

# GIS analyses

## Overlay

Integrating two or more data layers into one layer

### Intersect (implemented)

Results of this operation include all parts that occurs in all input layers

**Input:** two or more FeatureDataset

**Output:** one FeatureDataset

**Type:** nested iterations

**Feature:** Intersect operation with 1 feature from dataset A and 1 feature from dataset B can result more than 1 feature

**Field:** all fields from all input FeatureDatasets are merged into the result FeatureDataset

### Union (not implemented)

Results of this operation include all parts that occurs in any input layer

**Input:** two or more FeatureDataset (must be same GeometryType)

**Output:** one FeatureDataset

**Type:** nested iterations

**Feature:** Union operation with 1 feature from dataset A and 1 feature from dataset B can result more than 1 feature

**Field:** all fields from all input FeatureDatasets are merged into the result FeatureDataset


## Generalization

### Dissolve

Aggregates features based on specified attributes

**Input:** one FeatureDataset, fields that user specified

**Output:** one FeatureDataset

**Type:** simple iterations 

**Feature:** many features which have same value(s) in certain field(s) will be merged into one feature

**Field:** "id" field, the user-specified field(s) (additionally, fields with statistical results)