

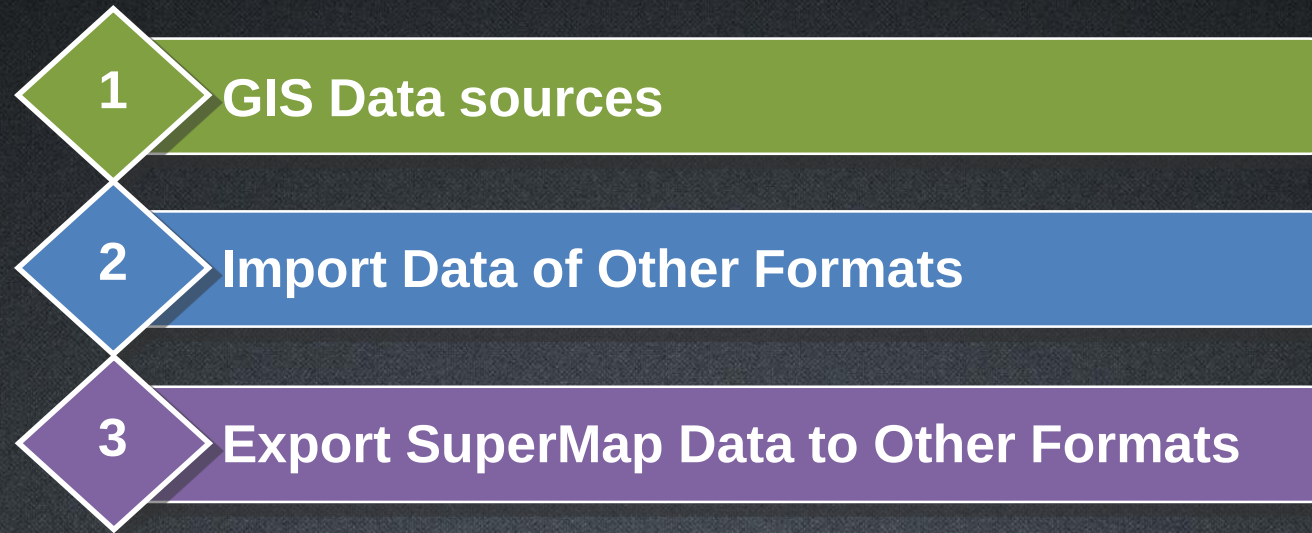
Data Import & Export

SuperMap Software Co., Ltd.



TO BE THE GLOBAL LEADING GIS

Course Overview



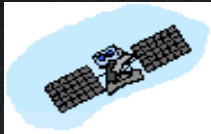
The **acquisition of GIS data** is a primary task for the construction of a GIS system, and it's also one of the issues with most cost of human and financial resources.

Data is the Lifeblood of GIS

GIS Data Sources



Map data (e.g. paper map and electronic map)



Remote sensing image data



Field surveying data (e.g. GPS data)

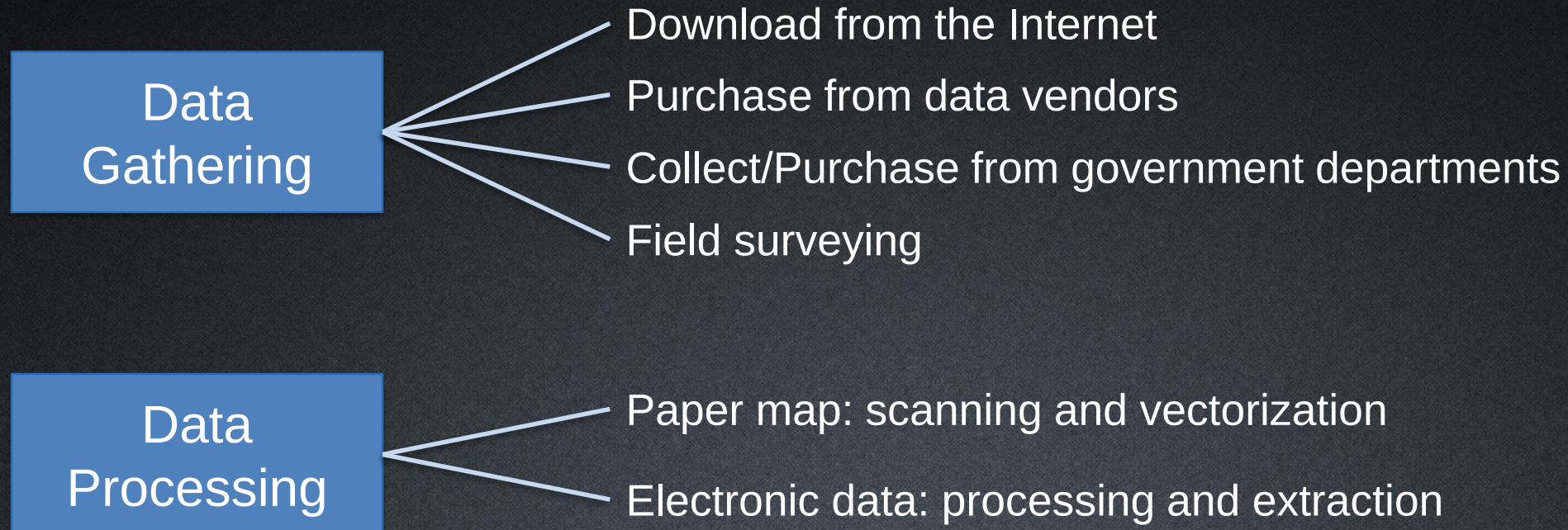


Digital data (e.g. the data from statistical yearbook)

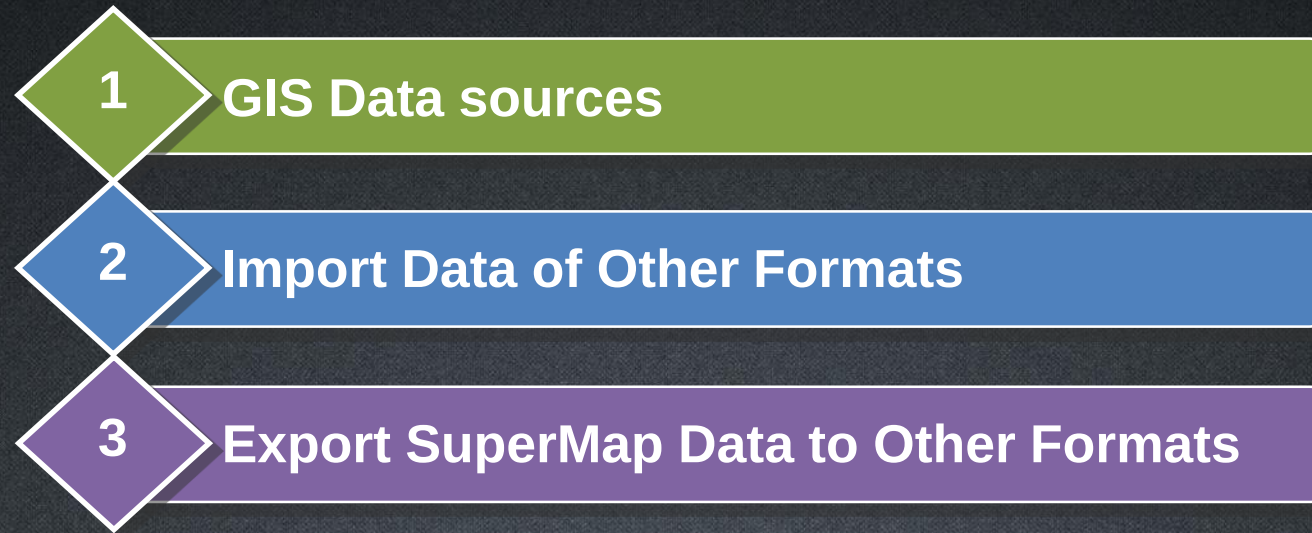


Text reports

GIS Data Sources



Course Overview



Data formats

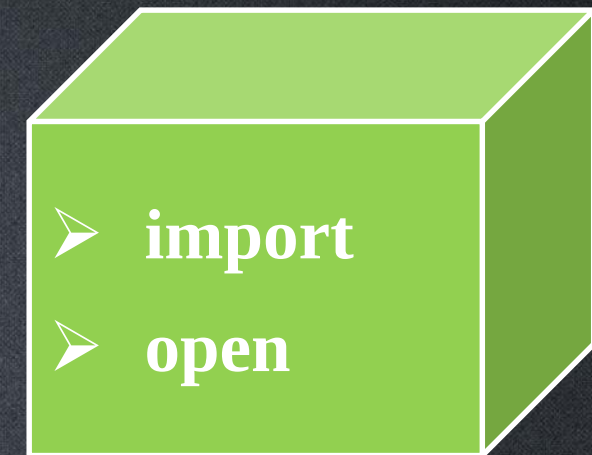
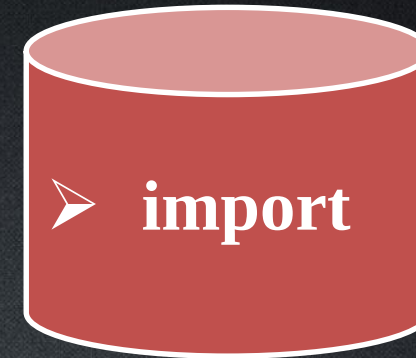
Vector data

- CAD General Format (*.dxf/*.dwg)
- GIS General Format (*.mif/*.shp/...)
- Tabular data (*.csv)
-

Raster data

- General Image Format (*.bmp/*.jpg/*.tiff/...)
- Compression Format (*.sit)
-

Integration Approach



Exercise:

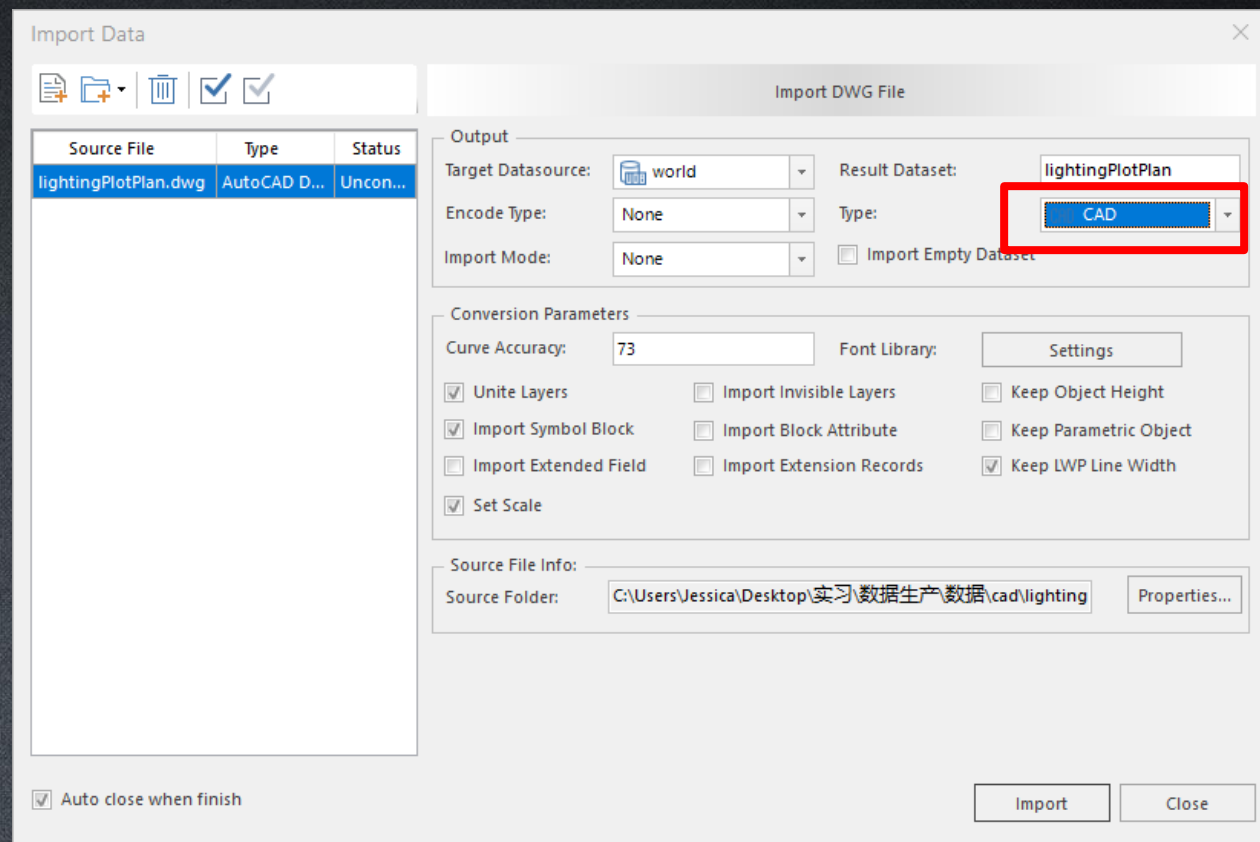
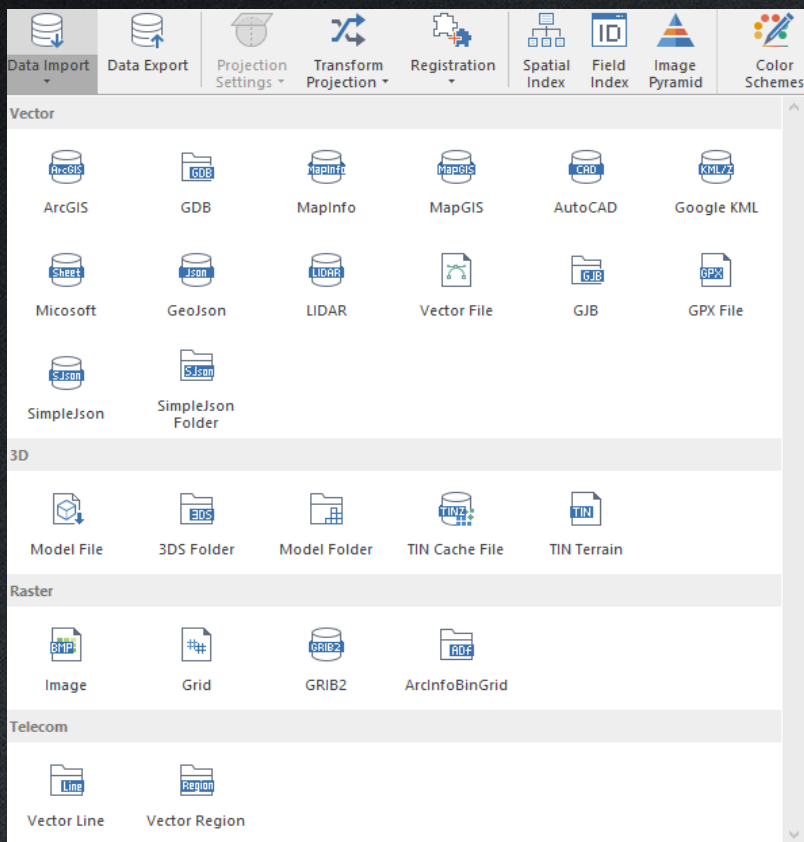
- Import IMAGE.jpg
- Data location:
 - Data\05-jpg\IMAGE.jpg

Supported Formats

All Files (*.dxf;*.dwg;*.grd;*.txt;*.dem;*.asc;*.shp;*.tab;*.mif;*.kml;*.kmz;*.wat;*.wal;*.wap;*.wan;*.csv;*.bmp;*.jpg;*.
AutoCAD(*.dxf;*.dwg;*.dgn)
ArcGIS(*.grd;*.txt;*.dem;*.asc;*.shp;*.E00;*.dbf;*.mdb)
MapInfo(*.tab;*.mif;*.wor)
Google KML(*.kml;*.kmz)
MapGIS(*.wat;*.wal;*.wap;*.wan)
Microsoft(*.csv;*.xlsx)
Image Bitmap File(*.bmp;*.jpg;*.jpeg;*.png;*.gif;*.img;*.sit;*.tif;*.tiff;*.sid;*.ecw;*.jp2;*.jpk)
Raster File(*.raw;*.b;*.bin;*.bil;*.bsq;*.dem;*.bip;*.vrt)
3D Model File(*.osgb;*.osg;*.s3m;*.s3mb;*.s3mbz文件;*.3ds;*.x;*.dxf;*.obj;*.ifc;*.fbx;*.dae;*.stl;*.off;*.sgm;*.skp)
LIDAR File(*.txt)
TIN(*.tin;*.sct)
Vector File(*.vct;*.json;*.gpx;*.osm)
GRIB2 File(*.grib2)
Geo3DML(*.xml)
Oblique Photograph(*.scp)

Vector Data Import—CAD Format

- Pay attention to the **Type** parameter



Exercise:

- Import LightingPlan.dwg as CAD dataset
- Import LightingPlan.dwg as simple datasets
- Data location:
 - Data\01-CAD\LightingPlan.dwg

Vector Data Import—CAD Format

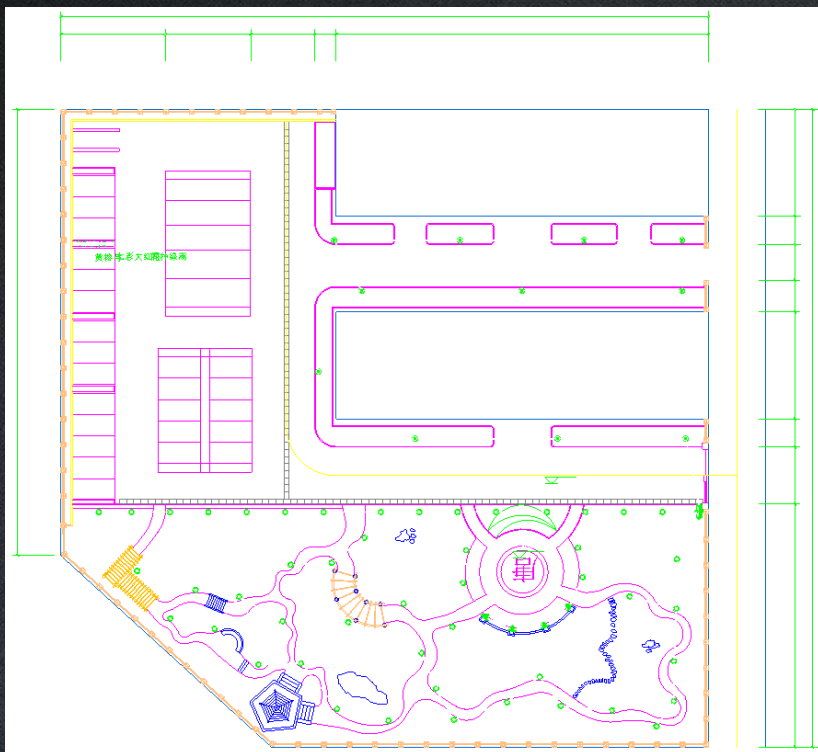
- Comparison of import results

Import Type	Result	Original CAD Style	Spatial Analysis
CAD Dataset	Point, Line, Region, and Text are stored together	Imported	Not Supported
Simple Dataset	Point, Line, Region, and Text are stored separately	Not Imported	Supported

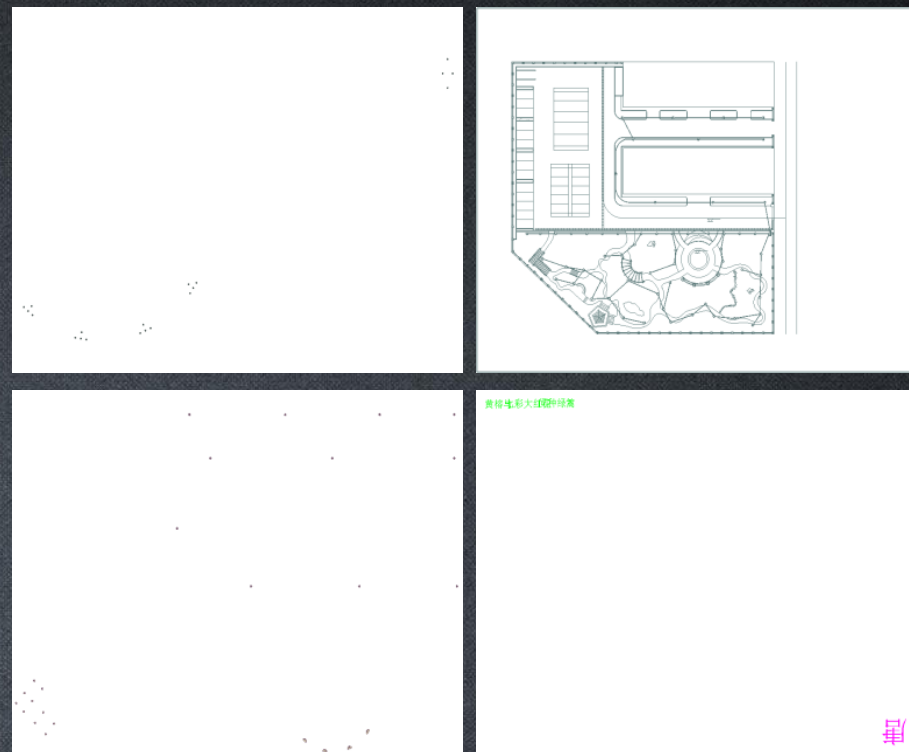
Vector Data Import—CAD Format

- Comparison of import results

CAD Dataset

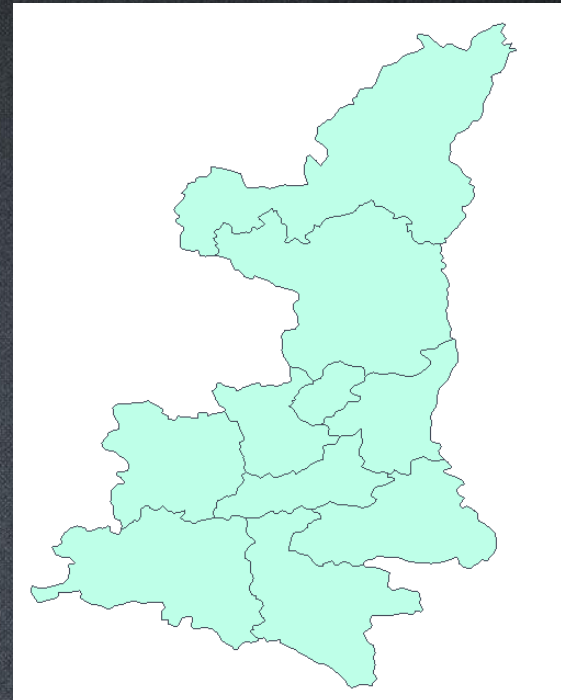
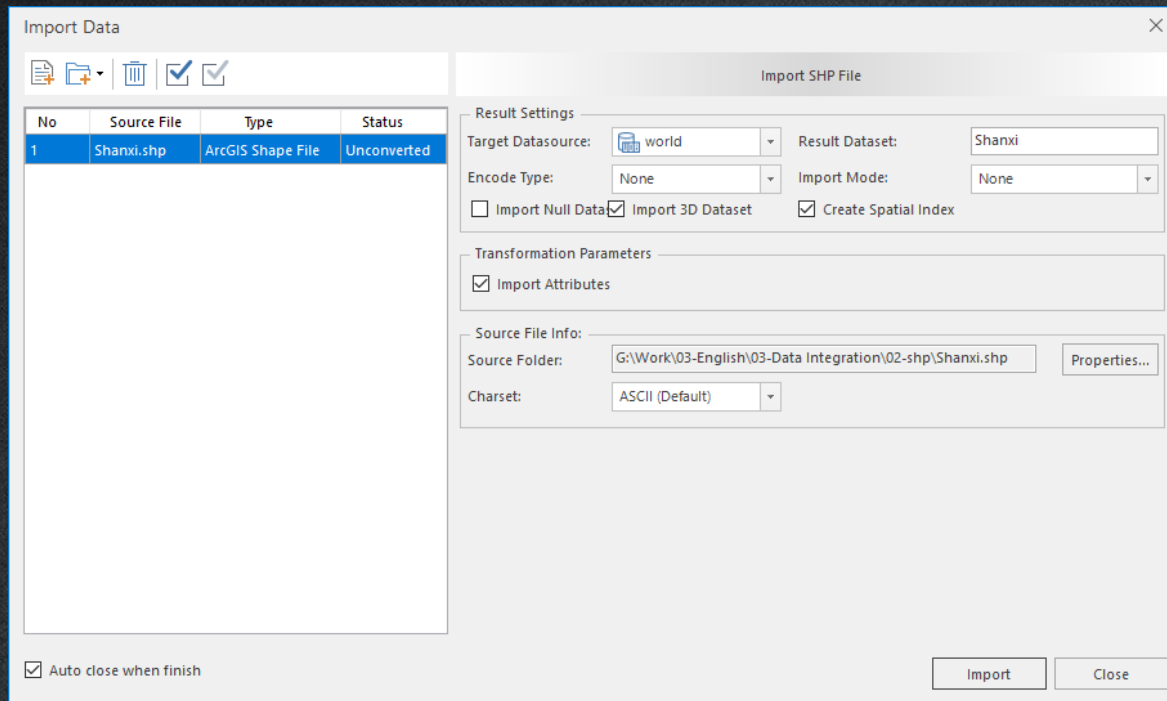


Simple Dataset



Vector Data Import—GIS Format

- MapInfo format (*.mif;*.tab;*.wor)
- ArcGIS format (*.shp;*.grd;*.txt;*.e00)
- MapGIS format (*.wat;*.wal;*.wap;*.wan)
- ...

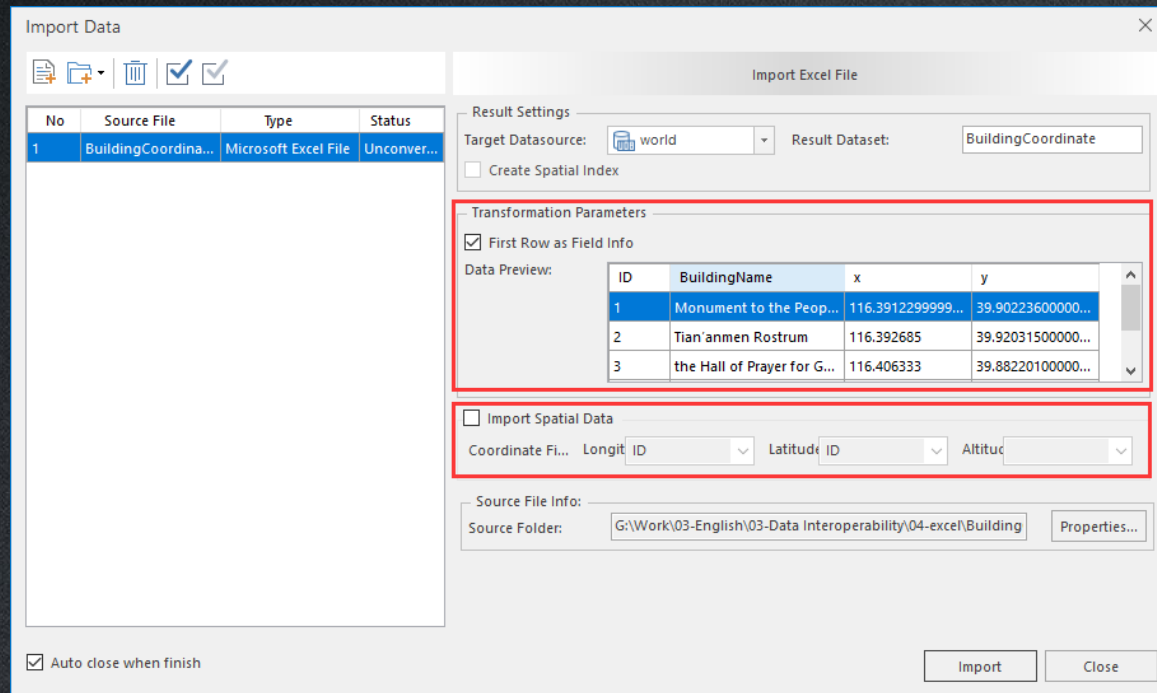


Exercise:

- Import Shaanxi.shp into the target datasource
- Data location:
 - Data\02-shp\Shaanxi.shp

Vector Data Import—Attribute Table

- Attribute Files (*.csv;*.xlsx)
- Functions of Attribute Files
 - Convert it into point dataset
 - Associate it with other spatial dataset



Attention:

- ✓ First Row as Field info
- ✓ Import Spatial Data

Exercise:

- Import BuildingCoordinate.xlsx file as well as its spatial data
- Import BuildingCode.xlsx and append its building code into the former dataset
- Data location:
 - Data\03-excel\BuildingCoordinate.xlsx
 - Data\03-excel\BuildingCode.xlsx

Dataset Append Column

Target Data

Datasource: world

Dataset: BuildingCoordinate

Join Field: BuildingName

Source Data

Datasource: world

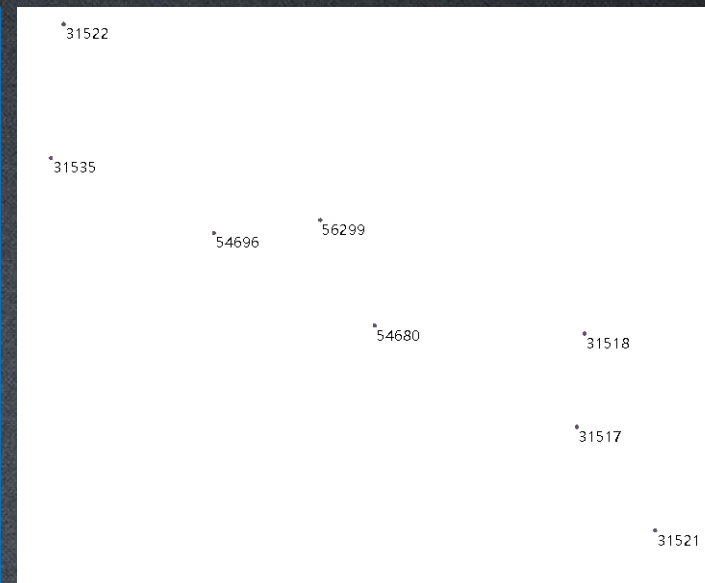
Dataset: BuildingCode_She

Join Field: BuildingName

Append Field

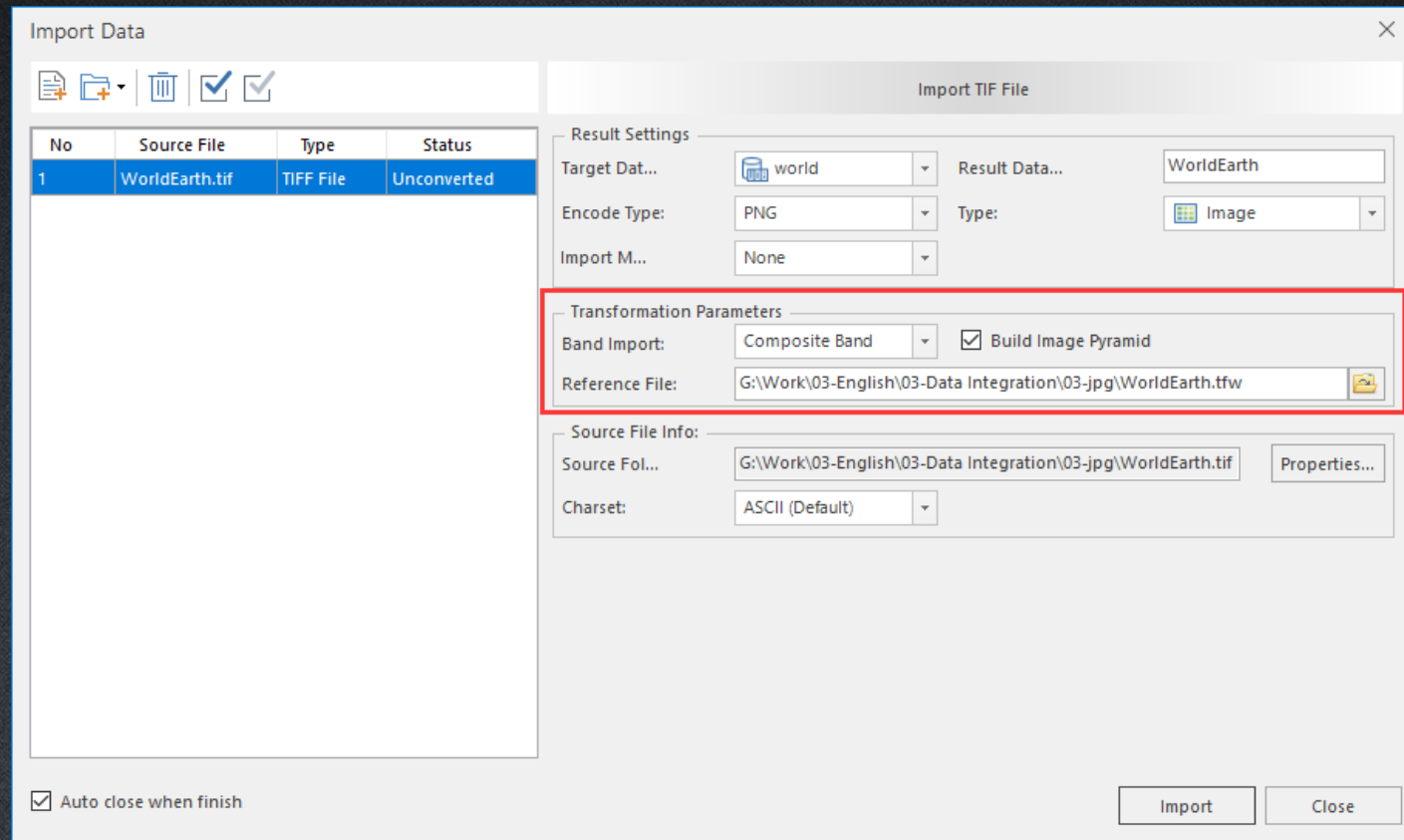
	Source Field	New Field	Field Type
☐	SmUserID	SmUserID	Int
☐	ID	ID	Text
☐	BuildingName	BuildingName	Text
☒	BuildingCode	BuildingCode	Text

OK Cancel



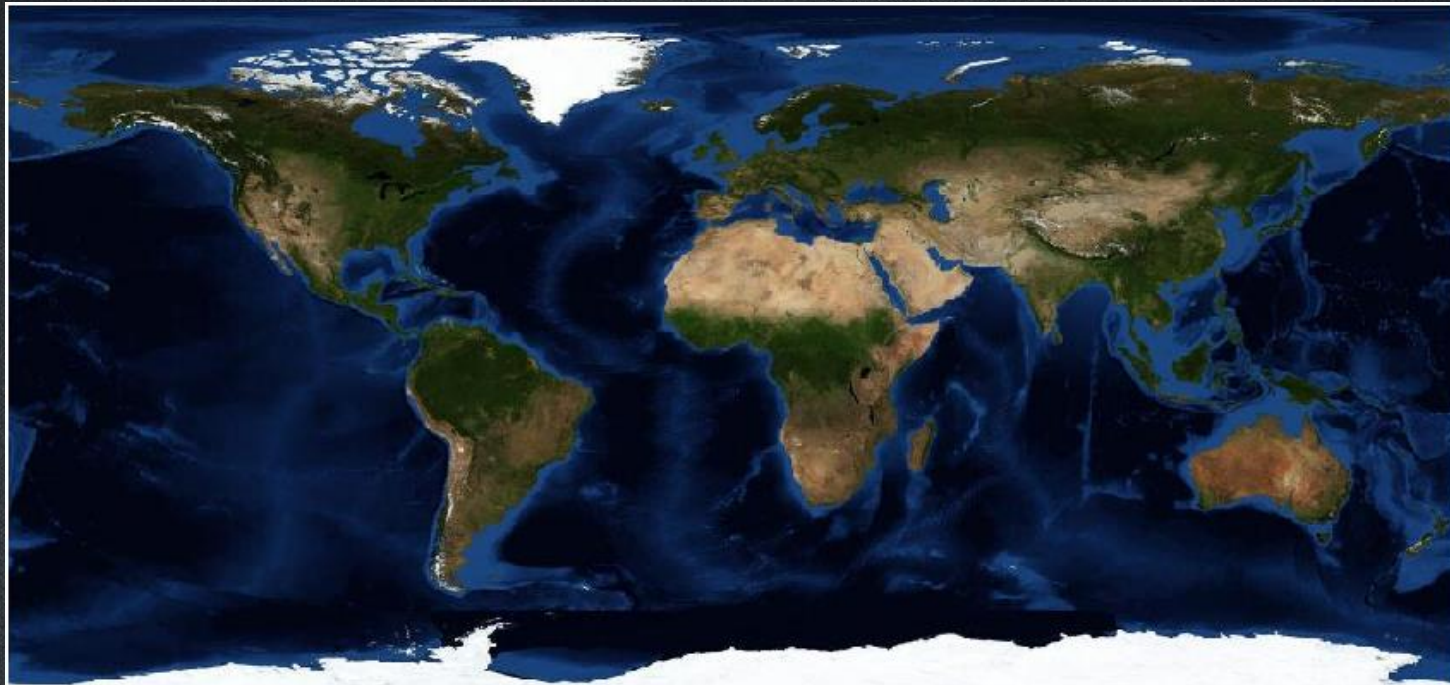
Raster Data Import

- General image files (*.bmp;*.jpg;*.png;*.tiff;etc.)
- Compression image files (*.sit)

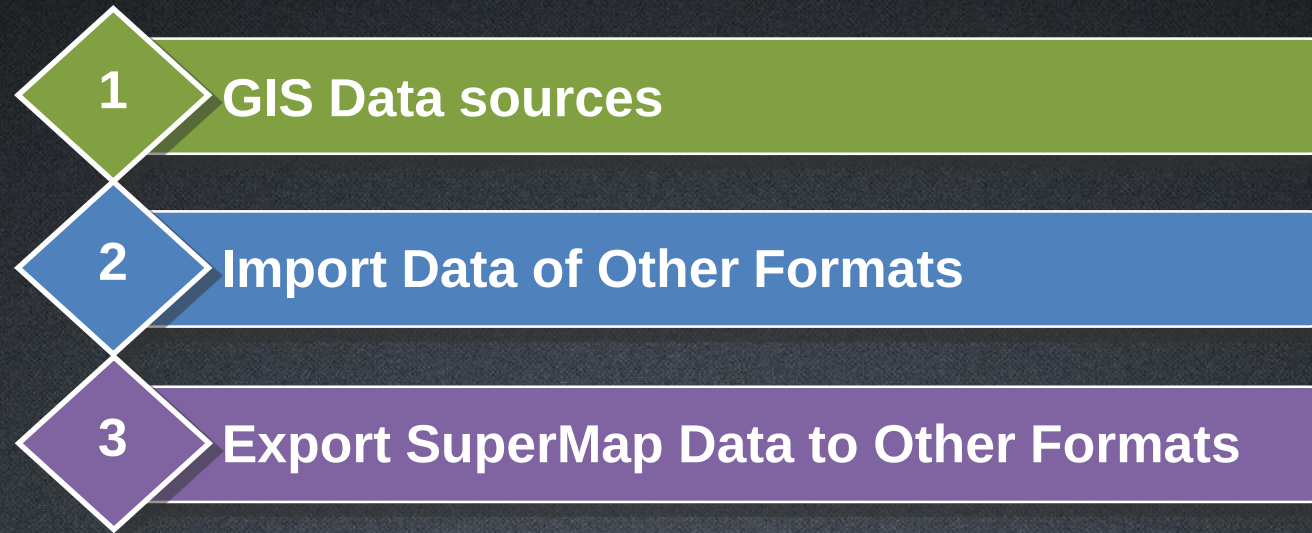


Exercise:

- Import WorldEarth.tif into the target datasource
- Data location:
 - Data\04-tif\WorldEarth.tif



Course Overview



Exercise:

- Export a vector dataset into .shp format file
- Export a raster dataset into .sit format file
- ...

Thank You!

Website: www.supermap.com

Email: globalsupport@supermap.com

Skype: [supermapsupport](https://www.skype.com/people/supermapsupport)

MSN: globalsupport@supermap.com



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