Outline for Session 9
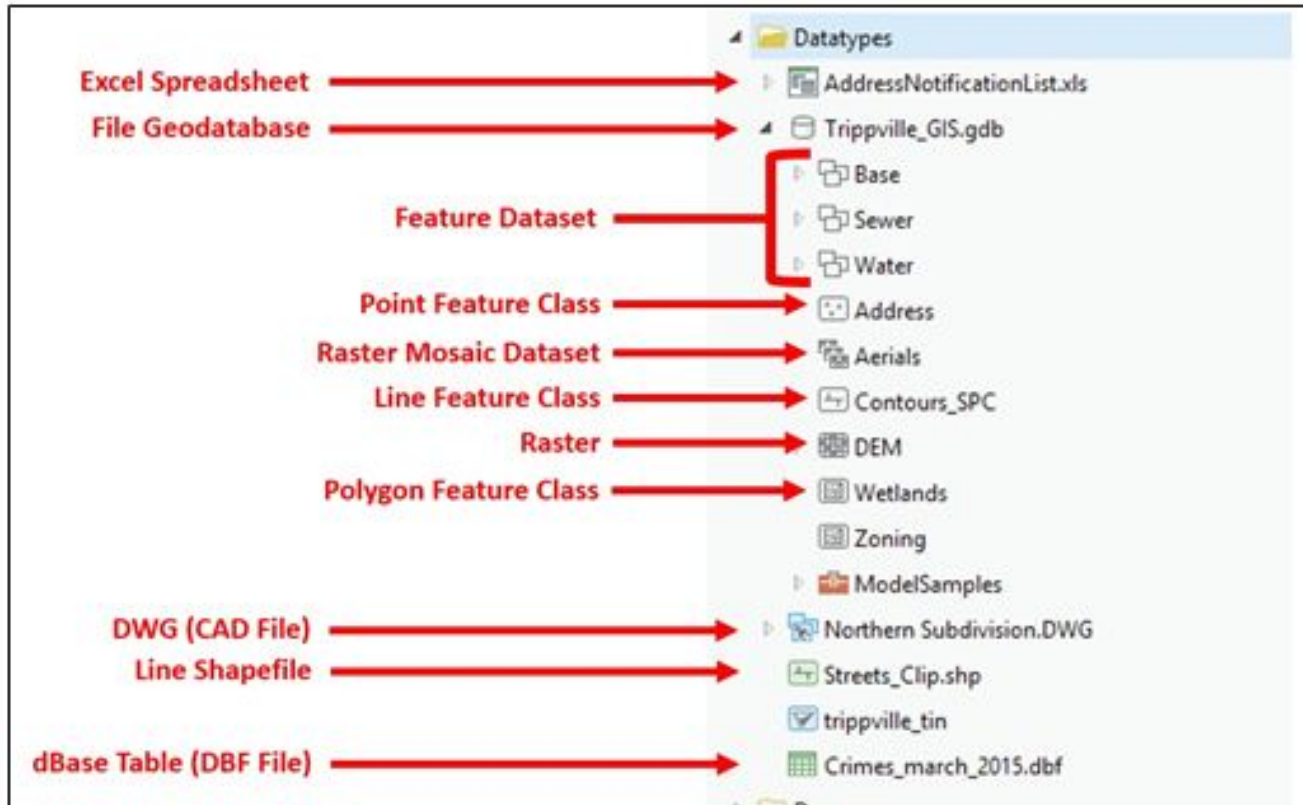
- Editing Spatial Data
- Introduction to Geocoding

Editing Spatial Data

| Data format	Display	Edit	Comments
Personal geodatabase	No	No	
File, workgroup, and enterprise (SDE) geodatabase	Yes	Yes	Workgroup and enterprise geodatabases require Standard or above license. Topologies, Geometric Network and Parcel Fabric editing not currently supported.
Shapefiles	Yes	Yes	
Coverage	No	No	
CAD files (DWG, DGN, and DXF)	Yes	No	ArcGIS Pro will display DWG files created with AutoCAD 2016 or earlier.
ArcGIS feature service	Yes	Yes	Published with ArcGIS Server.
ArcGIS feature layer	Yes	Yes	Published from ArcGIS Online or Portal with ArcGIS. Editing must be enabled.
Web map services	Yes	No	ArcGIS Pro can access web map services, including ArcGIS Server, ArcGIS Online, WMS, and WMTS.
Excel Spreadsheet	Yes	No	
DBF file	Yes	Yes	
Text files (TXT or CSV)	Yes	No	

Editing Spatial Data

Editing Spatial Data

Preparing to edit data

1. Pick coordinate system
2. Add and symbolize layers
3. Simplify attribute fields
   a. Less is more
4. Adjust Project Option settings
   a. Pick units: distance, area, direction
   b. Save settings
5. Set snapping options

Editing Spatial Data

The EDIT tab
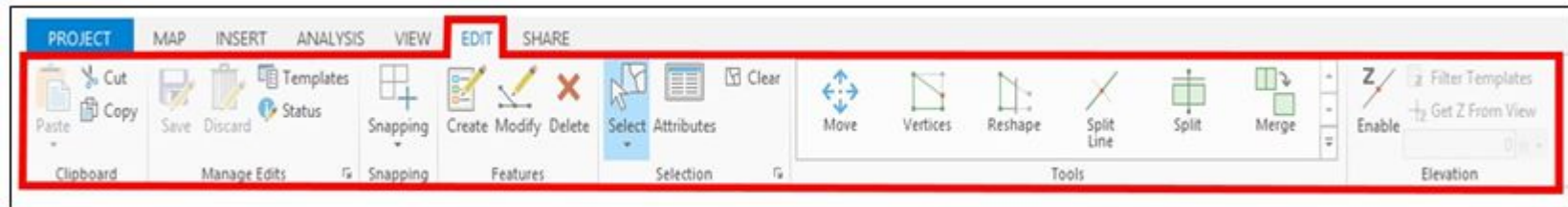
Introduction to Geocoding

Geocoding

- Process of creating geometric representations for locations (e.g. points) from descriptions of locations (e.g. street addresses)
- Uses code tables to standardize address components called a geocoding engine

Introduction to Geocoding

Geocoding

- Two ways to geocode
  - Batch geocoding – attempts to match all addresses
  - Interactive rematching – sophisticated user interface to match addresses

Introduction to Geocoding

Examples

- Local technology council maps technology businesses by street addresses to see technology rich areas in a city

- Emergency dispatch operators geocode an address to determine who should respond to an emergency call

Introduction to Geocoding

Examples

- County health director maps personal care and nursing homes and compares them to elderly population by neighborhood

- Business maps store locations and compares to competitor locations

Introduction to Geocoding

Input data

- Tabular data (text or dbase)
  - street addresses
  - zip codes
  - latitude and longitude

Address	City	State	ZIP Code*	Age
2415 1ST AVE	SACRAMENTO	CA	95818	27
224 NORTH ST	STERBENVILLE	OH	43952	32
PO BOX 622 535 4TH ST	MARIANNA	PA	15345	32
5126 JANIE DRIVE	PITTSBURGH	PA	15227	34
305 AVENUE A	PITTSBURGH	PA	15221	40
1431 CRESSON ST	PITTSBURGH	PA	15221	26
5133 DEARBORN STREET	PITTSBURGH	PA	15224	33
1122 MORRISON ST	PITTSBURGH	PA	15212	29
352 FIELDING DRIVE	PITTSBURGH	PA	15235	23
345 MOORE AVE	PITTSBURGH	PA	15210	21
588 S AIKEN AVENUE	PITTSBURGH	PA	15232	34
104 LEMONT DR	BUTLER	PA	16001	30
4025 WINDSOR STREET	PITTSBURGH	PA	15217	29
220 LYONS WAY	PITTSBURGH	PA	15209	23
7069 SPIN WAY	PITTSBURGH	PA	15206	20
510 HEMLOCK COURT	CORAOPOLIS	PA	15108	37

Attributes of tAttendees

Record: 1   Show: All Selected   Records (0 out of 1265 Selected.)

Introduction to Geocoding

Input Data

- Geographic Data
  - street centerlines
  - zip code polygons
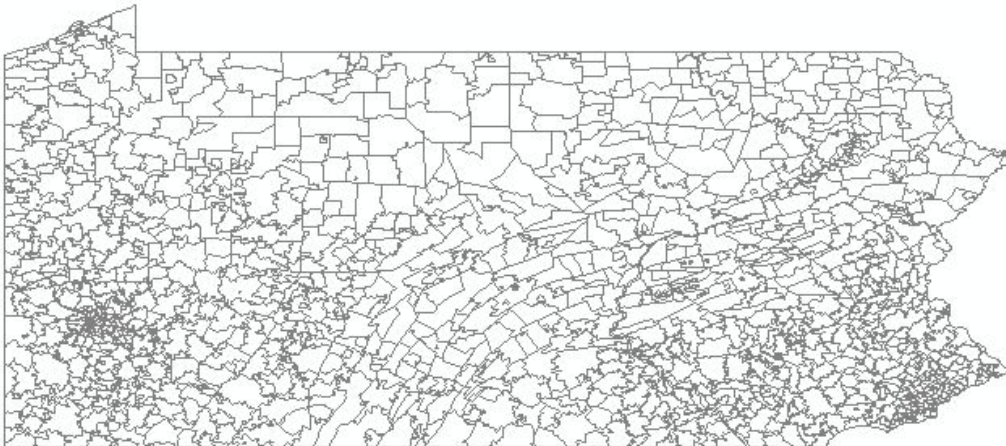
Introduction to Geocoding

Polygon Geocoding

- Method to map data whose identifier is a polygon (e.g. zip code, city, or county)
  - Create an aggregate table with a single record for each unique polygon
  - Count the records for each polygon
  - Join table to corresponding polygon layer
  - Symbolize with a choropleth map or graduated point symbols

Introduction to Geocoding

Example of polygon geocoding

- Spatial join by zip code to create a chorpleth map

Introduction to Geocoding

Example of polygon geocoding

- Spatial join by zip code to create a chorpleth map

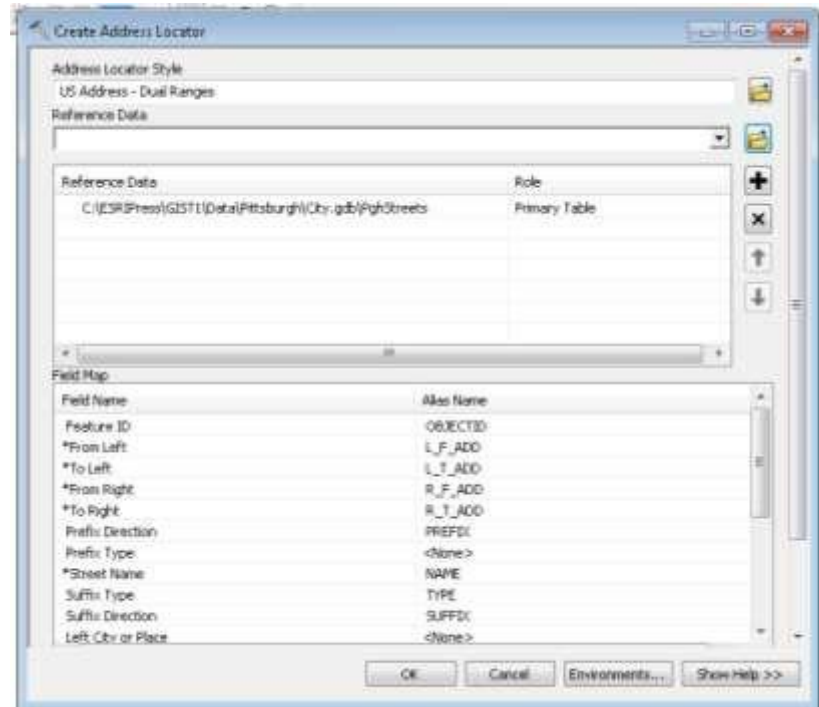# Introduction to Geocoding

Geocoding by address

- #1 Create a new Address Locator in ArcCatalog

Introduction to Geocoding

Geocoding by address

- #2 set address locator style

Introduction to Geocoding

Geocoding by address

- #3 set address locator properties

Introduction to Geocoding

Geocoding by address

- Address Locator is created

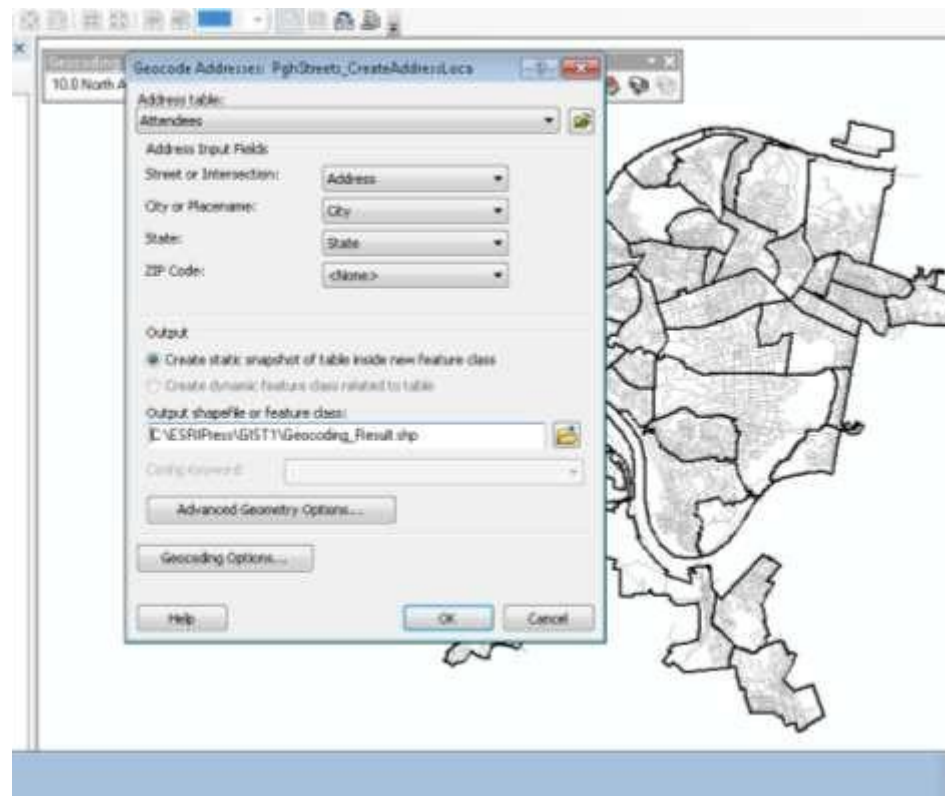# Introduction to Geocoding

Geocoding by address

- #4 add tabular and street layers in ArcMap

Introduction to Geocoding
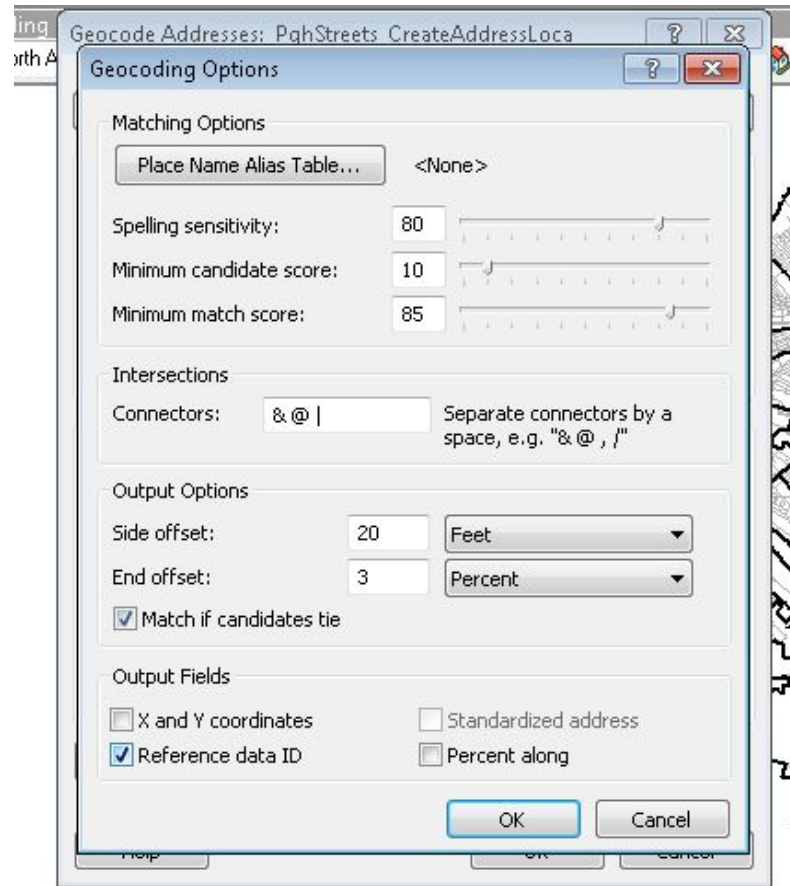
Geocoding by address

- #5 Geocoding toolbar

Introduction to Geocoding

Geocoding by address

- #6 Geocoding options

Introduction to Geocoding

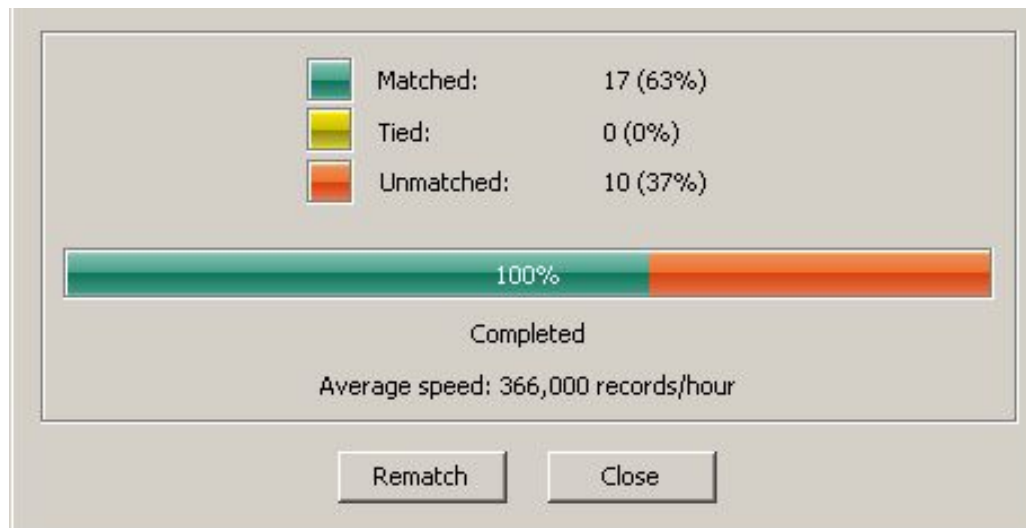Geocoding by address

- #7 Geocode

Introduction to Geocoding
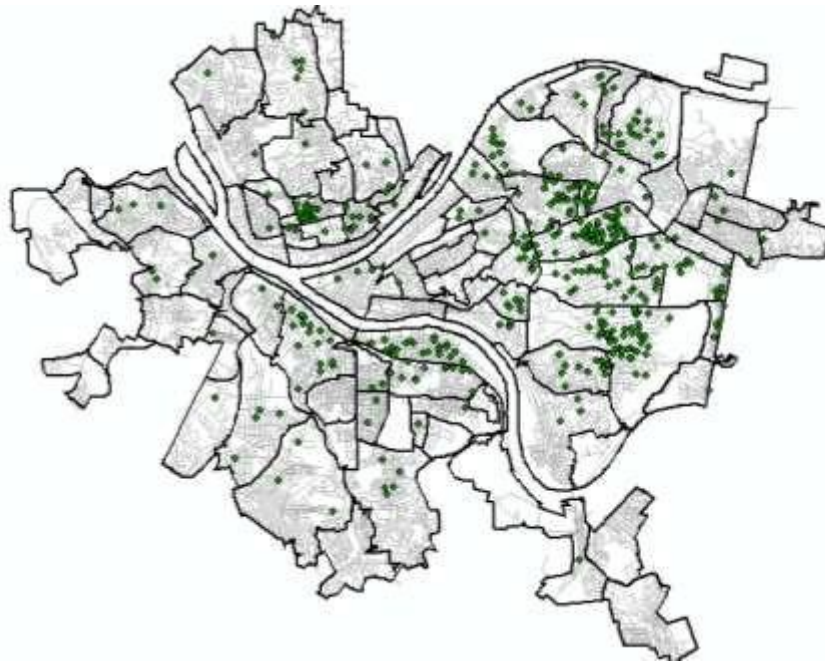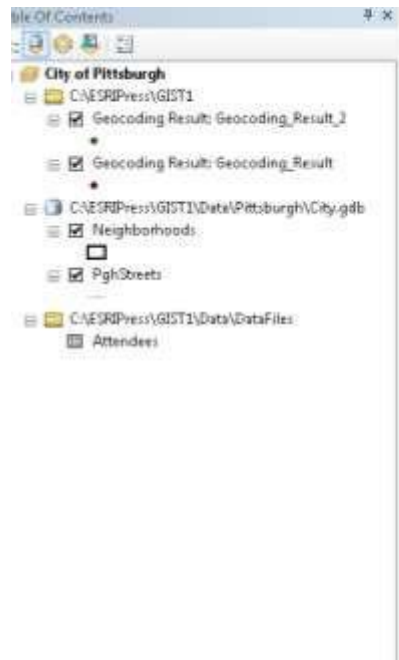
Geocoding by address : 3 types of Output

- Matched (address is found)
- Tied
- Unmatched (address is not found for your location)

	Matched:	17 (63%)
Tied:	0 (0%)
Unmatched:	10 (37%)

100%

Completed

Average speed: 366,000 records/hour

Rematch   Close

Introduction to Geocoding

Geocoding by address resulting data

Introduction to Geocoding

Geocoding by address resulting table

FID	Shape	Status	Score	Match_type	Side	X	Y	Match_addr	ARC_Street	ID	LAST
0	Point	M	100	A	L	1342193.762411	412711.5295	133 7TH ST	133 Seventh St	3	Robert
1	Point	M	100	A	L	1341992.787534	412334.122967	615 PENN AVE	615 Penn Ave	4	Johns
2	Point	M	100	A	L	1343161.309811	410118.669143	309 ROSS ST	309 Ross St	5	Clark
3	Point	M	100	A	R	1341559.248605	412681.786356	118 6TH ST	118 6th Street	6	Peters
4	Point	U	0	A		0	0		490 Penn Ave	7	Young
5	Point	M	100	A	L	1342352.504707	412140.139619	711 LIBERTY AVE	711 Liberty Ave	8	Thomp
6	Point	U	0	A		0	0		111 Hawksworth	9	Reed
7	Point	U	0	A		0	0		900 Smallman St	10	Baker