Introduction:

This document describes the new mapping tool features in the FARS Encyclopedia. Users can create pin maps and intensity maps from custom queries using the FARS database. Pin maps may be created showing locations of fatal crashes for any custom query in the Query FARS Data section. Intensity maps can be created for custom univariate tables based on State and County geographic boundaries.

In the FARS Data Tables section, users may plot crash locations in the following FARS Data Tables:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Subchapter</th>
<th>Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crashes</td>
<td>Time</td>
<td>Fatal Crashes by Time of Day and Day of Week</td>
</tr>
<tr>
<td>Vehicles</td>
<td>All Vehicles</td>
<td>Vehicles Involved in Fatal Crashes by Vehicle Type, Rollover Occurrence</td>
</tr>
<tr>
<td>People</td>
<td>All Victims</td>
<td>Persons Killed, by Age</td>
</tr>
<tr>
<td>People</td>
<td>All Victims</td>
<td>Persons Killed in Construction/Maintenance Zones</td>
</tr>
<tr>
<td>People</td>
<td>Occupants</td>
<td>Vehicle Occupants Killed, by Vehicle Type and Most Harmful Event</td>
</tr>
<tr>
<td>People</td>
<td>Restraints</td>
<td>Passenger Vehicle Occupants Killed, by Age and Restraint Use</td>
</tr>
<tr>
<td>People</td>
<td>Motorcyclists</td>
<td>Motorcyclists Killed, by Time of Day and Day of Week</td>
</tr>
<tr>
<td>People</td>
<td>Motorcyclists</td>
<td>Motorcyclists Killed, by Person Type and Helmet Use</td>
</tr>
<tr>
<td>People</td>
<td>Pedestrians</td>
<td>Pedestrians Killed, by Time of Day and Day of Week</td>
</tr>
<tr>
<td>States</td>
<td>Crashes and All Victims</td>
<td>Person Killed, by STATE and Age Group</td>
</tr>
<tr>
<td>States(*)</td>
<td>Fatalities and Fatality Rates</td>
<td>Fatalities and Fatality Rates by STATE, 1994 - 2009</td>
</tr>
</tbody>
</table>

(*) For the Fatalities and Fatality Rates report, intensity maps are displayed by user selections on column heading (calendar year) links.

This document describes the use of the map features. Users must first create data tables or listing in the FARS Data Tables or the Query FARS Data tools. Refer to the following exercise documents for instructions on creating custom tabular results and listings:

- If you would like additional training on using this query system, try some of the exercises below.
  - Univariate Report Exercises
  - Cross Tab Report Exercises
  - Case Listing Report Exercise

- If you would like to see the final reports, click links below.
  - Univariate Tabulation Reports
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I.A.1. and I.A.2. Query Tool - Creating a Pin Map from Cross or Univariate Tabulation.

Select the hyperlink count in a Cross or Univariate Tabulation report to display the locations of the crashes represented by the cell. In this Cross Tabulation example, by clicking the count in the cell that represents Tuesday and Noon to 2:59pm a map will be displayed with pin markings at the locations for the 17 crashes that occurred in 2007 in Florida during the selected time block.

The map containing the selected crash locations will display. To return to the tabulation, select the link “Back to tabulation page” above the map.
1.A.3. **Query Tool - Creating a Pin Map from Case Listing Report.**

Select the **Map** button in a Case Listing report to display crash locations.

The map containing the selected crash locations will display.
I.B.1. **Query Tool - Creating an Intensity Map from Univariate Tabulation.**
(Available only for Univariate tabulation report by State or by County.)

Univariate Tabulations includes an additional option to display *Intensity* maps for reports summarized by State or by County boundaries. Select the "MAP IT" button to display the *Intensity* map. In this example, the Univariate is a tabulation of fatal crashes by County.

The *Intensity* map will display. The darker colors represent Counties with higher number of fatal crashes.
II.A. Views: “Map” - Show Street Map
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II.C. Views: “Terrain” - Show Street Map with Terrain
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III.C. **Tools: Measure Distance by Line.**

1. Select the "Measure Distance by Line" tool.
2. Position cursor at start point of measurement and select - left mouse click. Green marker will appear. (Do NOT click on top of a crash pin. See "Case Display".)
3. Position cursor at end point of measurement and select - left mouse click. Green marker will appear. (Do NOT click on top of a crash pin. See "Case Display".)
4. Hover cursor over green end point pin to display call out with distance reading.
5. Select the Clear button to remove measurement markings from map.
III.C. **Tools: Draw Circle Measure Tool.**

1. Select the "Draw Circle" tool. The "Radius Dialog" window will open.

2. Enter desired radius distance in textbox and select the "OK" button.

3. Position cursor at center of measurement circle and select - left mouse click. A BLUE centerpoint marker and a RED perimeter line will appear.

(Do NOT click on top of a crash pin. See "Case Display".)

4. Select the "Clear" button to remove measurement markings from map.
III.D. Tools: Save.

Select the Save tool to save the map. All un-cleared measurement marking will be saved with map image.

III.E. Tools: Print.

Select the Print tool to save the map. All un-cleared measurement marking will be printed with map image.
IV. Case Display

1. Position cursor over a crash pin and select - left mouse click.

2. Hover cursor over a case record. As you hover highlighting (aqua) will appear over a case record. Select - left mouse click - to open the case form.