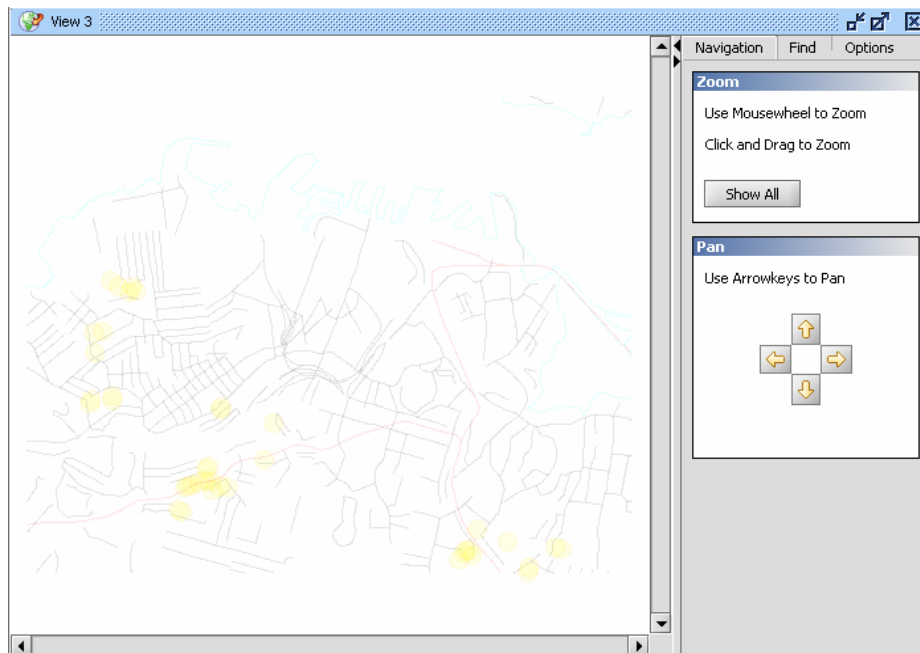# Tutorial:
Querying Using TreeSap

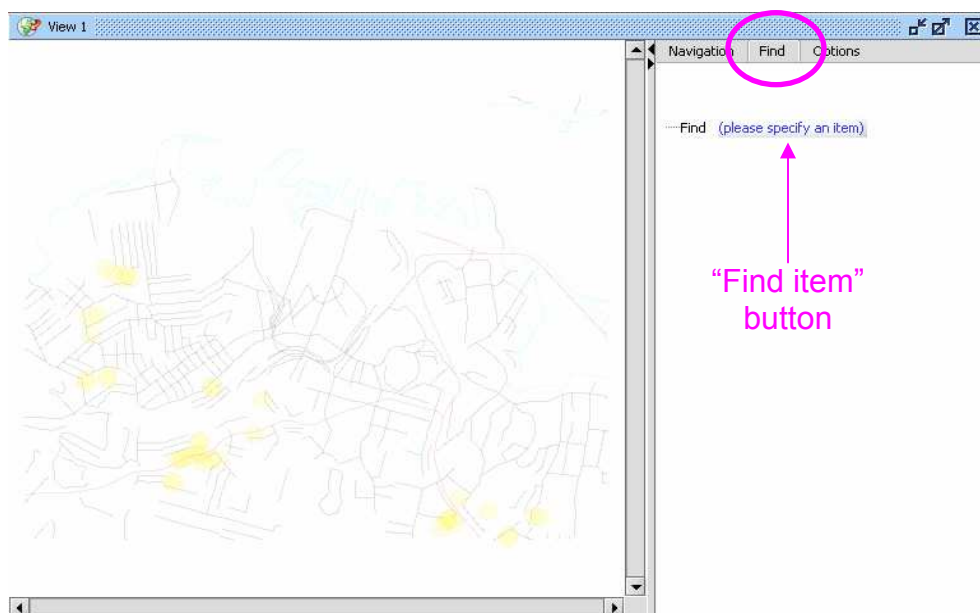This tutorial steps through the process of querying in TreeSap.

QUERYING
- Can find features on the map
- Searches can be arbitrarily complicated
- Two different visualisation methods for displaying results

1. First load in a project
- Select the "Load Project" button
- Choose the project titled "DemonstrationProject.xml", in the Tutorial/SampleData directory

2. Open up a new view
- Select the "View Data" button
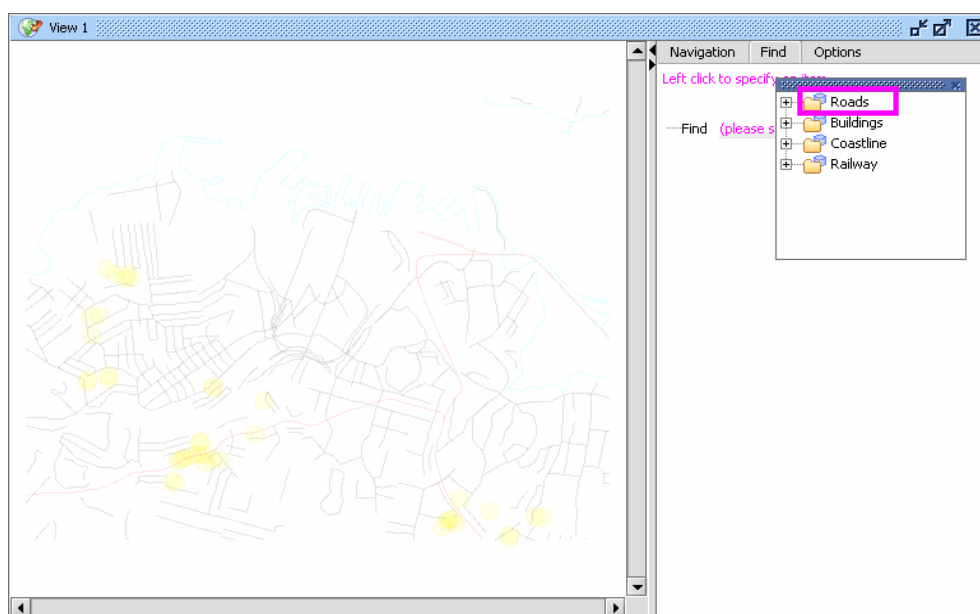- A view window appears

- The panel on the right is the "Navigation" panel
  - Use these controls to move around the map

- Please note that the current map appears quite faint
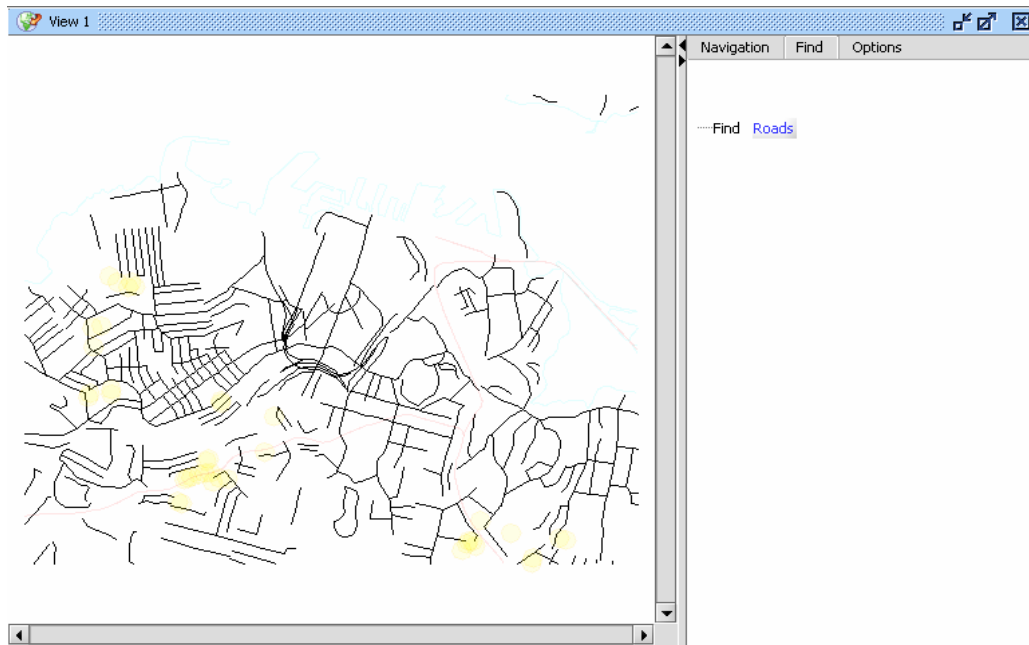 - This is because no query has been applied yet

3. Find all the roads on the map
- Click on the "Find" tab
- This is the query panel

- Specify an item to find by clicking on the "Find item" button
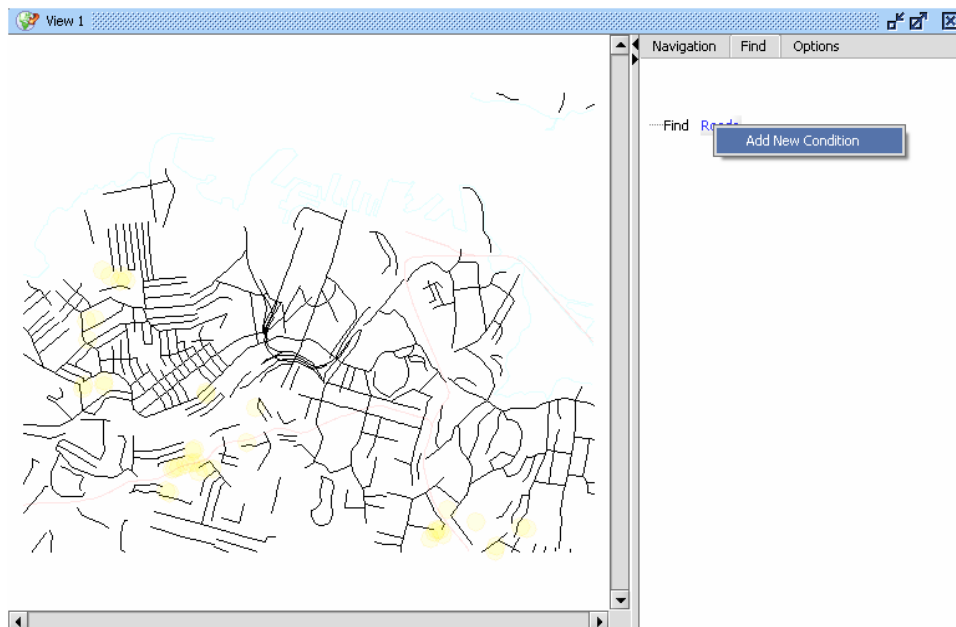- Now select "Roads" from the menu

- The query now reads: Find Roads
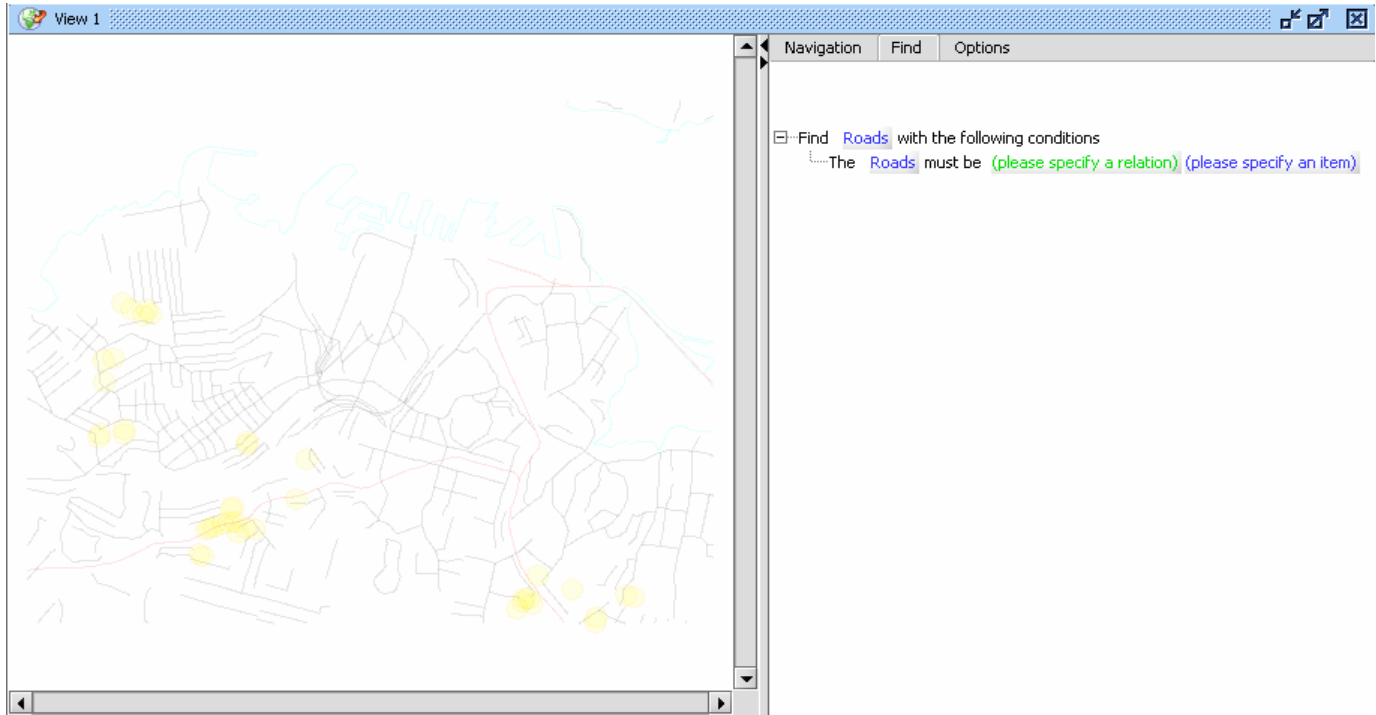 - All roads are now displayed distinctly on the map
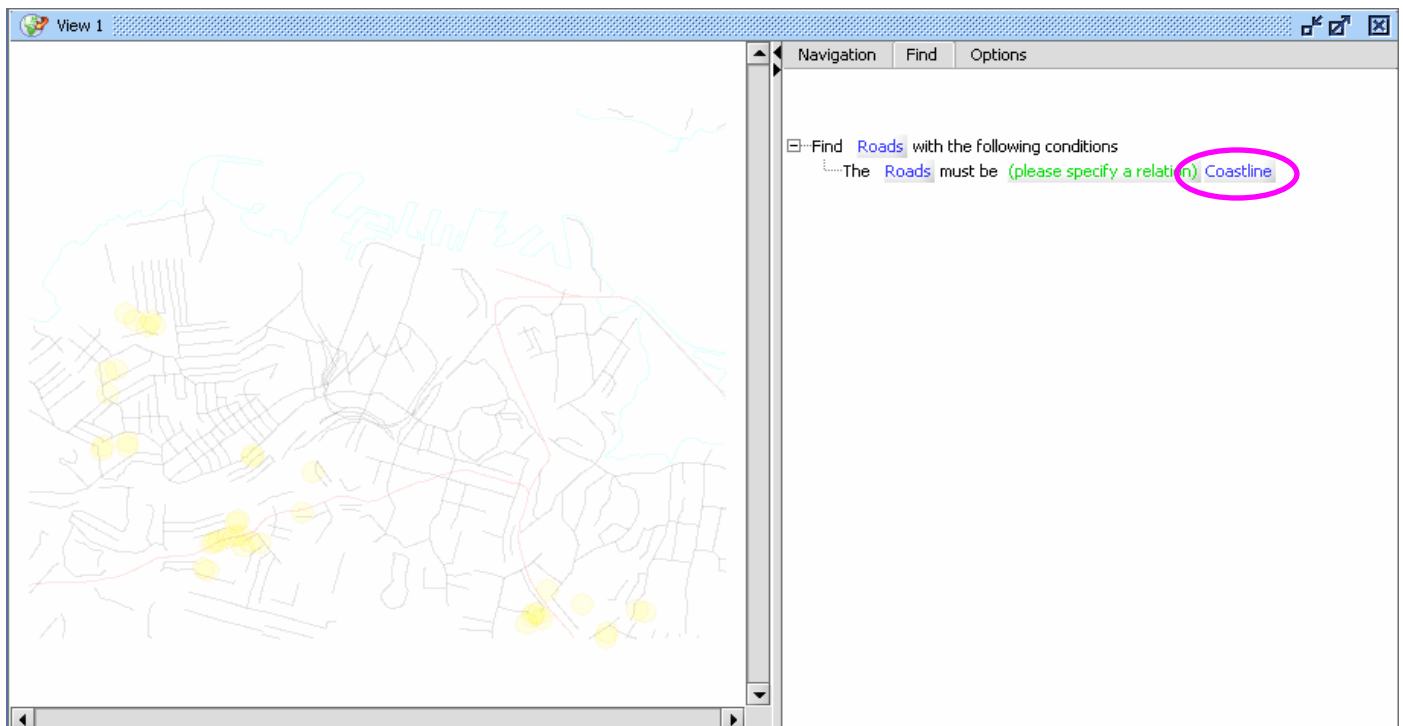

4. Add a condition to the query
- We will now specify that we only want roads that are 'very near' the coastline
- *Right click* on the query
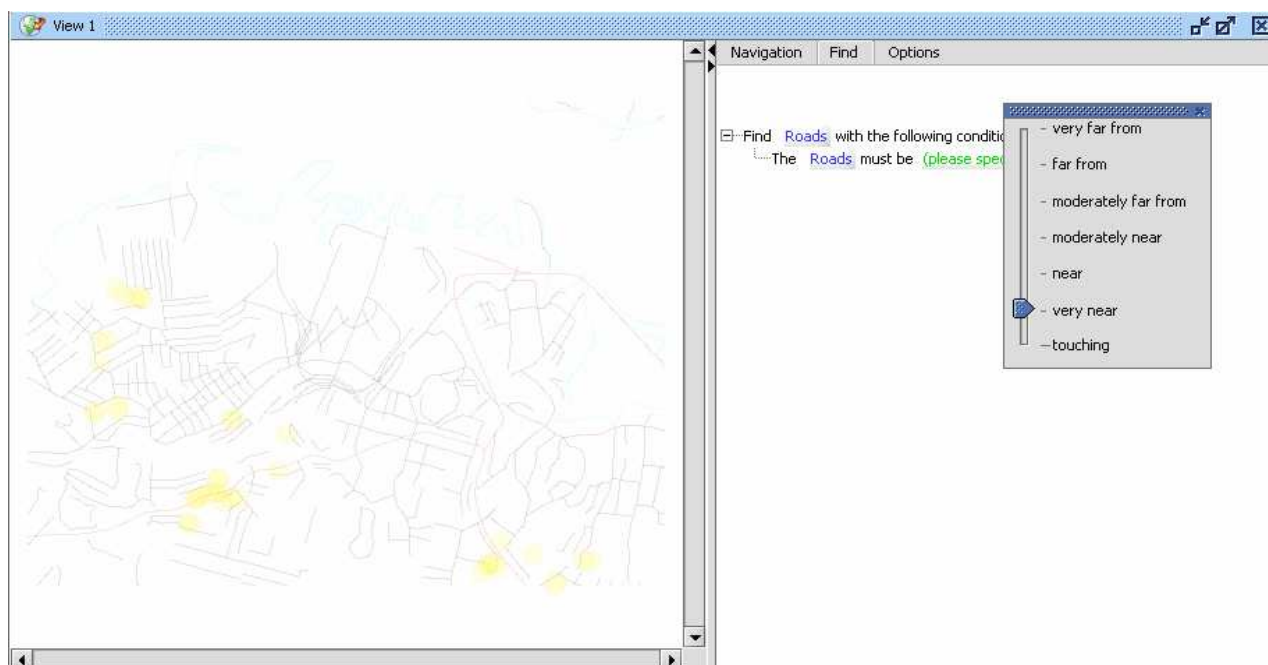- A menu appears – select the "Add New Condition" option

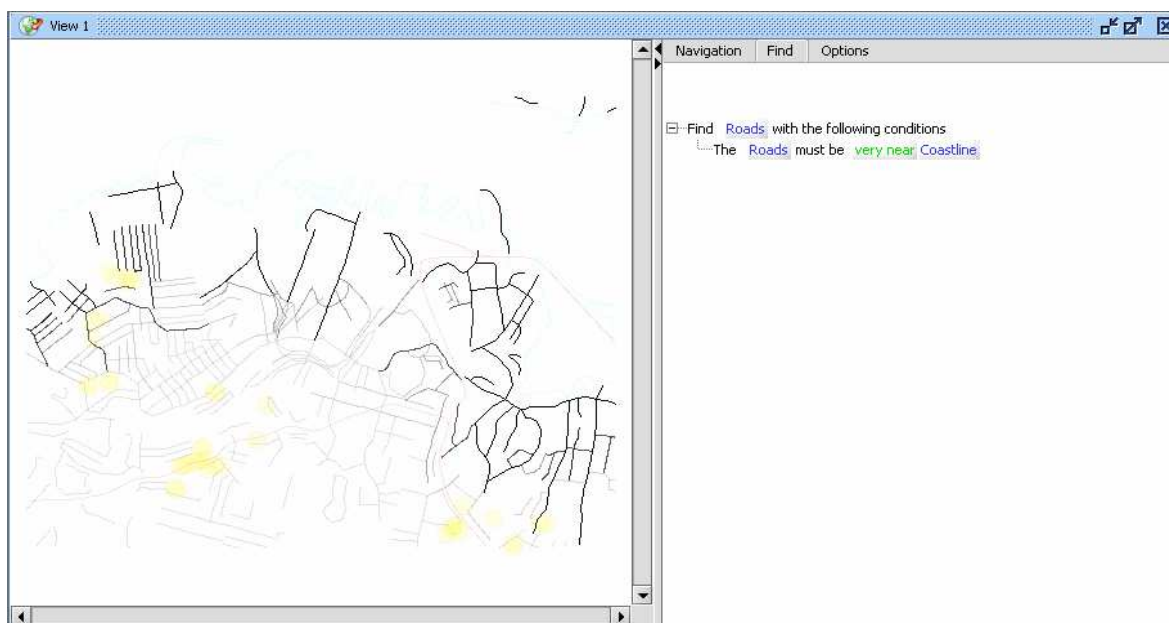- A new condition has been added to the search

- Specify that the *item* as "Coastline" – this indicates that we want a condition between "Roads" and the "Coastline"

- Now click on the "Please specify a relation" button
- Drag the slider down to "very near"

- The query now reads: Find *Roads*, such that they are *Very Near* the *Coastline*
  - The map now distinctly displays roads that are very near the coastline
  - As the roads get further away from the coastline, they become gradually more transparent
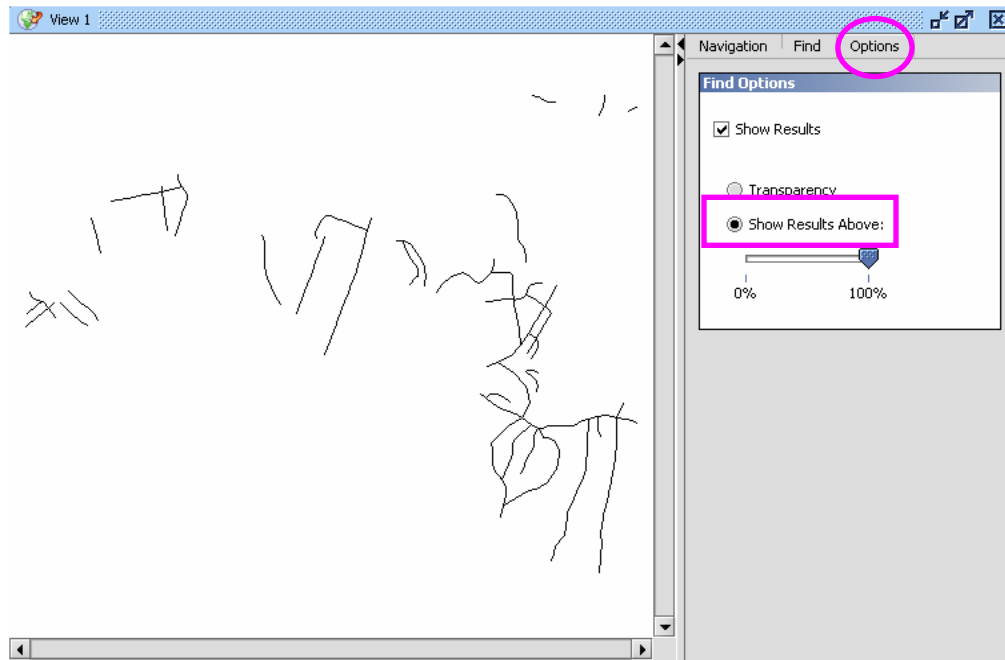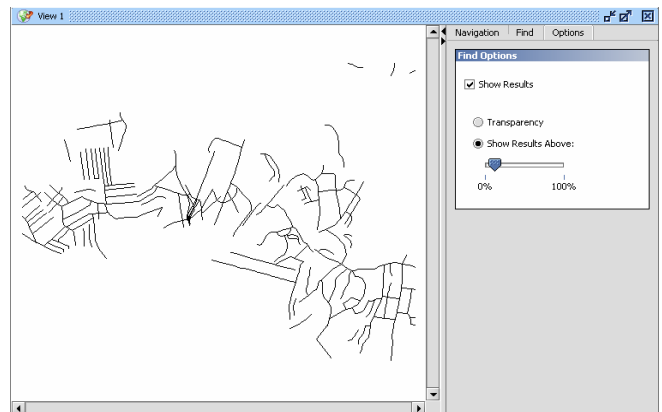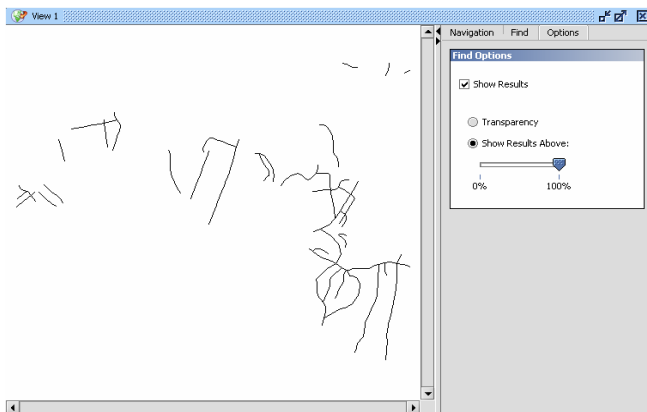
VISUALISATION

- Two different visualisation methods are available for displaying query results
- You have already seen the first method: Transparency
  - Features that meet the query criteria very well are displayed distinctly
  - As features satisfy the criteria less and less, they are displayed more transparently

5. Using "Reveal Above Threshold" method
- We will now change display methods
- Select the "Options" tab
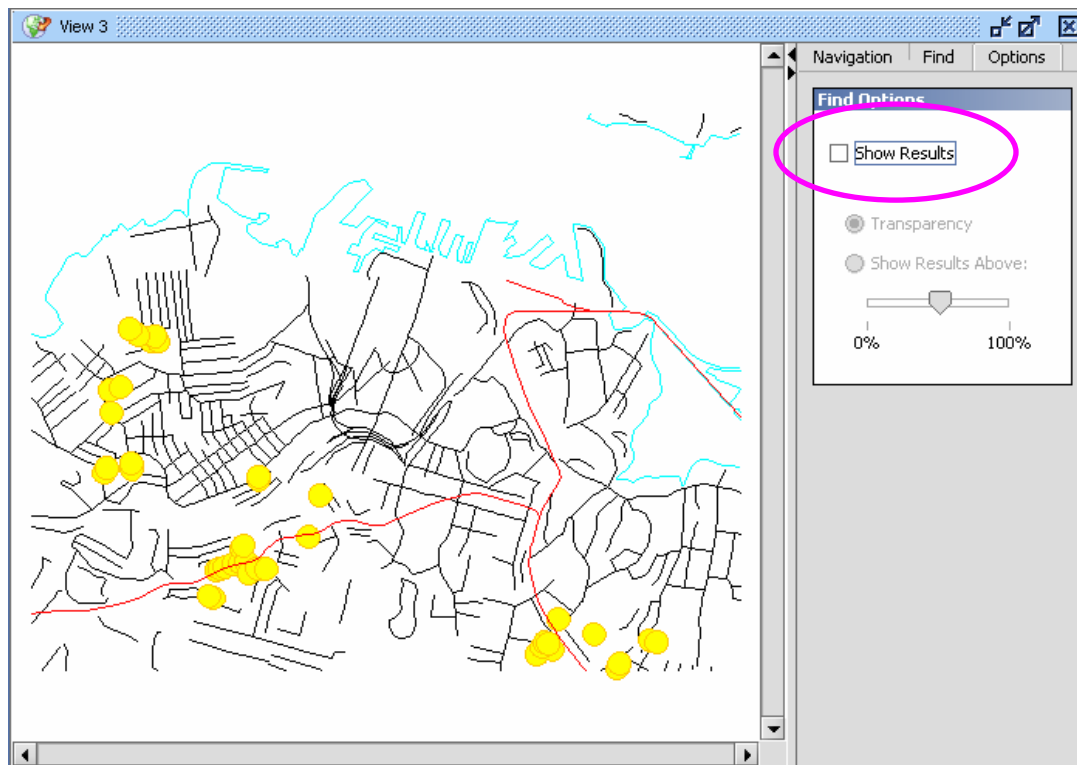- Select the "Show Results Above" option

- Now set the slider to 100%
  - All features that meet the query very well (with a score of 100%) are displayed
  - Any features that do not meet the query criteria by 100% are not displayed at all

- Now drag the slider down
  - Notice that, as the threshold is lowered, more features are displayed

6. Now we will turn off the search, and display everything on the map
- Uncheck the "Show Results" check box
- Now everything is displayed distinctly

- That concludes this tutorial
- Feel free to experiment with very complicated queries