GVG, an agricultural information collection APP

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- Background
- Development of GVG Software
- Tutorial of GVG APP
 - Installation
 - Registration and activate your account
 - Settings
 - Data collection, backup to cloud and export

Outline

- Remote sensing can benefit agriculture a lot
- But can do more by integration with field survey data



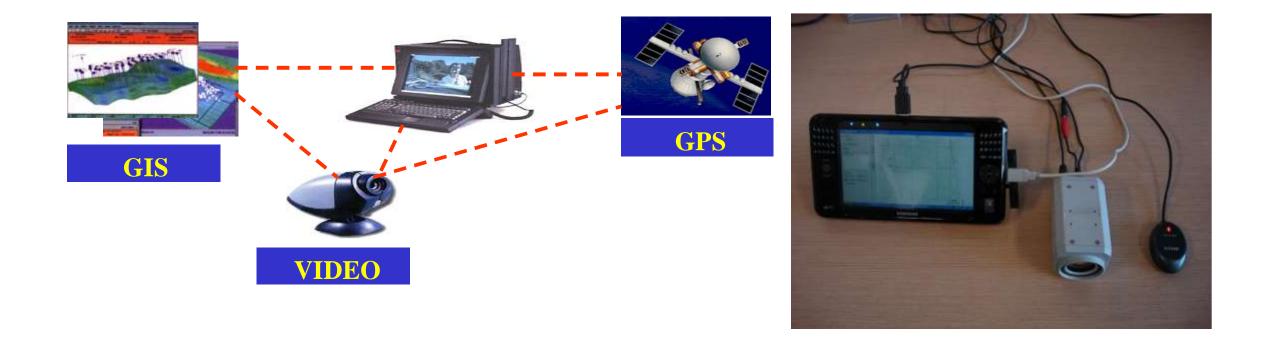
False color combination of S2 over Heilongjiang Province

What kind of vegetation? Crops or trees?

Field survey is needed

A efficient tool to collection field information?

Background



Development of GVG software

What is GVG stands for? GPS, Video, and GIS

Development of GVG software

To make it portable



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GVG APP







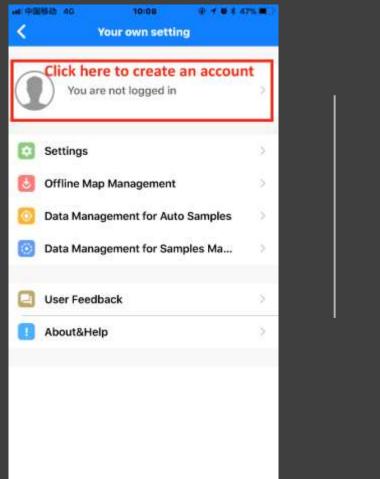
Installation

Search 'GVG' on iOS store or Google Play store

Where to download:

Google Play: https://play.google.com/store/apps/details?id=com.sysapk.gvg 苹果App Store: https://itunes.apple.com/cn/app/gvg%E5%86%9C%E6%83%85% E9%87%87%E9%9B%86/id1244686128?mt=8 华为应用市场: http://appstore.huawei.com/app/C100239505 ndroid 豌豆荚: http://www.wandoujia.com/apps-com.sysapk.gvg PP助手: https://www.25pp.com/android/detail_7710762/ Britak Sile 便携设备GVG农情采样系统 DESCRIPTION OF THE PARTY THE GVG TH: +topport r 🔊 🎦 🕅 Probit はいまたのという 0.000 (Dage specie - interpretation also take a GVG安排采集 截面 地口高くいら次端空間家庭 *#00407/08 ters birth diffe 10.1-8 to 1 8 to 1 CEALS W.A. close O.A.org Domine 电传动动动力防卫性光理 截向 - - - - 11A





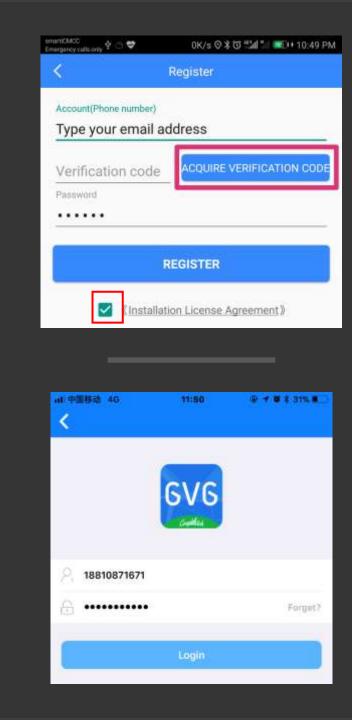


Registration

Registration and activate your account

- Register using your email address as your account
- Send an email to gvg@radi.ac.cn with your email account requesting activation
- Wait for activation until you get confirmed email and login
- Test account:

User name: 13426023663 Password: 666666



Settings

12:57

Recording Settings

Fixed Frequency 5S

Set the self-adaptive frequency Set the sampling interval according to the speed

Display manual sampling process to the map Display manually sampled results to the map

Skip photo-taking while manual sampling

Camera Settings

Photo Size 1024x768

Photo Quality 100%

GPS Settings

Enabled degrees in seconds format GPS coordinates after the selection of the use of minut

GPS Data Refreshing Frequency 3S

Location Querying Frequency

Upload Settings

Auto Upload to Cloud Auto Upload while connecting to WIFI

Settings

 four main settings, each one regarded to one task: Recording Settings, Camera Settings, GPS Settings and Update Settings.



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Satellite Image by Google

Open Street Map

Amap

Amap Satellite

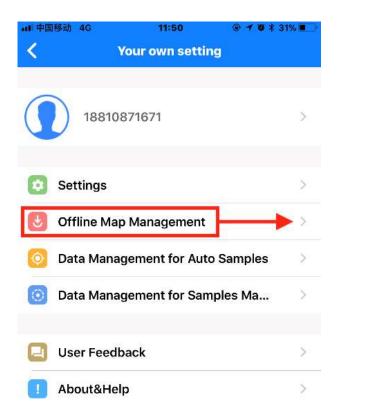
Map World

Remote Sensing Images

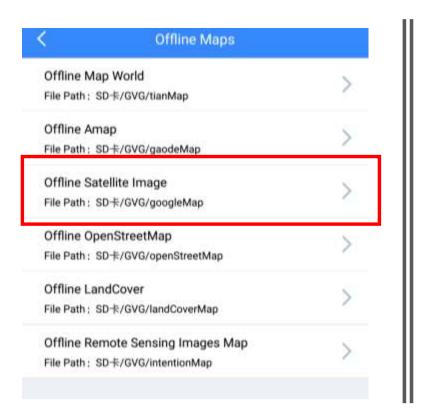
Preparation for Data collection

3

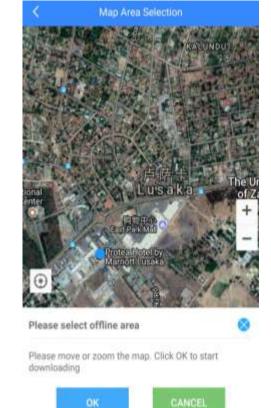
Switch background layer



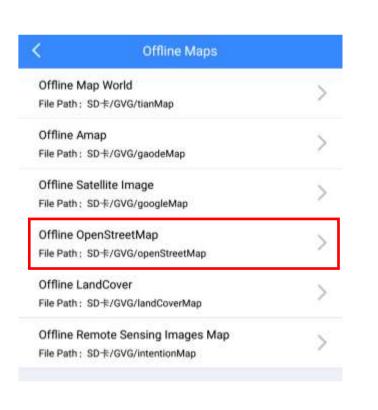
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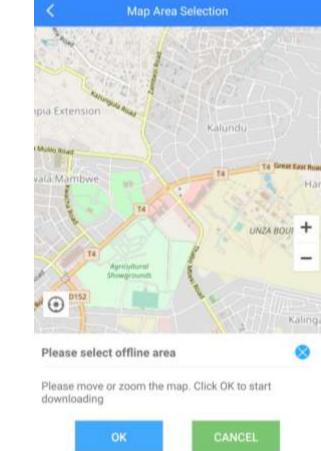




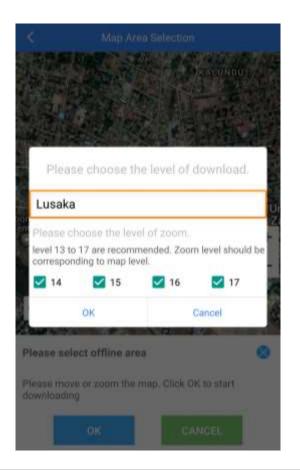
Google Satellite Image



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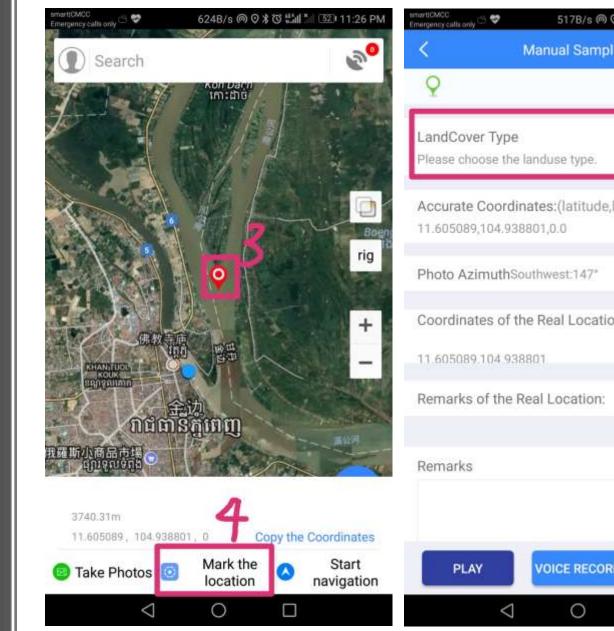
Data collection

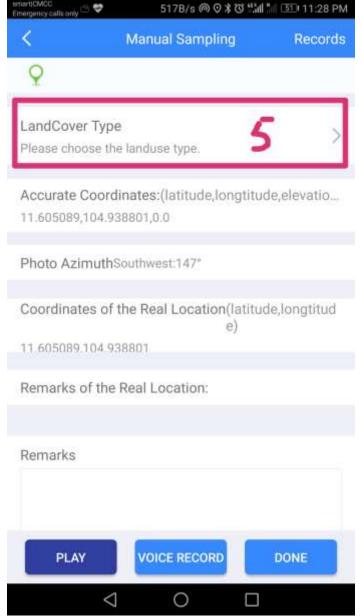


- Land use and land cover data
- Crop type proportion

LULC Data collection

To mark the sample on the map, click and hold for seconds, click [4] to start the navigation. The [5] is Landcover Type selection part.





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Choose the LandCover type

Forest lands				
Broadleaf forest	Needleleaf forest	Broadleaf and needleleaf	Tree wetlan	
Sparse forest	Economic forest	Protection forest	Bamboo	
Scar	Tree garden	Tree orchard	Broadleaf shrubland	
Needleleaf shrubland	Sparse thickets	Desert shrub	Shrub garde	

Shrub orchard Vine garden

	Grass	lands	
Steppe	Meadow	Grass	Sparse grassland
Desert grassland	Herbaceous grassland	Tame pasture	Herbaceous garden
Herbaceous wetland	Alpine desert grassland	Peat land	
	Crop	ands	
Paddy field	Dry farmland	Facility garden	í.
	Wets	ands	
Lake	Reservoir/ Pond	River	Canel/Channe
Aquafarm	Beach land	Salt pan	Emergent plants
	Built-up	o lands	
Construction land	Transportation land	Mining field	Under development
	Other	lands	
Moss/Lichen	Bare rock	Gobi	Bare soil
Desert	Sandy land	Salina	Permanent ice/snow

s .	Choose the L	andCover type	Done
	Ory lan	d crops	
Wheat	Maize	Soybean	Cotton
Sorghum	Potato	Sweet potato	Cassava
Barley	Millet	Rapeseed	Peanut
Sunflower	Sugar	Flue-cured tobacco	Melon
Vegetable	Bast fiber	Beans	Eggplant
Tomato	Day Illy	Wolfberry	Sugarcane
ulberry leaf	Click to add other crop		

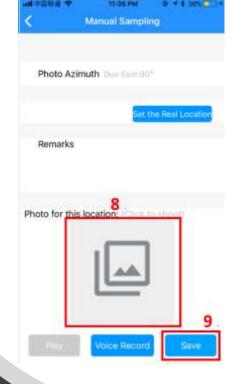


Photo can be also added [8]. After all, to click save button to keep your information saved [9].

Mark the sample



andCover *	Type a the landuse ty	pe	>
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8	Landcover	
Shrubland	Shrub orchard	Shrub garden
Vine garden		
	Grasslands	
Steppe	Meadow	Tussock
Sparse grassland	Desert grassland	Lawn
Managed rangeland	Lawn orchard	Alpine desert grassland
Herbaceous wetland	Peat land	
	Croplands	
Rainfed Paddy field	Dry farmland	Facility garder
	Wetlands	3
Lake	Reservoir/Pond	River
Canal/Channel	Aquafarm	Beach land
Salt pan	Emergent plants	

Another option to collect data

Take the photo first

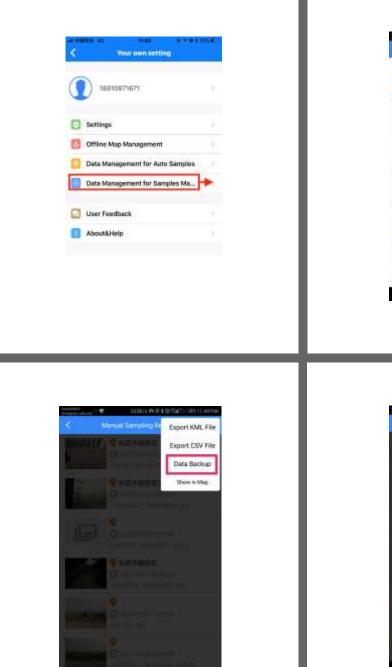


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Crop type proportion

allows uses to record images automatically in every stated time as shown below Backup your data to cloud and export to external files

- open the settings and Choose Data management for manual samples to backup your data
- After backup is done, points can be exported into KML or csv file





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Thanks for your attention!