

Smart IoT Pontoon (Aqua Eye) for Monitoring System and GIS for Smart Campus Management



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SMART IoT PONTOON FOR BATHYMETRIC SURVEYING

Water resource management

- Water availability,
- Quality monitoring, and distribution.
- Lack of water supply systems causes
- Drought
- Failures in planning, failures management, and Lack of decision-making.





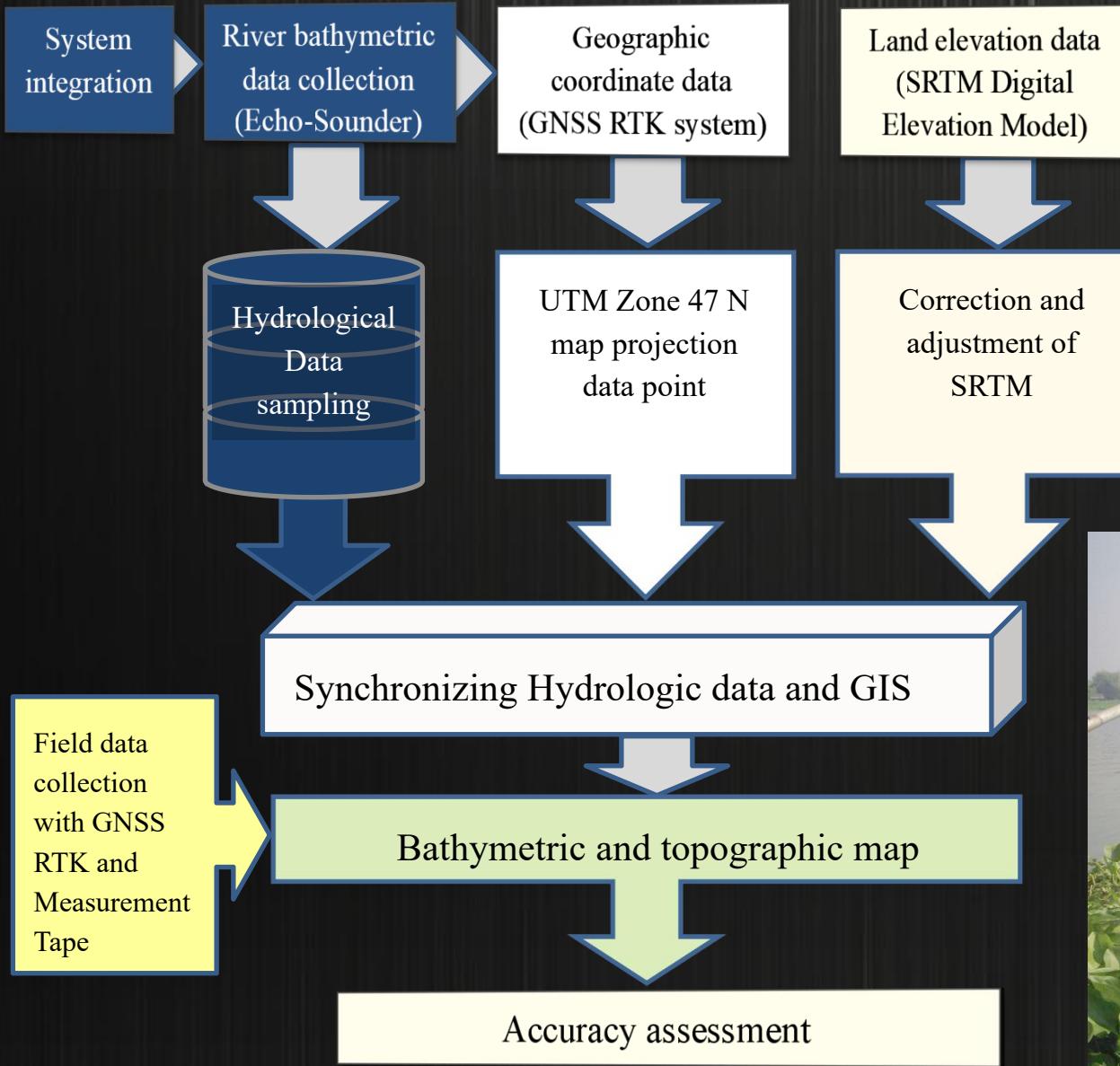
SMART IOT PONTOON FOR BATHYMETRIC SURVEYING

- Hydrological survey requires Bathymetrical data
- and Geographic coordinate for topographic mapping





SMART IoT PONTOON FOR BATHYMETRIC SURVEYING



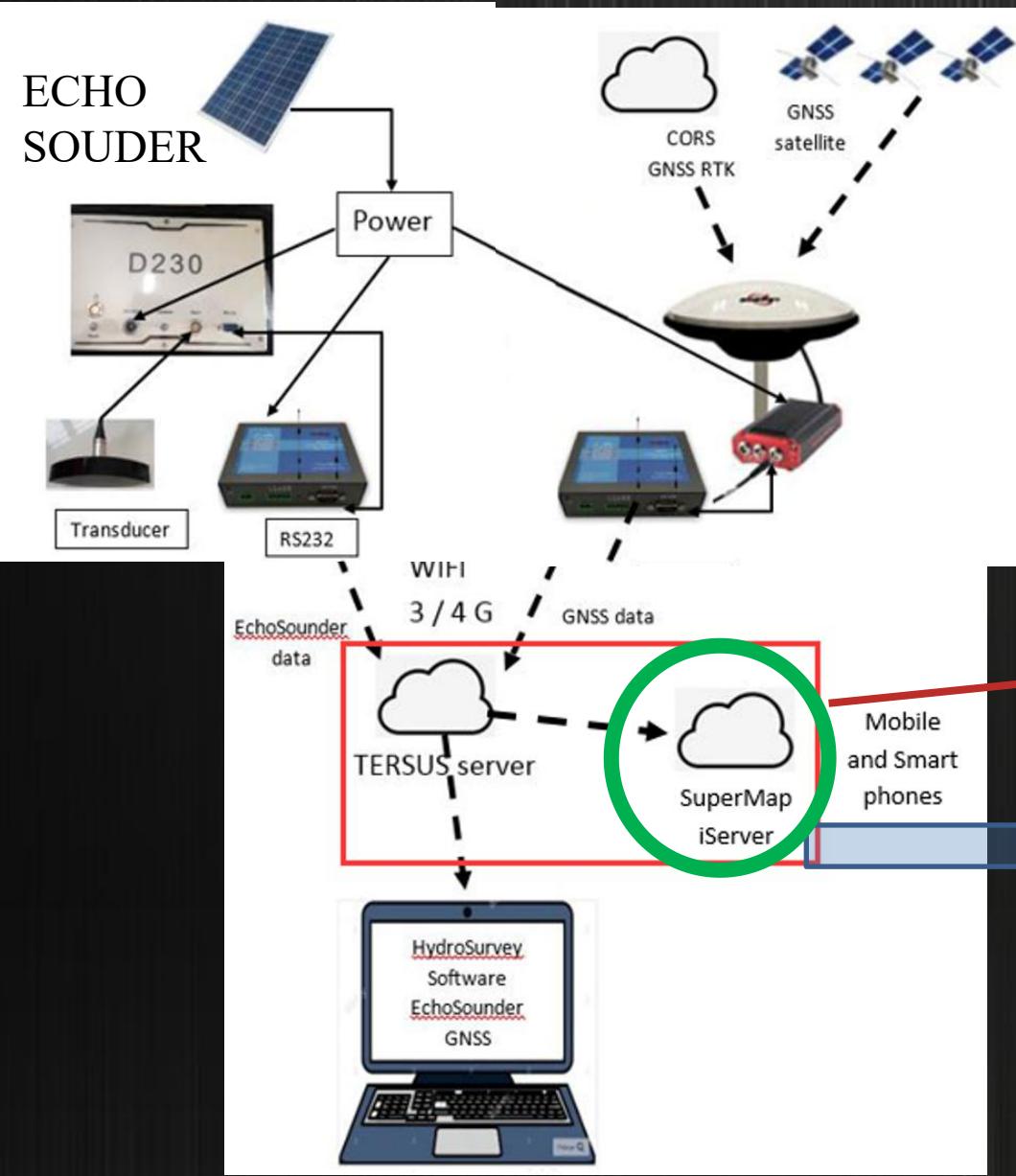
Methodology



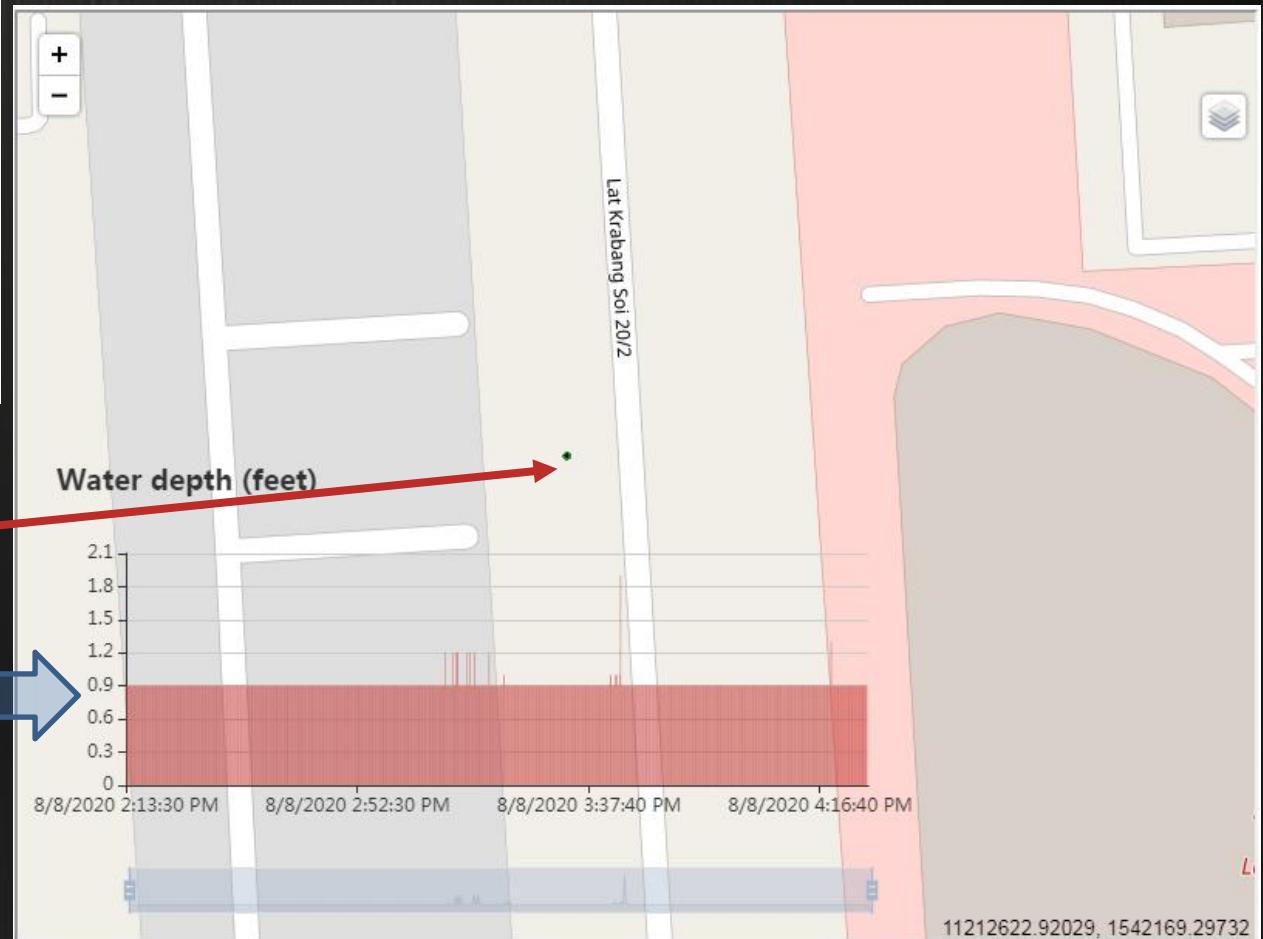


SMART IoT PONTOON FOR BATHYMETRIC SURVEYING

River bathymetric data collection (Echo-Sounder) Geographic coordinate data (GNSS RTK system)



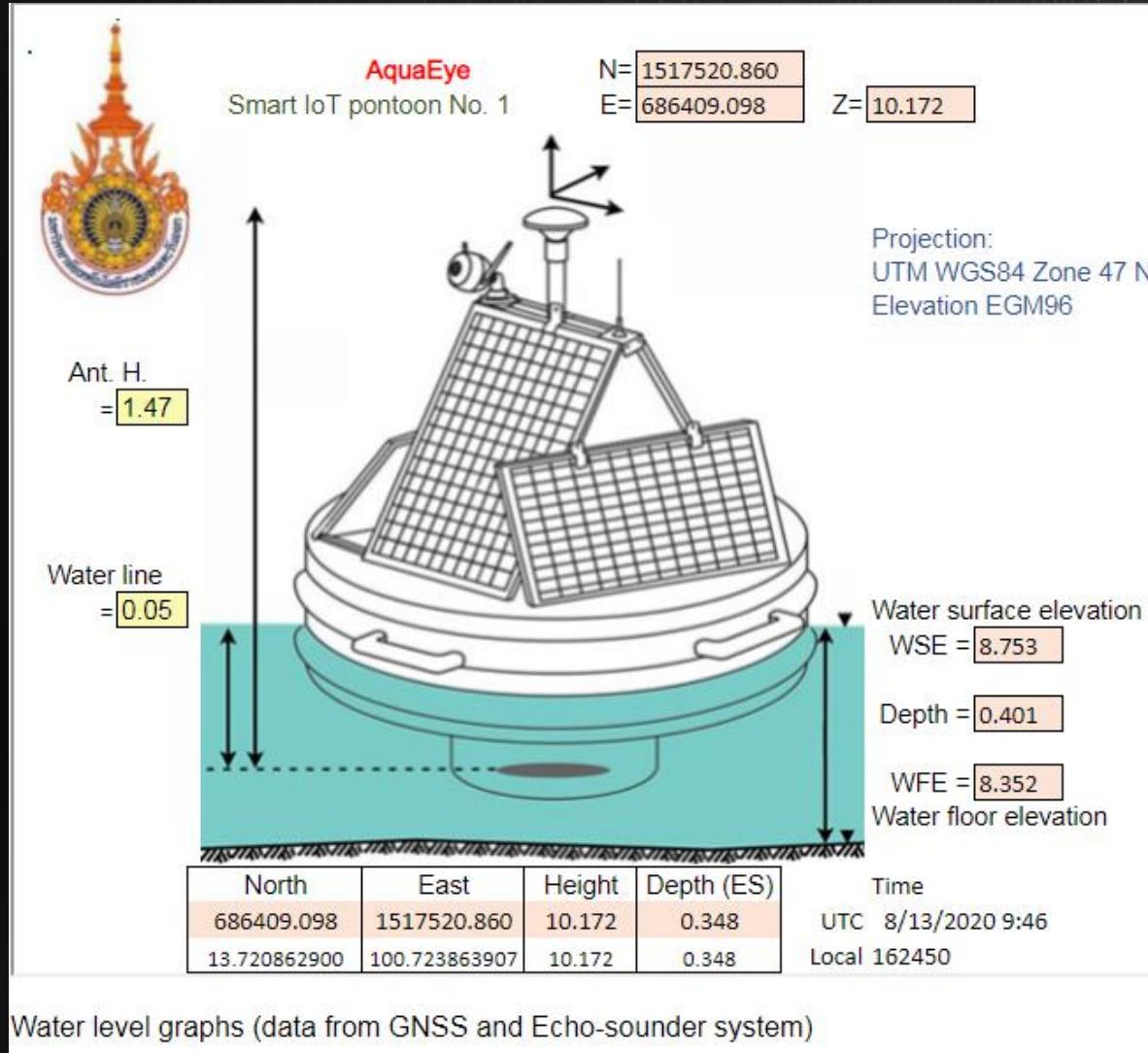
<http://rmutto.ddns.net:8080/WebGL/examples/AquaEye/Graph4Tabs.html>



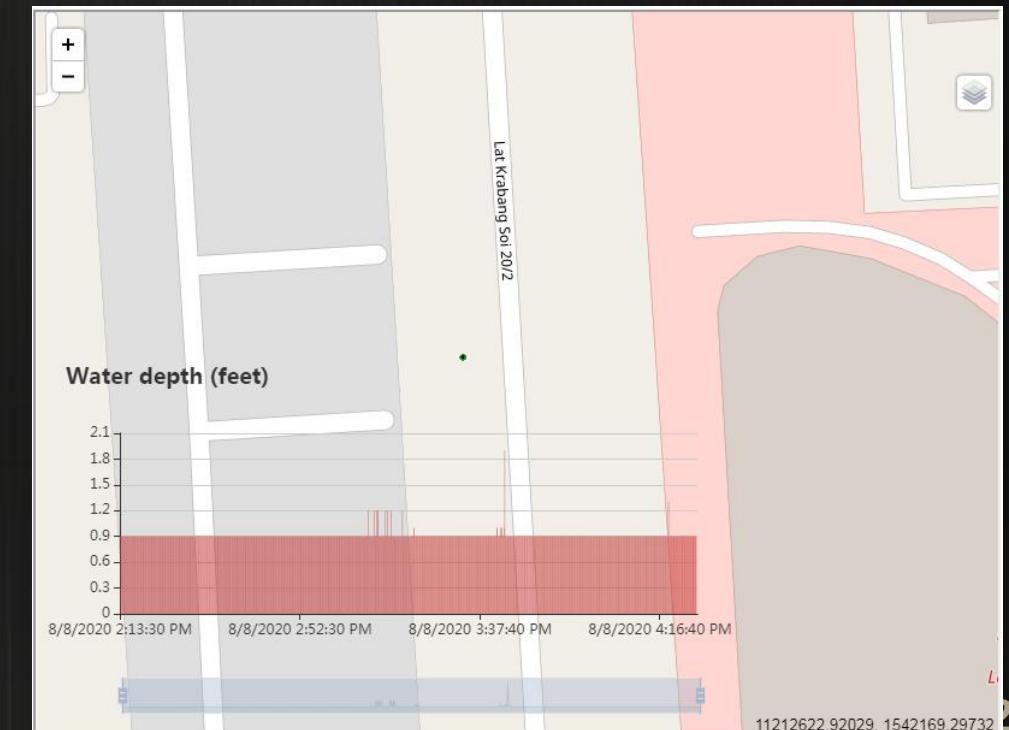
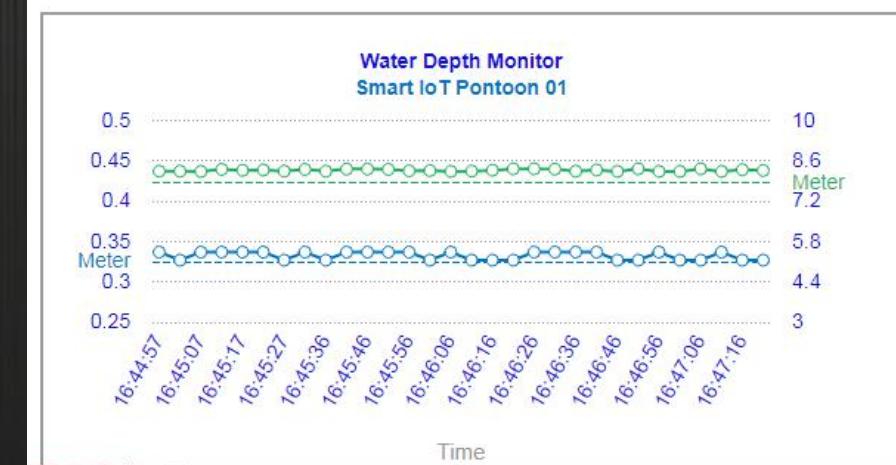


SMART IoT PONTOON (Aqua Eye) for Monitoring System

<http://rmutto.ddns.net:8080/WebGL/examples/AquaEye/Graph4Tabs.html>



Daily graph.





Application of GIS for Facility Management for RMUTT - UthenThawai campus.

The scope of this project

Land survey to geo-reference CAD files

Design geodatabase,

And create a base map for the RMUTT
UthenThawai campus in 2D map and 3D
operation

Software used



Cloud GIS Server

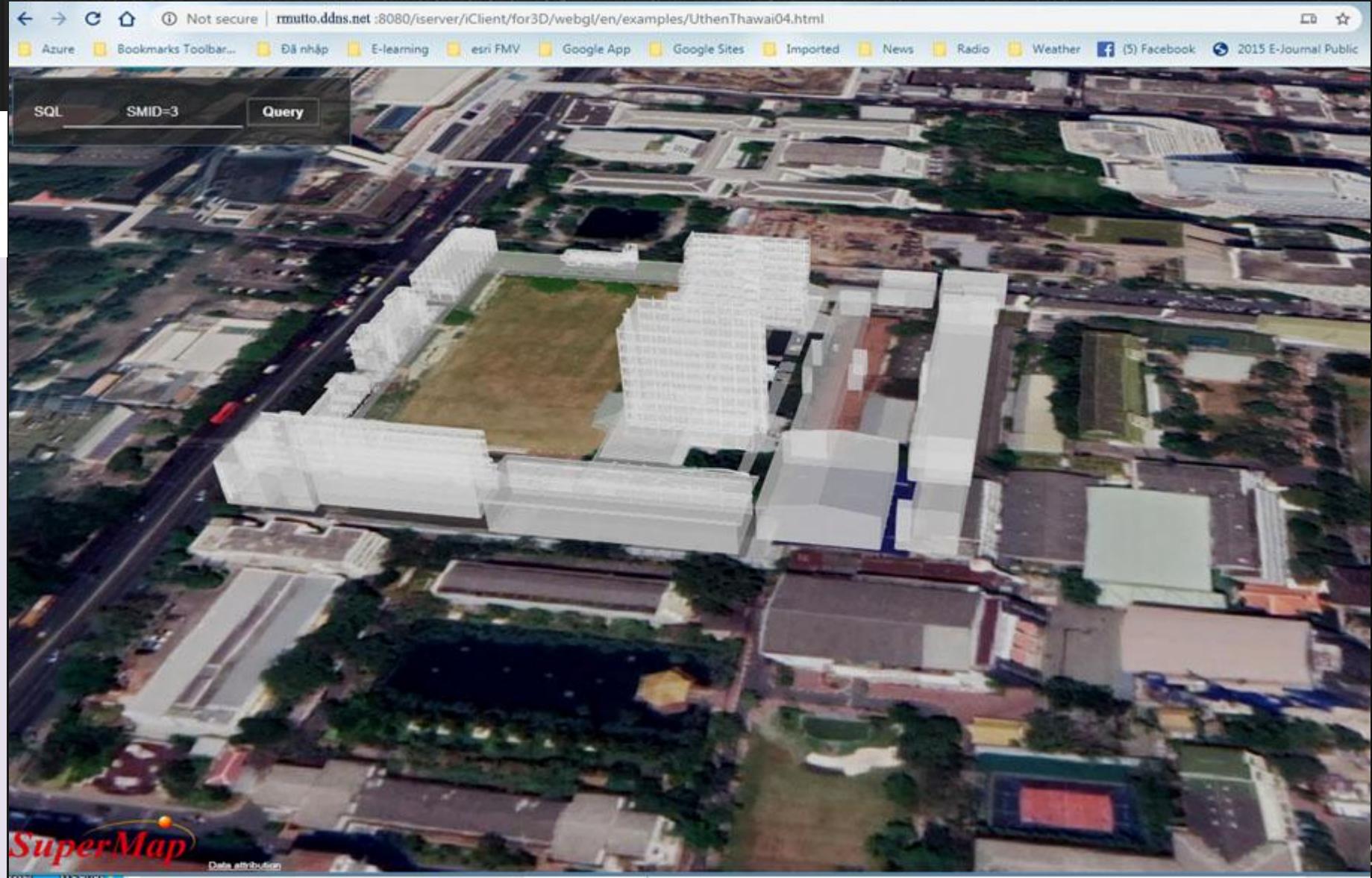
Terminal GIS for Mobile



Application of GIS for Facility Management for RMUTT - UthenThawai campus.

http://rmutt.ddns.net:8080/iServer/iClient/for3D/webgl/en/examples/UthenThawai_Query_v1.html

SuperMap
3D Building
Model data for
information
query on Web
application
Smart phone





Application of GIS for Facility Management for RMUTT - BangPhra campus.

Facilities Structural Lab
Computer Lab
Server / Computer





Application of GIS for Facility Management for RMUTTO - UthenThawai campus.

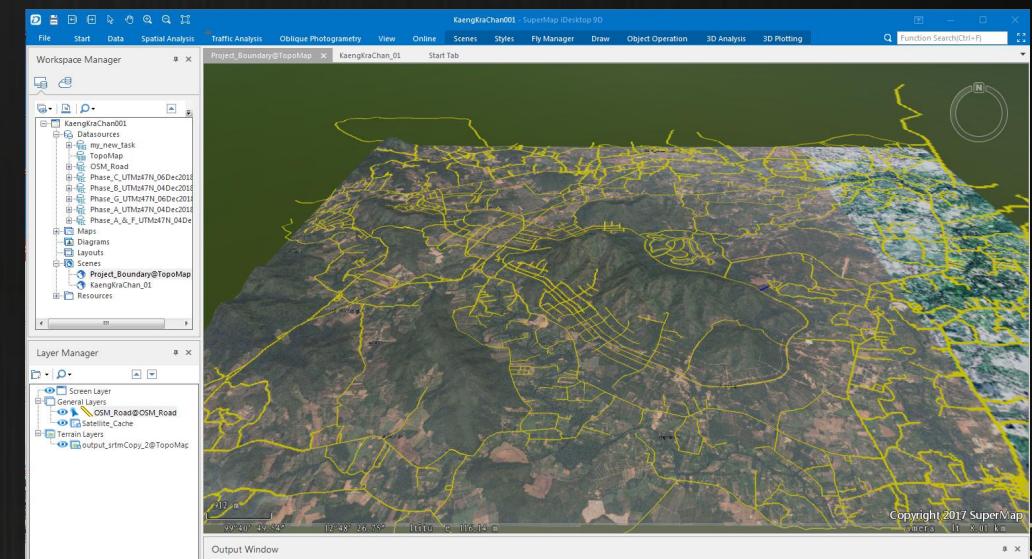
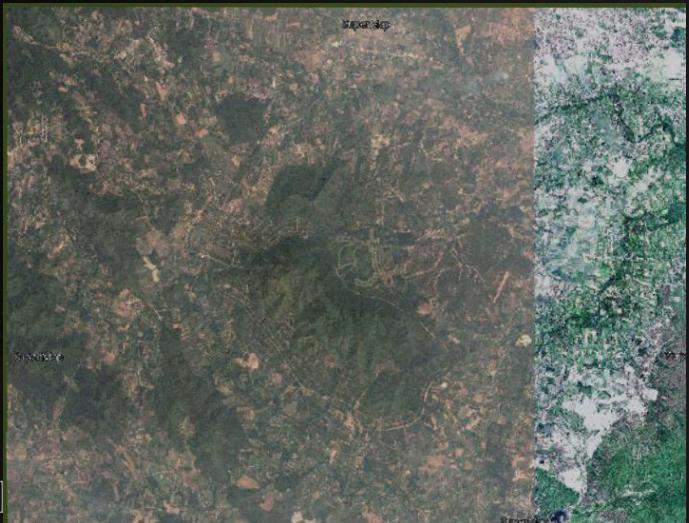
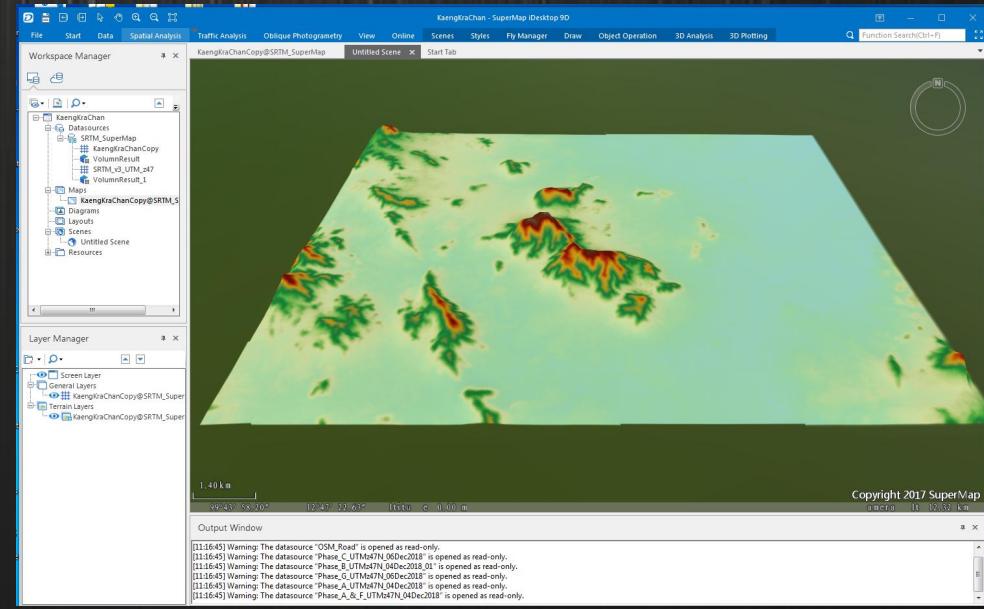
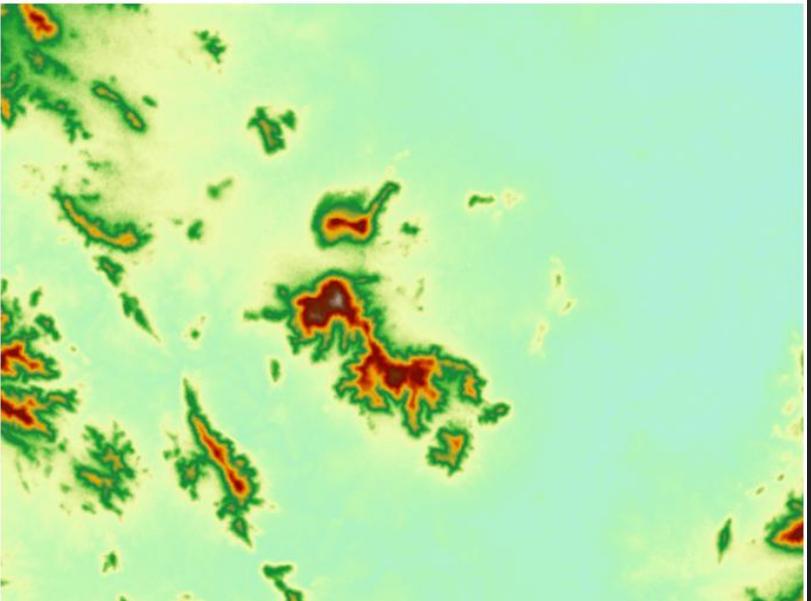
3D MODEL for Digital campus Management

<http://rmutto.ddns.net:8080/iServer/iClient/for3D/webgl/en/examples/BangPhra.html>





Application of GIS for Facility Management for Smart City in Kaeng Krachan .



KaengKraChan001 - SuperMap iDesktop 9D

File Start Data Spatial Analysis Traffic Analysis Oblique Photogrammetry View Online Map Thematic Mapping Styles Object Operations 2D Plotting Q Function Search(Ctrl+F)

Phase_C_UTMz47N_06Dec2018@Phase_C_UTMz47N_06Dec2018 Project_Boundary@TopoMap KaengKraChan_01 Start Tab

Phase A & F

Phase G

Phase B

Phase C

SuperMap

Workspace Manager

KaengKraChan01
Datasources
my_new_task
TopoMap
OSM_Road
Phase_C_UTMz47N_06Dec2018
Phase_C_UTMz47N_06Dec2018
Phase_B_UTMz47N_04Dec2018_01
Phase_B_UTMz47N_04Dec2018_01
Phase_G_UTMz47N_06Dec2018
Phase_A_UTMz47N_04Dec2018
Phase_A_&_F_UTMz47N_04Dec2018
Maps
my_new_task@my_new_task
OSM_Road@OSM_Road
Phase_C_UTMz47N_06Dec2018@Phase_C
Diagrams
Layouts
Scenes
Project_Boundary@TopoMap
KaengKraChan_01

Layer Manager

Phase_A_&_F_UTMz47N_04Dec2018@Phase_A_&_F_UTMz47N_04Dec2018
Phase_G_UTMz47N_06Dec2018@Phase_G_UTMz47N_06Dec2018
Phase_B_UTMz47N_04Dec2018_01@Phase_B_UTMz47N_04Dec2018_01
Phase_C_UTMz47N_06Dec2018@Phase_C_UTMz47N_06Dec2018

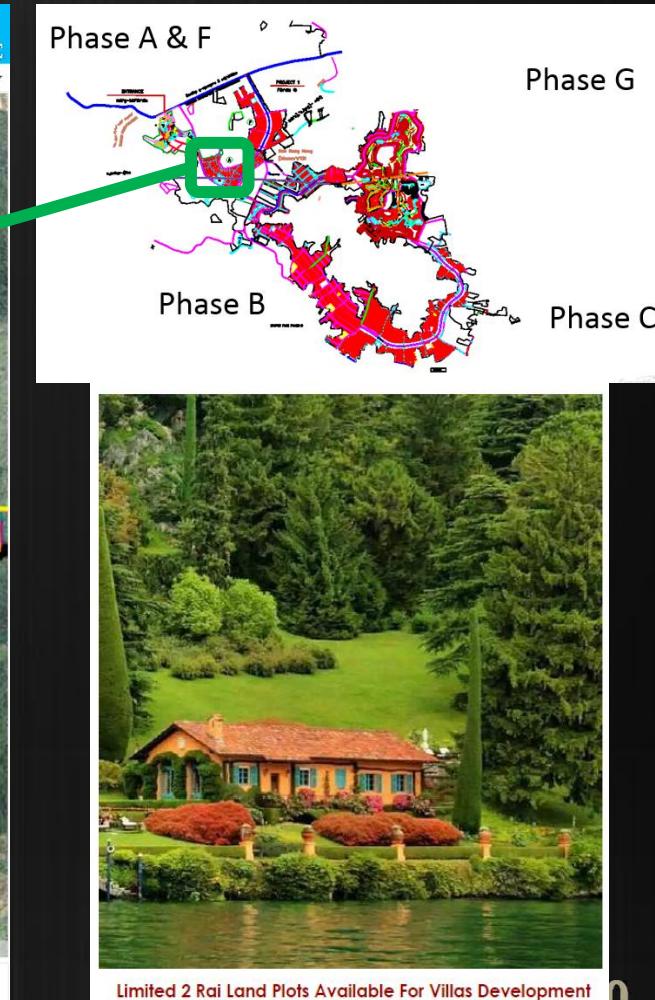
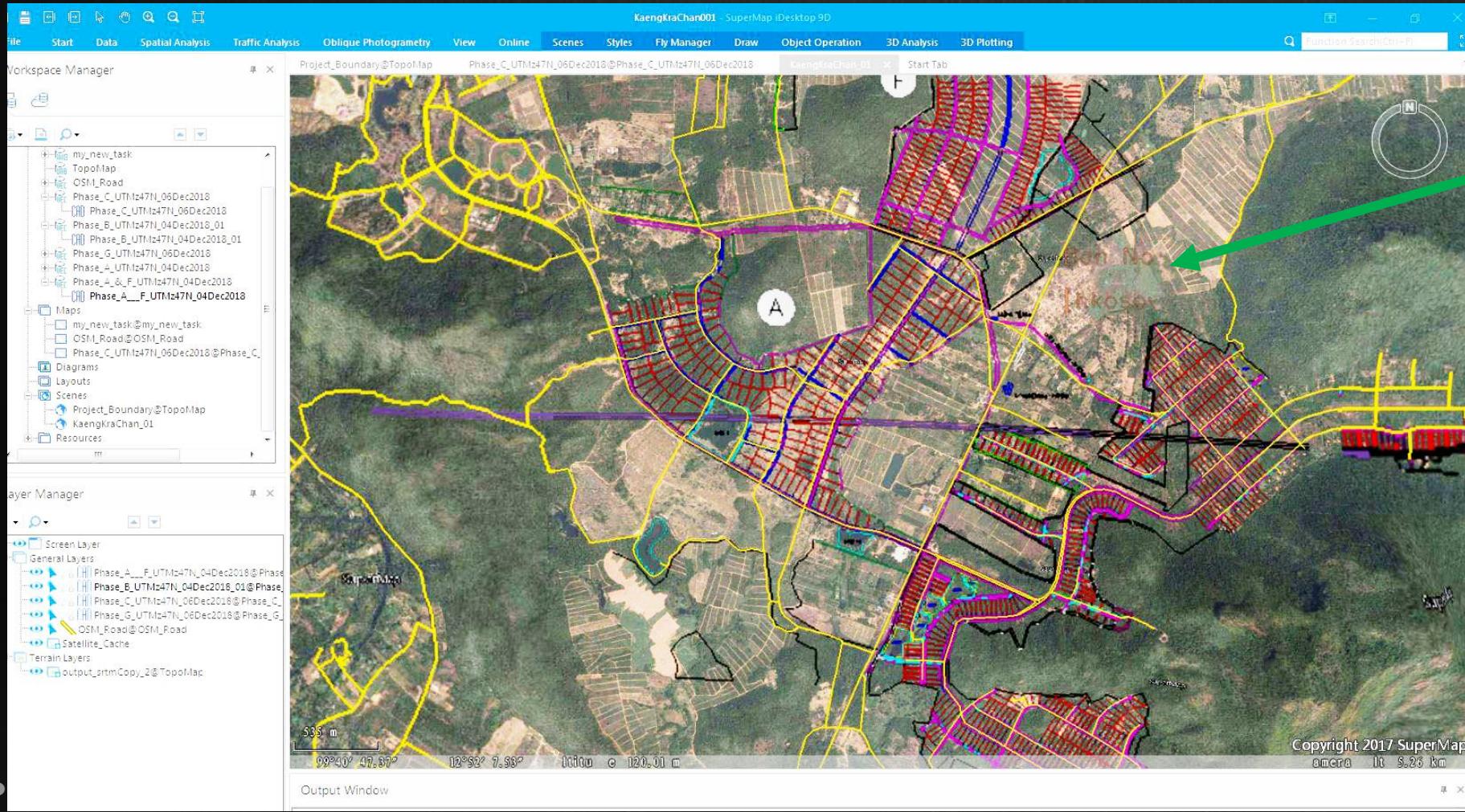
Objects: 0 Scale: 1:74,783.7672943907 Longitude: 99°36'39.07", Latitude: 12°49'31.13" Geographic Coordinate System: GCS_WGS_1984 Center: 99.725587 12.885569

PTZ GTC 2020



Application of GIS for Facility Management for Smart City in Kaeng Krachan .

Coordinate transformed and overlay to the real world



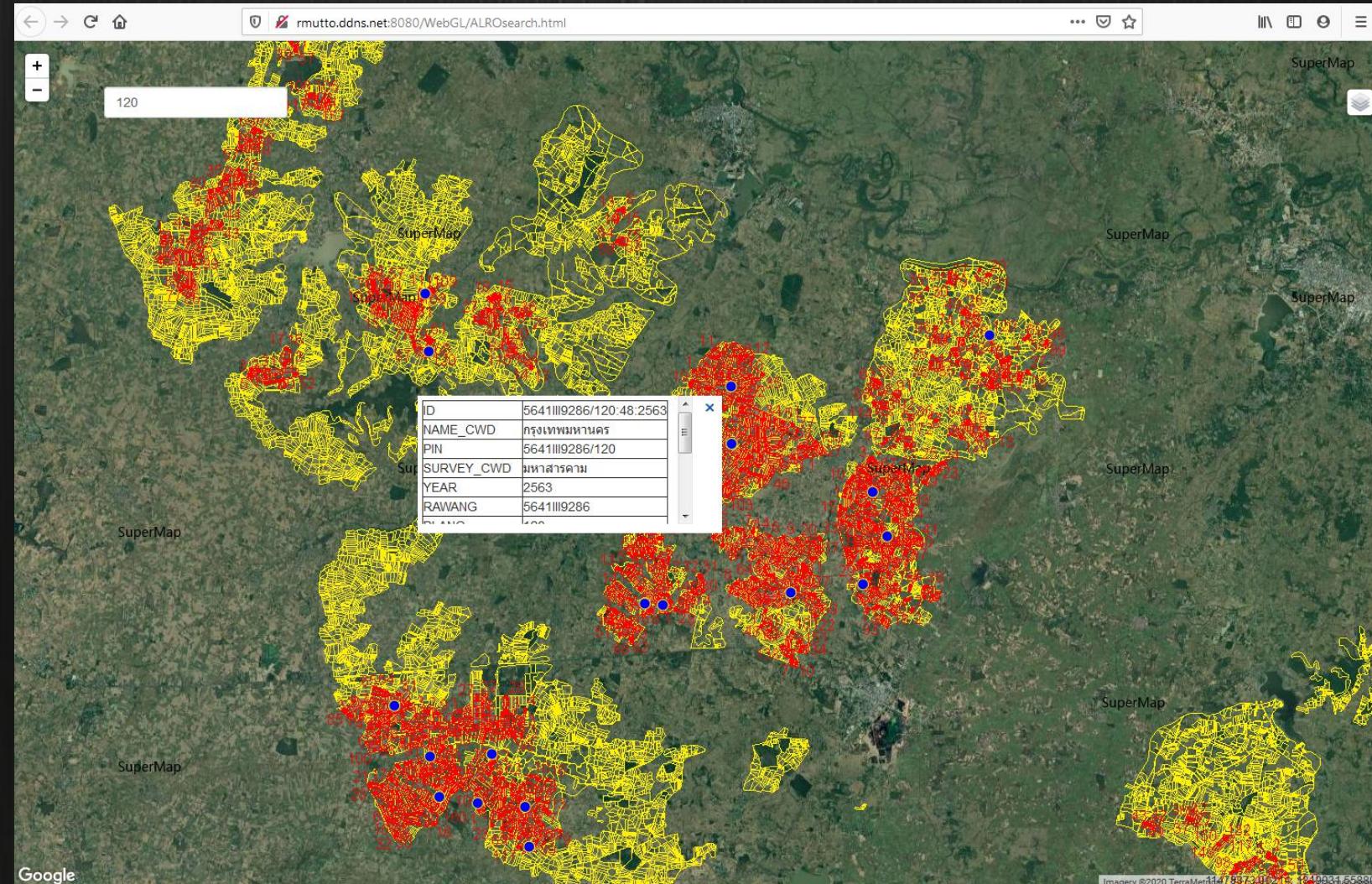


Agrilcultural Land Reform Office (ALRO) Maha Sarakham land reform project Web Map search and query landowner infomation

<http://rmutto.ddns.net:8080/WebGL/ALROsearch.html>

Yellow areas:
old surveyed areas
in Map Projection
IndianThai 1975
UTM zone 48N

Red areas:
new surveyed areas
In Map Projection
WGS84 UTM
zone 48N





Thank You!