



# Making an Intersection Search in EFS

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Dept. of Regional Planning  
GIS Section

## Goal

- Set up a search profile in EFS to search an intersection by intersecting streets
  - Main Steps
    - Create a point shapefile representing every street intersection within Los Angeles County
    - In the attribute table, create multiple “street name” fields for each intersecting street (some intersections may have more than two intersecting streets)
    - Share with LAR-IAC members

## Step 1: Create Points

- AddPointsAtCrossings VB script
  - Creates points at all intersecting arcs in a polyline shapefile
- First: prepare a street layer to be used for creating intersections
  - Start with Thomas Bros street data
  - Street data contains several unnecessary fields; we only need a few...

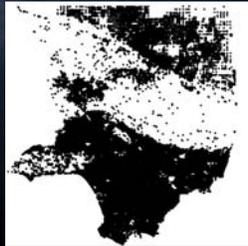
	NAME_ALF	NAME	SUFF	SUFFABV_AL	DIRS	DIRSABV_AL	ADLF	ADLT	ADRF	ADRT	DIRCT	RTES_ALF
1	main	-90	-90	-90			0	0	0	0	0	1 main
2	main	-90	-90	-90			0	0	0	0	0	1 main

## Step 1: cont...

- Only 3 fields are needed:
  - PREF\_ALF (prefix): avenue, calle, etc...
  - NAME\_ALF (street name)
  - SUFFABV\_AL (suffix)
- Create new field SEARCH\_STREET and:
  - Field calculator syntax: trim (PREF\_ALF & “ “ & NAME\_ALF & “ “ & SUFFABV\_AL & “.”)
  - This merges the three fields into one, and all other fields can be deleted

## Step 1: cont...

- Do a dissolve based SEARCH\_STREET field
  - This will remove erroneous points occurring at non-intersections
- Second: run VB script



## Step 2: Adding Attributes

- CreateIntersectionAttr VB script
  - Populates intersection shapefile with the names of the intersecting streets
- First: create new fields in intersection shapefile: Street1, Street2, Street3, etc...

Contents		Preview	Metadata				
FID	Shape *	Street1	Street2	Street3	Street4	Street5	
0	Point						

## Step 2: cont...

- Second: run VB script
  - This fills in the street fields with the names of the intersecting streets for each point

Contents		Preview	Metadata				
FID	Shape *	Street1	Street2	Street3	Street4	Street5	
101422	Point	HILL OAK DR	LIVE OAK DR	PARK OAK DR	SPREADING OAK DR	WILD OAK DR	
41316	Point	AVENUE D	CAMP VIEW DR	CEMENT BLOCK RD	WAYSIDE CANYON RD	WAYSIDE LATERAL	
46810	Point	BENEDICT CANYON DR	CANYON DR	MARTINBORO WY	RODGO DR	SUNSET BLVD	
0	Point	100TH ST	JANTELORE HWY				
1	Point	100TH ST	AVENUE A				

## Step 3: EFS Setup

- An intersection search can now be set up in EFS
  - However, due to the limitations of EFS's search function, several adjustments were made to the intersection shapefile
  - The search profile works best when only 2 fields are used...

## EFS Setup cont...



- Because only two fields are used, we need to represent all combinations of intersecting streets in Street1 and Street2

Street1	Street2
Street1	Street2
Street1	Street3
Street1	Street4
Street2	Street1
Street3	Street1

## EFS Setup cont...

FID	Shape *	Street1	Street2
0	Point	AVENUE B.	WAYSIDE LATERAL.
1	Point	BENEDICT CANYON DR.	SUNSET BLVD.
2	Point	HILL OAK DR.	WILD OAK DR.

- We can also do a spatial join with other data layers to add more information

FID	Shape *	Street1	Street2	CITY_COMM	ZIPCODE
0	Point	AVENUE B.	WAYSIDE LATERAL.	SANTA CLARITA VALLEY	91304
1	Point	BENEDICT CANYON DR.	SUNSET BLVD.	BEVERLY HILLS	90210
2	Point	HILL OAK DR.	WILD OAK DR.	LOS ANGELES	90088
3	Point	100TH ST	IRACHMANNOV ST	ANTELOPE VALLEY	95536

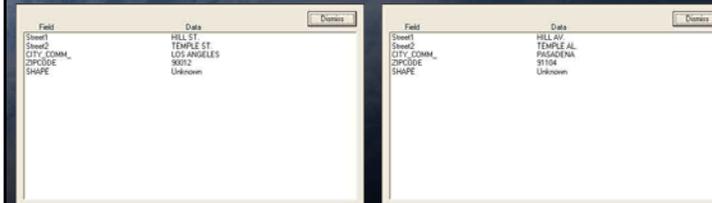
## EFS Setup cont...

- Back to the search...
  - A search for "temple" will display a list of all the streets that intersect Temple (Ave., St., etc...)

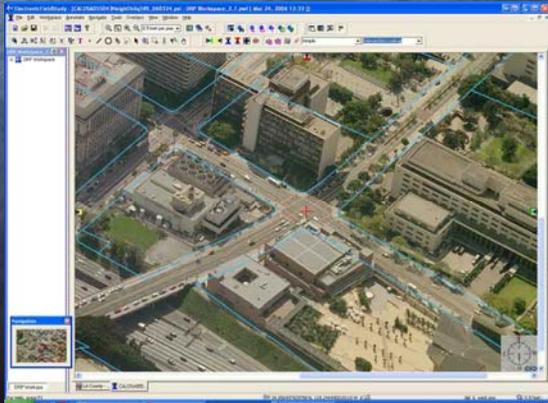


## EFS Setup cont...

- Sometimes there are multiple results for the same intersecting streets...



## Hill St. & Temple St.



Questions?