Attribute Relationships - Concept Module

Joins, Relates, and Relationship Classes

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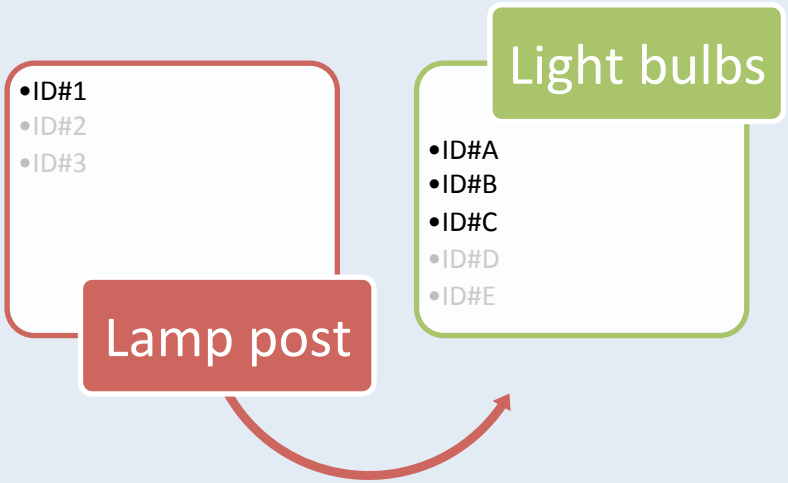
What is it?

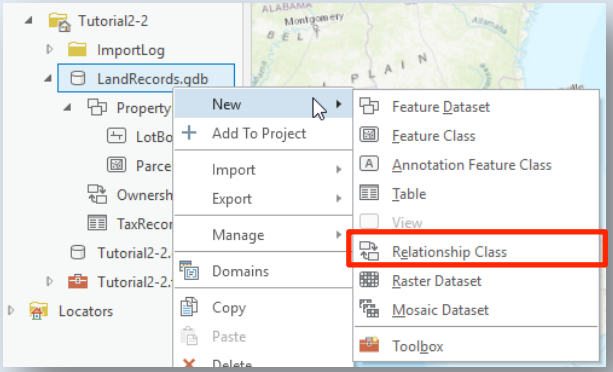
- Association between a geographic feature and other features or tables

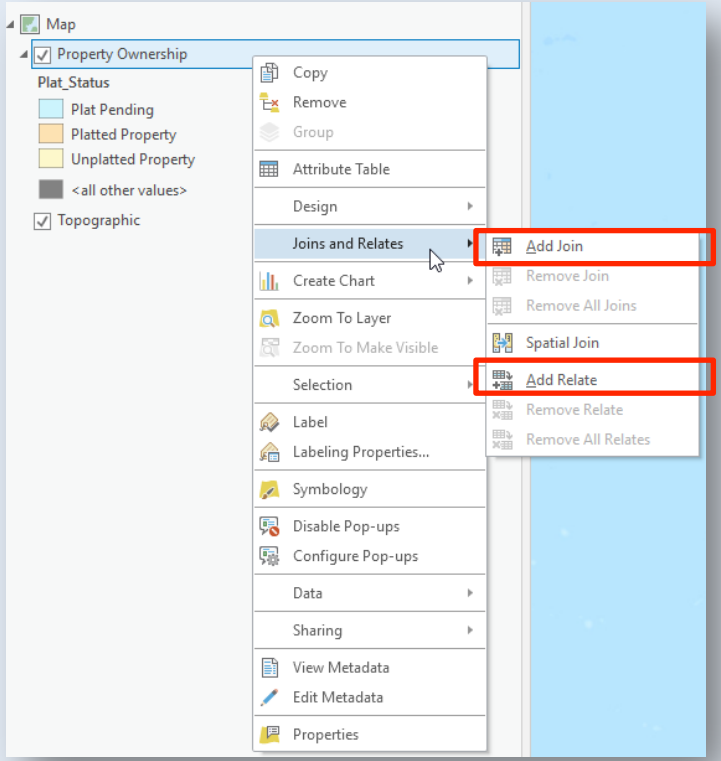
Image credit: Unsplash



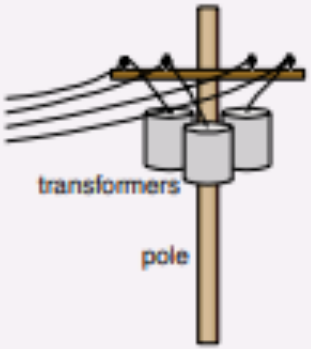
Three kinds of attribute relationships

- Joins
- Relates
- Relationship classes
- Common field: Key

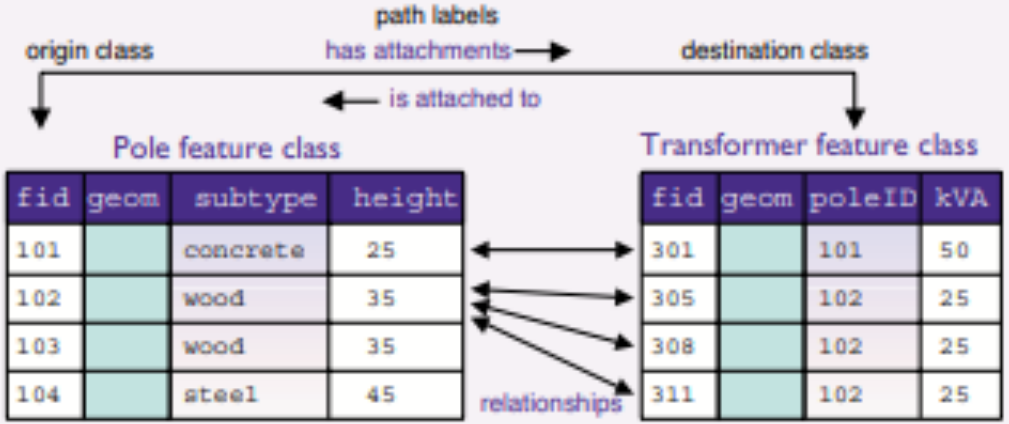




Pole–transformer relationship example



The association between utility poles and electric transformers is an example of a one-to-many relationship.



fid	geom	subtype	height
101		concrete	25
102		wood	35
103		wood	35
104		steel	45

fid	geom	poleID	kVA
301		101	50
305		102	25
308		102	25
311		102	25

Image credit: Modeling our World, 1st Ed., Esri Press

*In this example, the key is the **fid** field (**primary key**) in the Pole feature class (**origin class**) and the **poleID** field (**foreign key**) in the Transformer feature class (**destination class**)*

Joins and Relates

- Simple attribute relationships
- Temporary
- Use cases:
  - Relate: Access associated data without copying or appending data
  - Join: Append data to a feature class for map display or labeling

Image credit: Unsplash

Relationship Classes

- Stored in geodatabase
- Advanced capabilities
  - Type
  - Cardinality

Relationship Classes: Type

- Simple
- Composite

Image credit: Unsplash

Relationship Classes: Cardinality

- Number of relationships

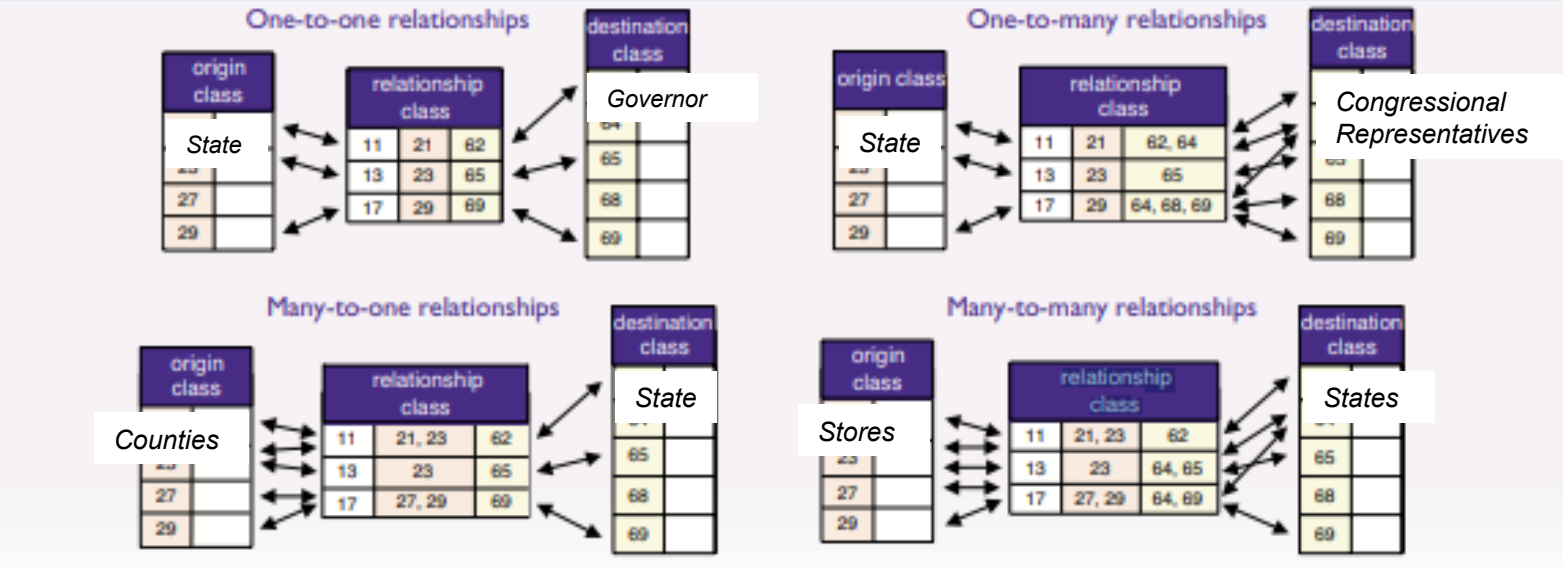


Image credit: Modeling our World, 1st Ed., Esri Press

Conclusion

- Associate features with attributes
- Join, Relate, Relationship Class
- Key

Image credit: Unsplash

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If you need more detailed help, you will find other resources on the GeoTech Center website including Model Courses on topics needed by the geospatial technology workforce.

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