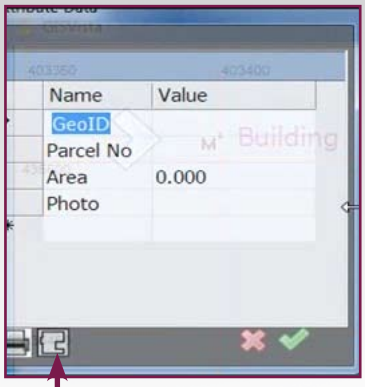
Parcel editing: to finalize the process press YES and your parcel is FIXED

Method Menu: Walk Mode

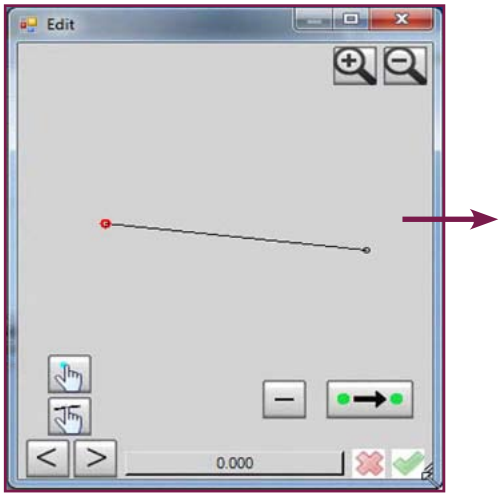
Walk Mode: First you have to ensure that you have 2 points specified on your map, where one will be the anchor point of your construction and the other will be a directional node. One corner of your constructed plan will be fixed at the first point and another corner will be fixed in the direction of the other anchor point.

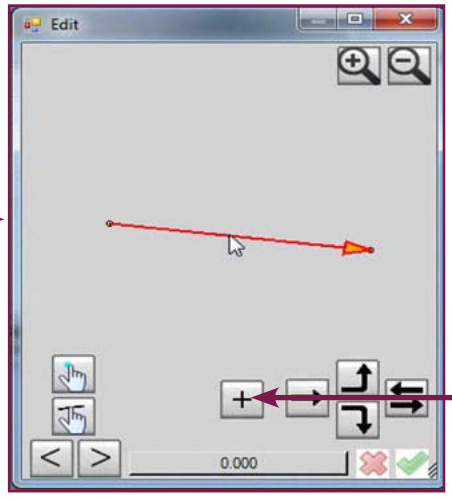


Walk Mode: Example – Define the Anchor Points with GNSS/GNSS



Walk Mode: A walk type item will be created by selecting this button. When new points are added to the walk design and accepted, a new **Walk Mode (Special Polygon)** Item will be created.

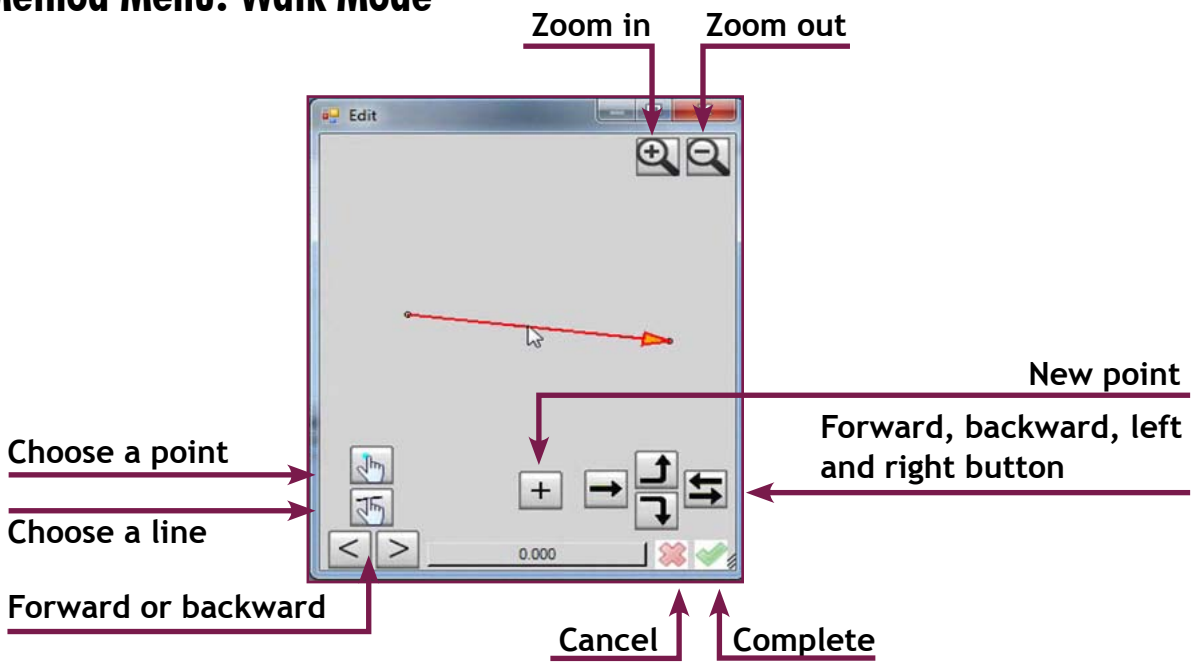




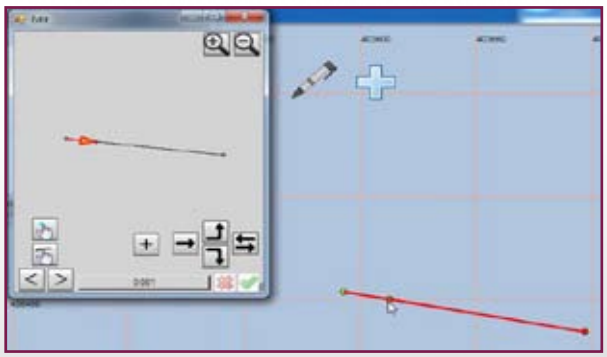
Walk Mode: Press this symbol to enter the first distance

Walk Mode: This is a turtle graphic type of walk where you move forward, left or right and specify the distance from your current position. To complete the walk polygon, there is a complete button which guarantees the walk polygon will be closed. The idea is to ensure that each internal angle is always 0 degrees,90 or 270 degrees from the current direction.

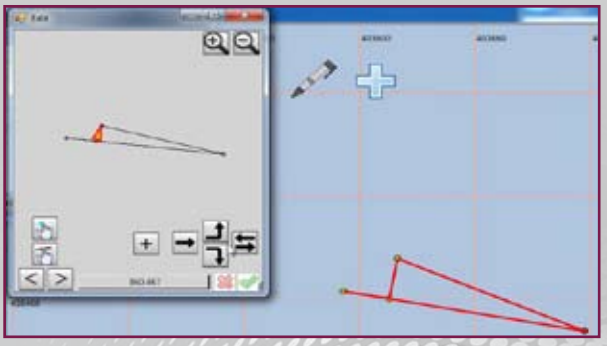
Method Menu: Walk Mode



Walk Mode: Example – Click the Walk button then add the distance to move in the current direction **-forward**

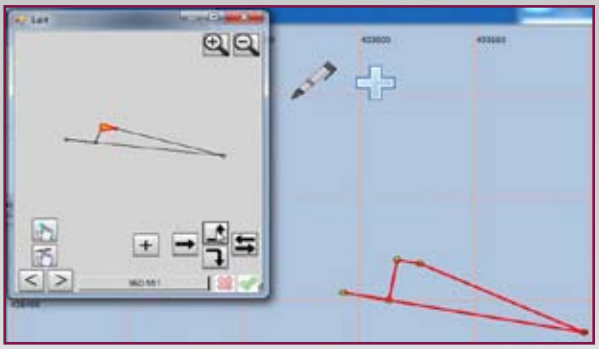


Walk Mode: Example – Click the Walk button then add the distance to move in the current direction **-left**



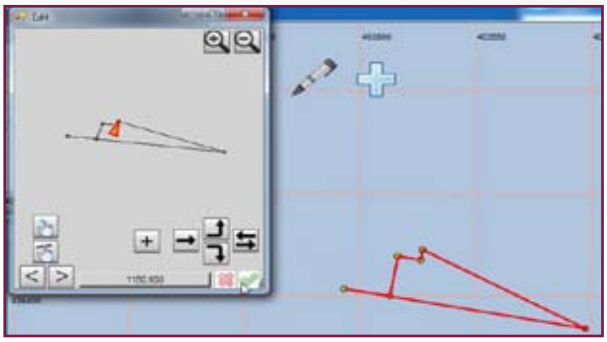
Walk Mode: Example – Continue the turtle graphics until you have most of the walls defined

Method Menu: Walk Mode

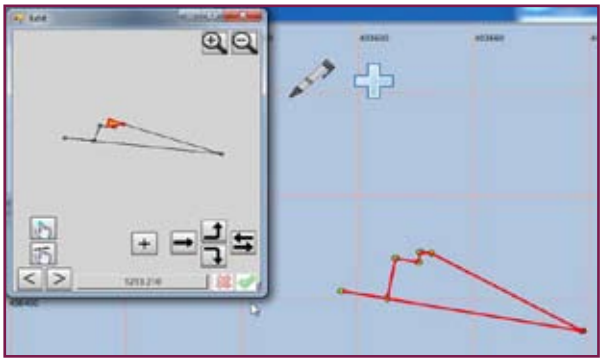


Walk Mode: Example – Now you can follow your progress in building construction for example

Now click the Left button then add a new Walk distance to move in the new direction.

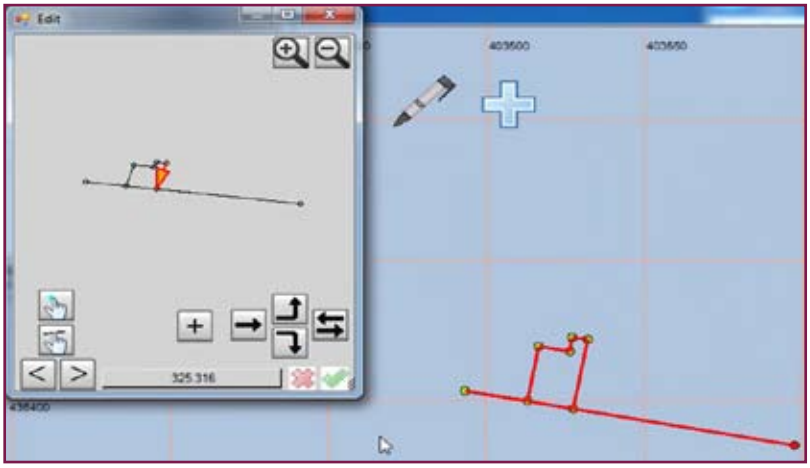


Walk Mode: Example – Continue the turtle graphics until you have most of the walls defined

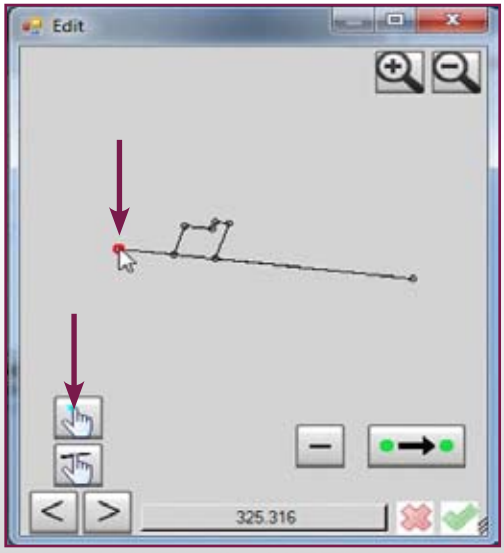


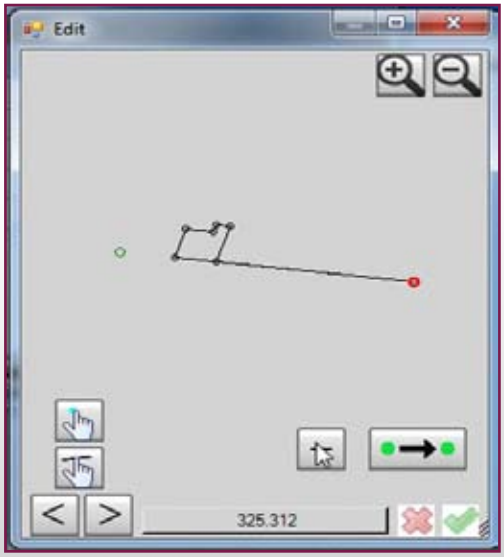
Walk Mode: Example – Continue the turtle graphics until you have most of the walls defined

Method Menu: Walk Mode

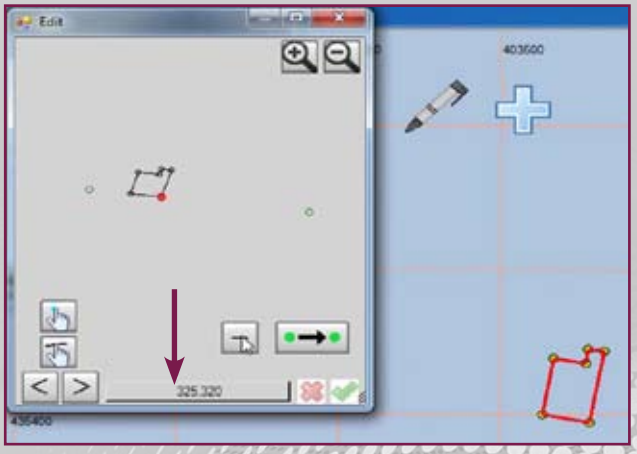


Walk Mode: Example – you are almost finished. Now you need only to eliminate the points not needed.

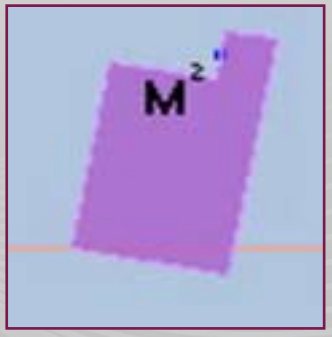




Walk Mode: Example – you are almost finished. now you need only to eliminate the points not needed.



Walk Mode: Example – if an important AREA is shown as well

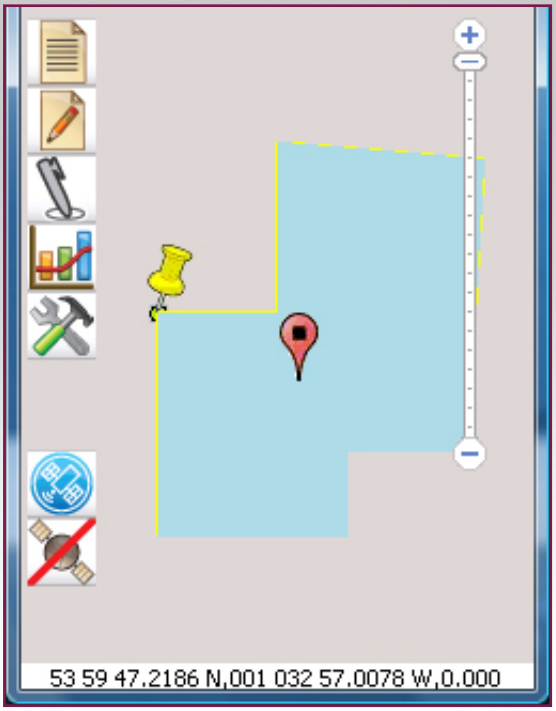


Walk Mode: Example – you are almost finished. Just close the table...

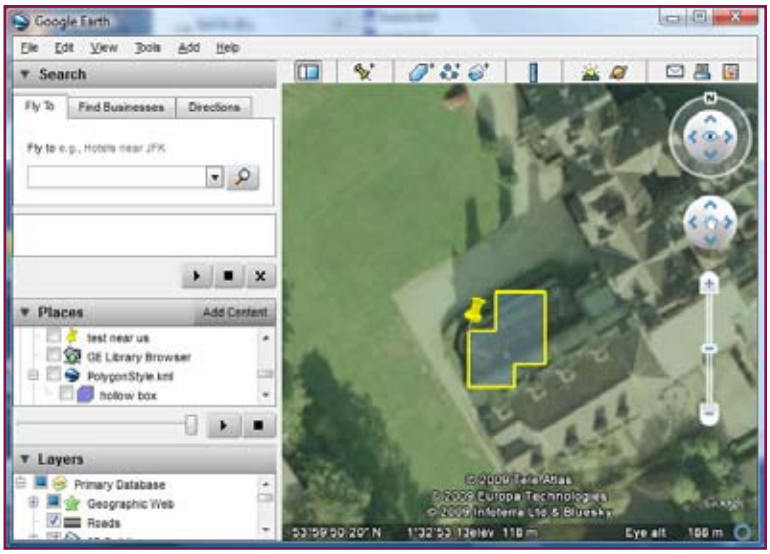
...you are finished.

Method Menu: Walk Mode

Walk Mode: Example – This returns to the map where the two anchor points were defined.



Walk Mode: Example – Clicking OK renders the walk construction onto the map anchored onto the first clicked point and orientated towards the second point.



Walk Mode: Example – If you save this file, transfer it to a PC then double click on the PC copy, this will launch Google Earth ™ (if set as standard to open KML files)where you can inspect your drawing in this application.

Walk Mode: Please note, ALL of your saved KML files may be displayed simultaneously inside Google Earth™.

Walk Mode: You need to defined a **Datum** in the **Utility Menu** to place your Walk outline onto your survey.

Using a Cable Detection device with GIS360

Saving a Map Cache

Frequently before starting to use the field data collection system you need to know how to save maps incase you don't have mobile phone coverage on your site. It is best to do this on the office version of GIS360 and copy the cache to your field system.

1. Start GIS360 on your PC.

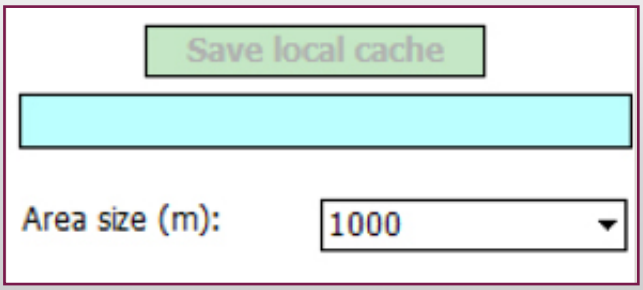
When GIS360 starts it will always put your Home position in the centre of the screen with a home marker.

2. Move the Home marker to the centre of the area that you want to save.

The home marker can easily be moved by making sure that the area that you want to move it to is on the screen. Go to the utilities Menu and select "Home Position" . You will be prompted to tap the screen at the exact position you want to move the home position to. The Cache is always saved around the home position so that's why we had to move it first.

3. Save your Cache

To save your cache you go to the "Utilities Menu" and then "Map Cache" .



The Area size is the size of the Cache to save. This is measured in meters across. Select the required size. Remember that it will save all the maps and aerial photos at all resolutions so don't make the size to big. Then press "Save Local Cache", enter the name, and then wait till its completed. At completion you will be prompted "Do you want to use Tiles now?" answer yes and zoom in to take a look.

4. Copy the Tiles file to the GNSS.

Always put Tile files into the MyDocuments subdirectory of the GNSS unit.

Pairing your Cable Detector with your GNSS

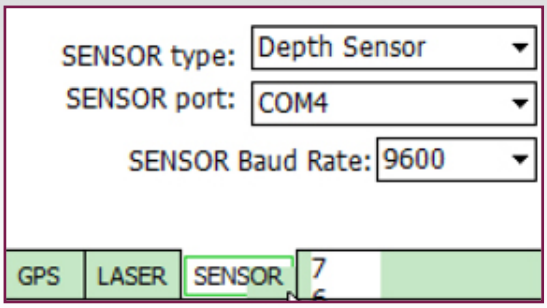
Before you start GIS360 you must make sure that your Cable Detector is paired with the GNSS. To do this you must use the Bluetooth software on the GNSS unit and then make the connection with the Cable Detector.

Using a Cable Detection device with GIS360

Once paired then you should not have to do this again. The key outcome of the pairing is that the Bluetooth driver has given the Cable Detector a COM port number. You must know that number to setup GIS360. Different Cable Detectors might be given different COM ports so please be careful.

Setting Up your Cable Detector in GIS360

When GIS360 is running you must setup the Cable Detector by going to the "Utilities Menu" and then "ports". Then pressing the sensors Tab on the Connections dialog will bring up the Sensors selection.



Set the SENSOR type to Depth Sensor (Cable Detection Unit) and then the Correct COM port from the pairing. Then set the Sensor Baud Rate to 9600 (The default setting for the cable detection unit) These Settings will be saved to disk and will not need to be re-entered again as long as you are using the same Cable Detector or the same COM port.

Using GIS360 with a Cable Detector

1. Start GIS360 Mobile

You will then be prompted with a splash screen, followed by a couple of quick questions. The first is "Load Mapping From", either you can select Internet if your GNSS has an Internet connection or you can select one of the Map Caches that you downloaded earlier. Select the Map Cache and press OK.

Then you will be asked if you want to load an existing dataset. Just press OK to start a new set.

You will now see your map on the screen.

Using a Cable Detection device with GIS360

2. Zooming and Panning

Pan - Is always on. Just touch the screen and drag with the pen.

Zoom In and Out - Is done with the scroll bar on the right of the screen. Press the + button to Zoom In and the – button to Zoom Out.

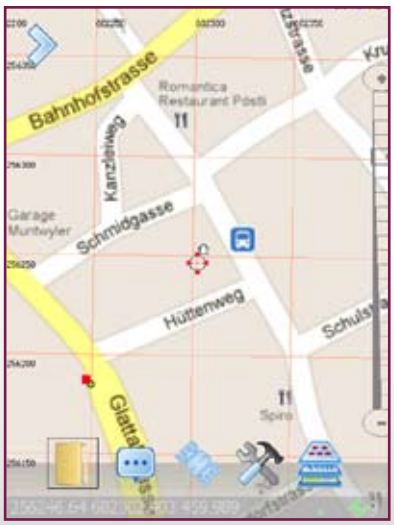
Map or Aerial Photo - You can change from viewing a Map to Viewing the Aerial Photography by pressing the “Map Menu”.

3. Using GNSS

At the Lower Left of the screen are two GNSS buttons. The GNSS On/Off button will turn the GNSS on and off.

If the Icon has a red line through it then the GNSS is OFF. Clicking the button will turn the GNSS on.

When this happens the GNSS cursor will appear on the screen.



This cursor will move with the GNSS and if you move off of the screen, it will always centre again the map to your position. The GNSS Accept button will mark a GNSS reading on the map. This is used if you want to draw things on the map. If you are using a Cable Detector however then this will not be needed since pressing the Log button on the detector automatically does the same function.

4. Logging Detector Data

Logging data from the Detector is very easy. When you turn the detector on by grabbing the switch on the handle the GIS360 system will start to beep. This means that data is coming in from the detector and that the Bluetooth connection is functioning correctly. Sometimes you might have to wait for 5 or 10 seconds for the beeping to start. If it does not beep them please check the Bluetooth settings, especially the paired COM port setting.

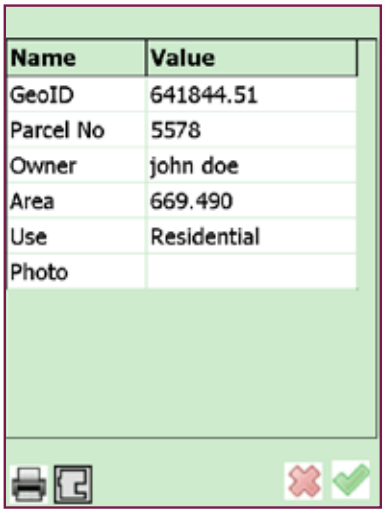
If GIS360 is beeping and you have a GNSS cursor on the screen then press the LOG button on the detector.

Using a Cable Detection device with GIS360

GIS360 will then save a Cable Detector record and a yellow "Pin" will appear on your map.

5. Seeing and editing your data.

Once Cable Detection readings have been placed on the map in the form of Yellow "Pins" you can see and edit the attributes by clicking in the "Edit Menu", selecting the pen and taping on the pin on the screen.



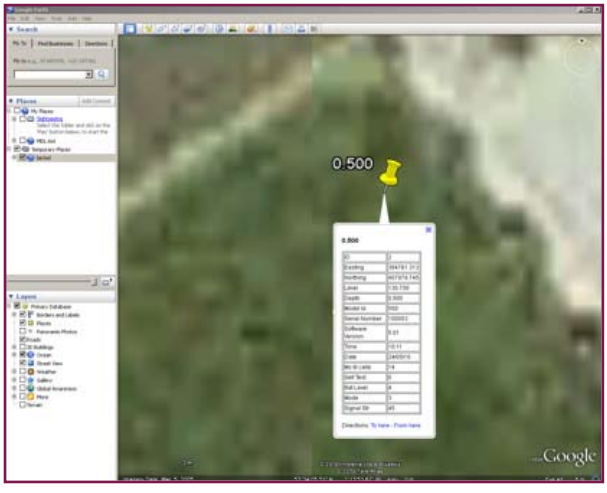
Name	Value
GeoID	641844.51
Parcel No	5578
Owner	john doe
Area	669.490
Use	Residential
Photo	

You can then edit and view the data. Press the green button to confirm and go back to the map.

6. Saving your data and Viewing in Google Earth.

The save your data go to the "File Menu" and choose save.

When prompted enter the file name, we recommend that you always save into the My-Documents subdirectory. This will save in the KML format. Copy your saved KML file across to your desktop system and then double click on the file in explorer.



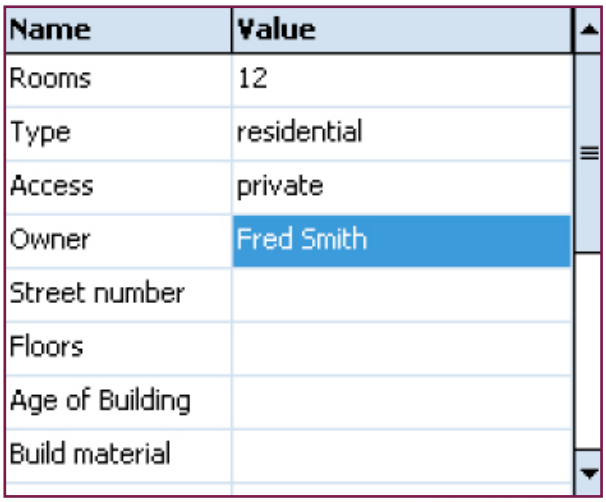
Using DataDesigner

Intro to DataDesigner

What does DataDesigner do and why do we need it?

Most GIS applications need date entry forms to collect data from the use about items being collected. GIS360 uses the DataDesigner to make custom forms for these applications.

For example a property surveyor might want a data form like this:



Name	Value
Rooms	12
Type	residential
Access	private
Owner	Fred Smith
Street number	
Floors	
Age of Building	
Build material	

This screen allow data entry. The Form contains data fields like Rooms, Type, Owner etc. These fields also have different types, Rooms is the number of rooms and is a number, Owner is a Text String, and Type is a Picklist of choices. There are many different types and these will be discussed later in this document.

Each of these forms relates to a database. For most GIS applications these databases also have a type. The Database Type only has three options: either it's a database for a point database, a line database, or a polygon database. For Example a tree might be a point, a fence is a line, and a parcel of land is a polygon.

Note

The DataDesigner is designed to operate on your PC, it does not operate on a PDA or mobile device.

However the forms and databases designed with XMLFD are meant to be used on the Mobile devices with the GIS360 Mobile software.

About XML and XSD files

XML files are text files that contain data. XSD files are a subset of XML files. XML files can contain both the definition of the Databases as well as the data itself, whereas an XSD file contains only the Database Definitions. The GIS360 Software and 3DSurveyor use XSD files to store the Database definition.

How to Start and Install DataDesigner

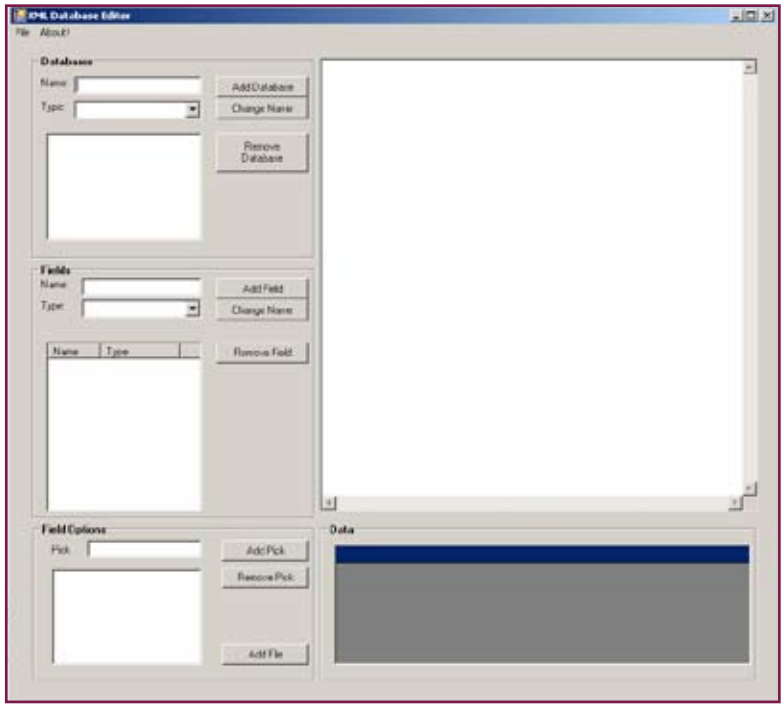
DataDesigner will install automatically with the Professional version of the GIS360 Software. It is not available on the standard version.

To Start DataDesigner:

1. Select the Start Icon on the lower left of your screen
2. Select All Programs
3. Select GIS360 then DataDesigner

The DataDesigner Screen

The main XMLFD screen has 6 main sections.



Main Menu – Contains all Menu functions. This is mostly used for loading and saving files.

XML View – The largest windows on XMLFD shows the current state of the XML File. This is for viewing only and is generally only used by advanced users.

Data View – Some XML Files already have data which data will appear in this window. This is generally only used by advanced users.

Databases Window – Is where Databases are added and removed from the XML file.

Fields Window - Is where Fields are added and removed from Databases

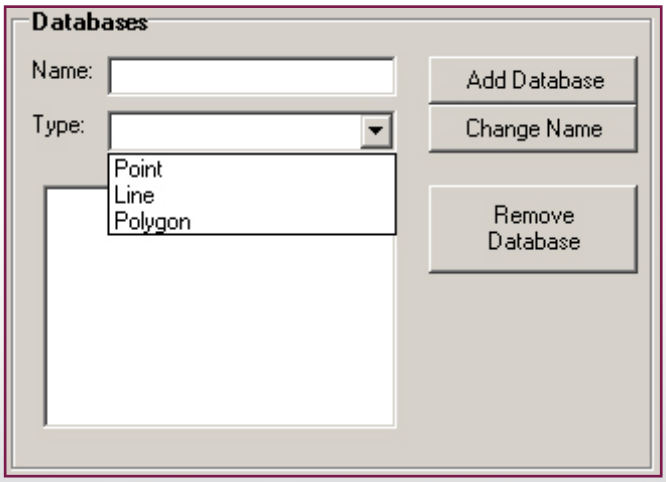
Field Options Window – Is where Picklist options are added and removed from a Picklist type field.

Note

The databases window, fields window, and field options window are the most important part of XMLFD since these windows are where the Database Fields and Picklists are configured.

Adding and Editing Databases

The Databases Window contains everything you need for adding new Databases.



To Add a Database:

1. type the name into the Name textbox

2. Select the Type of database. A point database is for objects that are located by a single point. A Line Database is for Objects described by one or a series of lines, and a polygon database is for objects that are polygons.

3. Once steps 1 and 2 have been completed then press the " Add Database " button.

The name of the database will then appear on the list of databases.

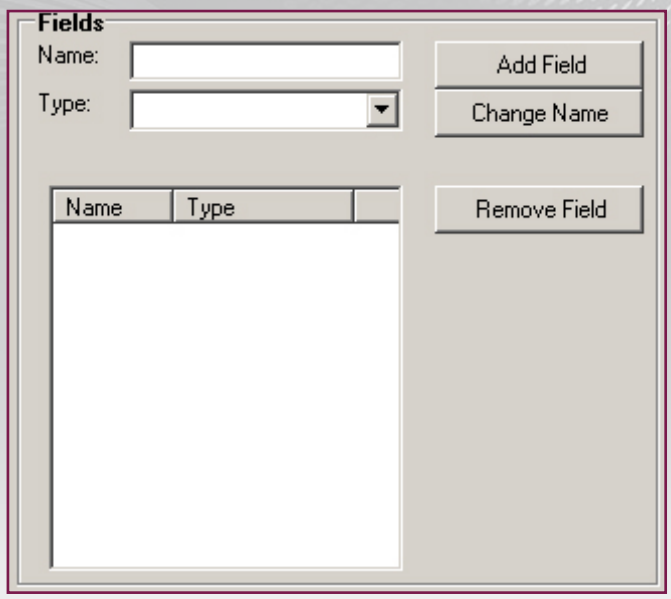
To Remove a Database:

1. Select the Database by clicking on database name in the list of databases.

2. Press " remove database"

Adding and Editing Fields

Fields are added and removed with the functions in the Fields Window



Databases contain one or more Fields and each field has to have a type.

The Field Types are:

Boolean – Yes No Fields

Date/Time – Allows the entry of Date and Time

Decimal – Decimal Numbers. (Ones with a decimal point)

ListBox – This is a field that has a picklist of possible answers. The Answers are chosen in the Picklist Window.

TextBox – Items that need a keyboard for data entry.

Int32 – Interger Number. (Whole numbers with no decimal point)

Numeric Up/Down - This is also for Integer numbers but gives also an Up Down button to increment the number.

Adding a Field to a Database:

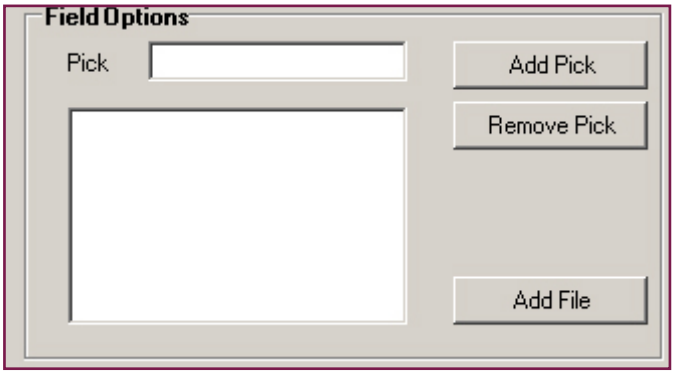
1. Select the Database to add the field to by Clicking on the Database Name in the Databases List from the Databases Window.
2. Enter the Field Name in the Field Name box
3. Select the Field Type from the Field Type Picklist.
4. Press Add Field to add the Field to the Field List.

Removing a Field from a Database:

1. Select the Database containing the field.
2. Select the Field to be Removed.
3. Press the Remove Field button.

Editing Picklists

If the Field Type of a Field is a ListBox then the Field Options Window is where the Picklist items can be entered.



To Add an Item to a Picklist

1. Select the Field to have the picklist item added to by clicking on the Field Name in the Field List. Remember the Field must be of ListBox type.
2. Enter the Picklist Item into the Pick box
3. Press "Add Pick"

To Remove a Picklist Item:

1. Select the Picklist Item to be removed.
2. Press " Remove Pick"

In some cases the Picklist might contain a lot of items so its easier to load them all at once from a file rather than enter them individually. If the file is a Text file with one Picklist item per line in the file then they can all be entered at once by pressing the " Add File " button.

Saving and Loading XML/XSD Files

Once all your Databases are set up it is time to save your data. XMLFD reads and writes both XML and XSD files. XML files can contain both the definition of the Databases as well as the data itself, whereas an XSD file contains only the Database Definitions.

GIS360 and 3DSurveyor require the XSD format.

To Save an XSD file:

1. From the Main Menu select File
2. From the File Menu select Save
3. Make sure the " Save as Type" option is set to XSD
4. Press "Save" to Save the file.

To Open an XSD file:

5. From the Main Menu select File
6. From the File Menu select Open
7. Select the File from the Open Database Dialog
8. Press "Open" to Open the file.

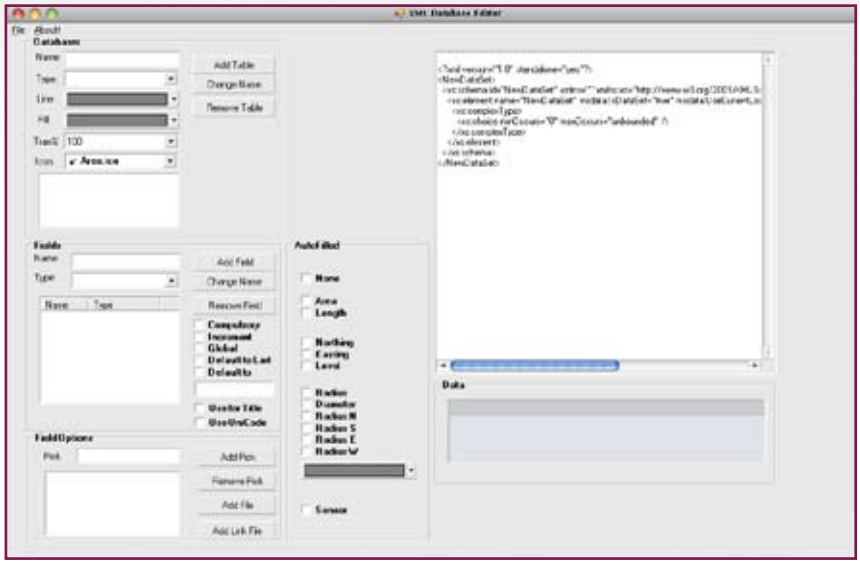
Putting XSD files into GIS360

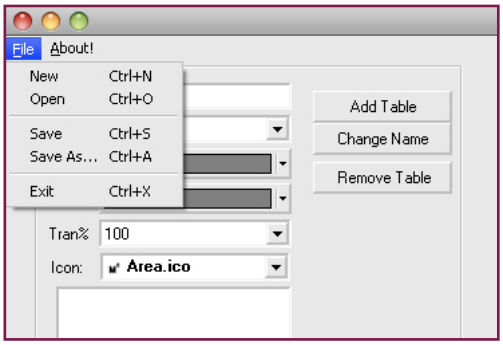
GIS360 stores its XSD files in a subdirectory called Schemas below the main GIS360 directory. Once the XSD file has been created/edited then please place it in this subdirectory. Once this is done then the changes will only take affect after the following steps are taken.

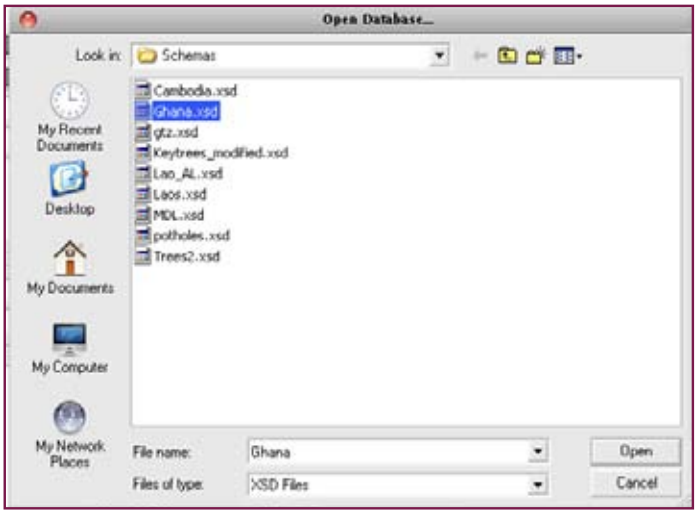
To load a new XSD file:

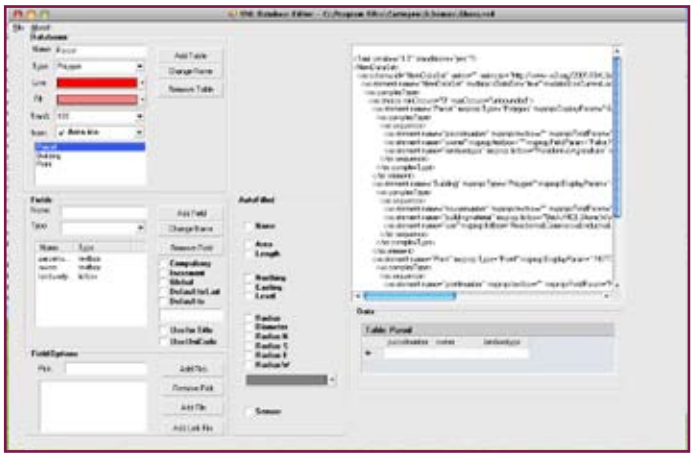
1. Start GIS360
2. Select File (The Top Button)
3. Select GIS button
4. Select the XSD file that you want.

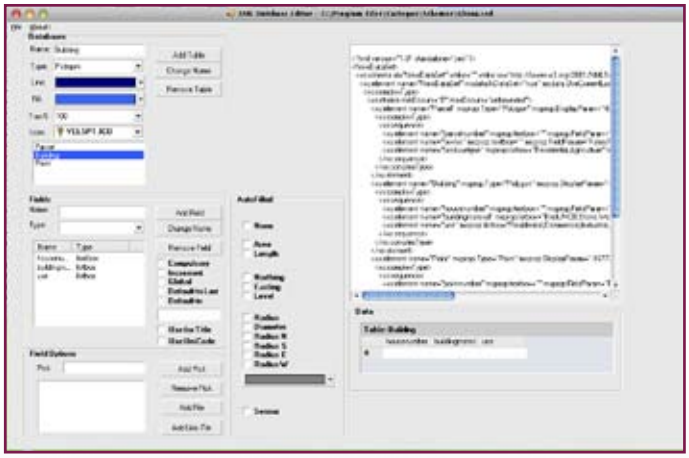
Some screen shots

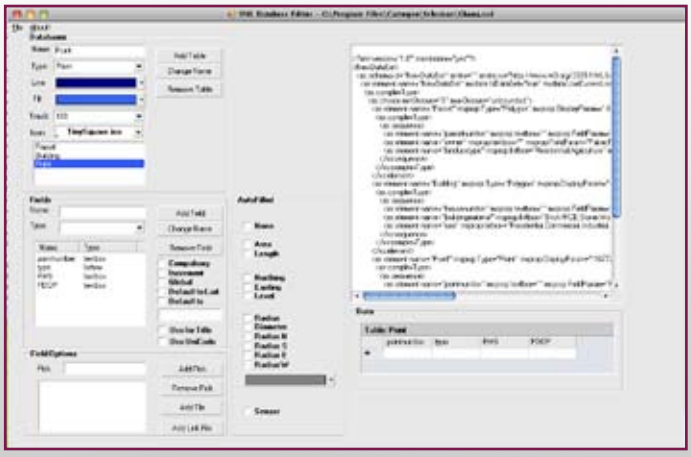


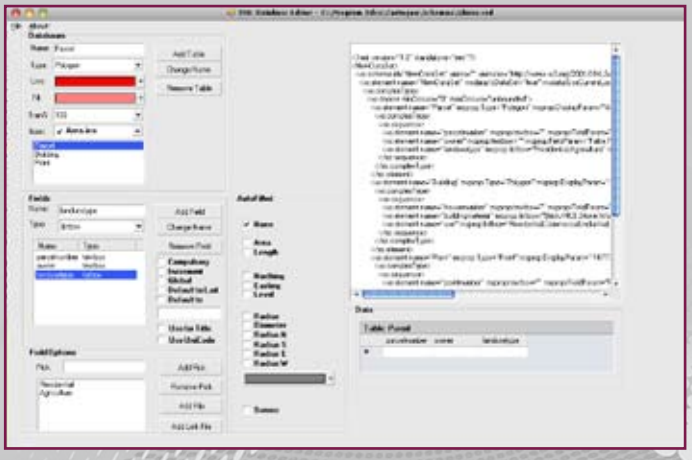












CARLSON GIS 360

Carlson
www.carlsonsw.com

CARLSON SOFTWARE
102 West Second Street
Maysville, KY 41056
800-989-5028 (US Toll Free)
606-564-5028 (p)
606-564-6422 (f)

info@carlsonsw.com
www.carlsonsw.com

Carlson
Europe ▪ Middle East ▪ Africa

International Offices
Carlson EMEA

Oberdorfstrasse 8
8153 Rümlang
Switzerland
+41 44 817 01 21

EMEA@carlsonsw.com
www.carlsonemea.com

International Offices
Carlson EMEA

Markerkant 1338
1314 AN Almere
The Netherlands
+31 36 750 1781

EMEA@carlsonsw.com
www.carlsonemea.com