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If you have any questions about any content in this manual, as well as any questions about the Safety Portal in general, please contact Jesse Norris at the Center for Advanced Public Safety at

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Introduction

This manual is designed to help teach those with limited training on how to use the Alabama Safety Portal. Keep this document handy for reference in using the portal, both while you learn how to use it and while you teach it to others.

Getting Started

To use the Alabama Safety Portal, you should go to https://safetyportal.aladata.com on your browser of choice. The following screen will appear.

Once there, log into the portal using your username and password combination (both of these items are case-sensitive). When you have logged in, you should see the portal, which looks like the image on the next page.
Different Parts of the Portal

Dashboard
- Contains search criteria
- Different types of search criteria
  - Date – contains the range of dates that the data is being pulled from
  - Filters – contains different limiting factors (geographic divisions, types of roads, special vehicles, external influences, etc.)
    - Custom filters also housed here – will cover later
  - Variables – items on a crash report that can be counted and sorted
    - Codes – information within each variable
    - Counts – total amount of results under each code

Search
- Allows you to limit their results based on date range, road and milepoint markers, links and nodes, and variables
  - Allows you to be more specific in searches of the database

Drill Down
- Takes variables and allows you to pare down results into smaller amounts for more digestible results
  - More direct method of moving from a large set of data to a small set of data using the information from crash reporting

Cross Tab
- Allows you to create a table based on two variables, with the option to apply filters to limit the amount of results found
  - Comparison of two different variables allows for trend analysis of specific crash data
Manage Custom Filters
- Custom Filters that can be created via the Search tab are housed here for editing, renaming, and sharing purposes

Getting a feel for the Portal Dashboard

Searching for Variables
When doing a portal search, you might need to find all variables with a common trait. To do this, you can use the button on the dashboard to search for specific keywords inside of variables. For example, if you wanted to find all instances of the word “dear” inside of a variable, you should first click the button. Then, you should type in the word “dear” into the search box, like so.
Then, press the search button and a list of variables that have a result containing the word “deer” should appear in a list.

Results:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Context</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Harmful Event</td>
<td>Category match - E Collision with Animal: Deer</td>
</tr>
<tr>
<td>E Most Harmful Event</td>
<td>Category match - Collision with Animal: Deer</td>
</tr>
<tr>
<td>CU Vehicle Most Harmful Ev...</td>
<td>Category match - E Collision with Animal: Deer</td>
</tr>
<tr>
<td>E CU Sequence of Events #1</td>
<td>Category match - Collision with Animal: Deer</td>
</tr>
<tr>
<td>E CU Sequence of Events #2</td>
<td>Category match - Collision with Animal: Deer</td>
</tr>
<tr>
<td>E CU Sequence of Events #3</td>
<td>Category match - Collision with Animal: Deer</td>
</tr>
<tr>
<td>E CU Sequence of Events #4</td>
<td>Category match - Collision with Animal: Deer</td>
</tr>
<tr>
<td>CU Non-Motorist Most Har...</td>
<td>Category match - E Collision with Animal: Deer</td>
</tr>
</tbody>
</table>

These results will be beneficial when you are looking to create custom filters, as well as trying to narrow down your data into specific subsets by using specific keywords.
Using the Selection Criteria

To start, here is the interface that you will see when using the dashboard function inside of the portal.

By using the dashboard, you can take a date range of your choosing, apply relevant filters to the data, and then take specific variable codes, such as a specific county, and find the relevant data to your search.

Example: Injury Crashes by Speed Limit in 2017

To start this example, we want to set our data to the date range of 2017, so change the first date box to January 1, 2017, and the second date box to December 31, 2017. This can be done by setting the dates using the custom date range boxes.
Then, set your first filter to “Injury Crashes (including Fatalities)”. This limits the data down to crashes where injuries and fatalities were reported.

![Filters: Injury Crashes (including Fatalities) → ALL](image)

The final step on creating your settings for the search is to set your selection variable to “CU Speed Limit”. This creates the different classifications that the data is grouped into.

![Variable: CU Speed Limit](image)

Once all of the settings have been inputted, the dashboard window should show this table, which is the amount of crashes occurring under these specific speed limits.

![Dashboard Window](image)

Notice that the different speed limit values are displayed in the value box. The values are divided so that each range is clearly delineated. Each grouping is clearly defined, and can be placed into a chart, which is the next step of this example.

For our example, we’re going to set up one chart. The chart can be in any of the four chart areas on the dashboard for the purpose of this example. Change the variable on the chart area of your choice to “CU Speed Limit”, and change the chart button to a vertical bar graph. This will take your data and place it into a bar chart that will show the numerical amounts from the dashboard window in graphical form.
As you can see, the raw numbers from the dashboard correspond to the graph, which shows that the most crashes that caused injuries in 2017 occurred when the speed limit on the road was 45 MPH.

**Using the Search Tab**

With the search tab, you are able to add route and milepoint selections and link and node selections. These route and milepoint selections take interstates, US routes, and state routes and allow you to apply variables to those specific roads to gather data about specific stretches of road. The link and node selections allow you to pick specific points inside of cities and towns and get crash data from those specific points.

For reference, here is the interface for the search tab. Note the different parts: (1) Date Selection Tool, (2) Route and Milepoint Selection Tool, (3) Link and Node Selection Tool, (4) Variable Selection Tool, and (5) Search Logic Display.
Route Lookup and batching PDF reports

Date Selection Tool

The Date Selection Tool is similar to other date selection tools throughout the program. It can be used either to create custom date ranges that you can select, as well as pre-determined date ranges that are already pre-programmed into the program.

Route and Milepoint Selection Tool

The Route and Milepoint Selection Tool is used to select specific sections of road that you might want to analyze for crash data down to the mile marker. First, you need to select a road from the drop down menu. For this tool, only interstates and state routes are included. Once a route is selected from the dropdown menu, you need to select the mile marker range that you want to analyze.

Let’s analyze (roughly) the area on Interstate 65 between Interstate 565 (Huntsville) and Alabama State Route 2/US Route 72 (Athens), which corresponds to mile markers 340 and 351, for the year 2017.

First, make sure your date range is set from January 1, 2017 to December 31, 2017.

Next, select Interstate 65 (IN0065) on the route selection drop-down menu. Also, input 340 into the “From:” box and 351 into the “To:” box, like so.

Press the button, located at the bottom of the window.
Once the button is pressed, a window of results will appear below the window we’ve been using. For this example, there should be 243 results present, as shown on the next page.

When looking at the results of the search, you can add columns to the results view window to add more sortable factors when parsing through the results. To do this, first click the button to open a drop-down menu of selection criteria. For our example, let’s add three new columns on top of the columns we already have: “At Intersection”, “Lighting Conditions”, and “Manner of Crash”. To do this, find each of those in the list and check each box to add the columns. Next, press the button to create the search results. Note: These results are the same as the results you found before, but there will be more information on the results window on this search.
As you can see, there are the same results with more information than the original search.

For each one of these results, the entire crash report can be accessed by clicking on ![Read More](#). To show the functionality of the individual crash search function, click on the top result’s corresponding ![View PDF](#), which will adjust your window to look like this.

From here, you can see all of the variables (selection criteria) of a crash that occurred in this specific crash instance. Additionally, you can export the results to a PDF file, which is a cleaner view of the crash report.

To access this PDF file, press the ![View PDF](#) button, which opens a new tab with the entire PDF file of the crash report.

Looking at the report, one of the most important parts of the report is the diagram and narrative section, which contains the descriptions of what happened in the crash. For our example, that section looks something like this:
Using Multiple Routes in the Route and Milepoint Tool

One issue that you might run into while using the Route and Milepoint Tool are cosigned roads. For instance, a road might have any combination of county, state, US or interstate designations, and depending on the reporting of the crash, you might need to include multiple designations to paint the full picture of a segment of a road.

To show this feature, let’s look at Interstate 59 between mile markers 71 (Interstate 359) and 89 (Mercedes-Benz plant) in 2018. We’re going to tackle this in increments between notable exits on the interstate to segment our results. We’ll use segments from 71 to 73, 73 to 79, 79 to 86, and 86 to 89.

First, make sure that you have the year 2018 in your date selection tool.

Next, press the “Add New Route” button, and then choose Interstate 59 (IN0059) from the dropdown menu. Then, input the numbers 71 and 73 in that order into the next two boxes.

Batching Results into a Report

One of the key features that you can use to aggregate PDF’s together into an easy report is using batching. Batching allows you to search for specific criteria in reports like you would before, find those crashes, download all of the PDF files into a new file folder, and access each individual PDF file for analysis.

To start this example, create the same route and milepoint example that we did before with Interstate 65 from mile marker 340 to 351.
Then, run a search by pressing the button, which will give you 368 results.

Next, we’re going to press the button, which will kick off a download of every PDF file into its own folder. To know that the download is happening, you should see something like this on your screen.

Note the status column, which will say “Pending” until the download is complete. Also, the progress bar will keep you up-to-date on how far along your download is. This download will take time, depending on how many reports you intend on downloading, so sit back and relax for a few minutes.

Once your download is complete, your report queue window should look something like this (this specific download took around 40 minutes to complete, so feel free to continue on in this manual and come back to this when the download is complete. To check the progress of the download, simply navigate to the tab, which is found at the top of the screen.)

To download the folder with the PDF files in it, press the word “Complete”. When you press this button, the folder will download in the downloads section of the browser.

Once you locate where the .zip folder is, open it and you’ll find a folder full of crash reports PDF’s, which you can open and view. That folder will look something like this.
This is how you can access all of the crash reports from a certain portion of road (in this instance, Interstate 65 from mile marker 340 to 351).

The Route and Milepoint Selection Tool is a very effective way to search for specific crash data along high-traffic stretches of road, specifically the interstate and state route systems.
Link and Node Selection Tool

The Link and Node Selection Tool is used to access crash data from much more specific points throughout a city or town. Using link and node information allows for much more precise descriptions of crash locations on non-interstate/non-state route roads.

Link Lookup Study

For example, if you know the link number or node number to a station in a particular area, you can find the crashes around that area. Let’s do a quick example of this using link 1185 (Martin Luther King Jr. Blvd at US-11 to Jack Warner Pkwy at Crescent Ridge Rd) and node 588 (the intersection of Jack Warner Pkwy and McFarland Blvd (AL-6/US-82)), both in Tuscaloosa.

First, let’s look at link 1185. First, we want to add a new link/node selection by clicking the “Add New Link/Node button under the Search Tab.

![Add New Link/Node](image)

Once you click on this button, there will be a prompt that opens up, similarly to the Route and Milepoint Selection Tool.

![Link and Node Selection](image)

The boxes in this tool, from left to right, are county, city/area, and link/node type selector. For our example, change the county and city/area selections to “Tuscaloosa”, and don’t change the link/node type selector box. Then, for Link/Node 1, input “1185”.

![Link and Node Selection](image)

Now, press the ![Search](image) button to generate the results of crashes that occurred along link 1185.

![Search Results](image)
Before we look at nodes, let’s quickly run an example where we only want a specific section of link 1185. Let’s say we only want the section of link 1185 from US-43 to US-82. To go about doing this, we need to first select the link that we’re working with. From the previous search that you just conducted, press the button, which will prompt you to name the map layer. We’ll name the layer “1185”, like so.

Once you add the layer, you need to wait momentarily for the map layer to load. When the layer is loaded, the Map icon in the top right corner will look like this: . Once the layer is loaded, click the Map icon to open up the full map screen. The map will have a green cluster around the city of Tuscaloosa, so zoom into downtown Tuscaloosa to see all of the crashes along link 1185. (These results are for example purposes only.)

You can see the entire length of link 1185 and the crashes along this link. If you do not want the entire length of a single link, you can use the Corridor location option. This option will allow you to see only sections of this link. In the next example, we will only look at segments along the university campus.
Corridor Lookup Study

Before we continue to the next example, let’s look at the Link-Node Viewer (LNV). We’re going to look which nodes along link 1185 border the campus.

To start this, press the LNV button to open the Link/Node Viewer and zoom into the area.

The Show Links checkbox has been deselected so we can see node number more clearly. The red circles are the boundary street for the campus border. Also note the yellow node in between. You must include all nodes along the segment(s) in a corridor study. You also need to enter the nodes in sequential order. There is an instance of -2 nodes that will be ignored. You do not enter -2 nodes in any location study.

On the Search Screen, use the Link and Node section to select Corridor. Enter the location information as follows:

Note the sequence of nodes are entered and separated with commas.

Use the Search button to find crashes along the selected corridor and then click the results. You can name the layer as
The results show only crashes along the campus border along link 1185. (These results are for example purposes only.)

Before we continue to the next example, let’s look at the Link-Node Viewer (LNV). We’re going to look at node 588 in Tuscaloosa County, which is the node at the interchange of US-82 and Jack Warner Parkway. To start this, press the **LNV** button to open the Link/Node Viewer.

**Node Lookup Study**

Once you open the LNV, you will see a map of the entire state of Alabama. Zoom into the city of Tuscaloosa, and then find US-82. Once you have found US-82, scroll along US-82 until you find Jack Warner Parkway. Once you find Jack Warner Parkway on the map, your view should look like this.
Looking at the main intersection, you can see that the node for that intersection is 588. To show this, select “Tuscaloosa” in the county drop down menu, choose “Node” from the Link/Node drop down menu, and input “588” into the final box and press the “Query” button. Once you press the button, the nodes that are listed 588 will light up and the map will zoom in on the area. Note: some major intersections will have multiple nodes that are listed as the same number to account for multiple routes between the two roads.
Now, let’s do the first example, except with node 588. Delete the link selection that you made by clicking the button. Then, add another link/node by clicking on the Add New Link/Node button again. For the county and city/area boxes, choose “Tuscaloosa”, for the link/node type selector box, choose “Node”, and input “588” into the Link/Node 1 box, like so.

Once you do this, press the button and the results will generate.

There significantly less results than the first search of the link that we did. Typically, the node searches are much more specific, as they cover much less area than a link search does. However, if you wanted to see the hotspots of crashes on a certain road, you would definitely want to use the link search to do so.

Collaborative Discussion: Complete the same search viewing only county roads. Discuss.

Batching Using the Link/Node Tool
Let’s work through another example of batching, except using the link/node in this example.

To start, go to the Search Tab and add a new link/node. We’ll use the link 1185 and node 588 to do two separate searches, using the link 1185 first.

Select Tuscaloosa for both the county and the city boxes, then input 1185 into the Link/Node 1 box (make sure that link is selected in the Link/Node Selector Box).

Next, let’s add some filters to limit our results down to a smaller number of results. Add a filter of crash severity to include fatal injury, incapacitating, and non-capacitating injuries. To do this, press the button next to Crash Severity and select those three options in the drop-down menu. Your search logic window should look something like this.

Once those selections are made, go ahead and press the button.
Once your results come up, you can go ahead and press the button, which will batch your results together.

Once your files have downloaded, you can open the file folder like we did in the previous example, showing all of the crashes that occurred along the link.

To complete the second search, let’s change the link/node information to node 588, like we did in the previous example.

Then, press to get your results, followed by pressing the button to batch the 140 results.

Once your results batch, press the button to open your reports. Once you do this, you can see all of the reports in full detail that occurred near node 588.

The batching tool is quite handy for finding all crashes in an area without having to utilize the map feature, which will be outlined later on in this guide.
Detailed and Summary Reports

Along with bathing the crash PDF file, you can also save you Searched crashes in the traditional Detailed and Summary styled reports. Any search can produce these reports. We will use the previous example to show this.

Detailed Report

The detailed report has two parts. The first is a crash summary on the first page. The second incorporates a list of variables commonly used to show the main aspects of the crash. Each page represents a crash in the search results.

Select to launch the report menu. Select the dropdown and choose Detailed Crash Report. You will also need to give the report a name before selecting “Run Report.” NOTE: Prefix your filename with DR to indicate this report is a Detailed Report.

Below is the first page of the Detailed report for Node 588 in Tuscaloosa.

The above header shows when the report was ran and the selection criteria. The selection criteria is the raw query used to produce the results from the search.
Below the header is the summary data. The left column are the raw counts and the right column are the resulting percentages based on total crashes in the search results. (These results are for example purposes only.)

<table>
<thead>
<tr>
<th>Summary</th>
<th>Raw Counts</th>
<th>Resulting %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crashes</td>
<td>20</td>
<td>percentage</td>
</tr>
<tr>
<td>Pedestrian Involved Crashes</td>
<td>1</td>
<td>0.49</td>
</tr>
<tr>
<td>Multi Vehicle</td>
<td>15</td>
<td>75.86</td>
</tr>
<tr>
<td>Single Vehicle</td>
<td>49</td>
<td>24.14</td>
</tr>
<tr>
<td>Dawn Crashes</td>
<td>1</td>
<td>0.49</td>
</tr>
<tr>
<td>Daylight Crashes</td>
<td>13</td>
<td>66.01</td>
</tr>
<tr>
<td>Dusk Crashes</td>
<td>12</td>
<td>5.91</td>
</tr>
<tr>
<td>Night Lighted Crashes</td>
<td>46</td>
<td>22.66</td>
</tr>
<tr>
<td>Night Unlighted Crashes</td>
<td>8</td>
<td>3.94</td>
</tr>
<tr>
<td>Unknown Lighted Crashes</td>
<td>2</td>
<td>0.99</td>
</tr>
<tr>
<td>Intersection Related Crashes</td>
<td>35</td>
<td>17.24</td>
</tr>
<tr>
<td>Vehicles Disabled</td>
<td>92</td>
<td>23.77</td>
</tr>
<tr>
<td>Vehicles Not Disabled</td>
<td>23</td>
<td>60.21</td>
</tr>
<tr>
<td>Vehicles Undamaged</td>
<td>10</td>
<td>2.58</td>
</tr>
<tr>
<td>Vehicles Damage Unknown</td>
<td>53</td>
<td>13.70</td>
</tr>
<tr>
<td>Fatal Crashes</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Injury Crashes</td>
<td>37</td>
<td>18.23</td>
</tr>
<tr>
<td>Property Damage Only Crashes</td>
<td>16</td>
<td>81.28</td>
</tr>
<tr>
<td>Wet Surface Crashes</td>
<td>68</td>
<td>33.50</td>
</tr>
<tr>
<td>Dry Surface Crashes</td>
<td>13</td>
<td>64.04</td>
</tr>
<tr>
<td>Unknown Surface Crashes</td>
<td>5</td>
<td>2.46</td>
</tr>
<tr>
<td>Alcohol Or Drug Involved Crashes</td>
<td>4</td>
<td>1.97</td>
</tr>
<tr>
<td>Total Oversized Load Crashes</td>
<td>6</td>
<td>2.96</td>
</tr>
<tr>
<td>CMV Involved Crashes</td>
<td>7</td>
<td>3.45</td>
</tr>
<tr>
<td>Hazardous Cargo Crashes</td>
<td>1</td>
<td>0.49</td>
</tr>
</tbody>
</table>
The pages following the summary are in the following format:

If it is a single vehicle crash, the Vehicle 2 section will be blank.
Summary Report
The Summary Report has three sections. The first section is a listing of the crash numbers and location details for each crash. The second section is a set of crosstabs. These show 1) Time of day by Day of week 2) Month by Year and 3) Crash severity by Year. The third section is a variable listing and overall counts. Each variable section is separated by alternating colors.

Select to launch the report menu. Select the dropdown and choose Summary Crash Report. You will also need to give the report a name before selecting “Run Report.” NOTE: Prefix your filename with SR to indicate this report is a Summary Report.

Below is the first page of the Summary Report for Node 588 in Tuscaloosa.

The above header shows when the report was ran and the selection criteria. The selection criteria is the raw query used to produce the results from the search.

The following section shows the crash listing for all crashes with their location details.
The next set of pages is the crosstabs. These are designed to help see trends across times, days, months, and years. Below is the Crash Severity by Year crosstab: (These results are for example purposes only.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal Injury</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Incapacitating Injur</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-Incapacitating</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Possible Injury</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Property Damage Only</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>0</td>
<td>32</td>
<td>52</td>
<td>32</td>
<td>32</td>
<td>52</td>
<td>0</td>
<td>222</td>
</tr>
</tbody>
</table>

Seeing the yearly trend by severity can help determine if crashes are improving or getting worse. Seeing increases in the most recent year indicates a problem may be current. However, if the bulk of crashes are in the earlier years, this may indicate an earlier problem that may no longer exist.

The third section shows sets of common variables. You can see the alternating colors to separate the series of variable listings. (These results are for example purposes only.)

Creating a Custom Filters using Search

In the Search tab, you can create your own custom filter that can be used throughout the program. For example, if you wanted to create a filter that only includes crashes where a collision with a deer was the first harmful event and the crash occurred on a state road, that could easily be done by using this tool in the search tab.
To do this, you first want to set your selection criteria to the specific items that you want the filter to be based on. For our example, we’re going to click the green plus icon on both the “First Harmful Event” and the “Highway Classifications” lines.

Once those icons are selected, they will change to , which is what you would click if you wanted to remove a specific selection criteria from your filter.

Next, you want to select your specific codes from the drop-down menus, which will write the logic that your filter will follow. To do this, select “E Collision with Animal: Deer” under the First Harmful Event drop-down menu and “State” under the Highway Classifications drop-down menu. When you have made your selections, the window on the right of where you made your selections will show the logic that your filter will follow, like so.
Once the logic window shows all of the factors that you want your filter to be based off of, go ahead and press the button.

Collaborative Discussion: Complete the same search viewing only county roads. Discuss.

This will bring up the list of crashes that fit the criteria in a window below the original window. Once the list of crashes has been displayed, a new option will appear on the left side of the screen in the Search tab that will say “Save Filter as”, which looks like this.

When you press this button, a smaller window will pop up, allowing you to name your filter and save it for use around the program.

To name your filter, just type in whatever you want to call your filter in the “Type Custom Filter Name Here box. For our exercise, we’re going to name our new filter “Deer on State Roads”.

Once your filter is created, you can access it wherever filters can be applied, whether it be the Dashboard tab or in the Cross Tab tool.
To show you how the filter will appear, let’s look at how the filter appears in the Dashboard Tab.

Navigate to the Dashboard tab, and then click on the Filter drop-down menu.

Notice that there is a special filter group called “your user name”. Inside of that group will be all of the filters that you create.

Mouse over the (Your Username) group, which shows our filter that we created in a second drop-down menu. You can use the filter in your searches without having to select each individual piece. Creating your own filters allows you to be very specific in what you’re looking for within the system.

Now, let’s create a second filter for curvy roads. We’re going to do this by using the variable “CU Roadway Curvature and Grade”.

First, click the green icon next to “CU Roadway Curvature and Grade”. Then, select every code on the list that includes the word “curve” (there are 12 codes that qualify). Once you have selected all of these codes, your search screen should look something like this:
Once you have added all of the codes that you want to include in your filter, repeat the same processes as before to create your custom filter. Name the filter “Curved Roads”.

Managing Filters in the Manage Custom Filters Tab

Once you have created a filter, there are a lot of different things that you can do with the filters that are useful. To see what you can do, first navigate to the “Manage Customs Filters” tab on the left side of the screen.

Once you get into the Manage Custom Filters tab, the interface should look something like this.

Inside of the interface, there are a few buttons that you should know about.

Delete button – Deletes the selected filters from the list, including the logic from the filter.

Share button – Allows you to send your filter to colleagues for easy sharing, rather than communicating the filter logic to everyone that needs to use it.

Rename button – Allows you to rename your filter

Logic button – Shows you the logic that the filter is following when it is used.

With using custom filters, there are so many more possibilities that are unlocked with limiting searches down to very specific outcomes, as well as being able to share those filters around to whoever needs them for easy access and increased productivity.
Link/Node Viewer
This website was created to replace the previously outdated website. The new site allows us to actively update link and node information.

This is the new URL for the Link-Node viewer:  http://linknodeviewer.caps.ua.edu/

There are two functions to the link/node viewer, the first being the traditional link/node search tool. Let’s illustrate an example of how to use it. We’ll search for Node # 2101 in Tuscaloosa County. First, select “Tuscaloosa” from the dropdown menu of counties. Next, select “Node” from the Link/Node dropdown menu. Finally, input “2101” into the final box and press query. As you will see, the node that you requested will light up on the map.

Additionally, you can search for segments of state roads and interstates using the second option. Let’s look up the stretch of road we were working with earlier on Interstate 65 (MM 340-351). First, choose Interstate 65 (IN-65) from the dropdown menu. Then, enter in the milemarkers you want to search (340 and 351) into the two boxes below the dropdown menu. Once you have done that, press query and the map will zoom in on the stretch of road you entered and the road will become highlighted.
Appendix A: Tab Dictionary

**Tabs** – the different selections inside of the portal that allow the user to perform different functions and searches.

**Dashboard** – tab that allows the user to create custom visualizations of their selected data in four customizable windows.

**Search** – tab that allows the user to enter mile-posted routes, link and node selections, and other selection criteria to create a custom search with specific crash reports appearing as the results.

**Drill Down** – tab that allows the user to narrow their custom search down using specific search criteria.

**Scheduled Reports** – tab that shows specific reports that a user has requested to be made automatically and sent to email addresses.

**Cross Tab** – tab that allows the user to create custom tables with different selection criteria as the row and column selections.

**About This Datasource** – tab that shows the user the date range of the data source, as well as the amount of variables and filters present in the dataset.

**Manage Custom Filters** – tab that shows all of the custom filters the user has created on their local account.
Appendix B: Button Dictionary

**Date Range** – the selected date range will only show results for the dates within this range. Selecting standard ranges can be done through the drop down selection. Custom date range selections use both.

**Filters** – allows the user to apply filters, both pre-created and custom filters the user can create.

**Variables** – allows the user to select a specific selection criterion to limit their results.

**Save** – exports the data to an Excel file.

**Map** – exports the data to a map for easy viewing of individual incidents.

**Variable Search** – allows the user to search specific variables for individual choices underneath of those variables.

**Chart** – changes the chart type in the search window.

**Reset Search** – resets the selection criteria to default settings

**Load Filter** – loads custom filters into the search tab

**Save Filter As** – creates filter based on user-selected search tab search criteria

**Search** – runs a search of the dataset for results that fit into the user-selected filters and variables.

**Columns Selected** – allows the user to customize the columns displayed in the search tab’s results.

**Frequency Export** – allows the user to export search results to Excel.

**Run As Report** – allows the user to create special reports in the search tab.

**Inverse** – allows the user to switch the row and column selections in a cross tab search.

**Analyze** – runs the crosstab search and creates the table.
Delete – deletes the selected custom filter.

Share – shares the selected custom filter with other users.

Rename – allows the user to rename the selected custom filter.

Logic – shows the user the filter logic behind their custom filter.
Appendix C: Definitions

**Filter** – a mechanism that defines the *subset* of the dataset that is being given special attention. It might be a particular area of the state, a particular type of crash (fatal, pedestrian, alcohol, motorcycle, bicycle, etc.) or any combination of types. The filter that is in effect at any given time will be called the *current* filter. The “ALL” filter is included for completeness, although technically it does not filter out any crashes.

**Filter Logic** – the combination of variables’ codes that are logically combined to perform the filtering. Usually it will not be of concern, but at times it will be useful in answering the question: “Just what is it that makes up this filter?”

**Variable** – A set of codes grouped together by a specific category. i.e. crash severity

**Codes/Values** – The information within each variable. i.e. fatal injury

**Counts** – the number of events within a frequency or Crosstab.

**Frequency** – one variable summary

**Crosstab** – two variable summary

**Variable and Code Terms:**

**CMV** – Commercial Motor Vehicle. These are large trucks for the most part.

**CU** – Causal Unit deemed by the reporting officer

**V2** – Vehicle two or the second vehicle in a crash when applicable

**Other Terms:**

**E - prefix** – Electronic only variable or code

**P - prefix** – Paper only code
Appendix D: Step by Step Instructions

Deer Variable Search:
1. Press the binoculars button to open the search box.
2. Type “deer” into the search box.
3. Press the “Search” button.
4. View the results.

Injury Crashes by Speed Limit in 2017:
1. Change the two date boxes to January 1, 2017 and December 31, 2017 (01/01/2017 and 12/31/2017).
2. Set the first filter to “Injury Crashes (including Fatalities)”. 
3. Set the variable to “CU Speed Limit”.
4. Change the variable on the chart area to “CU Speed Limit”.
5. Change the chart type to vertical bar graph ( ).
6. View the results.

Route and Milepoint Selection Tool: I-65 MM 340-351 in 2017
1. Change the two date boxes to January 1, 2017 and December 31, 2017 (01/01/2017 and 12/31/2017).
2. Press the “Add New Route” button.
3. Change the dropdown menu to “IN0065”.
4. Enter “340” into the “From:” and “351” into the “To:” boxes.
5. Press the “Search” button to generate results.
6. Click the “Columns Selected” button to open the columns menu.
7. Check the “At Intersection”, “Lighting Conditions”, and “Manner of Crash” buttons.
8. Choose a crash report to analyze by clicking the “magnifying glass” button to open an individual crash report.
9. View the report and the diagram.

Route and Milepoint Selection Tool: I-20/59 MM 71-73 in 2018
1. Change the two date boxes to January 1, 2018 and December 31, 2018 (01/01/18 and 12/31/2018).
2. Press the “Add New Route” button.
3. Change the dropdown menu to “IN0020”.
4. Enter “71” into the “From:” box and “73” into the “To:” box.
5. Press the “Add New Route” button.
6. Change the dropdown menu to “IN0059”.
7. Enter “71” into the “From:” box and “73” into the “To:” box.
8. Press the “Search” button to generate results.

**Batching Results into a Report**

1. Press the “Add New Route” button.
2. Change the dropdown menu to “IN0065”.
3. Enter “340” into the “From:” and “351” into the “To:” boxes.
4. Press the “Search” button to generate results.
5. Press the Queue DPS Case Numbers button.
6. Wait for the files to download.
7. Press the word “Complete” under the “Crash Report Downloads” tab.
8. Open the .zip folder.
9. View the full folder of crash reports from the search.

**Link and Node Selection Tool: Tuscaloosa Link 1185**

1. Press the “Add New Link/Node” button.
2. Change the first dropdown menu to “Tuscaloosa”.
3. Change the second dropdown menu to “Tuscaloosa”.
4. Change the third dropdown menu to “Link”.
5. Enter “1185” into the “Link/Node1:” box.
6. Press the “Search” button to generate results.
7. View the results.

**Link and Node Selection Tool: UA Corridor on Link 1185**

1. Press the “Add New Link/Node” button.
2. Change the first dropdown menu to “Tuscaloosa”.
3. Change the second dropdown menu to “Tuscaloosa”.
4. Change the third dropdown menu to “Corridor”.
5. Enter “1185” into the “Link/Node1:” box.
6. Enter “767, 768, 13546” in the Nodes box.
7. Search and Map results

**Link and Node Selection Tool: Tuscaloosa Node 588**

1. Press the “Add New Link/Node” button.
2. Change the first dropdown menu to “Tuscaloosa”.
3. Change the second dropdown menu to “Tuscaloosa”.
4. Change the third dropdown menu to “Link”.
5. Enter “588” into the “Link/Node1:” box.
6. Press the “Search” button to generate results.
7. View the results.
Batching Using the Link/Node Tool

1. Press the “Add New Link/Node” button.
2. Change the first dropdown menu to “Tuscaloosa”.
3. Change the second dropdown menu to “Tuscaloosa”.
4. Change the third dropdown menu to “Link”.
5. Enter “1185” into the “Link/Node1:” box.
6. Click the green plus (+) button next to “Crash Severity”.
7. In the dropdown menu next to “Crash Severity”, click “Fatal Injury”, “Incapacitating Injury”, and “Non-Incapacitating Injury”.
8. Press the “Search” ( ) button to generate results.
9. Press the “Queue DPS Case Numbers” ( ) button.
10. Wait for the files to download.
11. Press the word “Complete” under the “Crash Report Downloads” tab.
12. Open the .zip folder.
13. View the full folder of crash reports from the search.

Creating a Custom Filter in the Search Tab

1. Click the “green plus” (+) button next to “First Harmful Event”.
2. Click the “green plus” (+) button next to “Highway Classifications”.
3. In the dropdown menu next to “First Harmful Event”, click “E Collision with Animal: Deer”.
4. In the dropdown menu next to “Highway Classifications”, click “State”.
5. Press the “Search” ( ) button to generate results.
6. Click the “Save Filter As” ( ) button.
7. Name the filter “Deer on State Roads”.
8. Click to the “Dashboard” tab.
9. Open the Filter dropdown menu and find your custom filter under your username.

Drill Down Tab: Tuscaloosa County, State Roads, Collision with a Deer

1. Change the variable dropdown menu to “E Most Harmful Event”.
2. Select “Collision with Deer”.
3. Press the “Next” ( ) button.
4. Change the variable dropdown menu to “Highway Classifications”.
5. Select “State”.
6. Press the “Next” ( ) button.
7. Change the variable dropdown menu to “County”.
8. Select “Tuscaloosa”.
9. Press the “Next” ( ) button.

Drill Down Tab: Multi-Select
1. Change the variable dropdown menu to “E Most Harmful Event”.
2. Select “Overturn/Rollover”.
3. Press the “Next” button.
4. Change the variable dropdown menu to “Crash Severity”.
5. Select “Fatal Injury” and “Incapacitating Injury” by using the “CTRL” key to select multiple options.
6. Press the “Next” button.
7. Change the variable dropdown menu to “Highway Classifications”.
8. Select “State”.
9. Press the “Next” button.
10. Change the variable dropdown menu to “County”.
11. Click “Count” twice to sort the results in descending order.
12. Select the top 5 counties (Talladega, Calhoun, Madison, Dekalb, and Lauderdale) by using either the “CTRL” or the “Shift” keys to select multiple options.
13. Press the “Next” button.

Cross Tab: Year and Month

1. Change the Row dropdown menu to “Year”.
2. Change the Column dropdown menu to “Month”.
3. Press the “Analyze” button to create the crosstab.
4. View the results.

Cross Tab: Year and Month, 3rd Dimension

1. Change the Row dropdown menu to “Year”.
2. Change the Column dropdown menu to “Month”.
3. Press the “Analyze” button to create the crosstab.
4. Click the “Use Third Dimension” check box.
5. Change the Third Dimension dropdown menu to “Time of Day”.
6. Navigate to the time range “1:00 to 1:59 AM” by clicking the arrow buttons.
7. View the results.

Cross Tab: DUI Crashes in Tuscaloosa County, Time of Day and Day of Week in 2016

1. Change the first filter dropdown menu to “DUI (Alcohol or Drugs)”.
2. Change the second filter dropdown menu to “County\Tuscaloosa County”.
3. Change the Row dropdown menu to “Time of Day”.
4. Change the Column dropdown menu to “Day of the Week”.
5. Press the “Analyze” button to create the crosstab.
6. Click the “Use Third Dimension” check box.
7. Change the Third Dimension dropdown menu to “Year”.
8. Navigate to the year “2016” by clicking the arrow ( ) buttons.
9. View the results.

Cross Tab: Over Represented Colors, Deer on State Roads, Time of Day and Day of Week

1. Change the first filter dropdown menu to “(Your Username)\Deer on State Roads”.
2. Change the Row dropdown menu to “Time of Day”.
3. Change the Column dropdown menu to “Day of the Week”.
4. Press the “Analyze” ( ) button to create the crosstab.
5. Uncheck the “Hide Over Represented Colors” checkbox to reveal the Over Represented Colors.
6. Press the “Analyze” ( ) button to create the crosstab.
7. View the results.

Map Function: I-65 between MM 340-351

1. Press the “Add New Route” button.
2. Change the dropdown menu to “IN0065”.
3. Enter “340” into the “From:” and “351” into the “To:” boxes.
4. Press the “Search” ( ) button to generate results.
5. Press the “Map” ( ) to generate a map.