

# Supergeo Webinar

## Facilitating Field Tasks with More Productivity by Mobile GIS

May 7, 2014



# Presenters

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- ***Sarah Liu***

Sales & Marketing Director,  
International Marketing Division

- ***George Wang***

Product Specialist, Product Department

- ***GIS Training & Support Center***

# Using software today:

## 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



### 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)

### Developer GIS

SuperGIS Engine

SuperNetObjects

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



# Position of SuperPad

- Feature-rich Mobile GIS Software
- Designed for field survey and data collection
- Support OS: Windows Mobile and Windows XP/7/8.1



# Overview of SuperPad

- SuperPad allows you to:
  - Capture and edit geospatial data with high efficiency & accuracy
  - Display, measure, query data with ease
  - Update and synchronize spatial data with server side database timely



- ✓ User friendly toolbars
- ✓ Real time satellite and GPS info
- ✓ Multi-lingual user interface

# Spec of SuperPad

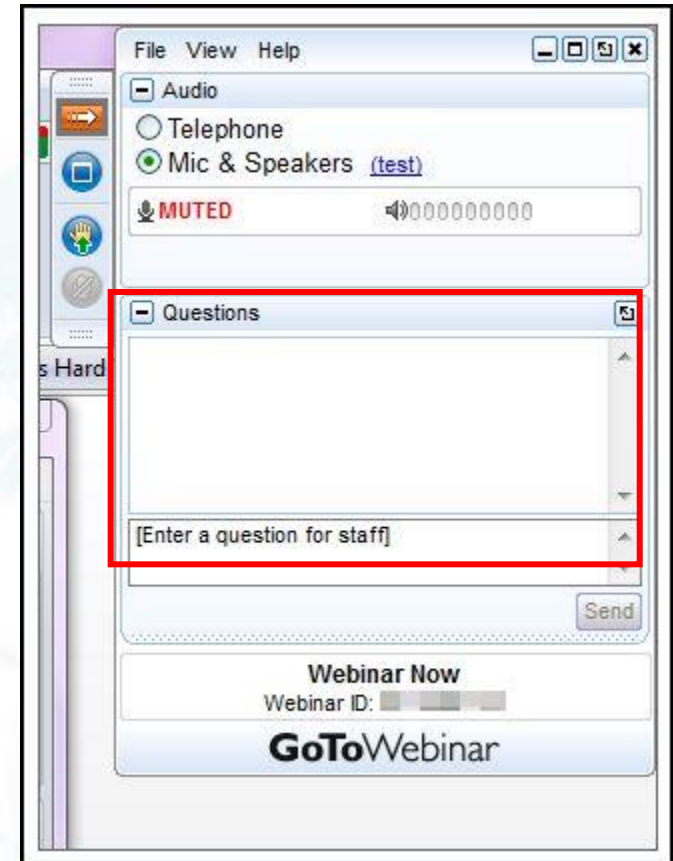
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- Vector data: GEO, SHP, DXF
- Raster data: SGR, BMP, GIF, PNG, MrSID, ECW, LAN, TIFF, JPG, JPEG2000
- Support to import APM file
- Official software package includes one PC license and one PDA license, for convenient data display, edit, and field survey.



# Questions & Comments

- During the presentation, you may share your comments or questions by typing in the box on the right of your screen.
- Or, you may drop us an email to: **staff@supergeotek.com** and we will answer you shortly.



# Free SuperPad Licenses

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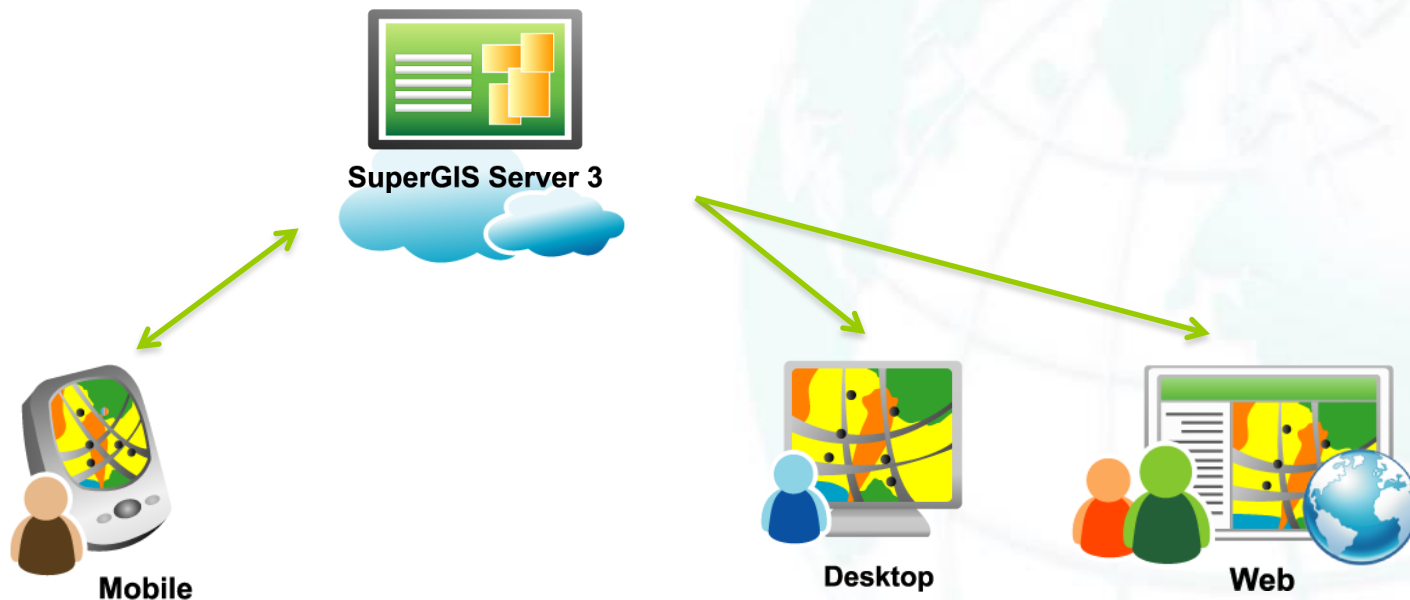
- We will randomly draw 10 attendees and send one free SuperPad 3.1a one-year license for each of them.



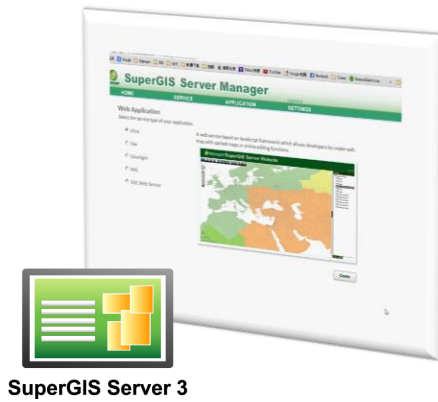


# Mobile GIS

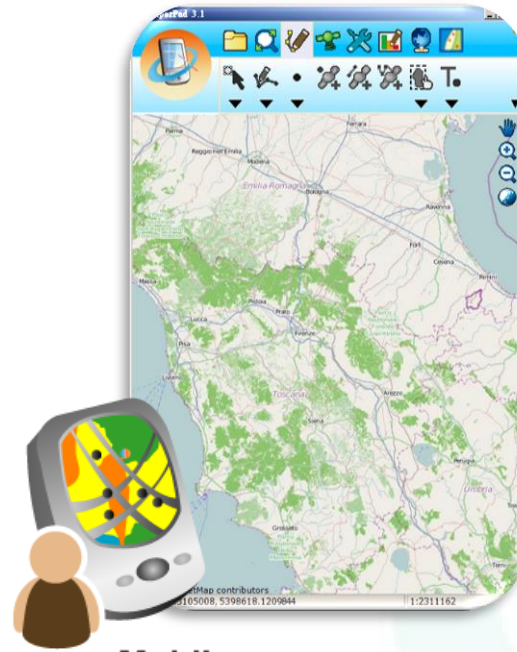
- A portable GIS system which is helpful for **field works**, especially **integrated** with other GIS products.



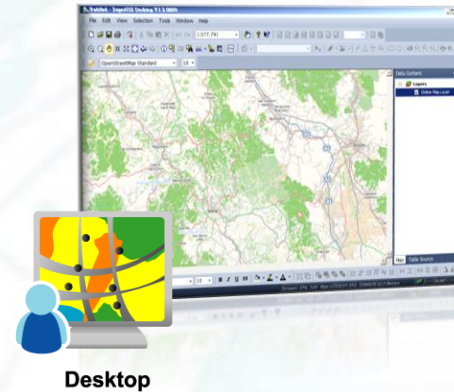
# Products



SuperGIS Server



SuperPad



SuperGIS Desktop

# The story begins...

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A wild wolf survey team plan to survey the location of wild wolf habitats in order to protect them. They need to record down the **spots** they see wild wolves, and wolf **habitats**.

Also, in order to avoid repeating the survey tracks, they need to share each of their survey **track** to all the team members.



# Today's topics

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- Use SuperPad for field surveys
  - Apply basemaps from various sources.
  - Start effective data capture.
- Tricks for avoiding repeated surveys
  - Build online GIS platform.
  - Timely edit GIS Data in the Cloud.



# Today's topics

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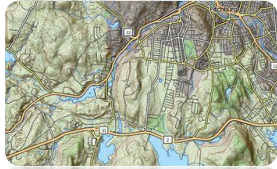
- Accuracy matters

- Use GNSS extension in SuperPad.
- Use DGPS add-on in SuperGIS Desktop.



- Useful tools

- SBAS signal display.
- Integrate with Laser Range Finder.



Mobile



- Apply basemap.
- Use GPS signals to record the location of wild wolves spotted.

Apply Basemap

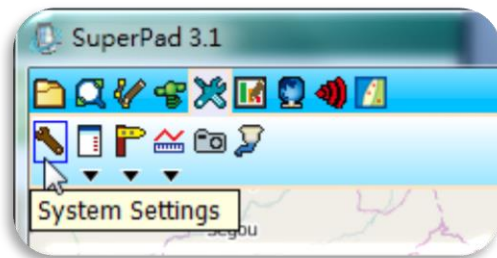
Efficient Data Collecting

**Use SuperPad for field survey**

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# Activating extensions

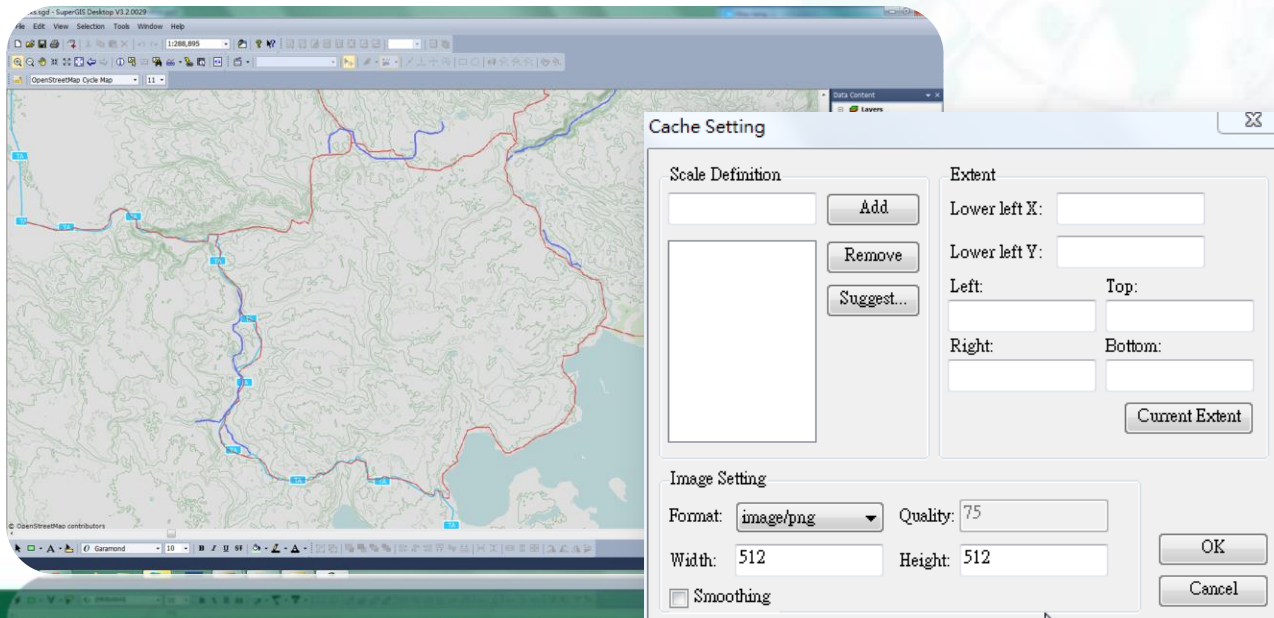
- Activate the extensions in the system settings, and tick the extensions you need.
- The extensions provide you powerful abilities in addition to the basic function in SuperPad.



File Path	Version	Company	Copyright
<input type="checkbox"/> AccuracyDisplayPanel.dll	1.0.4976.25970	Supergeo	© 2012
<input checked="" type="checkbox"/> AdvancedAttributeEditing.dll	3.1.5021.27782	Supergeo	© 2012
<input type="checkbox"/> BirdView.dll	3.1.4976.25974	Supergeo	© 2012
<input checked="" type="checkbox"/> DataServicesToolbar.dll	3.1.4976.25999	Supergeo	© 2012
<input type="checkbox"/> FixedZoom.dll	3.1.4976.25974	Supergeo	© 2012
<input checked="" type="checkbox"/> Laser.dll	3.1.4976.25973	Supergeo	© 2012
<input type="checkbox"/> NetworkTool.dll	3.1.4976.25972	Supergeo	© 2012
<input checked="" type="checkbox"/> OnlineMapTool.dll	3.0.4987.25484	Supergeo	© 2012
<input checked="" type="checkbox"/> SBAS.dll	3.0.4976.25972	Supergeo	© 2012
<input type="checkbox"/> SGSONlineEditToolbar.dll	1.0.4976.36898	Supergeo	© 2013
<input type="checkbox"/> SGTLayer.dll	3.1.4976.25998	Supergeo	© 2012
<input type="checkbox"/> SketchLabeling.dll	3.1.4976.25974	Supergeo	© 2012
<input checked="" type="checkbox"/> STCLayer.dll	1.0.4976.36893	Supergeo	© 2013

# Add basemaps

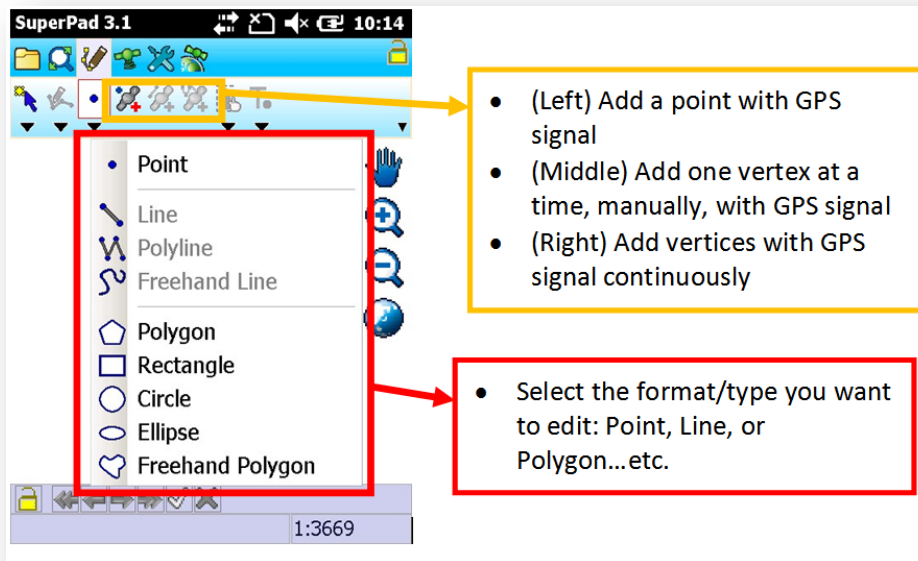
- Add basemaps using **OnlineMapTool** or **STC extension**.
- The **.stc** file (SuperGIS Tile Cache) is generated from the **Cache Generator** in SuperGIS Desktop.





# Field survey

- Collect data using GPS signals or edit tools.
- Use Advanced Attribute Editing to build custom menu.

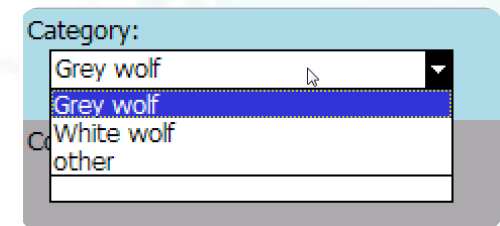


The screenshot shows the SuperPad 3.1 interface. A toolbar at the top contains various drawing tools. A dropdown menu is open, listing several drawing options: Point, Line, Polyline, Freehand Line, Polygon, Rectangle, Circle, Ellipse, and Freehand Polygon. Annotations include a yellow box around the Point tool in the toolbar with a list of three bullet points, and a red box around the dropdown menu with a list of one bullet point.

- (Left) Add a point with GPS signal
- (Middle) Add one vertex at a time, manually, with GPS signal
- (Right) Add vertices with GPS signal continuously

- Select the format/type you want to edit: Point, Line, or Polygon...etc.

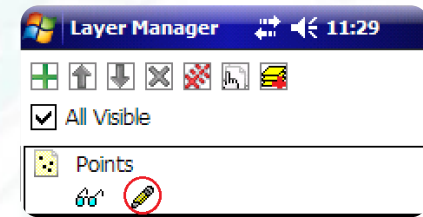
## Advanced Attribute Editing



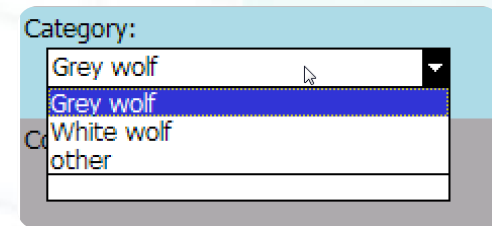
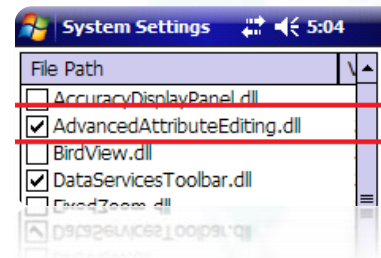
The screenshot shows the 'Advanced Attribute Editing' dialog box. It features a 'Category:' label and a dropdown menu. The dropdown menu is open, showing a list of categories: 'Grey wolf', 'White wolf', and 'other'. The 'Grey wolf' option is currently selected and highlighted in blue.

# Data collecting

- To collect data, you have to add the map layers from the server to your mobile device, and **enable editing**.



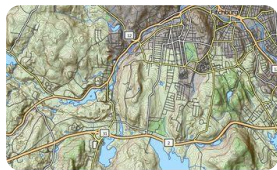
- You can also use the **'Advanced Attribute Editing'** extension to help you collect the data easier.



# Key concepts

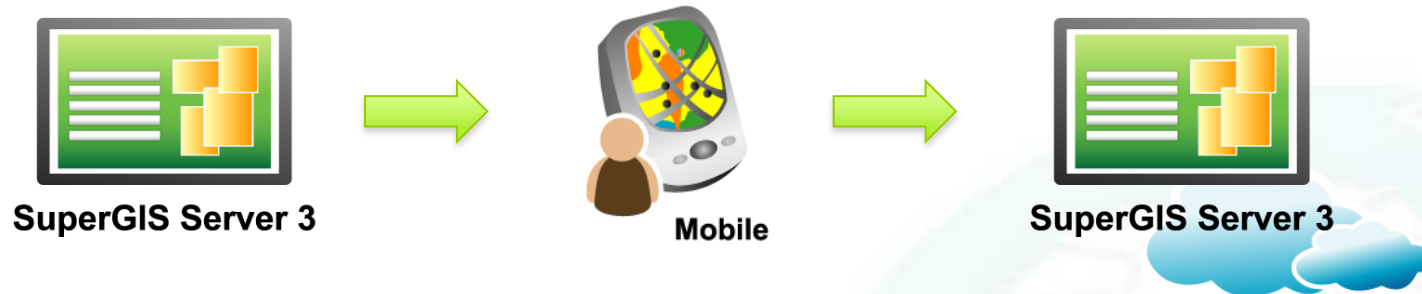
- In SuperPad

- Activate and use “STC extension” or “OnlineMapTool” to add basemap.
- Use GPS to collect data.
- Use **Advanced Attribute Editing** to add a quick form.



Mobile





Download data from SuperGIS Server.  
Sync the data back.

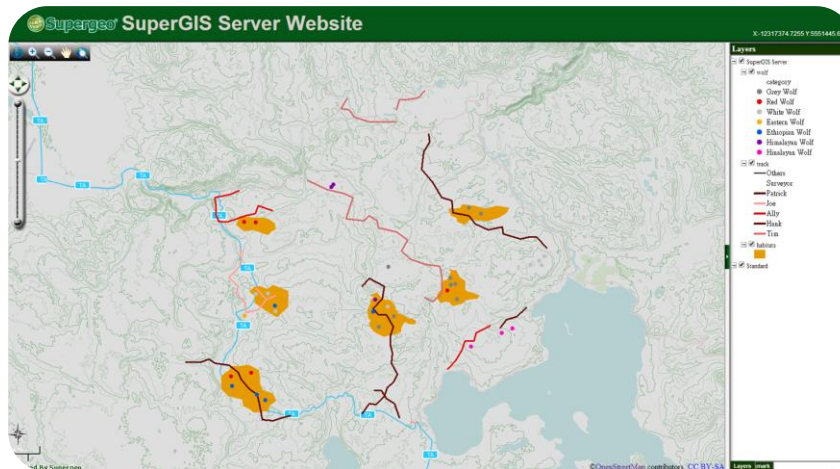
Timely Edit GIS Data in the Cloud

## Avoiding repeated tracks

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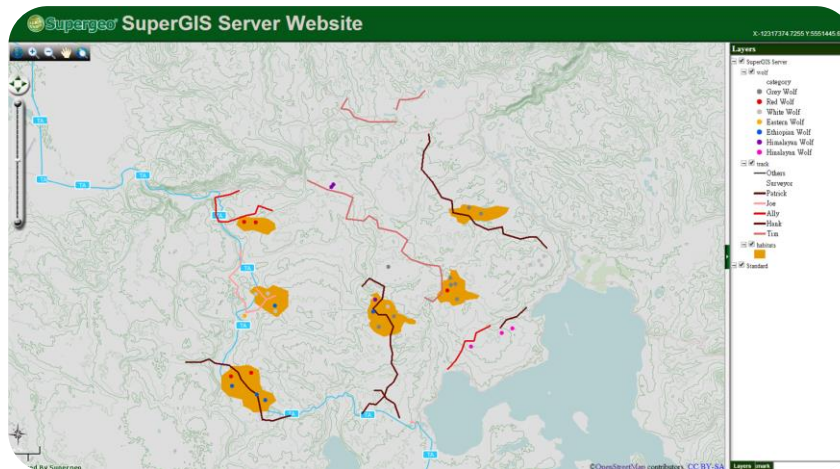
# Real time GIS data

- Download the data from SuperGIS Server to SuperPad for **offline editing**.
- Sync the data back to SuperGIS Server when get connected.



# Avoid repeated tracks

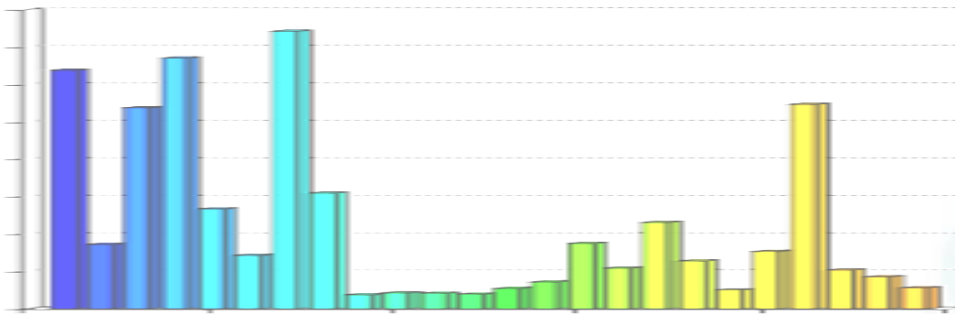
- By managing the tracks in the cloud, you can easily see all the tracks and avoid doing the field surveys in vain.



# Key concepts

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- In SuperPad
  - Activate and use “Data Service Tool” to add the layers from the SuperGIS Server.
  - Sync data back to SuperGIS Server.
  - View the field data in real-time.



## BREAKTIME: QUICK POLL



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<http://www.youtube.com/user/supergeotv>





# Data Post Processing

Increase the accuracy of the original data



Mobile



Download information  
From IGS base station



Desktop

Use GNSS extension  
to collect data in the field



Post process the data

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During Field Survey

Back to Office

Data post processing

# ACCURACY MATTERS

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# Data Post Processing

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- To increase the accuracy of the data, you can apply post process function to your data.

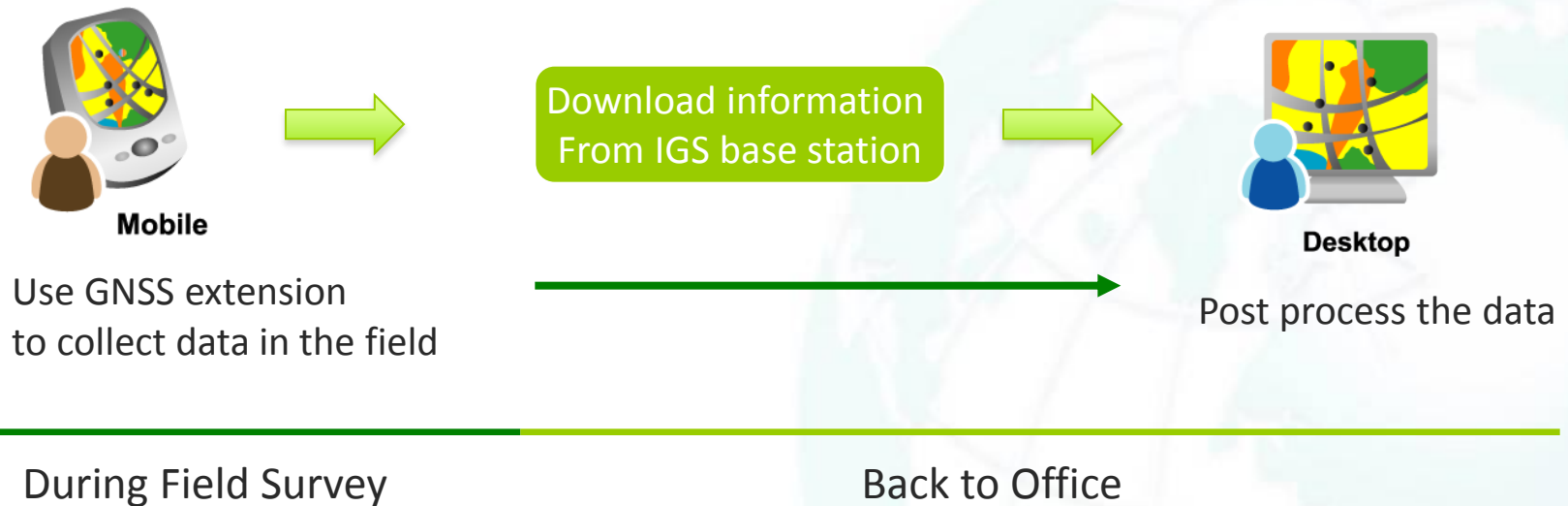


# Data Post Processing

- To increase the accuracy of the data, you can apply post process function to your data.

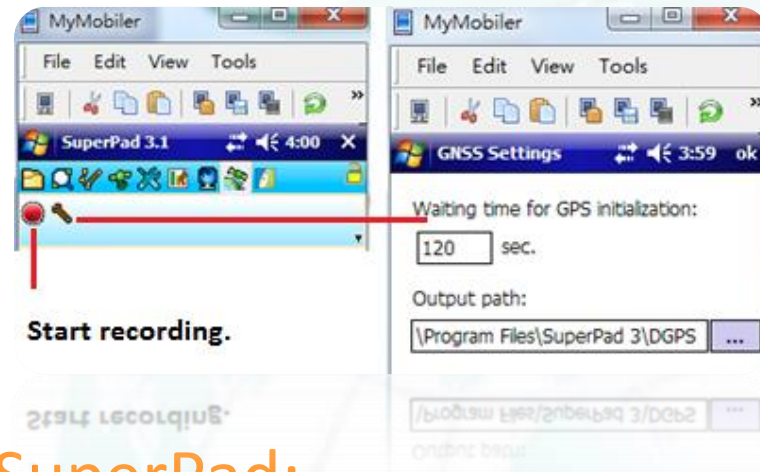


# Work Flow

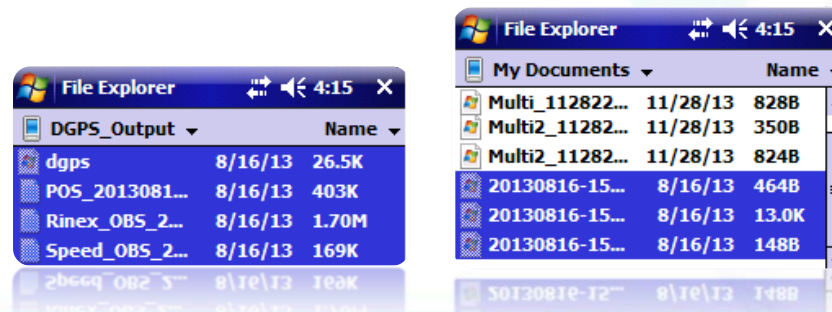


# Using GNSS extension

- Use **GNSS** extension to collect log, rinex, and features during survey.



- Copy the raw data from **SuperPad**:



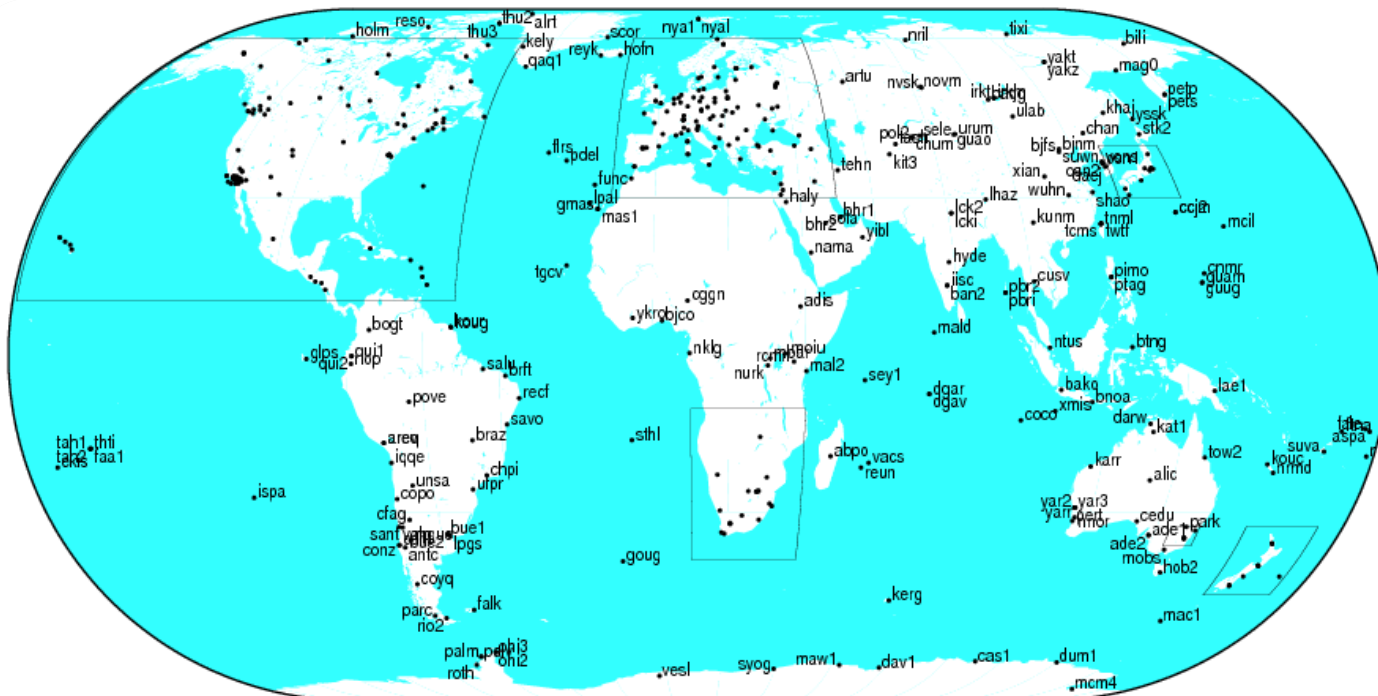
# Download data

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- Download **navigation** and **RINEX** data from base stations.
  - Crustal Dynamics Data Information System, CDDIS
  - **Scripps Orbit and Permanent Array Center, SOPAC**
  - International GNSS Service, IGS

# IGS-International GNSS Service

- Find the nearest base station from the IGS website: <http://igscb.jpl.nasa.gov/network/complete.html>
- (within 1 degree/100 km/62.1371 miles)

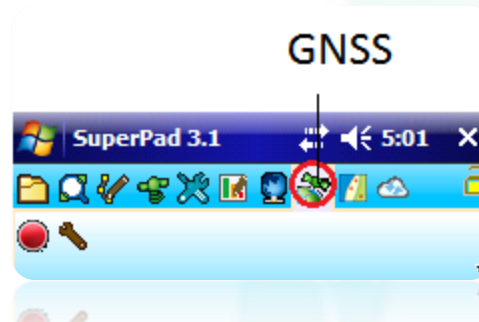
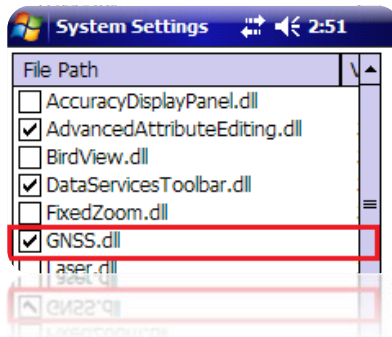




# Key Concepts

- In SuperPad

- Activate and use “GNSS” extension on SuperPad.



- In SuperGIS Desktop

- Use Differential GPS add-on
- Perform post process.

SBAS signal display

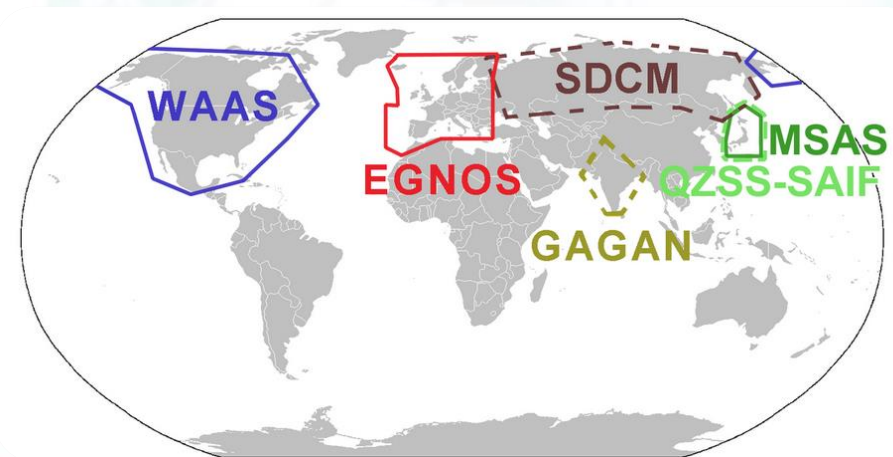
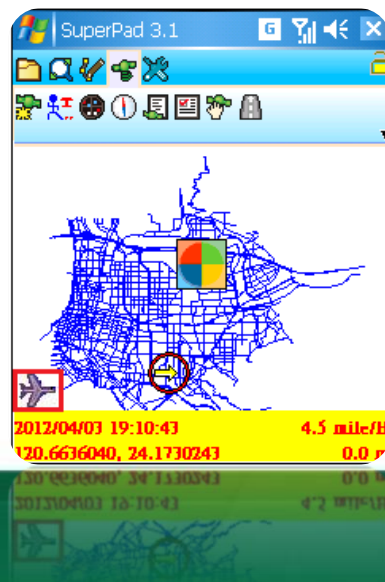
Integrated with Laser Range Finder

## **Useful tools in SuperPad**

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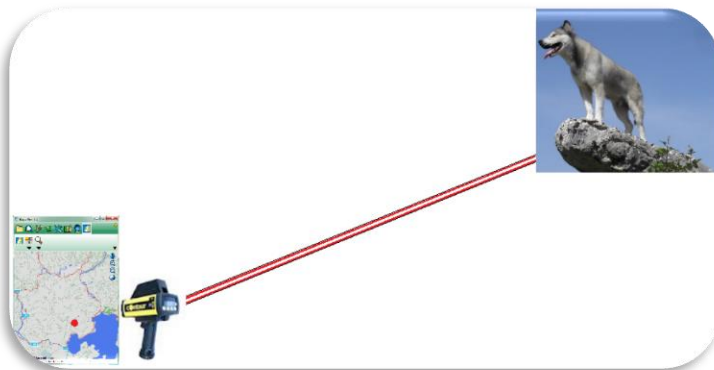
# SBAS signal display

- Satellite-based augmentation system.
- Composed of multiple ground stations which are located at accurately-surveyed points.
- The accuracy can be within 1 meter.



# Laser range finder

- Use a laser beam to determine the distance to an object.
- Add the location of the object to SuperPad.



LaserCraft Contour XLR



TruPulse360/360B

# Conclusion

- Use SuperPad to do field survey.
  - OnlineMapTool, STC Extension
  - Advanced Attributed Editing
  - DataServiceTool
- Use SuperGIS Server to build online GIS platform.
- Use SuperGIS Desktop to post process the data.



All questions are welcomed!

# THANK YOU FOR YOUR ATTENTION



Contact us:

<http://www.supergeotek.com>

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

<http://www.youtube.com/user/supergeotv>

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# Upcoming events

## Supergeo Webinars

- June 4 – targeting at SuperSurv for iOS
- June 25 – targeting at SuperGIS Desktop 3.2

## Exhibitions

- May 27-28, Discover GIS II, Kuwait
- June 17-20, XXV FIG International Congress, KL, Malaysia



**Booth #36**

