Exercise 5a: Edit a feature

Understanding GIS: An ArcGIS Project Workbook for ArcGIS 10 Lesson 5: Edit data Correct the shape of an existing feature. Book Resources are located here.

http://video.esri.com/watch/1083/exercise-5a-edit-a-feature

Video Transcription

00:01 This is Lesson 5, Edit Data. Exercise 5a, Edit a feature.

00:05 In this exercise we have four objectives.

00:07 First, we want to make sure that, in our map document...

00:09 ...the coordinate system of the data frame is set to match the layer we're editing.

00:13 In other words, we don't want to edit data while it's projected on the fly.

00:17 Second, we'll start an edit session.

00:19 So we'll take a look at the various toolbars and windows that go along with that.

00:22 Third, we'll do spatial editing on a park feature.

00:25 And fourth, after we've edited its shape, we'll update its attributes.

00:30 We'll start by opening a new blank map.

00:37 We'll add the Imagery basemap, which we'll use as a background for editing.

00:45 Open the Catalog window and expand folders down to the ReadyData geodatabase...

00:54 ...and drag the Parks feature class into the map.

00:56 We get a warning because Parks has a different geographic coordinate system from the data frame.

01:01 Close that...

01:02 ...and zoom to the Parks layer.

01:04 Now we'll add the Data Frame Tools toolbar, which we'll use a little later.

01:09 Click this button to open the Editing toolbar.

01:13 On the toolbar, we click Editor and Start Editing.

01:16 Here we get an editing warning.

01:18 It tells us that Parks is in a different coordinate system from the data frame.

01:22 Which we already knew.

01:24 But why is it an editing issue?

01:26 Well, most of the time it's not.

01:28 But the best practice is to edit data in its own coordinate space, not projected on the fly.

01:35 So we'll stop editing here and address that.

01:38 Open the Data Frame Properties, Coordinate System tab, and expand the Layers folder.

01:44 Expand Parks and click its coordinate system.

01:47 That resets the data frame to California State Plane Zone 5.

01:51 Now the Parks layer and the data frame match.

01:53 Which means Parks is no longer projected on the fly.

01:56 That's what we want for editing.

01:58 So that takes care of our first objective.

02:00 Except the Parks layer and the basemap still have different geographic coordinate systems...

02:03 ...so they might not line up perfectly.

02:06 We'll fix that with a geographic transformation here in the data frame.

02:09 We convert from WGS 1984 to NAD 1983 using number 5.

02:15 We did this before in Exercise 4b, except we did it with a geoprocessing tool.

02:20 Click OK and ArcMap won't give us any more warnings.

02:25 Let's get to the park.

02:29 Click the My Places button.

02:32 Click Pecan Playground and Zoom To.

02:37 We'll symbolize the layer with a hollow fill, and a bright green outline.

02:49 And make it a little thicker.

02:54 Adjust the view a little bit.

02:56 Our problem is that the swimming pool and play area at the top should be part of the park...

03:01 ...but they're not.

03:05 Click Editor, Start Editing. No warning this time.

03:09 We get the Create Features window that lets us automate some things in the editing process.

03:13 But since we're just editing one feature, we really don't need it.

03:16 And that completes our second objective, which was to get the edit session going.

03:20 Our third objective is to edit the feature shape.

03:22 Make sure the Edit tool is selected and click the feature.

03:25 Click the Edit Vertices button, which opens another toolbar.

03:28 Now we see the vertices that define the feature's shape.

03:31 A vertex usually marks a change of angle...

03:34 ...although this park has a couple that don't.

03:36 Click the Modify Sketch Vertices tool, which lets us move a vertex.

03:41 Place it over this vertex here and drag it to the corner of the field.

03:45 The feature gets reshaped, but we still see the old shape in blue.

03:49 Now take this vertex and drag it up here to the top.

03:56 Change to the Delete Vertex tool and get rid of this useless vertex by drawing a box around it.

04:02 And now we'll zoom in with the Z key, which you can't see us pressing.

04:07 Switch back to the Modify Vertices tool...

04:10 ...and drag this red vertex up to the corner of the block.

04:13 The red vertex is the last one that gets added when a feature is created.

04:18 Press the X key to zoom out, C to zoom down, and Z to zoom back in.

04:25 The keys let you navigate without leaving your editing tools.

04:29 We'll drag this vertex in a little bit from the street.

04:35 And go back to the Delete Vertex tool to get rid of this other bogus vertex.

04:42 Back to our Modify Vertices tool, and pan down here to the bottom...

04:50 ...and drag this last vertex from the street.

04:54 There's one vertex we haven't touched yet, which is in a good spot already.

04:59 Let's just move it around a tiny bit.

05:02 You can feel how it wants to snap to other features, like points or line segments.

05:07 Snapping helps keep features connected, but sometimes it's annoying.

05:11 You can turn it off in the Snapping toolbar, or zoom in like we're doing here.

05:15 The snapping tolerance is 10 pixels.

05:18 When you zoom in, 10 pixels takes up more of your screen...

05:21 ...so it's easier to move around it without snapping to things.

05:24 Let's go back. The original shape is blue and the edited shape is green. It looks good.

05:30 We'll click Finish Sketch and save our edits.

05:34 And now for our last objective.

05:36 Since we've changed the feature shape, we have to update the area attributes.

05:40 The ACRES value won't be right anymore.

05:42 Click Show Selected Records.

05:44 Right-click the ACRES field and Calculate Geometry.

05:48 Set the units to Acres and click OK.

05:51 The new value isn't too different because we made the park longer, but also narrower.

05:58 Again we save our edits.

06:00 Show all records, clear the selection, close the table, and stop editing.

06:12 Finally, we'll save the map, and name it, and exit ArcMap.