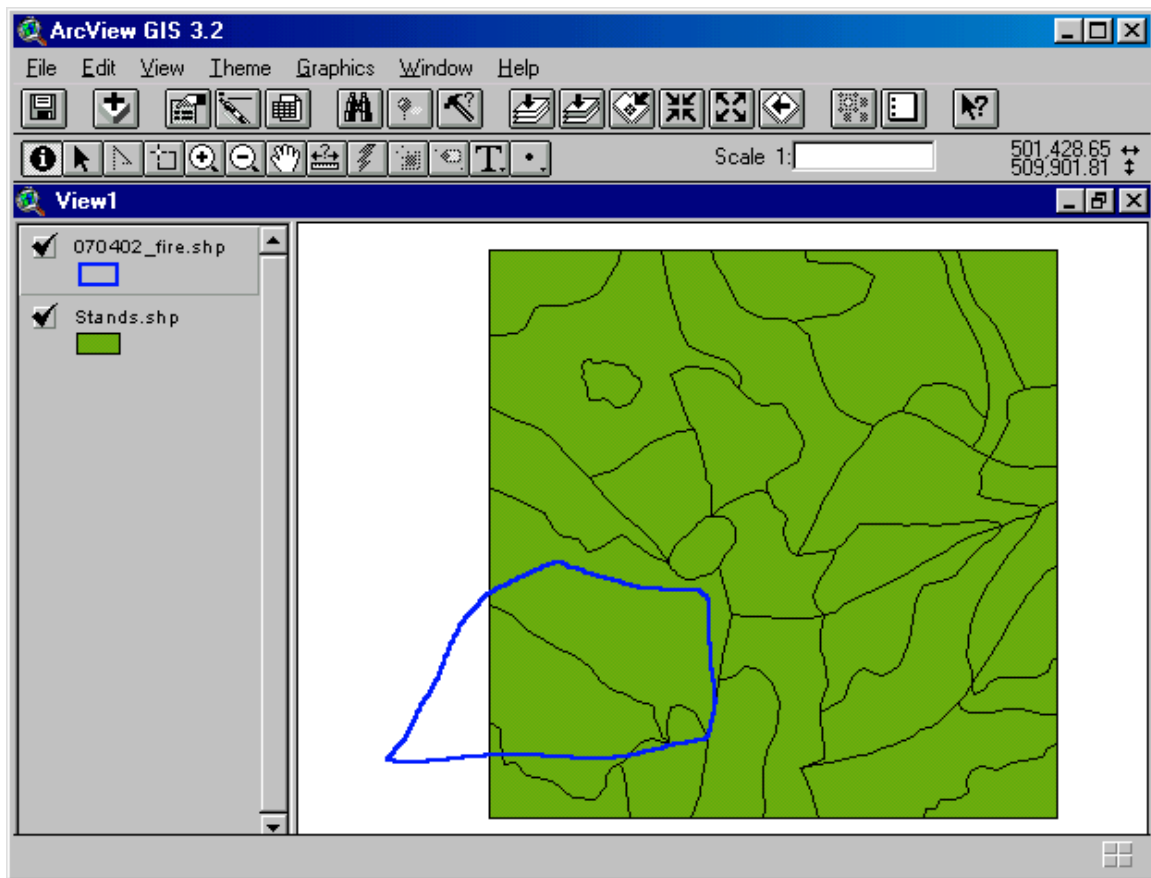


11.4. Fire losses. How much forest area, by vegetation class, burned on the Daniel Pickett Forest during the July 2, 2002, fire? Use the 070202_fire GIS database to describe the boundary of the fire.

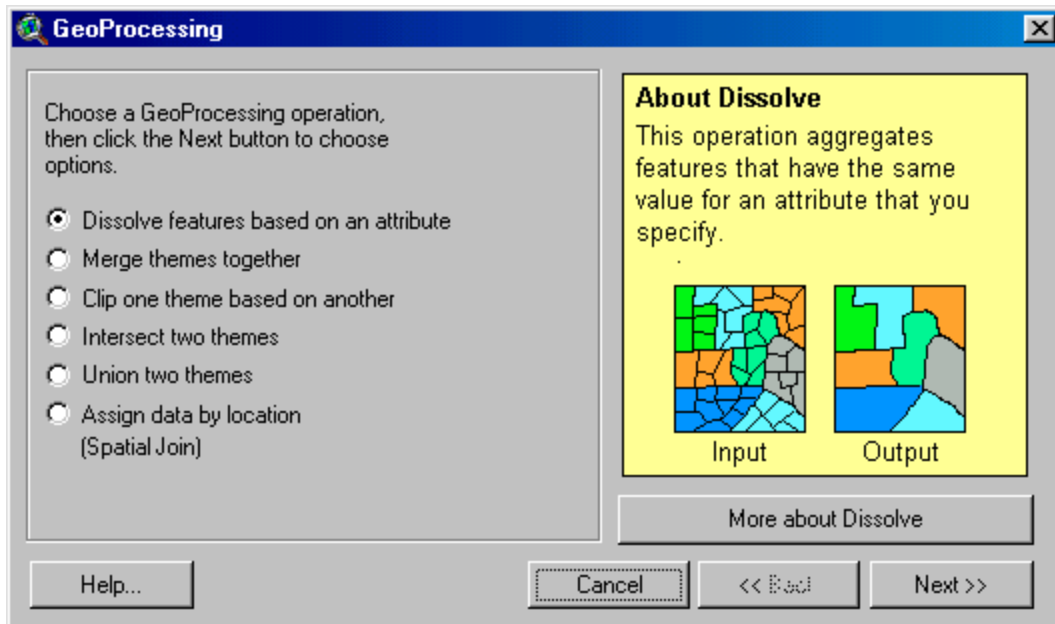
Either the identity, intersect, or union processes will work in addressing this question. In fact, the clip process will also suffice.

Let's use the intersect process to demonstrate how to arrive at the answer.

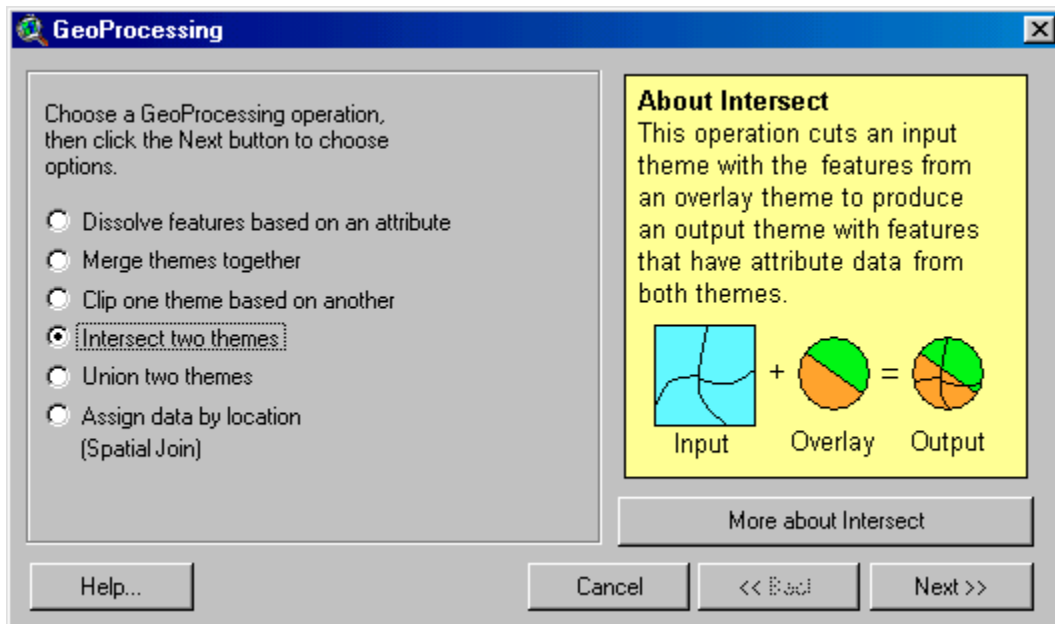
1. Open in an ArcView View Window the Daniel Pickett stands GIS database and the 070402_fire GIS database.



2. Load the Geoprocessing File Extension by selecting File, then Extensions from the ArcView Main Menu system. Check the Geoprocessing extension and press Okay.
3. Select View, then Geoprocessing Wizard from the ArcView Main Menu system.

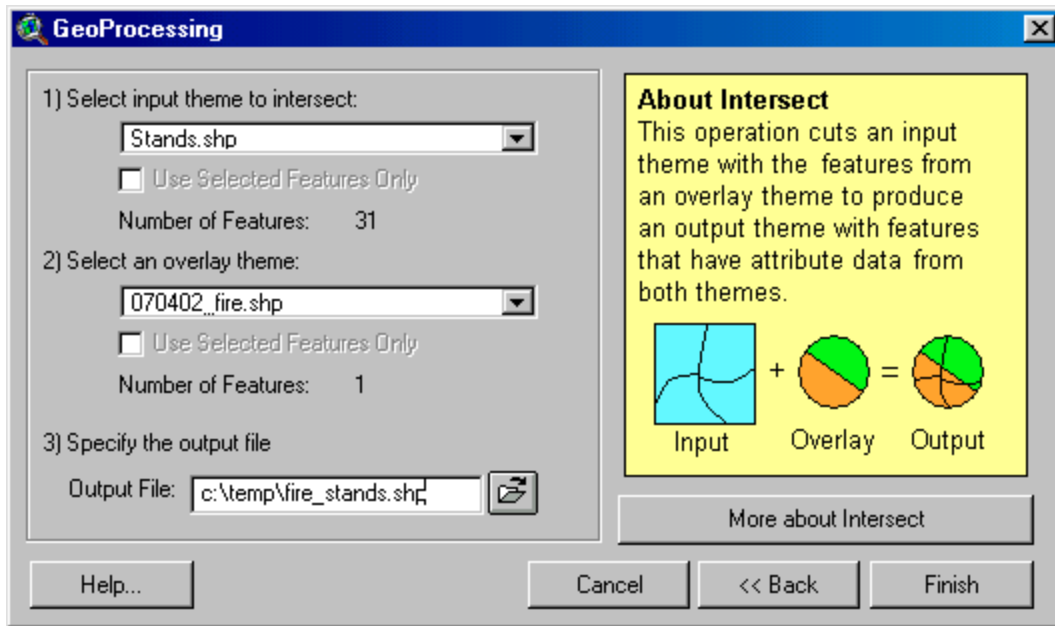


4. Choose the Intersect two themes option.

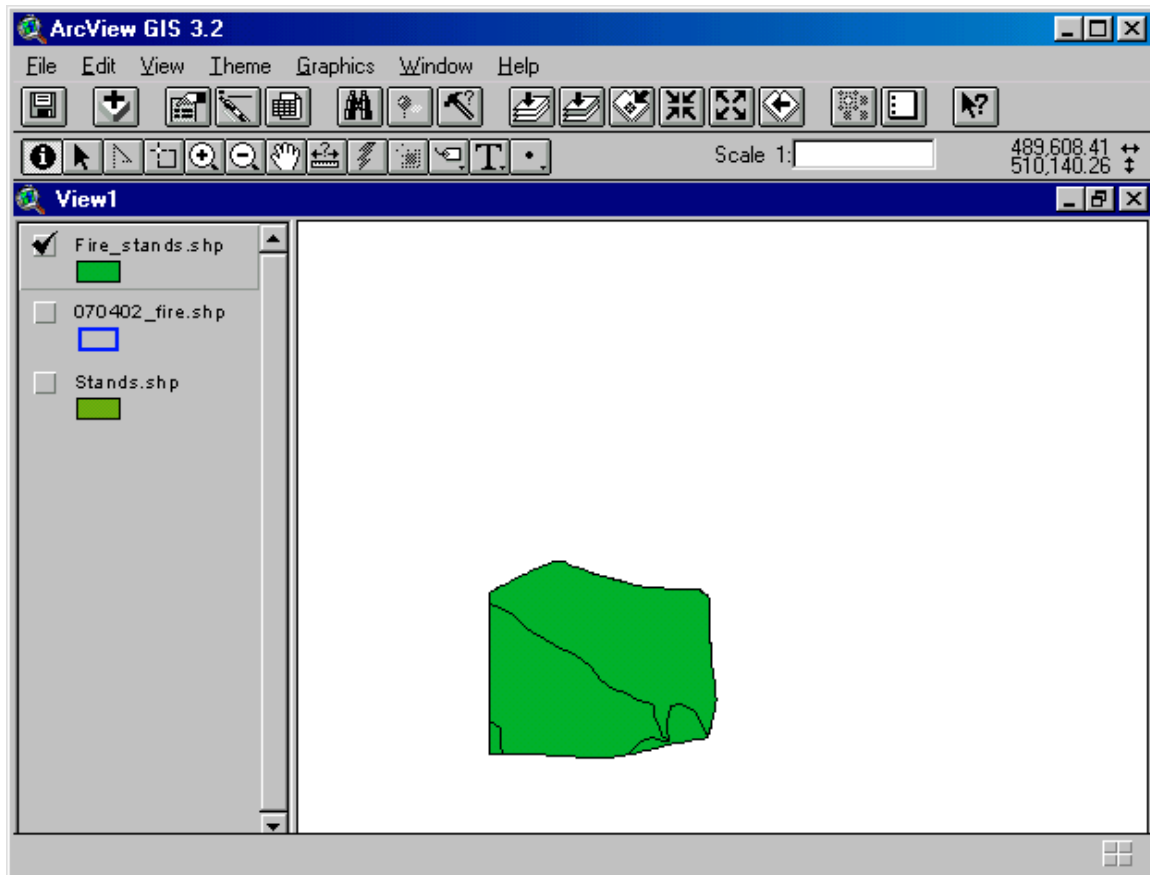


5. As you can see from the example, one theme will be used to define the boundary of the polygons in the resulting (new) GIS database. The resulting database will, however, contain all of the attributes of both GIS databases used in the intersect process. We could use either GIS database to define the polygon boundaries, but for this example, let's choose the fire GIS database.


Press the Next button.

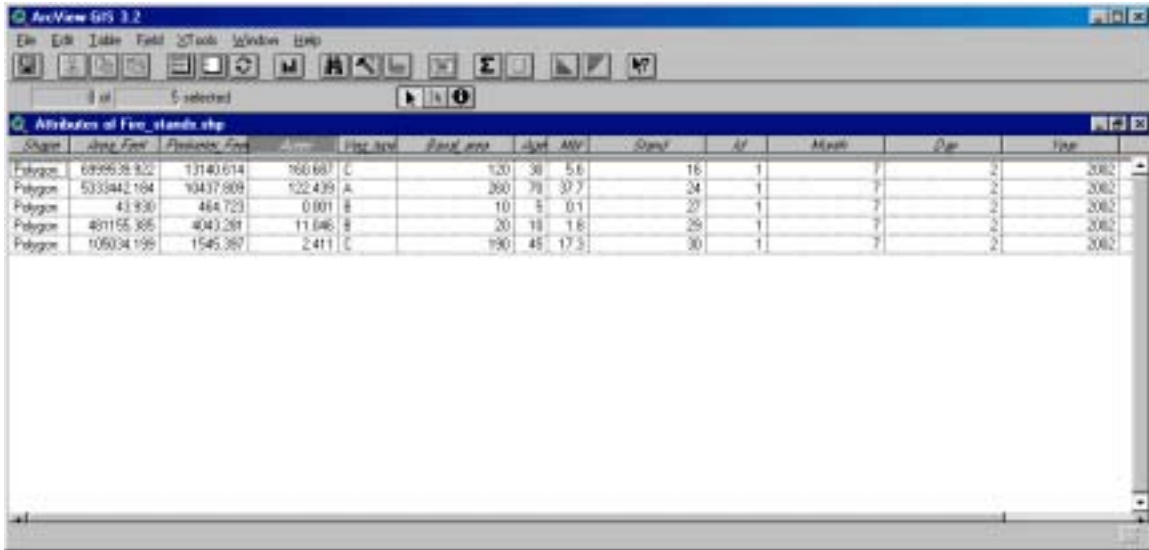


6. Select as the input theme the stands GIS database. Select as the overlay theme the fire GIS database. Define the new GIS database file name and location. Press the Finish button. The new GIS database should be visible in the ArcView Table of Contents.




7. Update the area of the new polygons. Obtain the XTOOLS file extension, then use the "Calculate area, perimeter..." function to recalculate the area of the new polygons.

8. Open the attribute table for the new GIS database using the Open Theme Table  button. Press down the "Acres" column header button.



Shape	Area_Feet	Perimeter_Feet	Acres	Veg_type	East_apt	West_apt	Count	N	Mean	Std	Year	
Polygon	6829638.922	13140.614	160.697	C	120	30	5.6	16	1	7	2	2002
Polygon	5339442.164	10437.809	122.439	A	260	70	37.7	24	1	7	2	2002
Polygon	43.930	464.723	0.001	B	10	5	0.1	27	1	7	2	2002
Polygon	401155.985	4043.281	11.646	B	20	18	1.8	29	1	7	2	2002
Polygon	106034.199	1545.367	2.411	C	190	45	17.3	30	1	7	2	2002

9. Either develop queries for each of the three vegetation types, or manually select them from the records in the attribute table (since there are only six records) by pressing and using the Select  button. Select Field, then Statistics from the ArcView Main Menu system to view the statistics of the query.

Results (area of vegetation classes burned):

Vegetation class A: 122.4 acres

Vegetation class B: 11.0 acres

Vegetation class C: 163.1 acres