

Cross-Platform GIS Solutions through SuperGIS Desktop

Ava Lai

Sr. Support Engineer

Supergeo Technologies Inc.



Supergeo[®]

SuperGIS Products



Server GIS



SuperGIS Server
SuperGIS 3D Earth Server
SuperGIS Network Server
SuperWebGIS

Cloud GIS



SuperGIS Online
- Data Services - Excel Add-in
- Address Locator - Statistical API



Developer GIS

SuperGIS Engine SuperNetObjects

- Network - Spatial
- Biodiversity - 3D
- Spatial Statistical

Desktop GIS



SuperGIS Desktop

- Spatial - Spatial Statistical
- 3D - Biodiversity
- Network - Topology
- 67-97 CTS (TW only)
- CCTS (TW only)

Mobile GIS



SuperGIS Mobile Engine
SuperPad
SuperField
SuperSurv (Android/iOS)
SuperVeyor (Hardware bundle)

Solution



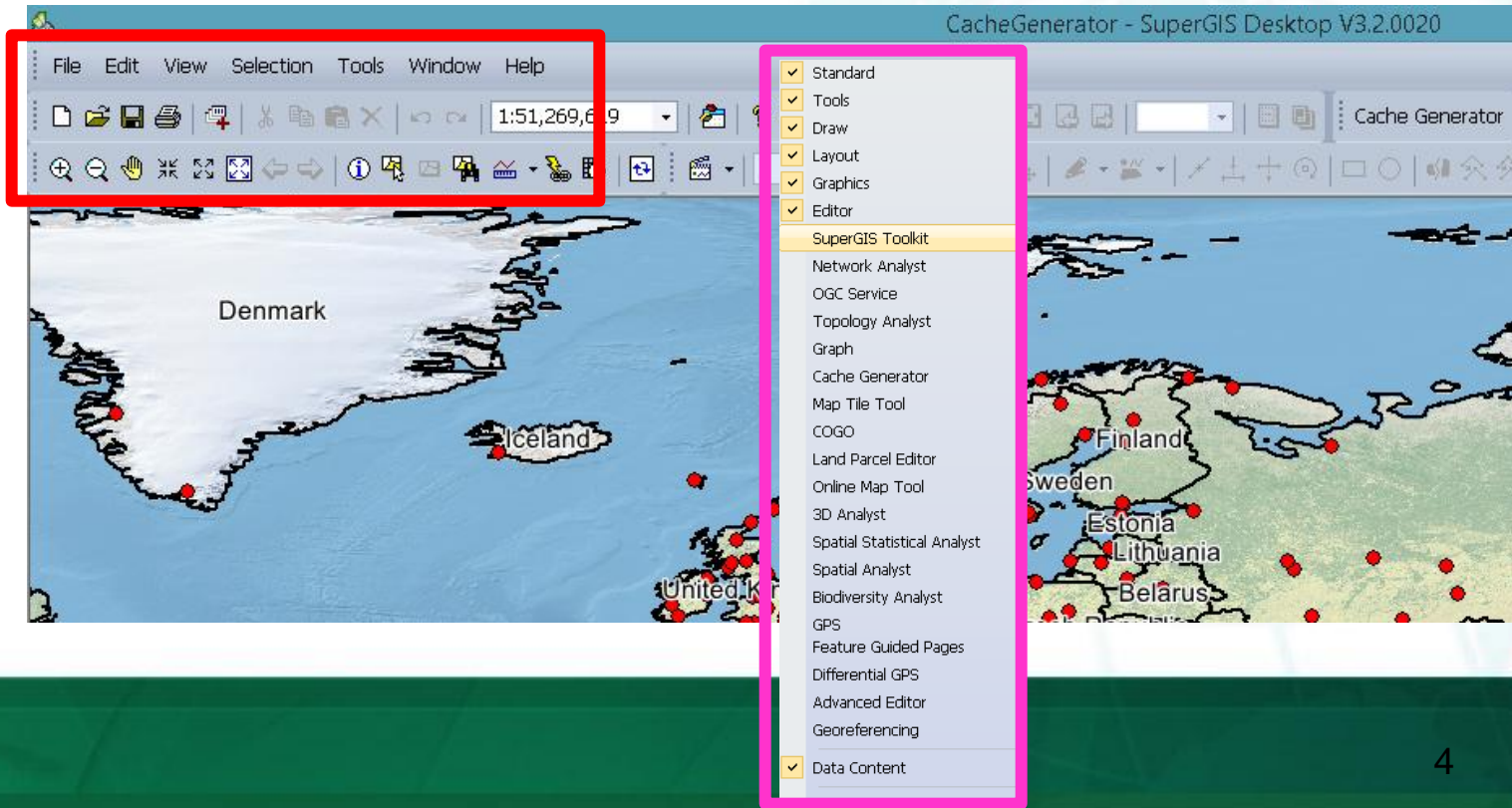
SuperGIS Mobile Tour (Android)
Mobile Cadastral GIS (TW only)

Outline

- With the following case scenarios, you'll have:
 - Integration with mobile/server solution: Cache Generator
 - Conduct Survey with paper work
 - Transfer the survey data in GNSS signal to GIS
 - Check the GIS data with PDF Reader

SuperGIS Desktop: basic

- Common use tool: zoom in/out, pan...etc.
- Right click to call out other extensions or add-ons



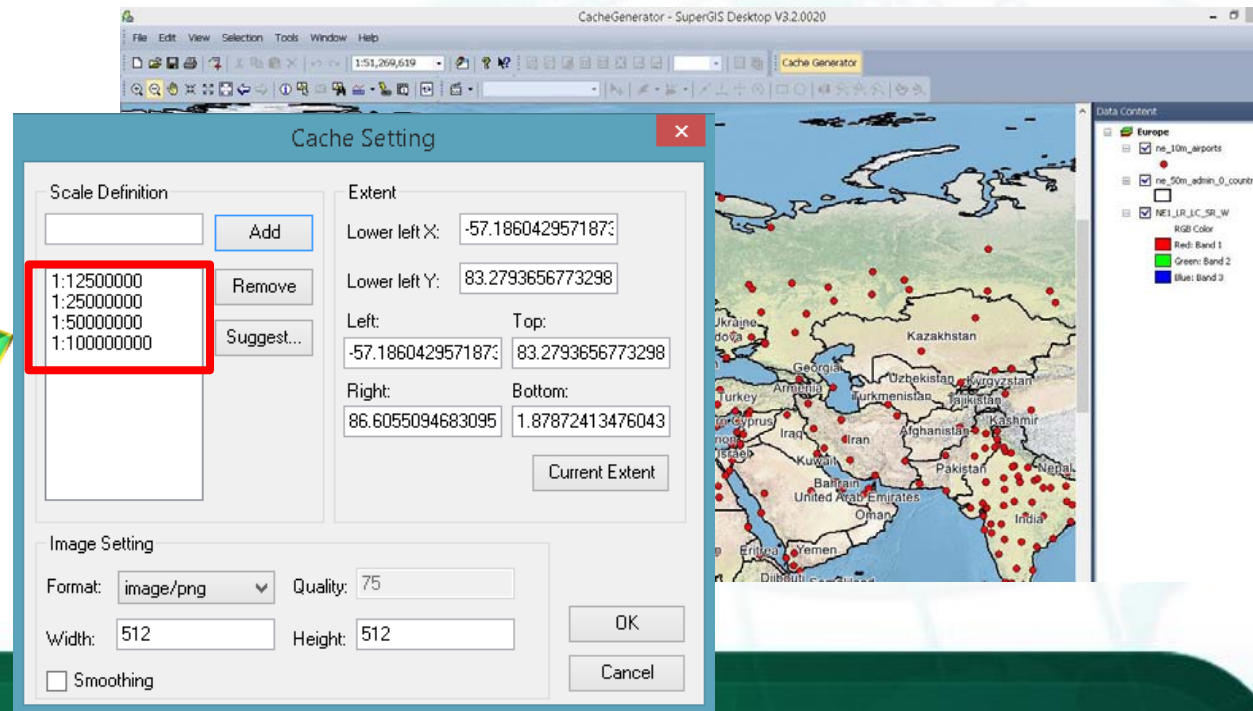
Generate Cache Map

- Why we need to have Cache Map?
 - Survey in the field by using mobile solution
 - Without internet connection
 - How to ensure the location and start to do the survey?



Generate Cache Map

- Cache Generator in SuperGIS Desktop
 - Produce **Supergis Tile Cache**: color, pattern, labeling...etc.
 - Even visible scale

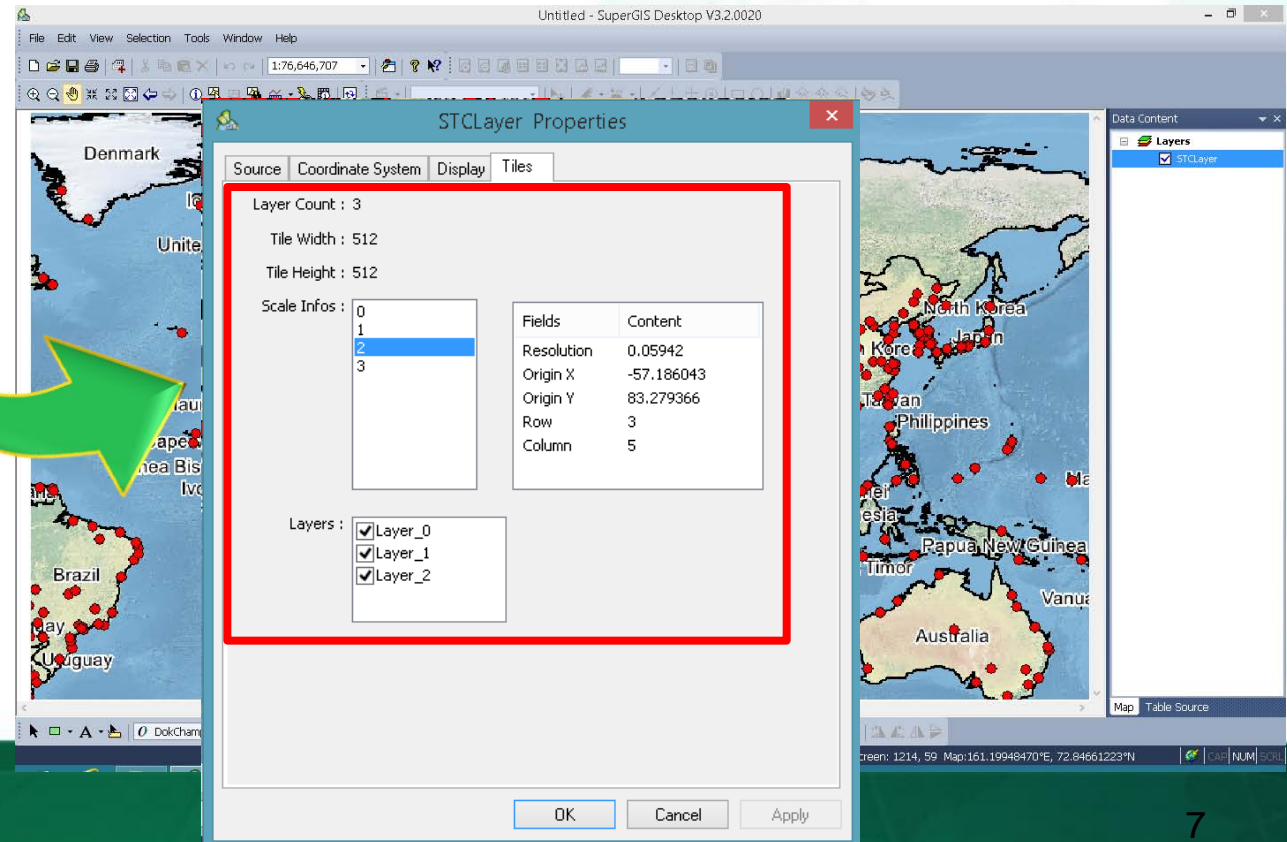
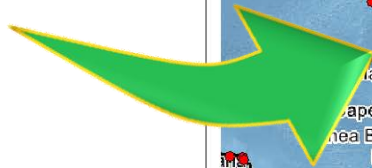


View in SuperGIS Desktop

- From the tool: Add Layer
- Properties settings to display the layers



Desktop



Untitled - SuperGIS Desktop V3.2.0020

File Edit View Selection Tools Window Help

1:76,646,707

STCLayer Properties

Source Coordinate System Display Tiles

Layer Count : 3

Tile Width : 512

Tile Height : 512

Scale Infos :

Scale	Content
0	
1	
2	
3	

Fields	Content
Resolution	0.05942
Origin X	-57.186043
Origin Y	83.279366
Row	3
Column	5

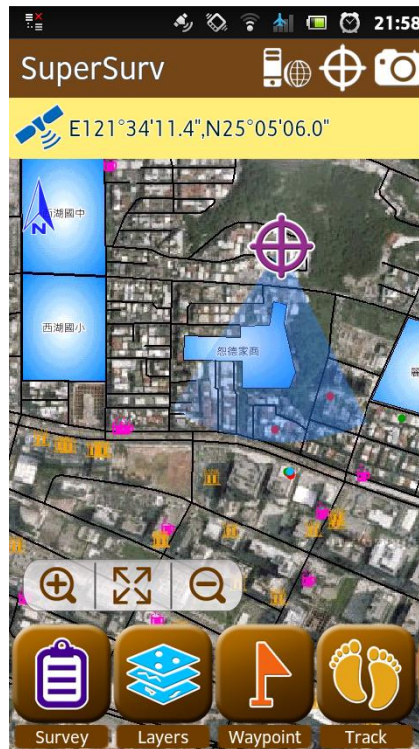
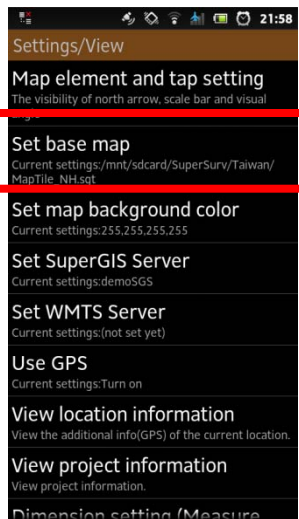
Layers :

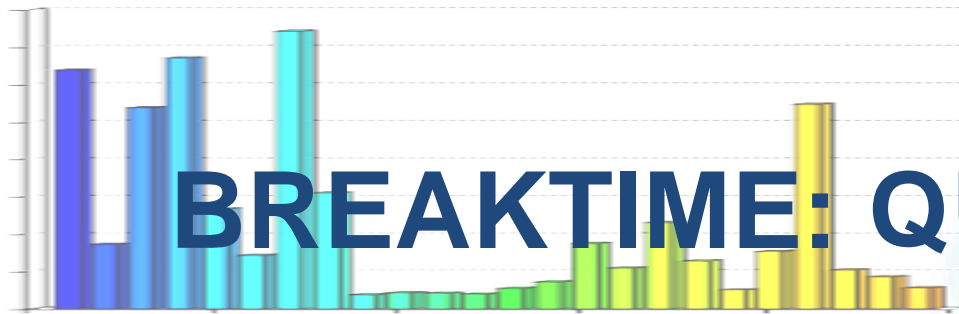
- Layer_0
- Layer_1
- Layer_2

OK Cancel Apply

How to Use in Mobile Device

- Setup for the base map in your mobile device



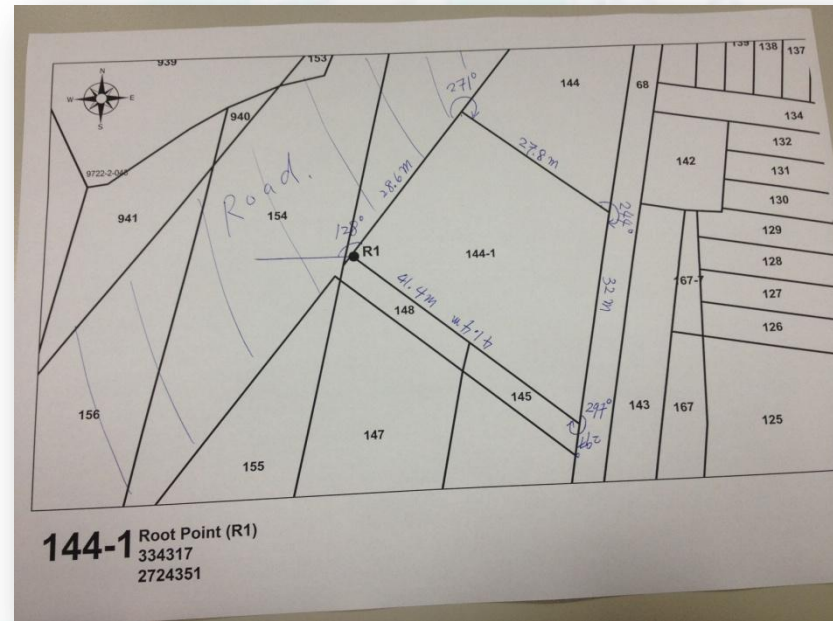


BREAKTIME: QUICK POLL – I

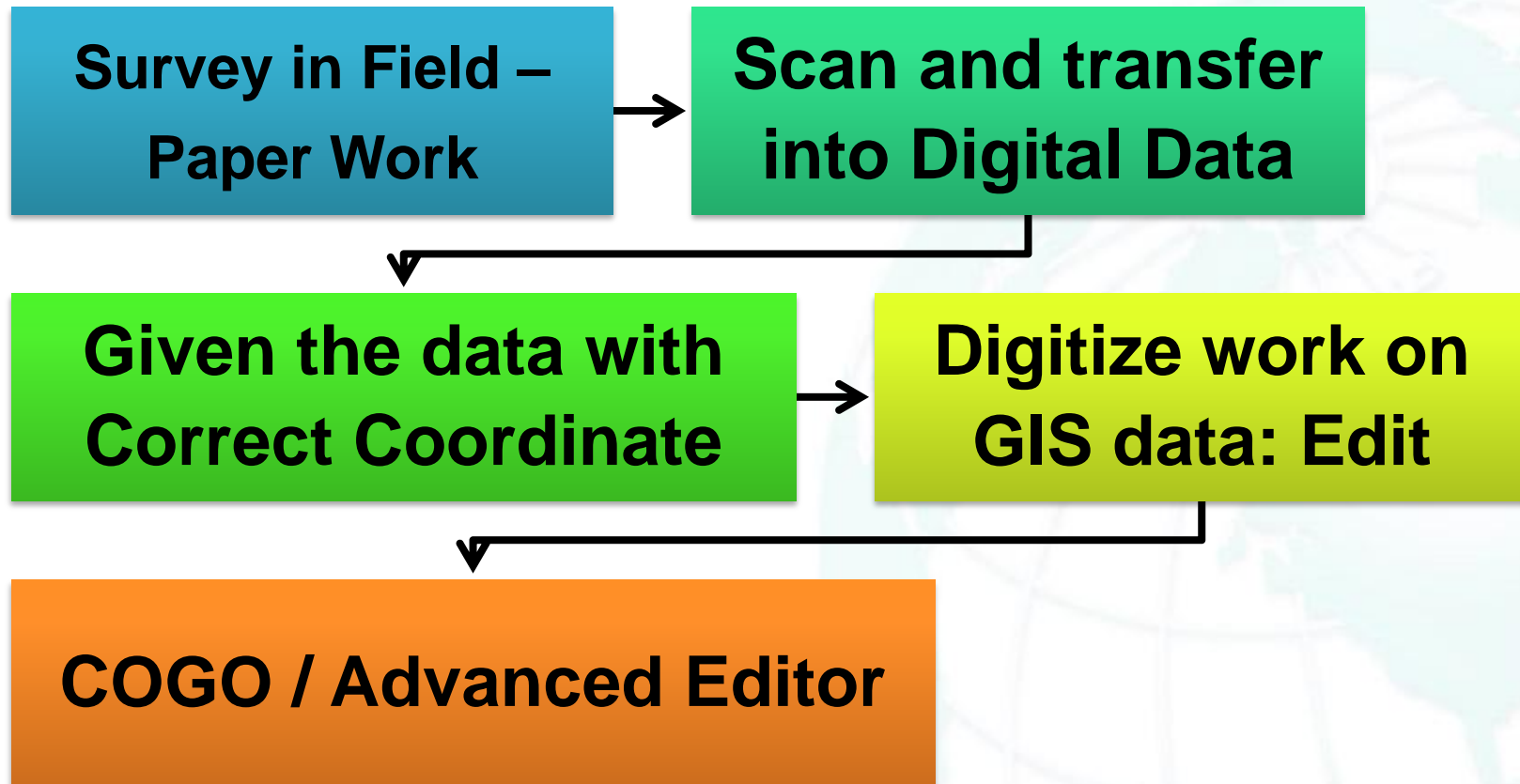
You  **Tube** Subscribe **SupergeoTV** now!
<http://www.youtube.com/user/supergeotv>

Survey in Field: Parcel

- Paper work: scan into digital data
- Data collected by GPS: GPX or KML format

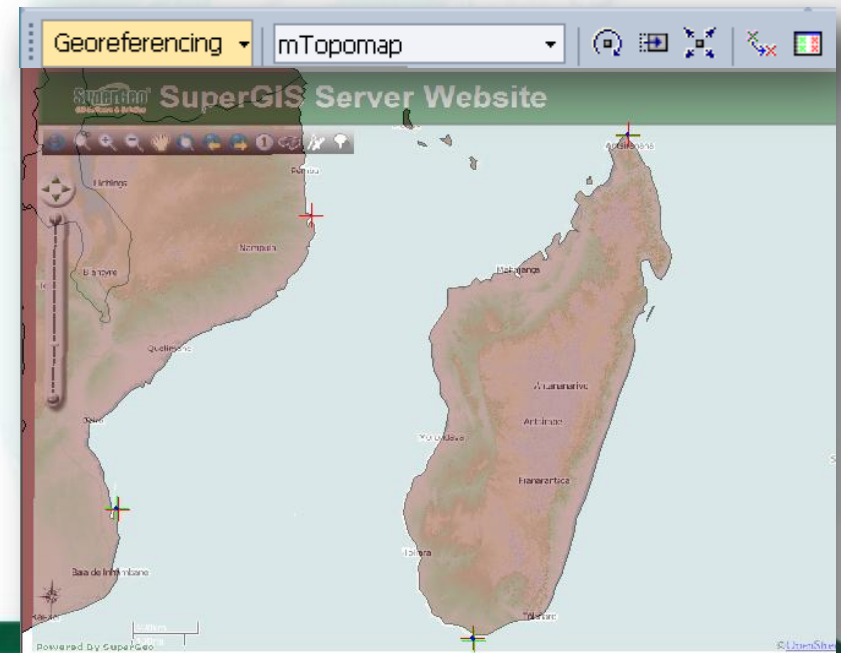
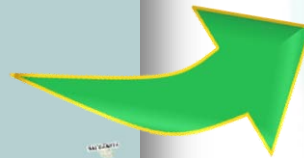
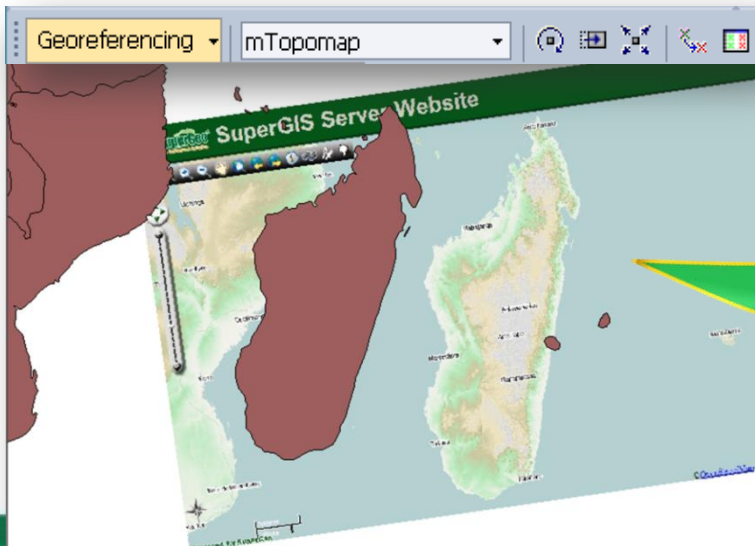


Work Flow 1 as:



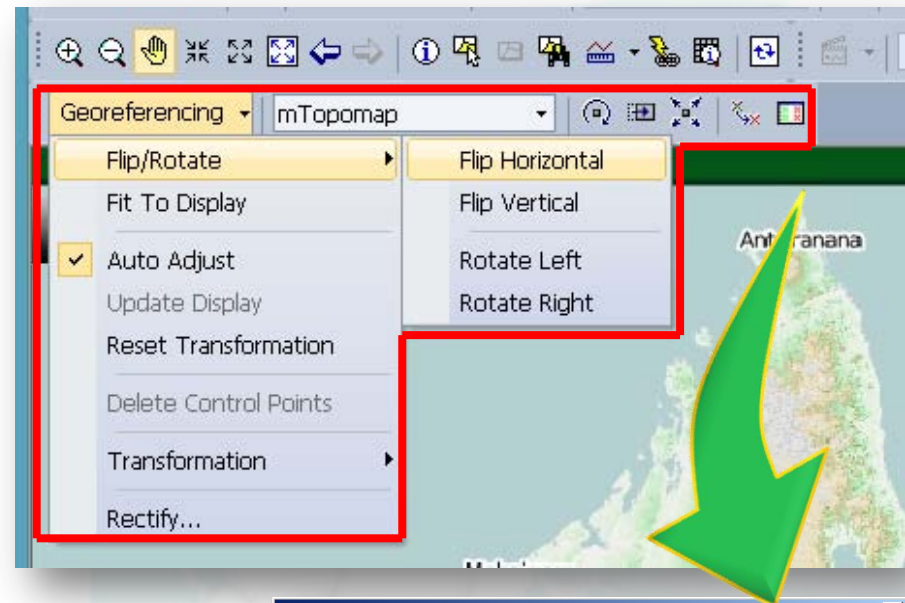
How to Give a Correct Coordinate for the Raster Data

- Gives raster data a correct position
 - Rotate
 - Shift
 - Scale...etc.



Georeferencing Tool

- Rotate / Shift / Scale
- Flip / Rotate
- Auto Adjust
- Reset Transformation
- Control Point List
- **Rectify (at least 4 pairs of control point)**



ID	X Source	Y Source	X Map	Y Map	Residual
1	53.011432	-27.118924	45.083783	-25.630164	0.060023
2	54.946820	-12.566292	49.289531	-12.045225	0.036239
3	43.084508	-24.769178	35.499888	-22.150187	0.046323
4	64.037051	-20.009697	57.320216	-20.430255	0.045274
5	46.978247	-15.916532	40.717760	-14.217288	0.027210

RMS Value: 0.044389

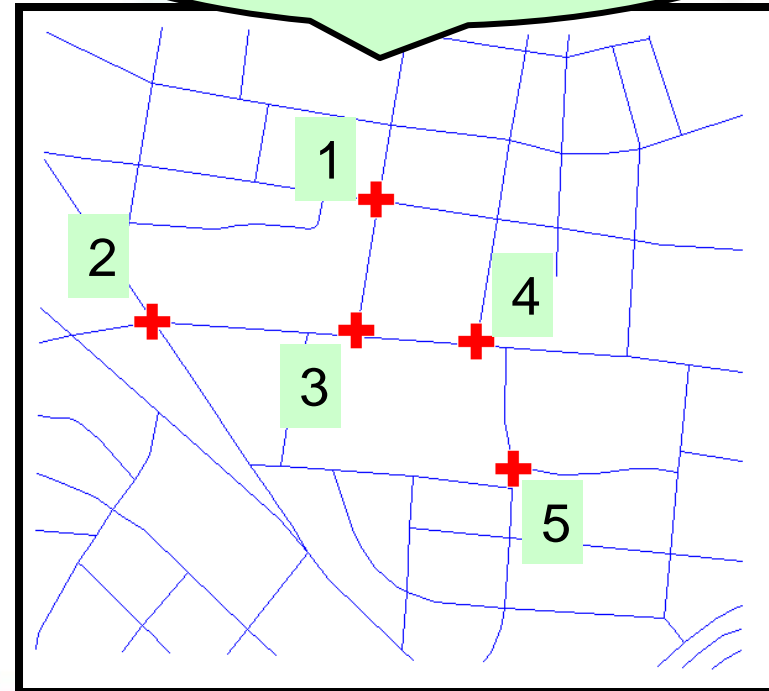
Load... Save... Close

Start to Do Georeferencing

The raster data which needs to be given the correct coordinate



The GIS data with correct coordinate, which is used to be the comparison



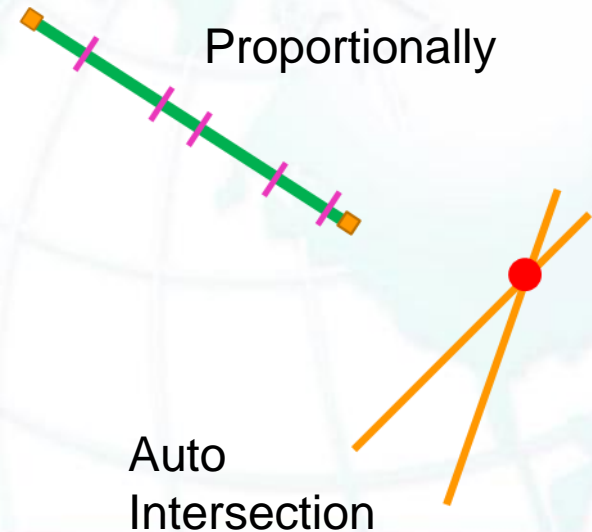
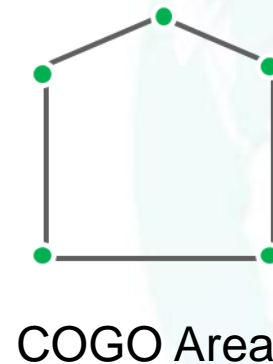
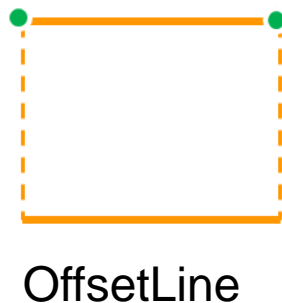
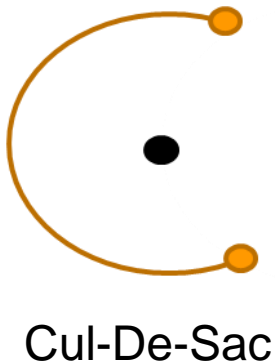
Digitize the Work: Precise Mapping

- Base on your survey work, which including every detail, ex: length, direction...etc., and you need to digitize GIS data on your computer.



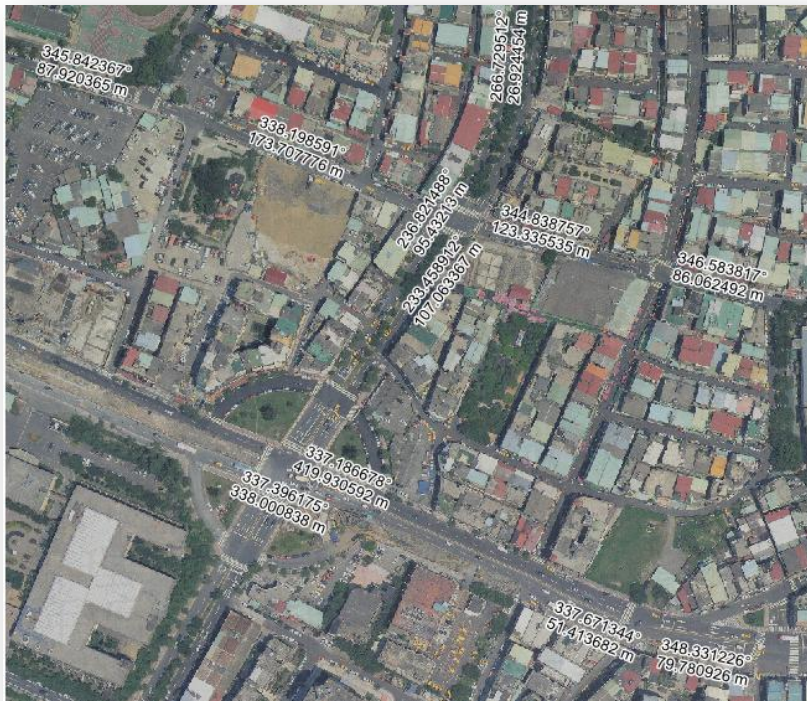
Tools for Precise Mapping

- Advanced Editor
 - More tools for smart editing, ex: Copy Tools
- COGO
 - Construct the line with direction and distance



Traverse

- Create the next vertex with direction and distance



Traverse ✖

#	Type	Direction
1	Direction-Distance	Direction : 135 , Distance : 70
2	Direction-Distance	Direction : 30 , Distance : 50
3	Direction-Distance	Direction : 80 , Distance : 20

Start X:

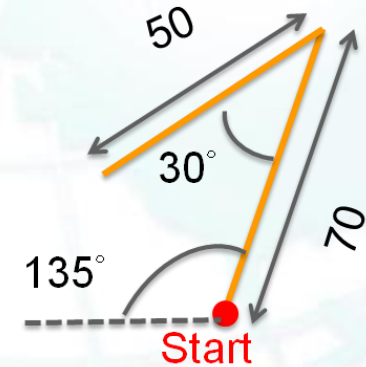
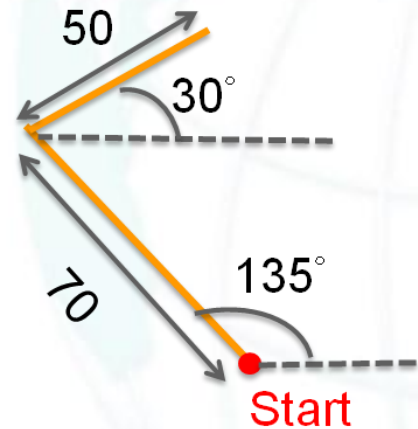
Start Y:

End X:

End Y:

+
✖
↑
↓

Direction-Distance Angle-Distance



Offset Line

- Create the parallel line by input the offset and length

Offset Line

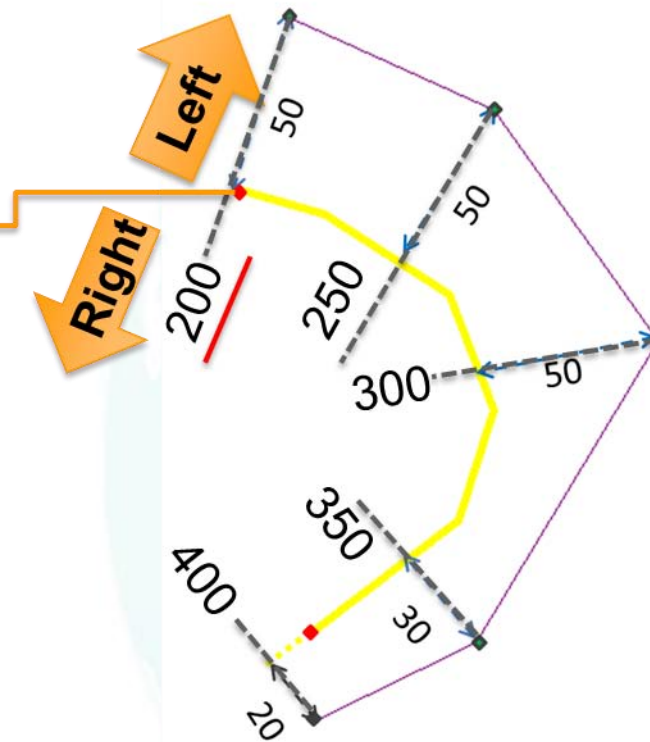
Start Point Of Select Line
 X: 365.311784 Y: 133.353419

Start Distance: 200

Reverse The Select Direction

#	Side	Distanc	Offset
1	Left	200	50
2	Left	250	50
3	Left	300	50
4	Left	350	30
5	Left	400	20

Finish

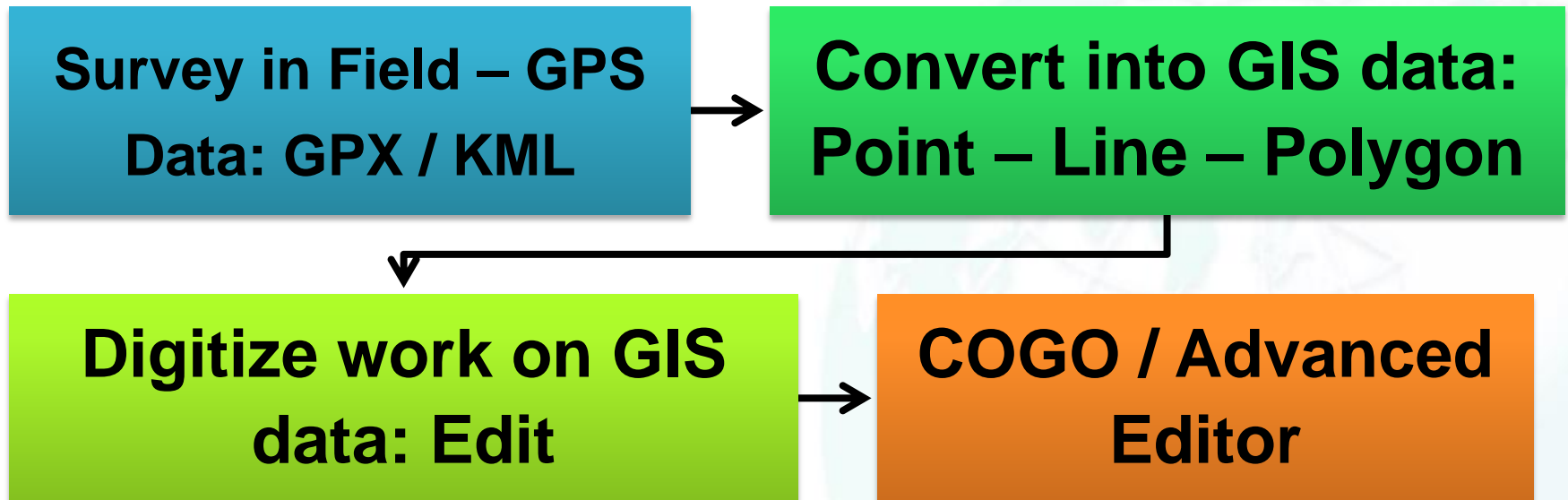




DEMO TIME FOR WORK FLOW 1

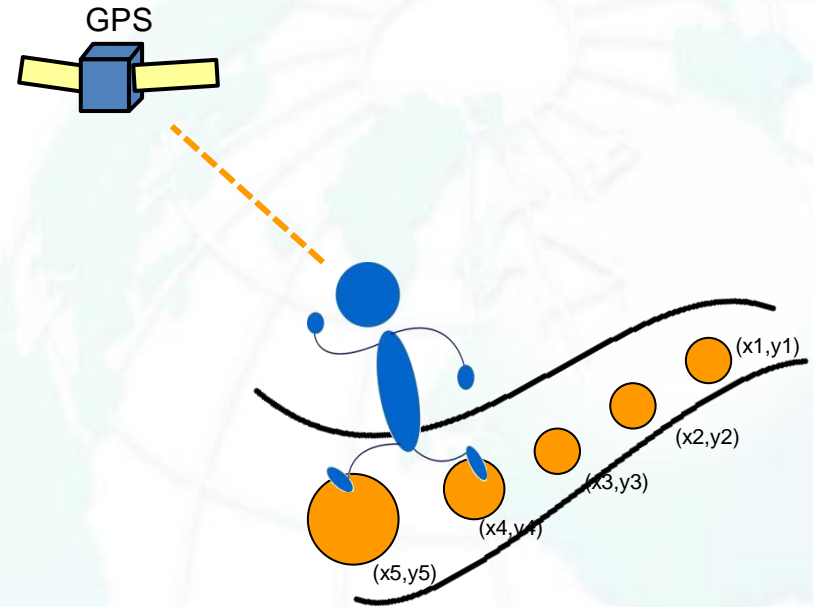
You  **Tube** Subscribe **SupergeoTV** now!
<http://www.youtube.com/user/supergeotv>

Work Flow 2 as:



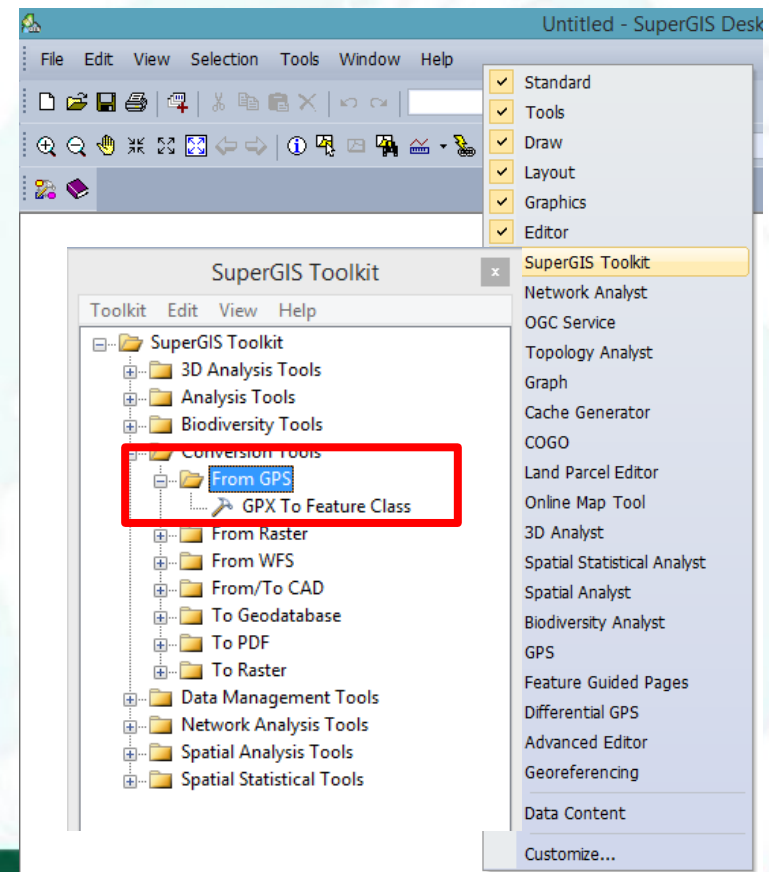
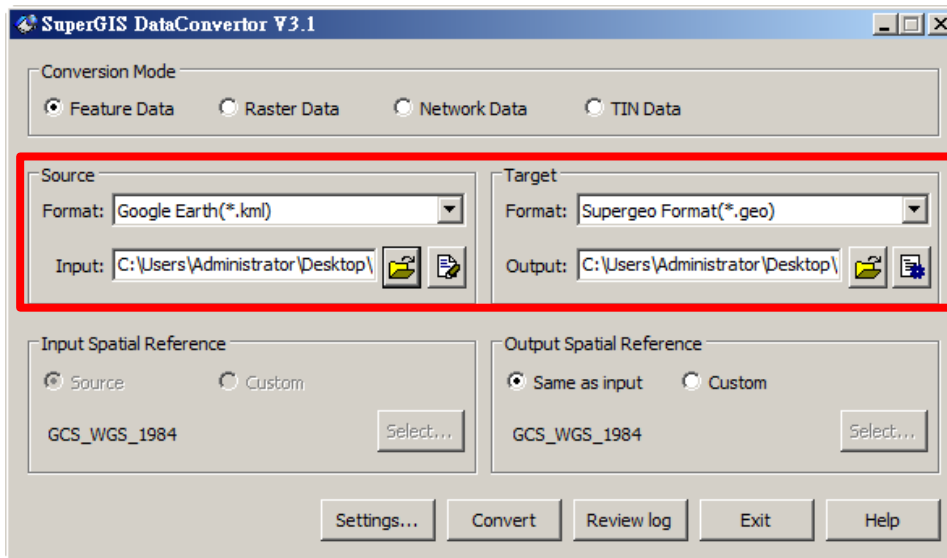
Digitize the Work: Precise Mapping

- Base on the survey work, which recorded by GNSS signals, in GPX or KML format

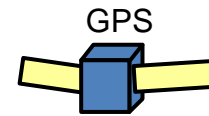


From GPS data to GIS data

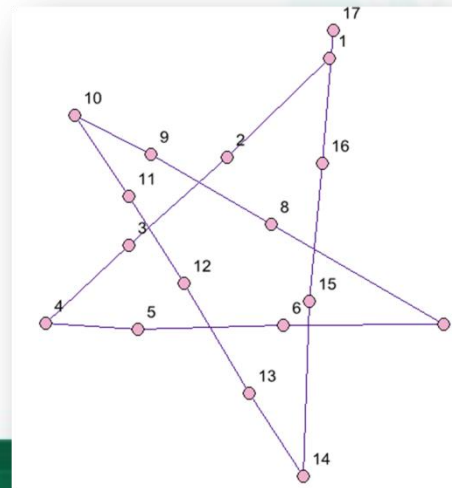
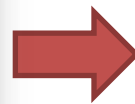
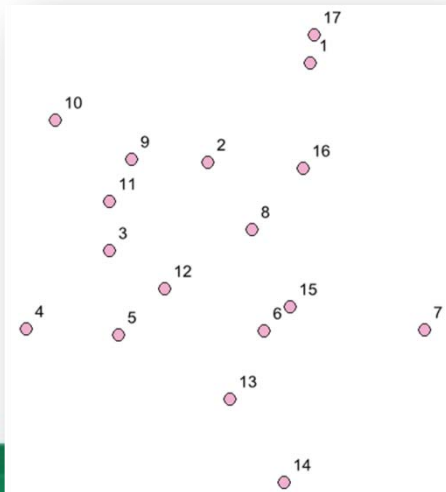
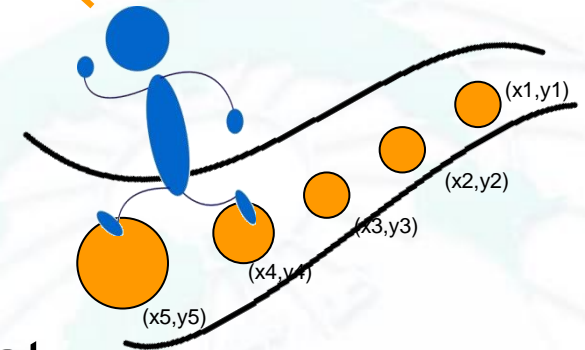
- Way 1: SuperGIS DataConverter
- Way 2: SuperGIS Toolkit



Point to Line



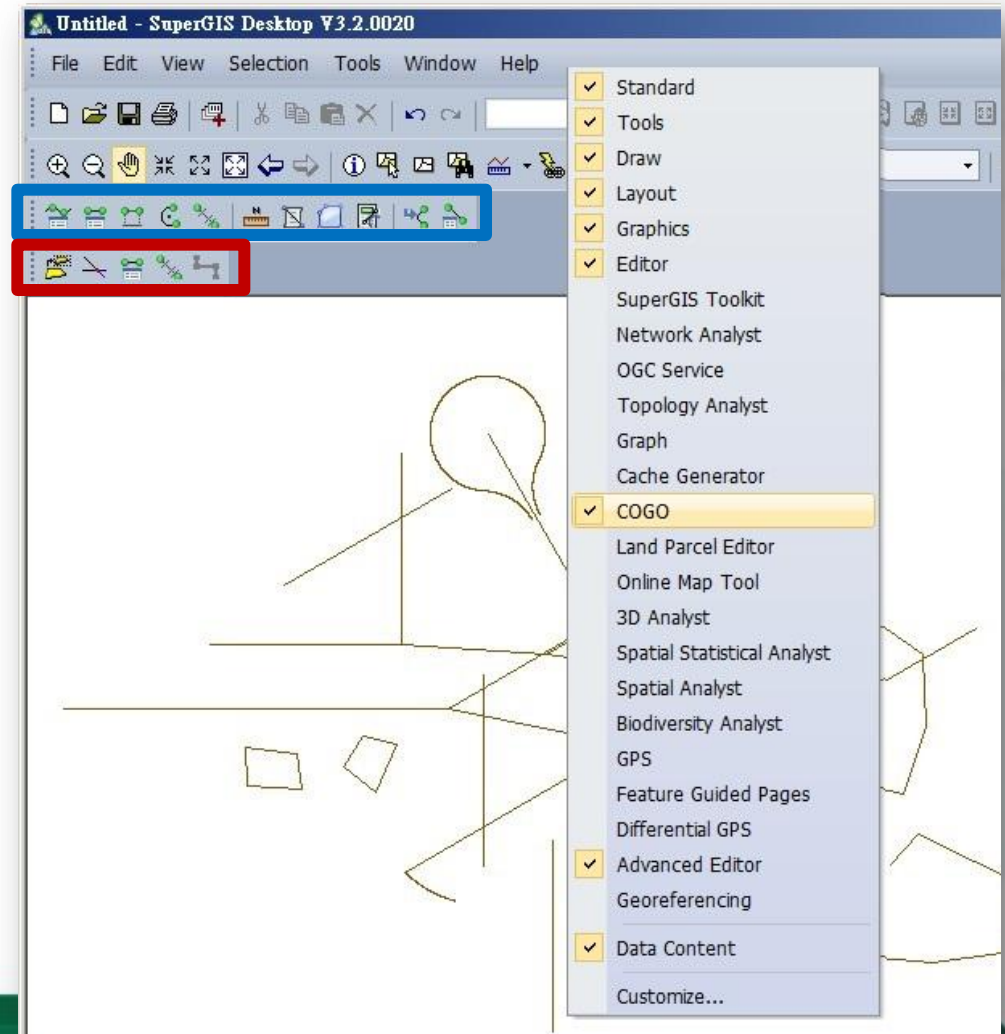
- Convert the points to line
 - The collected survey points can be converted as a line
 - Save the time to digitize
 - Increase the accuracy of the line that is generated from the points



Connecting points to a line by their FID order

The other functions...

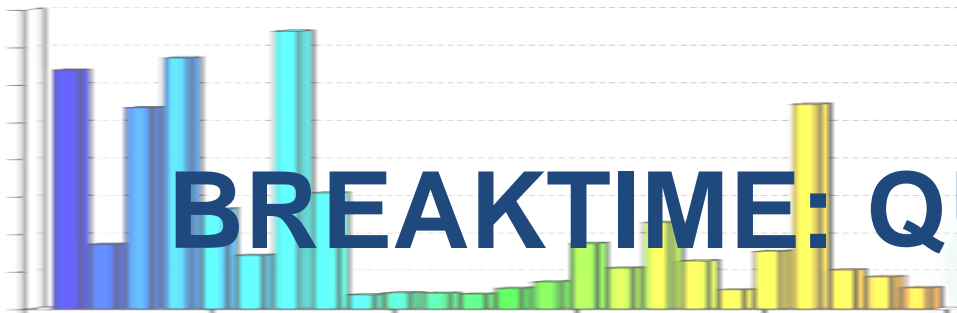
- **Advanced Editor:**
 - Copy Tool
 - 2-Point Line
 - Split Proportionally
 - Point to Line
- **COGO:**
 - COGO Area
 - COGO Report
 - Split into COGO lines
 - ...etc.





DEMO TIME FOR WORK FLOW 2

You  **Tube** Subscribe **SupergeoTV** now!
<http://www.youtube.com/user/supergeotv>



BREAKTIME: QUICK POLL – II

You  **Tube** Subscribe **SupergeoTV** now!
<http://www.youtube.com/user/supergeotv>

What's next if we don't have any GIS related software?

How to check the GIS data?

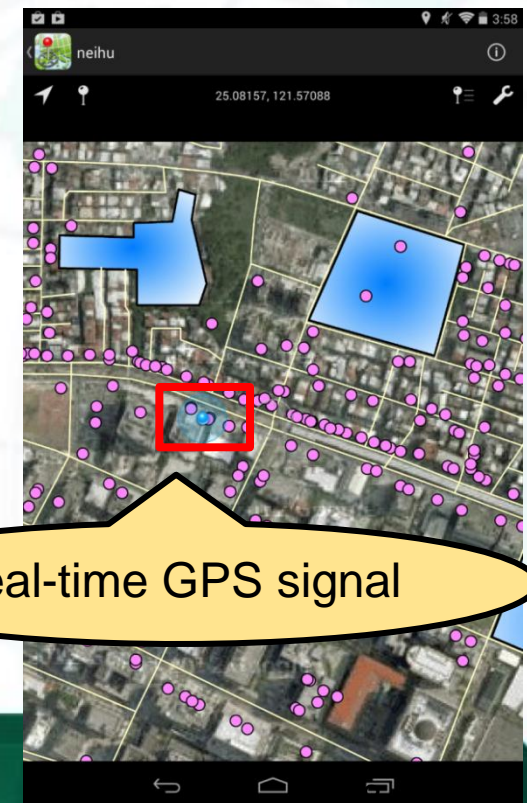
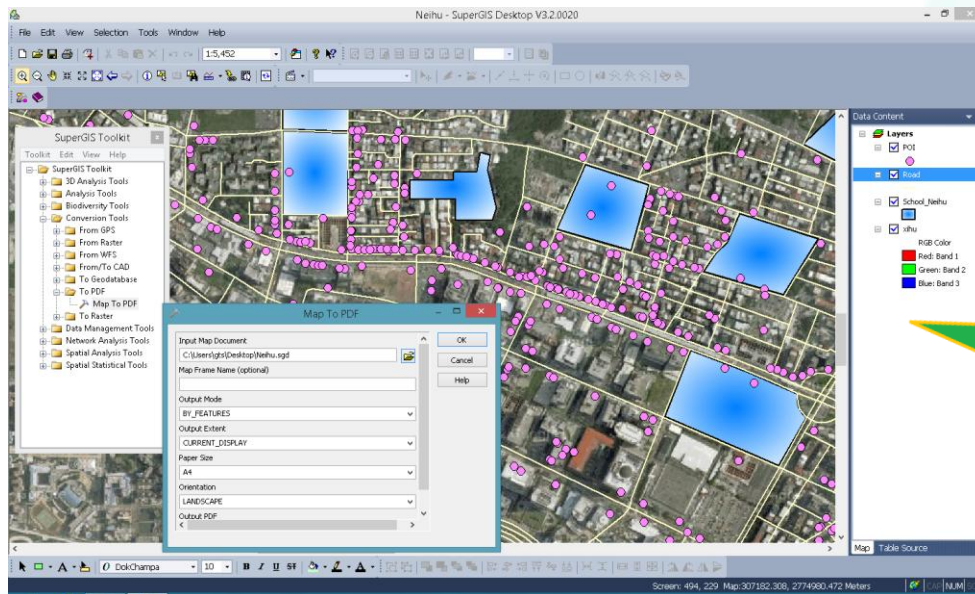
**How to view the information
of the data?**

Have you heard about "Geospatial PDF"?



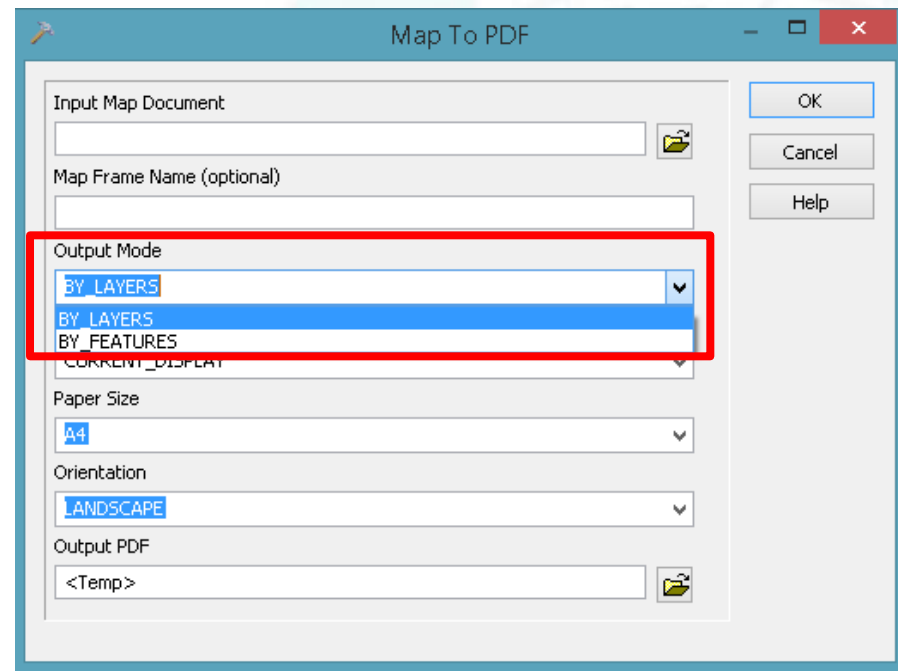
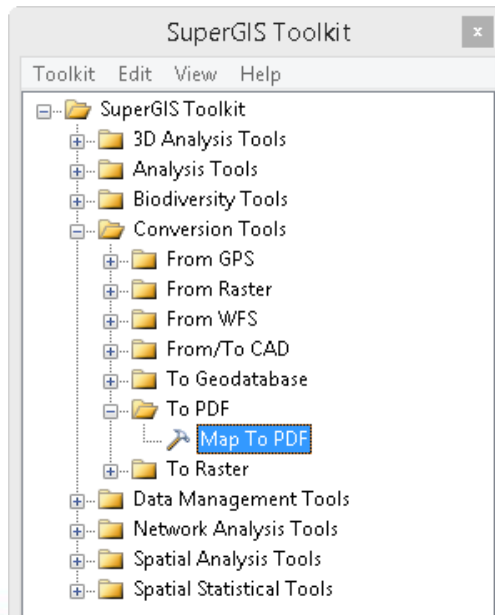
View GIS Data in PDF

- Create the maps for field tasks.
- You can use Geospatial PDF to view the GIS data, with coordinates.



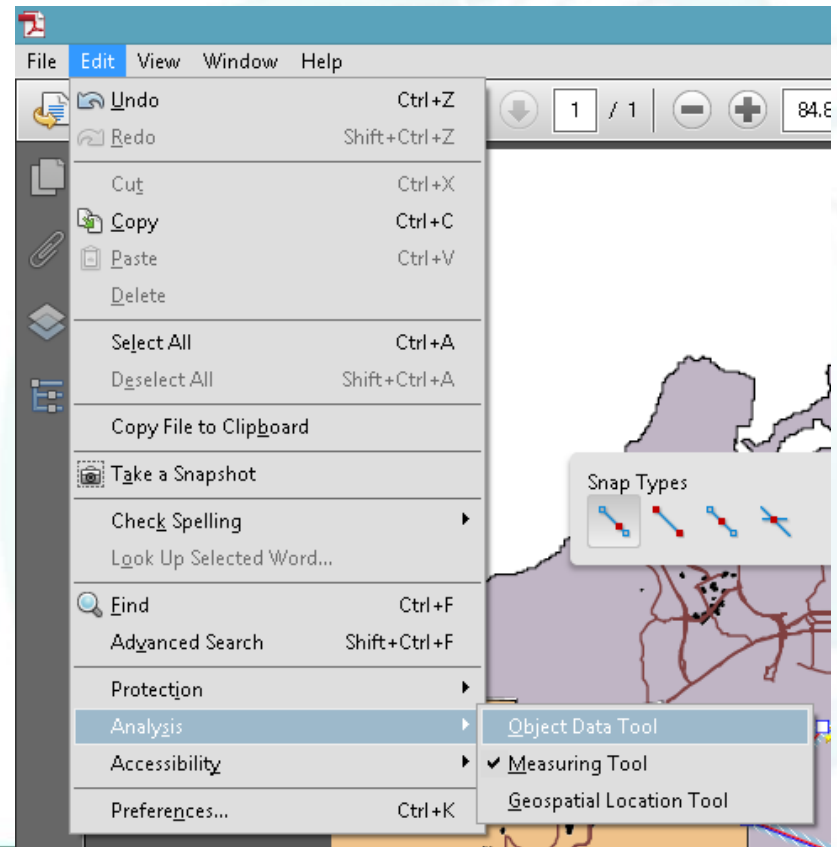
Export to Geospatial PDF

- Using SuperGIS Toolkit: Map To PDF
 - By Layers (Default)
 - By Features



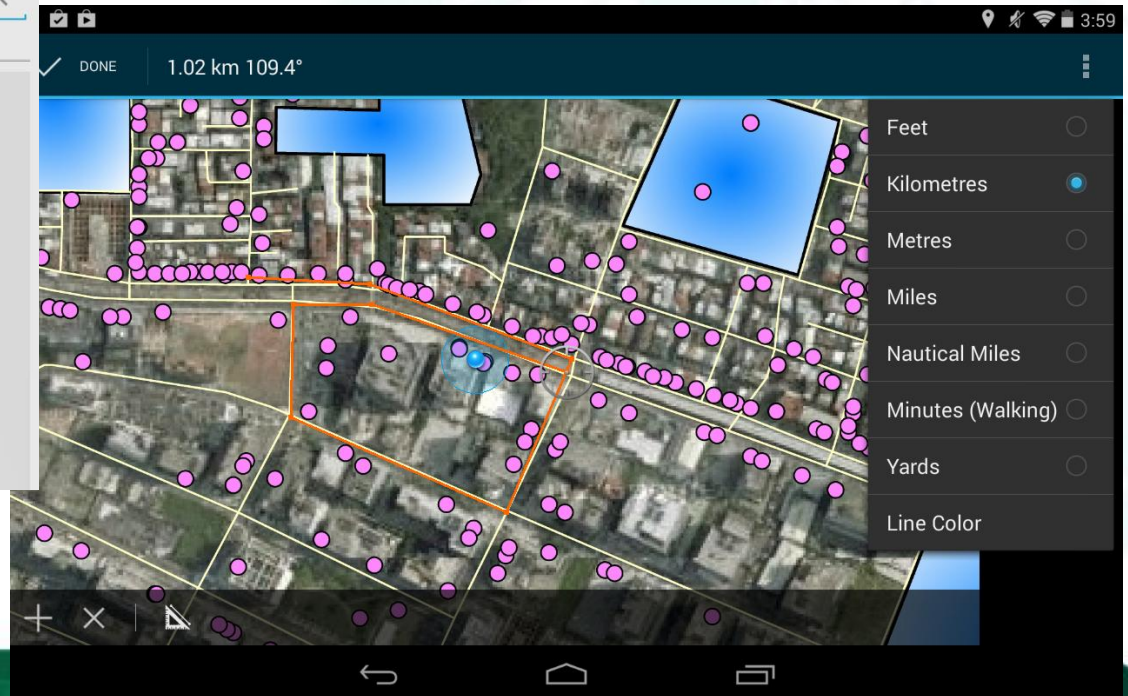
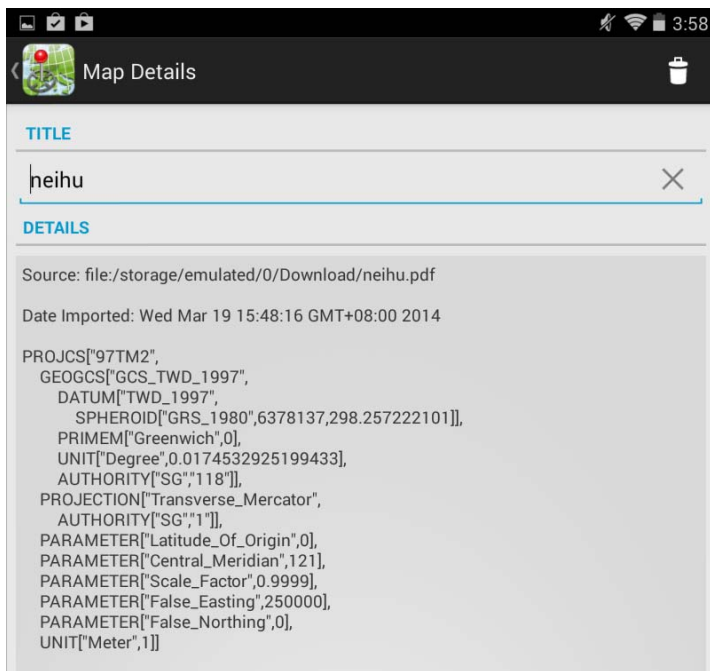
View the GIS Data in PDF

- View the Geospatial PDF by PDF reader
 - Query (Object Data Tool)
 - ✓ Attribute query
 - ✓ Spatial query
 - Measuring
 - ✓ Distance
 - ✓ Perimeter
 - ✓ Area
 - Geospatial Location



View the GIS Data in PDF

- View the Geospatial PDF by mobile device



Q&A Time



Contact us:

<http://www.supergeotek.com>

[Email: staff@supergeotek.com](mailto:staff@supergeotek.com)

You Tube Subscribe **SupergeoTV** now!
<http://www.youtube.com/user/supergeotv>

A screenshot of a YouTube channel banner for 'supergeotv'. The banner features the YouTube logo in the top left, a search bar, and 'Upload' and 'Sign in' buttons. The main content area includes the Supergeo logo (a globe with a grid), the text 'SuperGIS® Mapping Software', and a sub-headline 'Develop & Manage Your Solutions with In-depth Geographic Information and Analysis'. To the right is a 3D map visualization with buildings, trees, and location markers 'A' and 'B'. At the bottom left of the banner is the channel name 'supergeotv', and at the bottom right is a 'Subscribe' button and a view count of '99'.