地理信息系统与遥感应用

第四讲 空间分析专题一

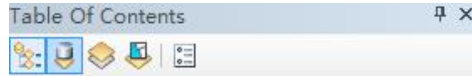南方科技大学·环境科学与工程学院

田 勇

2018年10月11日

Lecture 1

1. Conceptual theory of Information System

2. TOC

   • Layer Name

   • Layer O

3. Identify

4. Catalog

5. Layout

   • Change Layout

   • Insert: Legend, Scale Bar, North Arrow

   • 双击Legend可编辑Legend Style，其他类似

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Lecture 2

1. Projected Coordinate System (PCS) & Geographic Coordinate System (GCS);

2. UTM & WGS84;

Projected Coordinate System:	WGS_1984_UTM_Zone_49N
Projection:	Transverse_Mercator
False_Easting:	500000.00000000
False_Northing:	0.00000000
Central_Meridian:	111.00000000
Scale_Factor:	0.99960000
Latitude_Of_Origin:	0.00000000
Linear Unit:	Meter
Geographic Coordinate System:	GCS_WGS_1984

3. Toolbox:

- Define Project

- Project

```
☐ 📚 Projections and Transformations
    ⊞ 📚 Raster
        📄 Batch Project
        🔨 Convert Coordinate Notation
        🔨 Create Custom Geographic Transformatio
        🔨 Create Spatial Reference
        🔨 Define Projection
        🔨 Project
```
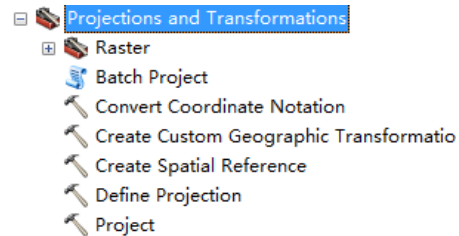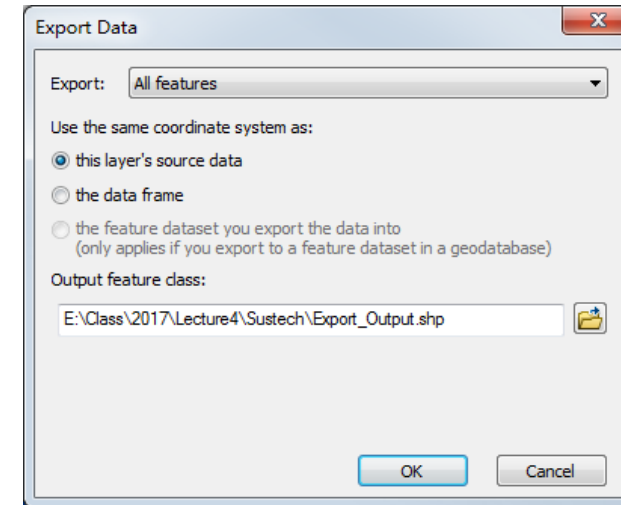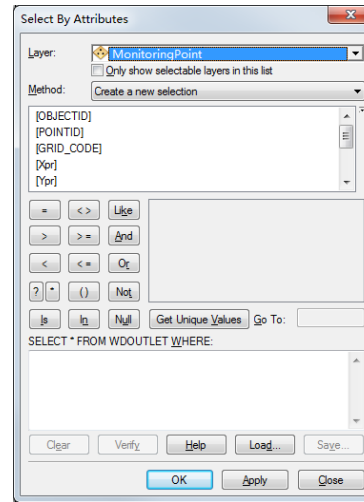
Lecture 3

1. Selection
   - Selection by attributes
   - Selection by location
2. Attribute Table
   - Add Field
   - Calculate Geometry
   - Field Calculator
     - Code block
   - Summarize
   - Join and Relate
3. TOC:
   - Export
   - Properties
     - Labels
     - Symbology

4. Add data
   - Shapefile
   - Excel
5. Geoprocessing
   - Results

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Lab4.1 南科大水体景观补水量估算

Lab4.2 新建道路影响鸟类活动区域评估