



Alabama Safety Portal Training Guide 2020

Center for Advanced Public Safety

Computer Science Department


The University of Alabama

<http://caps.ua.edu>

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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

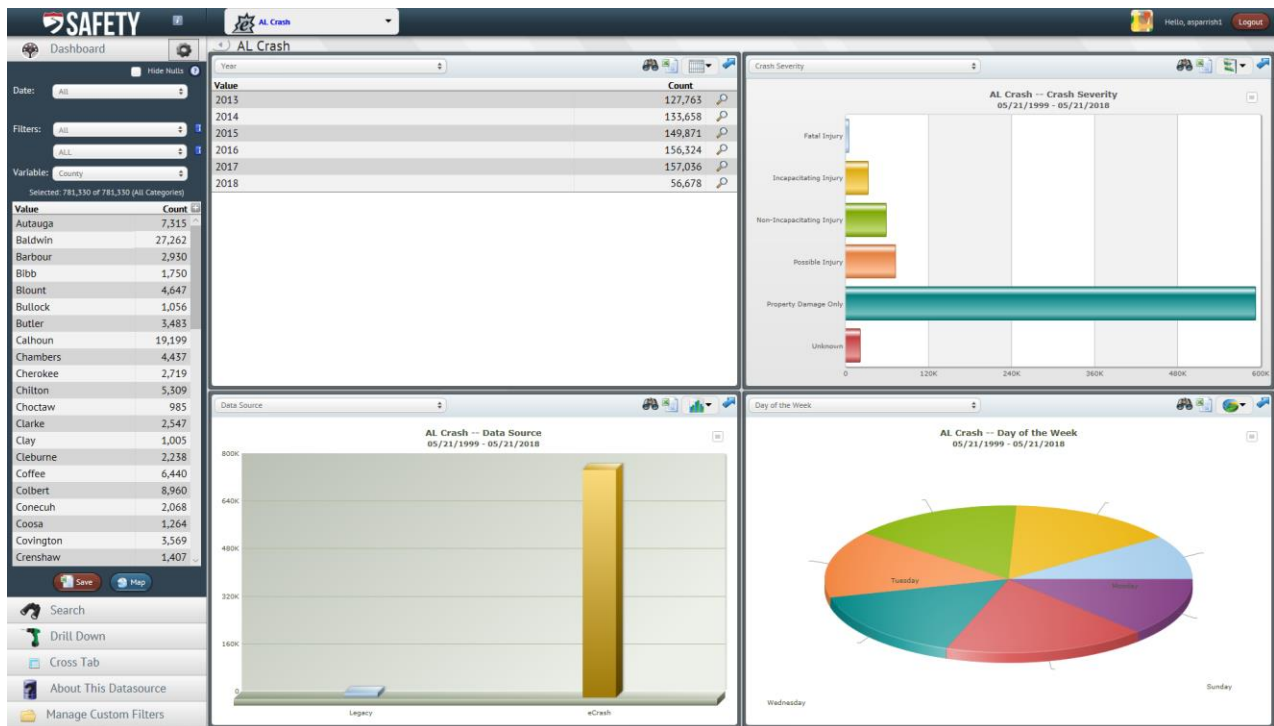
This manual is designed to help teach those with limited training on how to use the Alabama Safety Portal. Keep this document handy for reference in using the portal, both while you learn how to use it and while you teach it to others.

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
 - o Date – contains the range of dates that the data is being pulled from
 - o Filters – contains different limiting factors (geographic divisions, types of roads, special vehicles, external influences, etc.)
 - Custom filters also housed here – will cover later
 - o 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
 - o 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
 - o More direct method of moving from a large set of data to a small set of data using the information from crash reporting

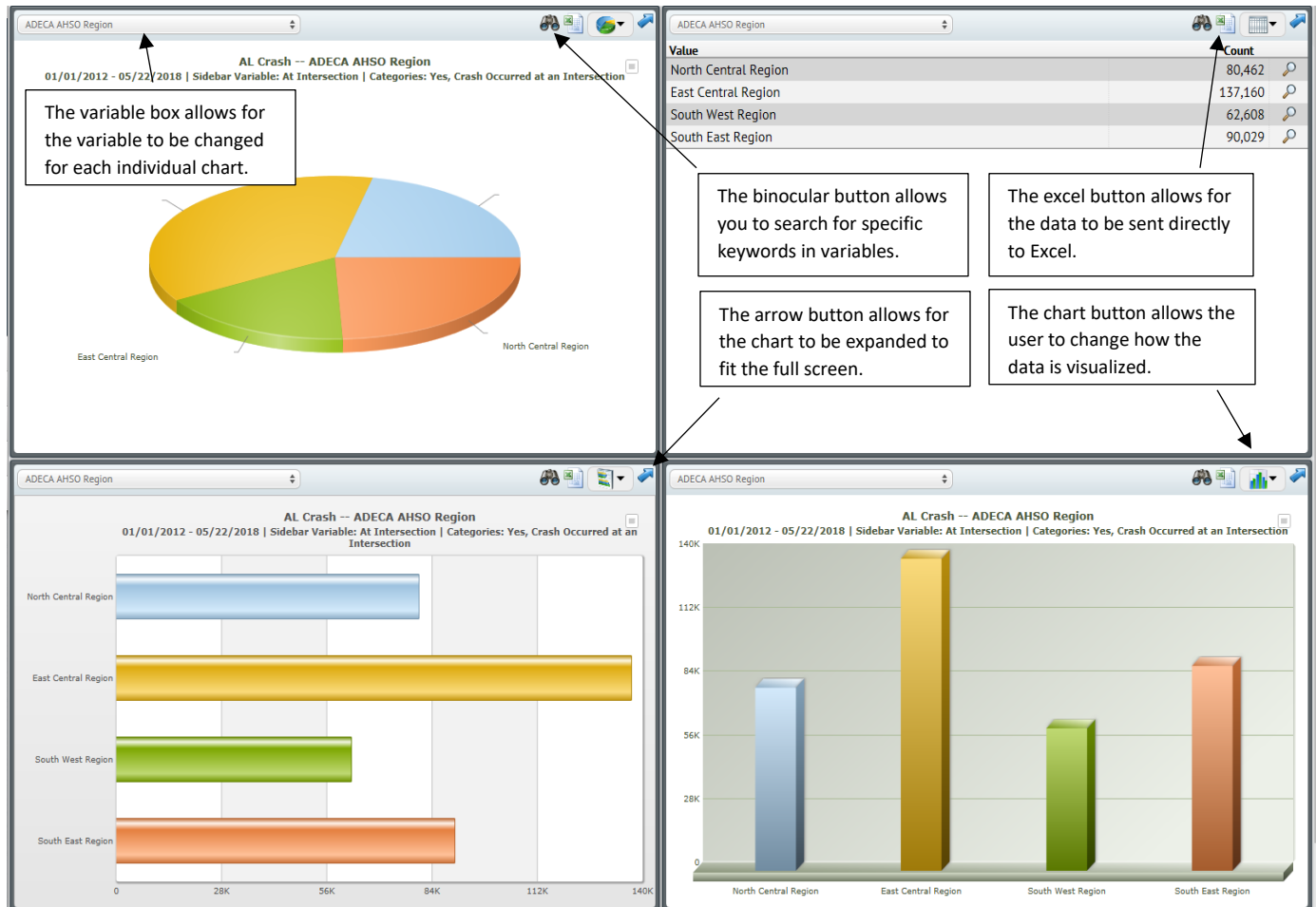
Cross Tab

- Allows you to create a table based on two variables, with the option to apply filters to limit the amount of results found
 - o 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 "deer" inside of a variable, you should first click the



button. Then, you should type in the word "deer" into the search box, like so.

Variable Search

Search

Waiting for query..

OK

Reset

Cancel

Then, press the search button and a list of variables that have a result containing the word “deer” should appear in a list.

Variable Search

Search

Results:

Variable	Context
First Harmful Event	Category match - E Collision with Animal: Deer
E Most Harmful Event	Category match - Collision with Animal: Deer
CU Vehicle Most Harmful Ev...	Category match - E Collision with Animal: Deer
E CU Sequence of Events #1	Category match - Collision with Animal: Deer
E CU Sequence of Events #2	Category match - Collision with Animal: Deer
E CU Sequence of Events #3	Category match - Collision with Animal: Deer
E CU Sequence of Events #4	Category match - Collision with Animal: Deer
CU Non-Motorist Most Har...	Category match - E Collision with Animal: Deer

OK

Reset

Cancel

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.

The date range box allows the user to limit the range of their data in the search.

The filter boxes allow the user to limit the data that they are looking for down to a smaller sample, such as looking for crashes that involved alcohol or crashes that involved bicycles, for example.

This box shows the different options inside of a variable. With this example, the box includes the counties in Alabama.

The save button exports the data that you've created into an Excel (.xlsx) file, which can be further manipulated inside of the Excel program.

The variable box includes the variables that appear on a crash report. This box is used to separate the data into categories, such as county, day of the week, weather, and time of day.

The map button allows the user to take their data and place it on a map with specific incidents being pinpointed at the point of where the crash occurred.

Value	Count
Autauga	7,315
Baldwin	27,262
Barbour	2,930
Bibb	1,750
Blount	4,647
Bullock	1,056
Butler	3,483
Calhoun	19,199
Chambers	4,437
Cherokee	2,719
Chilton	5,309
Choctaw	985
Clarke	2,547
Clay	1,005
Cleburne	2,238
Coffee	6,440
Colbert	8,960
Conecuh	2,068
Coosa	1,264
Covington	3,569
Crenshaw	1,407

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.

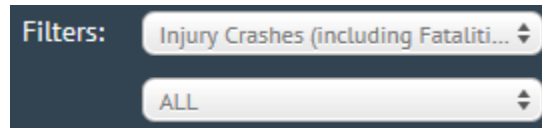
Example: Injury Crashes by Speed Limit in 2017

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.

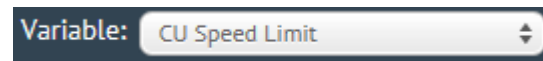
Date: Custom Date Range

01/01/2017 12/31/2017

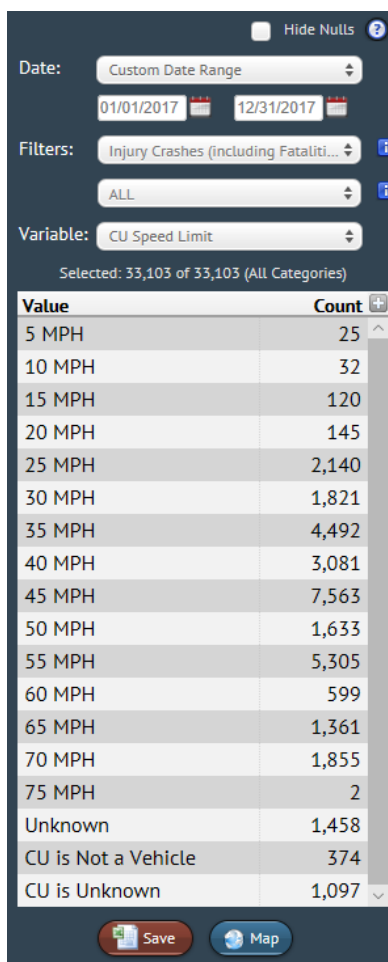
Then, set your first filter to “Injury Crashes (including Fatalities)”. This limits the data down to crashes where injuries and fatalities were reported.



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.



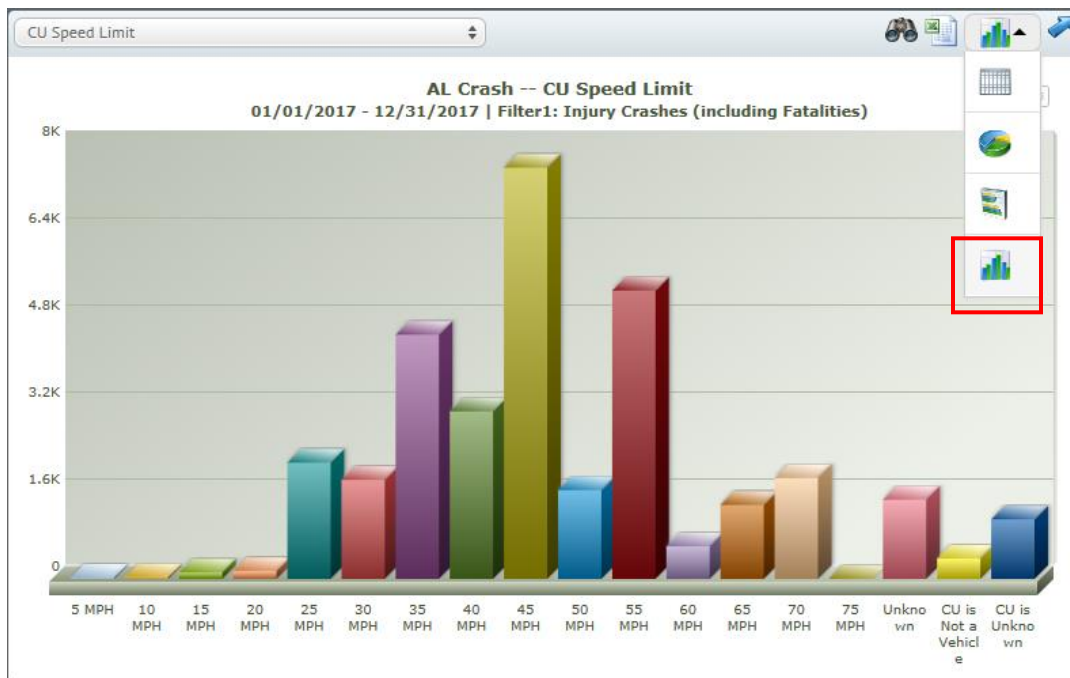
Once all of the settings have been inputted, the dashboard window should show this table, which is the amount of crashes occurring under these specific speed limits.



Value	Count
5 MPH	25
10 MPH	32
15 MPH	120
20 MPH	145
25 MPH	2,140
30 MPH	1,821
35 MPH	4,492
40 MPH	3,081
45 MPH	7,563
50 MPH	1,633
55 MPH	5,305
60 MPH	599
65 MPH	1,361
70 MPH	1,855
75 MPH	2
Unknown	1,458
CU is Not a Vehicle	374
CU is Unknown	1,097

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.

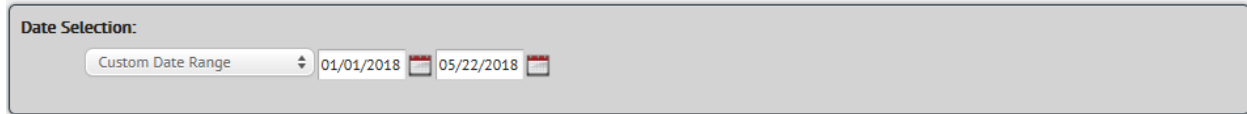
Using the Search Tab

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.

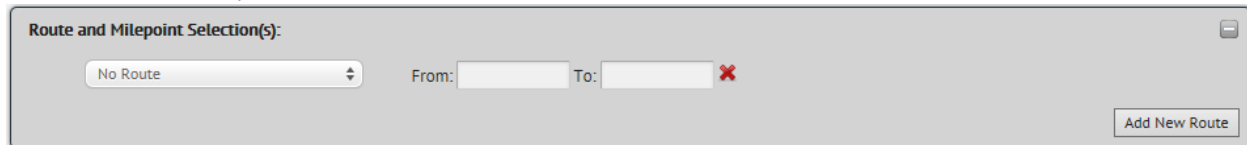
Route Lookup and batching PDF reports

Date Selection Tool

The screenshot shows a 'Date Selection:' panel. It contains a dropdown menu labeled 'Custom Date Range' with a downward arrow. To the right of the dropdown are two date pickers. The first date picker shows '01/01/2018' and the second shows '05/22/2018'. Both date pickers have a small calendar icon to their right.

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 screenshot shows a 'Route and Milepoint Selection(s):' panel. It features a dropdown menu with 'No Route' selected and a downward arrow. To the right of the dropdown are two input fields labeled 'From:' and 'To:'. The 'To:' field has a red 'X' icon to its right. In the bottom right corner of the panel is a button labeled 'Add New Route'.

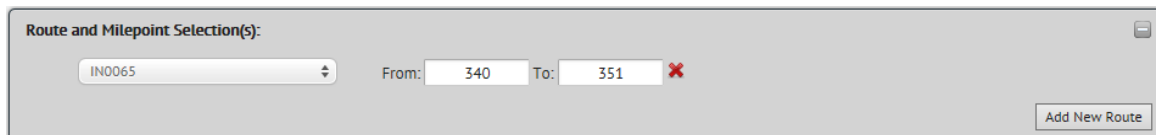
The Route and Milepoint Selection Tool is used to select specific sections of road that you might want to analyze for crash data down to the mile marker. First, you need to select a road from the drop down menu. For this tool, only interstates and state routes are included. Once a route is selected from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

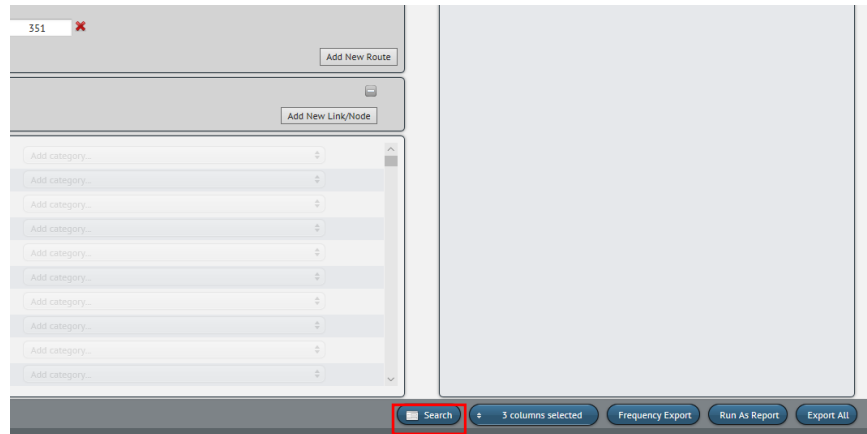
First, make sure your date range is set from January 1, 2017 to December 31, 2017.

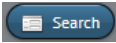
The screenshot shows the 'Date Selection:' panel. The dropdown menu is set to 'Custom Date Range'. The first date picker shows '01/01/2017' and the second shows '12/31/2017'. Both date pickers have a small calendar icon to their right.

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.

The screenshot shows the 'Route and Milepoint Selection(s):' panel. The dropdown menu now shows 'IN0065'. The 'From:' input field contains '340' and the 'To:' input field contains '351'. The red 'X' icon is still present to the right of the 'To:' field. The 'Add New Route' button is in the bottom right corner.

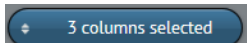

Press the  Search button, located at the bottom of the window.



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.

Page 1 of 1 243 results Previous Next Save Search 3 columns selected Frequency Export Run As Report Export All

CARE Search Results			Queue DPS Case Numbers	Map
Crash Severity	DateTime	Primary Contributing Circumstance		
Non-Incapacitating Injury	1/12/2013 10:25:00 AM	Driving too Fast for Conditions		
Non-Incapacitating Injury	1/16/2013 3:59:00 AM	E Fatigued/Asleep		
Property Damage Only	1/19/2013 1:57:00 PM	Followed too Close		
Property Damage Only	1/21/2013 7:25:00 PM	E Swerved to Avoid Animal		
Non-Incapacitating Injury	2/2/2013 10:00:00 AM	Driving too Fast for Conditions		
Property Damage Only	2/3/2013 5:13:00 AM	Driving too Fast for Conditions		
Property Damage Only	2/3/2013 1:30:00 PM	E Swerved to Avoid Vehicle		
Property Damage Only	3/23/2013 7:54:00 AM	E Other Distraction Inside the Vehicle		
Property Damage Only	3/29/2013 8:15:00 PM	Improper Lane Change/Use		
Non-Incapacitating Injury	3/31/2013 5:50:00 PM	Under Minimum Speed		
Non-Incapacitating Injury	4/9/2013 7:37:00 AM	Made Improper Turn		
Property Damage Only	4/11/2013 4:20:00 AM	DUI		
Property Damage Only	4/11/2013 3:50:00 PM	Driving too Fast for Conditions		
Property Damage Only	4/13/2013 11:30:00 AM	Cargo Fell or Load Shift		
Non-Incapacitating Injury	4/27/2013 1:15:00 PM	E Other Distraction Inside the Vehicle		
Property Damage Only	5/4/2013 2:00:00 AM	Driving too Fast for Conditions		
Property Damage Only	5/15/2013 9:07:00 AM	Misjudge Stopping Distance		
Incapacitating Injury	5/17/2013 10:10:00 AM	E Other Distraction Inside the Vehicle		
Property Damage Only	5/24/2013 7:15:00 AM	E Swerved to Avoid Vehicle		
Property Damage Only	6/4/2013 11:30:00 PM	E Other - No Improper Driving		
Property Damage Only	6/6/2013 1:55:00 PM	Defective Equipment		
Property Damage Only	6/7/2013 8:30:00 PM	Unseen Object/Person/Vehicle		

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.


Page 1 of 1 243 results Previous Next Save Search 6 columns selected Frequency Export Run As Report Export All

CARE Search Results Queue DPS Case Numbers Map

At Intersection	Crash Severity	Date/Time	E Manner of Crash	Lighting Conditions	Primary Contributing Circumst...
No, Crash Did Not Occur at...	Non-Incapacitating Injury	6/22/2016 8:30:00 AM	Rear End (front to rear)	Daylight	Followed too Close
No, Crash Did Not Occur at...	Property Damage Only	6/16/2016 7:05:00 AM	Sideswipe - Same Direction	Daylight	Improper Lane Change/Use
No, Crash Did Not Occur at...	Property Damage Only	6/1/2016 9:40:00 PM	Single Vehicle Crash (all ty...	Dark - Roadway Not Lighted	Driving too Fast for Condi...
No, Crash Did Not Occur at...	Non-Incapacitating Injury	7/4/2016 2:25:00 PM	Single Vehicle Crash (all ty...	Daylight	E Fatigued/Asleep
No, Crash Did Not Occur at...	Property Damage Only	7/2/2016 10:00:00 PM	Single Vehicle Crash (all ty...	Dark - Roadway Not Lighted	Unseen Object/Person/Vehi...
No, Crash Did Not Occur at...	Non-Incapacitating Injury	6/22/2016 8:10:00 PM	Single Vehicle Crash (all ty...	Dark - Roadway Not Lighted	Defective Equipment
No, Crash Did Not Occur at...	Non-Incapacitating Injury	5/7/2016 10:05:00 AM	Single Vehicle Crash (all ty...	Daylight	Defective Equipment
No, Crash Did Not Occur at...	Property Damage Only	5/3/2016 6:55:00 AM	Rear End (front to rear)	Dawn	E Fatigued/Asleep
No, Crash Did Not Occur at...	Property Damage Only	4/30/2016 10:40:00 PM	Rear End (front to rear)	Dark - Roadway Not Lighted	E Other Distraction Outside...
No, Crash Did Not Occur at...	Property Damage Only	6/14/2016 4:10:00 PM	Single Vehicle Crash (all ty...	Daylight	Unseen Object/Person/Vehi...
No, Crash Did Not Occur at...	Property Damage Only	6/2/2016 3:10:00 PM	Single Vehicle Crash (all ty...	Daylight	Unseen Object/Person/Vehi...
No, Crash Did Not Occur at...	Property Damage Only	5/21/2016 6:55:00 AM	Single Vehicle Crash (all ty...	Dark - Roadway Not Lighted	Unseen Object/Person/Vehi...
No, Crash Did Not Occur at...	Property Damage Only	7/14/2016 5:30:00 AM	Sideswipe - Same Direction	Dawn	E Other Distraction Inside t...
No, Crash Did Not Occur at...	Property Damage Only	10/13/2016 2:25:00 PM	Rear End (front to rear)	Daylight	E Other Distraction Inside t...
No, Crash Did Not Occur at...	Property Damage Only	10/10/2016 4:45:00 PM	Rear End (front to rear)	Daylight	Followed too Close
No, Crash Did Not Occur at...	Property Damage Only	9/29/2016 6:20:00 PM	Single Vehicle Crash (all ty...	Daylight	E Fatigued/Asleep
No, Crash Did Not Occur at...	Property Damage Only	11/26/2016 6:20:00 PM	Single Vehicle Crash (all ty...	Dark - Roadway Not Lighted	E Other - No Improper Drivi...
No, Crash Did Not Occur at...	Property Damage Only	11/20/2016 2:30:00 AM	Single Vehicle Crash (all ty...	Dark - Roadway Not Lighted	E Ran off Road
No, Crash Did Not Occur at...	Fatal Injury	10/12/2016 3:14:00 PM	Rear End (front to rear)	Daylight	Over Speed Limit
No, Crash Did Not Occur at...	Property Damage Only	8/19/2016 10:55:00 PM	Single Vehicle Crash (all ty...	E Dark - Spot Illumination...	Driving too Fast for Condi...
No, Crash Did Not Occur at...	Non-Incapacitating Injury	7/28/2016 3:59:00 PM	Rear End (front to rear)	Daylight	E Other Distraction Outside...
No, Crash Did Not Occur at...	Property Damage Only	8/1/2016 6:10:00 AM	Rear End (front to rear)	Daylight	E Fatigued/Asleep

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 .

To show the functionality of the individual crash search function, click on the top result's corresponding , which will adjust your window to look like this.

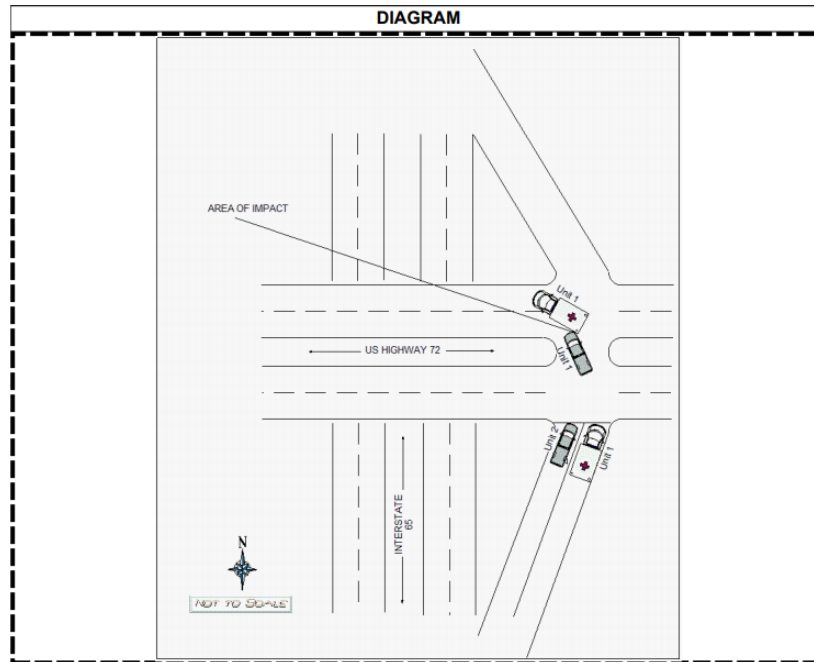
CARE Search Results View PDF

Variable	Value
ADECA AH50 Region	North Central Region
Adjusted EMS Arrival Delay	Not Applicable
Agency ORI	Athens Police Department
ALDOT Area	Area 2
ALDOT Region	North Region
ALEA Division	Null value
At Intersection	Yes Crash Occurred at an Intersection
Causal Unit (CU) Type	E Single-Unit Truck (2-Axle/6-Tire)
City	Athens
CMV Involved	CMV is Not Involved
Controlled Access	Not a Controlled Access
County	Limestone
Crash Number	3604901
Crash Severity	Property Damage Only
CU Areas Damaged #1	Area 7 - Left Rear Angle
CU Attachment	None
CU Body (Passenger Cars Only)	E Two Door with Rear Entry/Hatchback
CU Citation Issued	E None
CU CMV Hazard Materials Involvement	CU is Not a CMV
CU CMV Indicator	No - CU is Not CMV
CU Commercial Motor Vehicle Indicator	CU is Not CMV
CU Contribution Circumstance	Improper Lane Change/Use

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  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.

Date Selection:

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.

Route and Milepoint Selection(s):

Batching Results into a Report

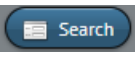
One of the key features that you can use to aggregate PDF's together into an easy report is using batching. Batching allows you to search for specific criteria in reports like you would before, find those crashes, download all of the PDF files into a new file folder, and access each individual PDF file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

Route and Milepoint Selection(s):

IN0065 From: 340 To: 351 ✖

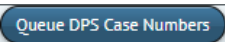
Add New Route

Then, run a search by pressing the  button, which will give you 368 results.

Page 1 of 1 368 results Previous Next Save Search 3 columns selected Frequency Export Run As Report Export All

CARE Search Results

Crash Severity	DateTime	Primary Contributing Circumstance	Queue DPS Case Numbers
Property Damage Only	1/9/2013 7:09:00 PM	Improper Lane Change/Use	
Non-Incapacitating Injury	1/12/2013 10:25:00 AM	Driving too Fast for Conditions	
Non-Incapacitating Injury	1/16/2013 3:59:00 AM	E Fatigued/Asleep	
Property Damage Only	1/19/2013 1:57:00 PM	Followed too Close	
Property Damage Only	1/21/2013 7:25:00 PM	E Swerved to Avoid Animal	
Property Damage Only	1/28/2013 2:05:00 PM	Improper Lane Change/Use	
Property Damage Only	2/2/2013 9:22:00 AM	E Other - No Improper Driving	
Non-Incapacitating Injury	2/2/2013 10:00:00 AM	Driving too Fast for Conditions	
Property Damage Only	2/2/2013 12:00:00 PM	Followed too Close	

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.


Report Queue (1)

Start Time	Progress	Status	Cancel
05/29/2018 11:01:35	0 out of 368	Pending	Cancel

Note: Completed batch requests are available to download for 24 hours from start time.

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


 **Crash Report Downloads** tab, which is found at the top of the screen.)

Report Queue (1)

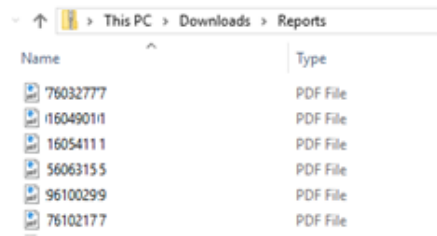
Start Time	Progress	Status	Cancel
05/29/2018 11:01:35		Complete	Cancel

Note: Completed batch requests are available to download for 24 hours from start time.

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.

 **Reports.zip**

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.

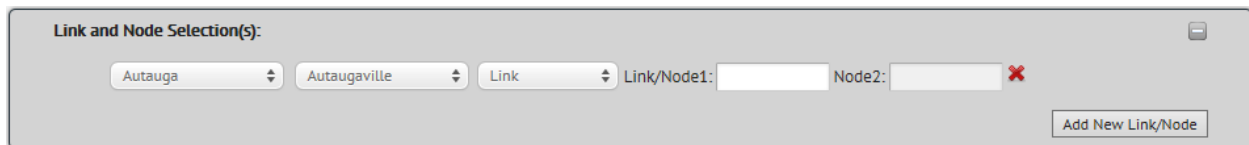
Link Lookup Study

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.

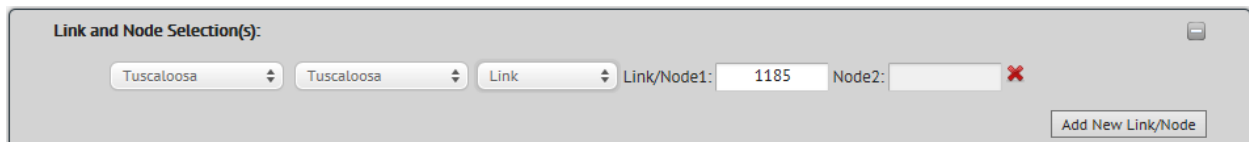
First, let's look at link 1185. First, we want to add a new link/node selection by clicking the "Add New Link/Node" button under the Search Tab.




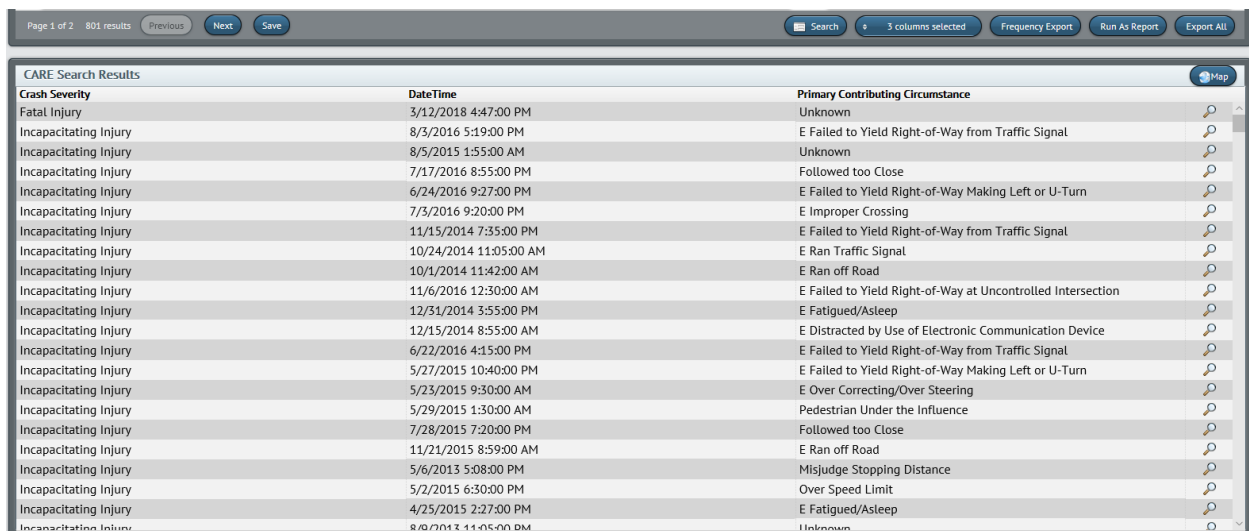
Once you click on this button, there will be a prompt that opens up, similarly to the Route and Milepoint Selection Tool.



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".




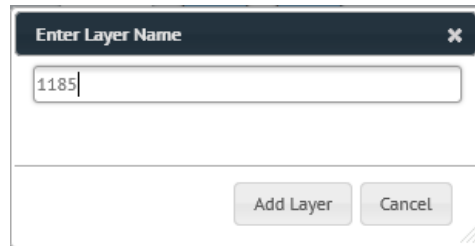
Now, press the  button to generate the results of crashes that occurred along link 1185.



Crash Severity	DateTime	Primary Contributing Circumstance
Fatal Injury	3/12/2018 4:47:00 PM	Unknown
Inc incapacitating Injury	8/3/2016 5:19:00 PM	E Failed to Yield Right-of-Way from Traffic Signal
Inc incapacitating Injury	8/5/2015 1:55:00 AM	Unknown
Inc incapacitating Injury	7/17/2016 8:55:00 PM	Followed too Close
Inc incapacitating Injury	6/24/2016 9:27:00 PM	E Failed to Yield Right-of-Way Making Left or U-Turn
Inc incapacitating Injury	7/3/2016 9:20:00 PM	E Improper Crossing
Inc incapacitating Injury	11/15/2014 7:35:00 PM	E Failed to Yield Right-of-Way from Traffic Signal
Inc incapacitating Injury	10/24/2014 11:05:00 AM	E Ran Traffic Signal
Inc incapacitating Injury	10/1/2014 11:42:00 AM	E Ran off Road
Inc incapacitating Injury	11/6/2016 12:30:00 AM	E Failed to Yield Right-of-Way at Uncontrolled Intersection
Inc incapacitating Injury	12/31/2014 3:55:00 PM	E Fatigued/Asleep
Inc incapacitating Injury	12/15/2014 8:55:00 AM	E Distracted by Use of Electronic Communication Device
Inc incapacitating Injury	6/22/2016 4:15:00 PM	E Failed to Yield Right-of-Way from Traffic Signal
Inc incapacitating Injury	5/27/2015 10:40:00 PM	E Failed to Yield Right-of-Way Making Left or U-Turn
Inc incapacitating Injury	5/23/2015 9:30:00 AM	E Over Correcting/Over Steering
Inc incapacitating Injury	5/29/2015 1:30:00 AM	Pedestrian Under the Influence
Inc incapacitating Injury	7/28/2015 7:20:00 PM	Followed too Close
Inc incapacitating Injury	11/21/2015 8:59:00 AM	E Ran off Road
Inc incapacitating Injury	5/6/2013 5:08:00 PM	Misjudge Stopping Distance
Inc incapacitating Injury	5/2/2015 6:30:00 PM	Over Speed Limit
Inc incapacitating Injury	4/25/2015 2:27:00 PM	E Fatigued/Asleep
Inc incapacitating Injury	8/9/2013 11:05:00 AM	Unknown

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

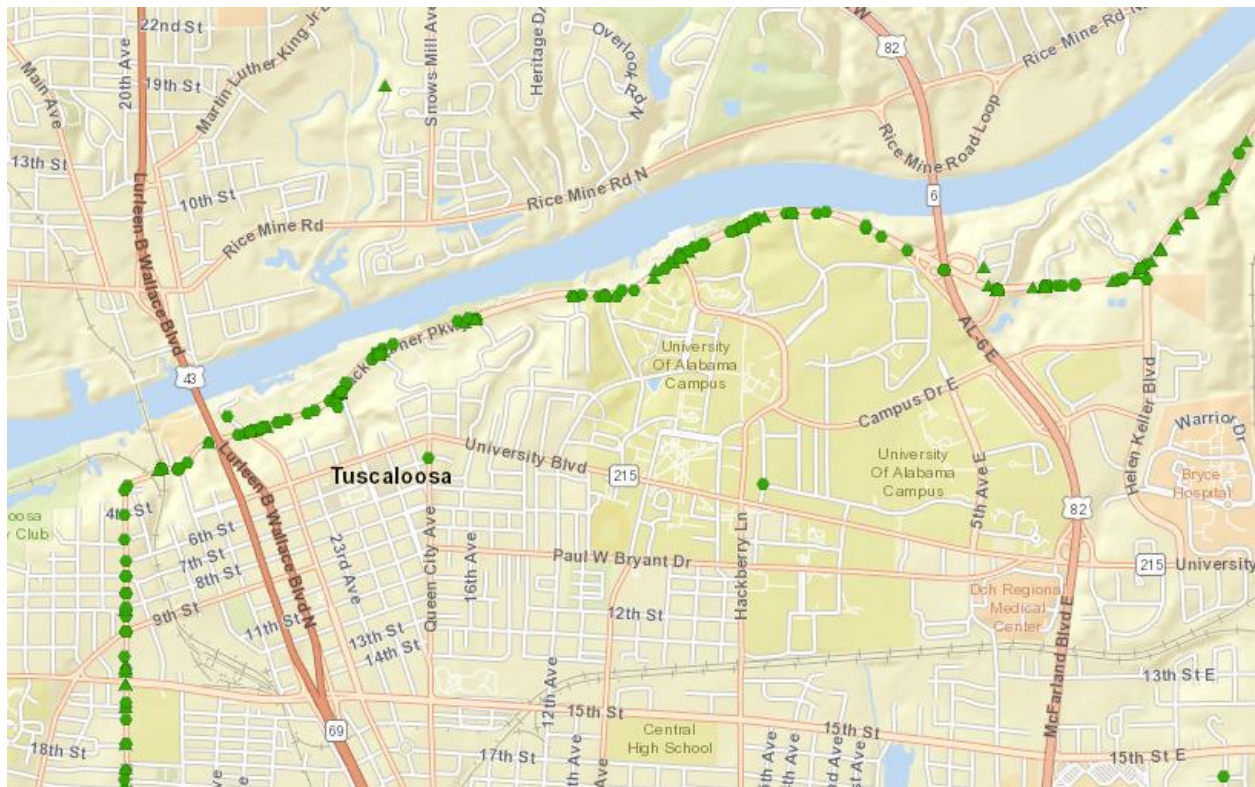
that we're working with. From the previous search that you just conducted, press the  button, which will prompt you to name the map layer. We'll name the layer "1185", like so.



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.)

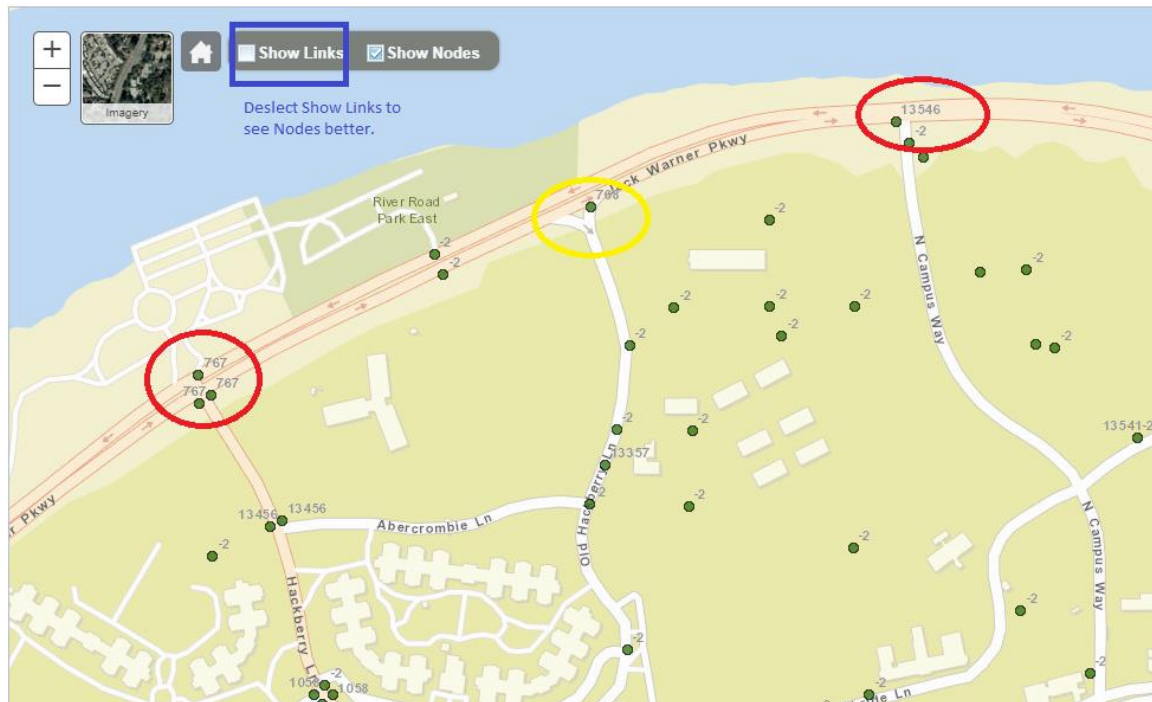


You can see the entire length of link 1185 and the crashes along this link. If you do not want the entire length of a single link, you can use the Corridor location option. This option will allow you to see only sections of this link. In the next example, we will only look at segments along the university 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  button to open the Link/Node Viewer and zoom into the area



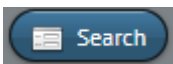

The Show Links checkbox has been deselected so we can see node number more clearly. The red circles are the boundary street for the campus border. Also note the yellow node inbetween. You must include all nodes along the segment(s) in a corridor study. You also need to enter the nodes in sequential order. 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:

Link and Node Selection(s):

Tuscalo... Tuscaloosa Corridor Link: 1185 Nodes: 767, 768, 13546

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

Use the  to find crashes along the selected corridor and then  the results. You can name the layer as

Enter Layer Name

UA Link 1185

Add Layer

Cancel

and go to the map



The results show only crashes along the campus border along link 1185. (These results are for example purposes only.)

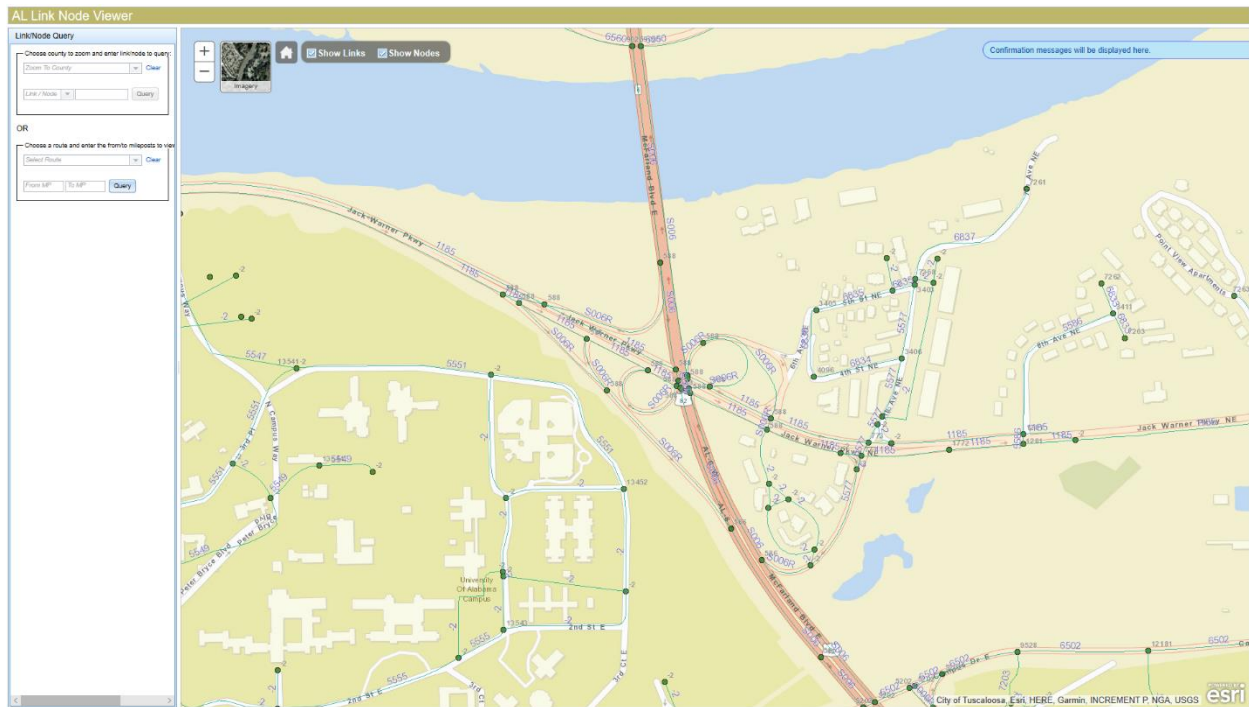
Before we continue to the next example, let's look at the Link-Node Viewer (LNV). We're going to look at node 588 in Tuscaloosa County, which is the node at the interchange of US-82 and Jack Warner Parkway. To start this, press



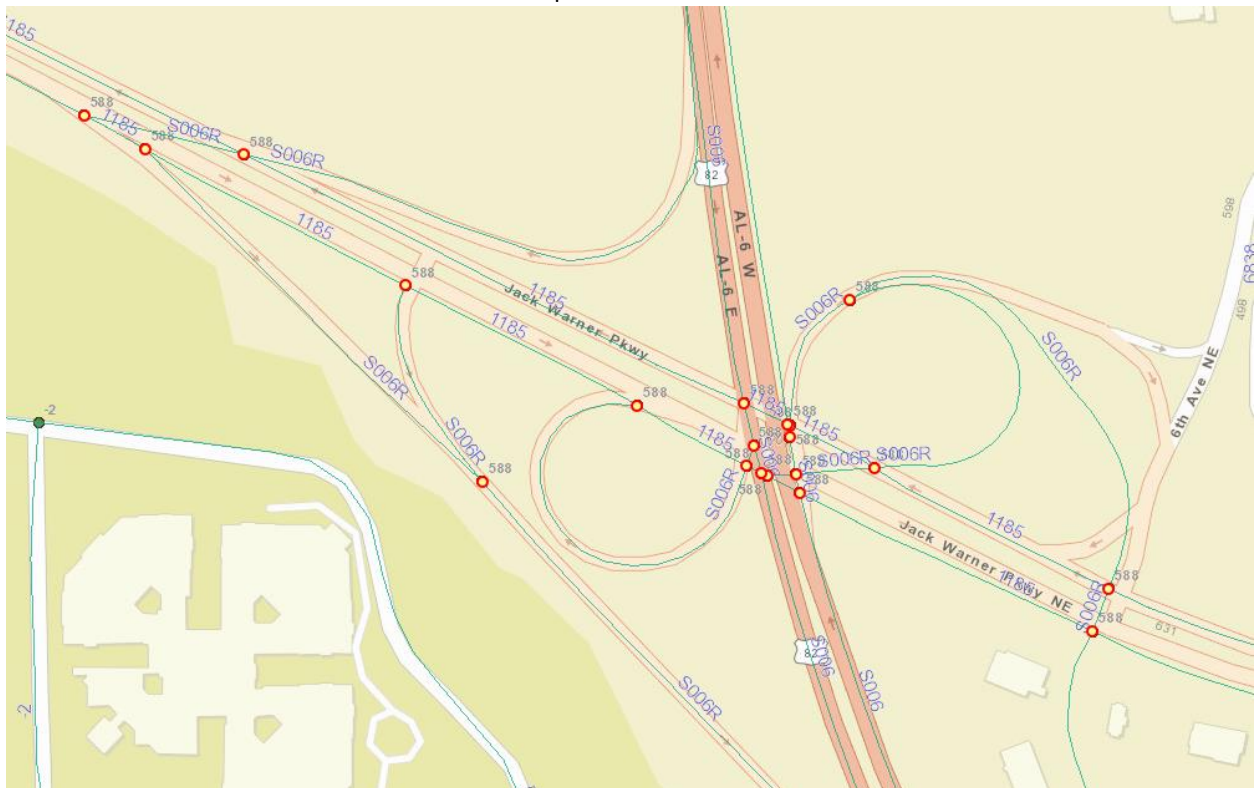
the button to open the Link/Node Viewer.


Node Lookup Study

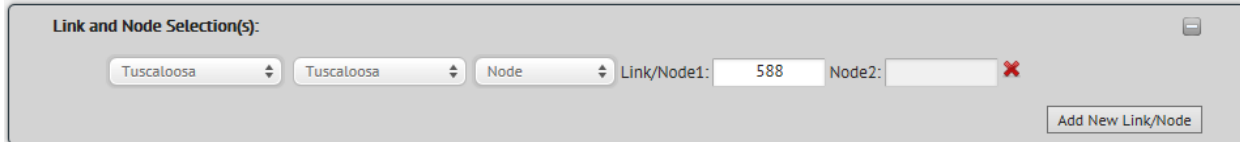
Once you open the LNV, you will see a map of the entire state of Alabama. Zoom into the city of Tuscaloosa, and then find US-82. Once you have found US-82, scroll along US-82 until you find Jack Warner Parkway. Once you find Jack Warner Parkway on the map, your view should look like this.

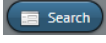


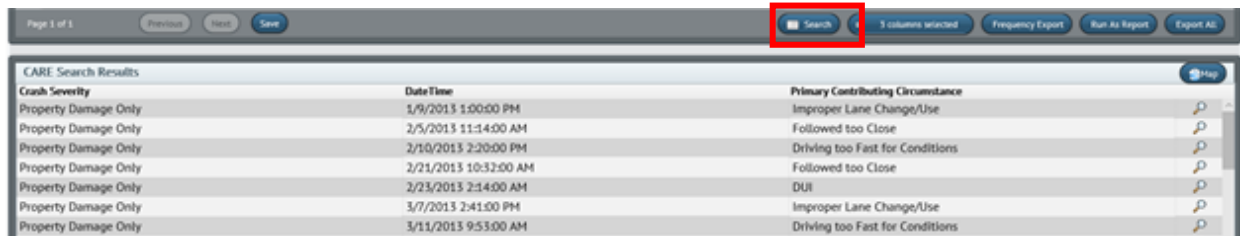
Looking at the main intersection, you can see that the node for that intersection is 588. To show this, select "Tuscaloosa" in the county drop down menu, choose "Node" from the Link/Node drop down menu, and input "588" into the final box and press the "Query" button. Once you press the button, the nodes 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.



Crash Severity	Date/Time	Primary Contributing Circumstance
Property Damage Only	1/9/2013 1:00:00 PM	Improper Lane Change/Use
Property Damage Only	2/5/2013 11:14:00 AM	Followed too Close
Property Damage Only	2/10/2013 2:20:00 PM	Driving too Fast for Conditions
Property Damage Only	2/21/2013 10:32:00 AM	Followed too Close
Property Damage Only	2/23/2013 2:14:00 AM	DUI
Property Damage Only	3/7/2013 2:41:00 PM	Improper Lane Change/Use
Property Damage Only	3/11/2013 9:53:00 AM	Driving too Fast for Conditions

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.

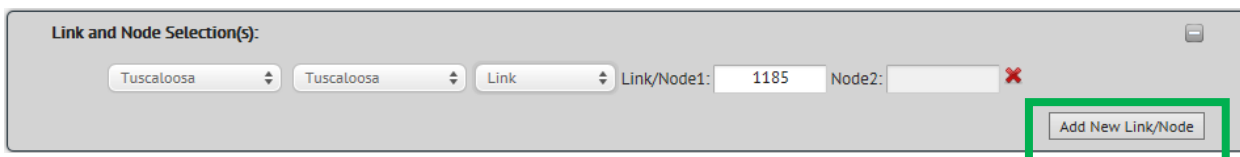
Collaborative Discussion: Complete the same search viewing only county roads. Discuss.


Batching Using the Link/Node Tool

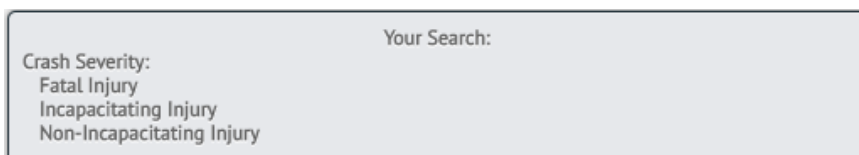
Let's work through another example of batching, except using the link/node in this example.

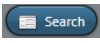
To start, go to the Search Tab and add a new link/node. We'll use the link 1185 and node 588 to do two separate searches, using the link 1185 first.

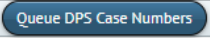
Select Tuscaloosa for both the county and the city boxes, then input 1185 into the Link/Node 1 box (make sure that link is selected in the Link/Node Selector Box).



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.

Report Queue (1)			
Start Time	Progress	Status	Cancel
05/29/2018 13:00:22	0 out of	Pending	Cancel

Note: Completed batch requests are available to download for 24 hours from start time

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.

Link and Node Selection(s):

Tuscaloosa


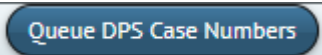
Tuscaloosa

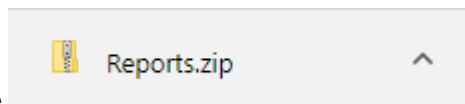
Node

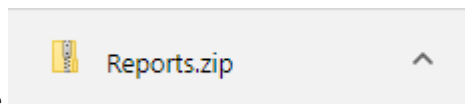
Link/Node1: 588

Node2: ✖

Add New Link/Node

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.

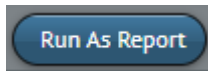
The batching tool is quite handy for finding all crashes in an area without having to utilize the map feature, which will be outlined later on in this guide.

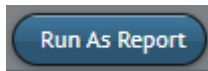
Detailed and Summary Reports

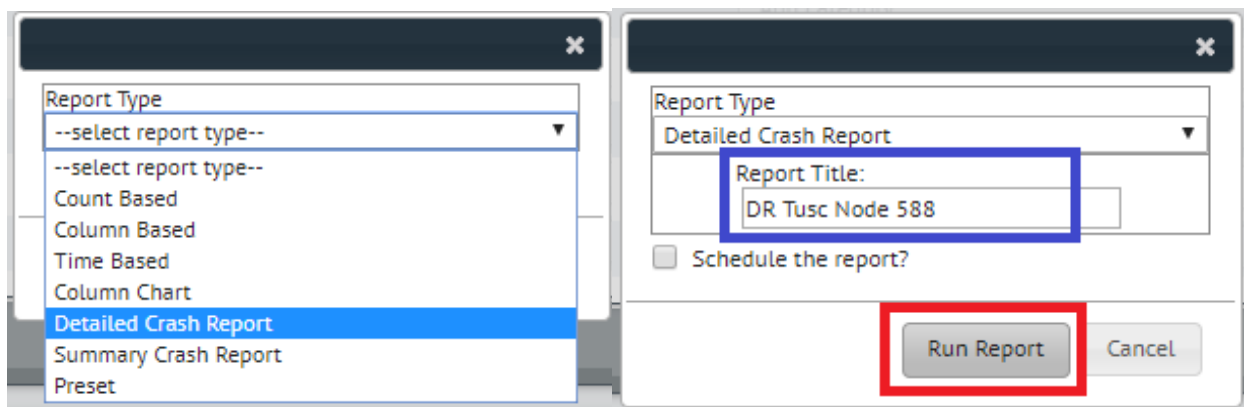
Along with bathing the crash PDF file, you can also save you Searched crashes in the traditional Detailed and Summary styled reports. Any search can produce these reports. We will use the previous example to show this

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.

```
Date run: 2/7/2020                                Detailed Crash Report                                Page 1
Dataset: AL Crash
Selection Criteria: (( DateTime >= 01/01/2015 AND DateTime <= 12/31/2019 ) AND (( County = Tuscaloosa AND
City = Tuscaloosa AND Node 1 = 588 )))
```

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 left column are the resulting percentages based on total crashes in the search results. (These results are for example purposes only.)

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

The pages following the summary are in the following format:

Crash 2 of

Page 3

Crash Level

Case Number:		Primary Cause:	Followed too Close
Crash Severity:	Property Damage Only	Manner of Crash:	Rear End (front to rear)
County:	Tuscaloosa	First Harmful Event:	Collision with Vehicle in Tr
City:	Tuscaloosa	Event Location:	On Roadway
Node 1:	588	Distance to Object:	Not Applicable
Node 2:	5202	Vehicles:	2 Vehicles
Road:	AL0006	Pedestrians:	No Pedestrians Involved
Milepoint:	49.95	Lighting Conditions:	Daylight
Crash Date:	1/23/2015	Weather:	Rain
Day of Week:	Friday	Locale:	Shopping or Business
Intersection Related:	Yes, Crash Was Intersection	Dist From Node 1:	700
CMV Involved:	No	DOT RR Crossing Number:	None Given

Causal Unit

Causal Unit:	
On Road:	AL0006
Direction Of Travel:	South
Maneuver:	Movement Essentially Straigh
Other Cause:	Followed too Close
Most Harmful Event:	Collision with Vehicle in Tr
Number of Lanes:	Four Lanes
Traffic Control:	No Controls Present
Road Condition:	Wet
Road Defect:	None Apparent
Point Of Impact:	Area 12 - Head On Center
Sobriety Alcohol:	SOBER
Sobriety Drugs:	SOBER
Driver Condition:	Apparently Normal
Less Than 25 Mi From Res:	Less than 25 Miles
Speed:	41 to 45 MPH
Speed Limit:	50 MPH
Visibility:	Not Obscured
State Of Residence:	Alabama
Restriction Violations:	Not Applicable
Citation:	E None
Hazardous Cargo:	Not Applicable (Not a CMV)
Damage To Vehicle:	E Minor
Oversized Load:	Not Applicable (Not a CMV or
Attachments:	None

Vehicle 2

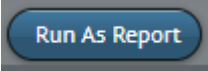
Vehicle 2:	
On Road:	AL0006
Direction Of Travel:	South
Maneuver:	Slowing/Stopping
Other Cause:	Not Applicable
Most Harmful Event:	Collision with Vehicle in Tr
Number of Lanes:	Four Lanes
Traffic Control:	No Controls Present
Road Condition:	Wet
Road Defect:	None Apparent
Point Of Impact:	Area 6 - Rear End Center
Sobriety Alcohol:	SOBER
Sobriety Drugs:	SOBER
Driver Condition:	Apparently Normal
Less Than 25 Mi From Res:	Greater than 25 Miles
Speed:	46 to 50 MPH
Speed Limit:	50 MPH
Visibility:	Not Obscured
State Of Residence:	Alabama
Restriction Violations:	Not Applicable
Citation:	E None
Hazardous Cargo:	Not Applicable (Not a CMV)
Damage To Vehicle:	E Minor
Oversized Load:	Not Applicable (Not a CMV or
Attachments:	None

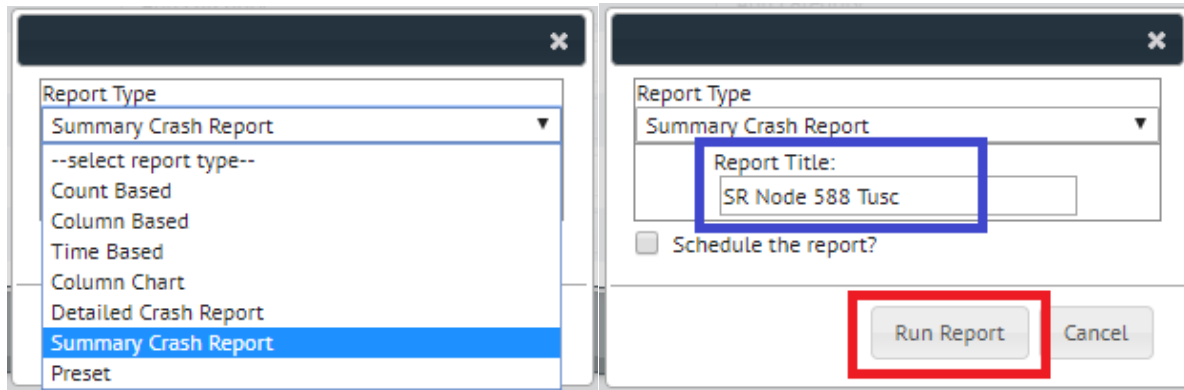
If it is a single vehicle crash, the Vehicle 2 section will be blank.

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.

 Run As Report

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.

Date run: 2/7/2020 Detailed Crash Report Page 1
Dataset: AL Crash
Selection Criteria: ((DateTime >= 01/01/2015 AND DateTime <= 12/31/2019) AND ((County = Tuscaloosa AND City = Tuscaloosa AND Node 1 = 588)))

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

Sequence	Crash No.	Date	County	City	Link	Node1	Node2	Milepost
1	6000211	01/01/2015	Tuscaloosa	Tuscaloosa	AL0006	588	N/A	99.64
2	6078255	01/23/2015	Tuscaloosa	Tuscaloosa	AL0006	588	5202	99.95
3	6129888	02/02/2015	Tuscaloosa	Tuscaloosa	AL0006	588	N/A	99.64
4	6145133	02/09/2015	Tuscaloosa	Tuscaloosa	AL0006	588	N/A	99.64
5	6104366	01/31/2015	Tuscaloosa	Tuscaloosa	AL0006	588	N/A	99.64
6	6211233	02/28/2015	Tuscaloosa	Tuscaloosa	1185	588	768	42
7	6266077	03/12/2015	Tuscaloosa	Tuscaloosa	AL0006	588	N/A	99.64
8	6362422	04/07/2015	Tuscaloosa	Tuscaloosa	AL0006	588	N/A	99.64

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.)

	2014	2015	2016	2017	2018	2019	2020	TOTAL
Fatal Injury	0	00	00	00	00	00	0	000
Incapacitating Injur	0	01	11	01	01	01	0	111
Non-Incapacitating I	0	57	27	07	07	07	0	777
Possible Injury	0	32	82	72	62	52	0	222
Property Damage Only	0	21	31	21	21	41	0	111
Unknown	0	01	11	01	01	01	0	111
TOTAL	0	32	52	32	32	52	0	222

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.

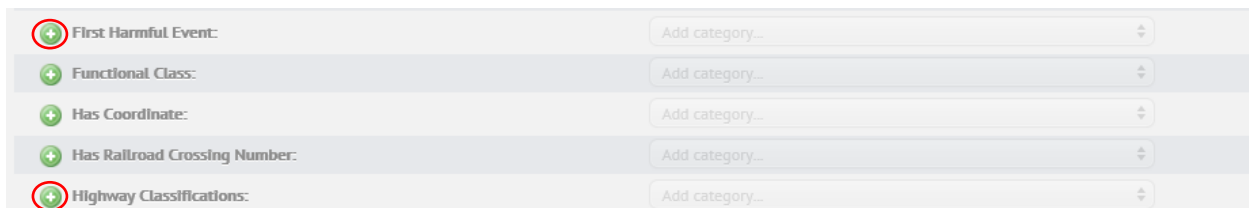
The third section shows sets of common variables. You can see the alternating colors to separate the series of variable listings. (These results are for example purposes only.)






County	223	2:00 PM to 2:59 PM	9	Primary Contributing Circums	E Ran Off Road Straight	11										
		3:00 PM to 3:59 PM	16		E Ran Off Road Left	77										
		4:00 PM to 4:59 PM	15		E Aggressive Operation	11										
		5:00 PM to 5:59 PM	34		E Ran Traffic Signal	55										
		6:00 PM to 6:59 PM	19		Over Speed Limit	22										
City	223	7:00 PM to 7:59 PM	6	Driving too Fast for Con	322	E Vehicle Defect/Componen	11									
		8:00 PM to 8:59 PM	5	Made Improper Turn	11	Collision with Non-Motori	11									
		9:00 PM to 9:59 PM	4	E Crossed Centerline	11	Collision with Vehicle	11									
		10:00 PM to 10:59 PM	4	E Ran off Road	55	Collision with Bridge Abu	33									
		11:00 PM to 11:59 PM	4	Followed too Close	966	Collision with Ditch	22									
Year	33	Rural or Urban	223	E Swerved to Avoid Vehicl	55	E Collision with Embankme	44									
				E Swerved to Avoid Animal	11	E Collision with Curb/Isl	33									
				E Over Correcting/Over St	11	E Collision with Guardrai	88									
				Improper Lane Change/Use	255	E Collision with Concrete	22									
				Misjudge Stopping Distanc	44	Collision with Tree	11									
2015	33	Urban	223	Improper Parking/Stopped	11	Collision with Utility Po	22									
2016	55			E Failed to Yield Right-o	11	Collision with Light Pole	11									
2017	33			E Failed to Yield Right-o	33	Collision with Light Pole	11									
2018	33			E Failed to Yield Right-o	11	Collision with Sign Post	55									
2019	55			E Failed to Yield Right-o	11	Collision with Other Fixe	11									
Time of Day	33	Federal	44	State	166	Municipal	33	E Fatigued/Asleep	11	Location First Harmful Event						
											E Other Distraction Outsi	11				
													E Other Improper Action	11		
															Defective Equipment	44
E Outside of Right-of-Way	11															
		E Off Roadway - Location	11													
				E Gore	11											
						Off Roadway	22									
								First Harmful Event								
E Ran Off Road Right	6															
				</												


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.

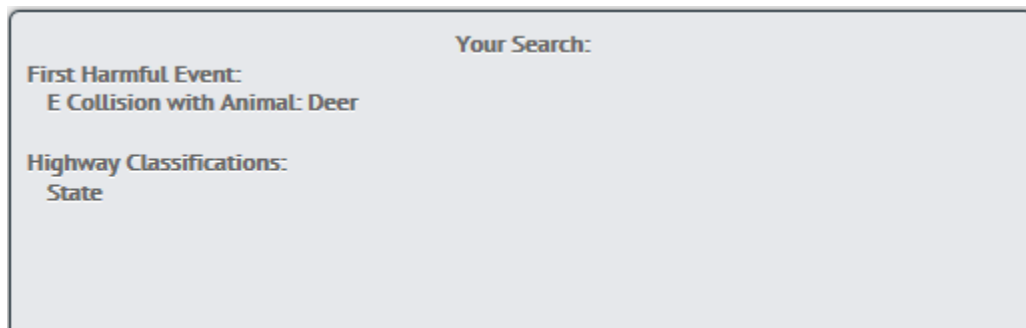
To do this, you first want to set your selection criteria to the specific items that you want the filter to be based on. For our example, we're going to click the green plus icon on both the "First Harmful Event" and the "Highway Classifications" lines.



 First Harmful Event:	Add category...
 Functional Class:	Add category...
 Has Coordinate:	Add category...
 Has Railroad Crossing Number:	Add category...
 Highway Classifications:	Add category...

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.

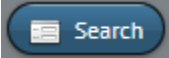
Next, you want to select your specific codes from the drop-down menus, which will write the logic that your filter will follow. To do this, select "E Collision with Animal: Deer" under the First Harmful Event drop-down menu and "State" under the Highway Classifications drop-down menu. When you have made your selections, the window on the right of where you made your selections will show the logic that your filter will follow, like so.



Your Search:

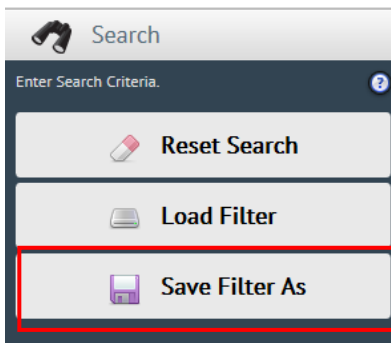
First Harmful Event:
E Collision with Animal: Deer

Highway Classifications:
State

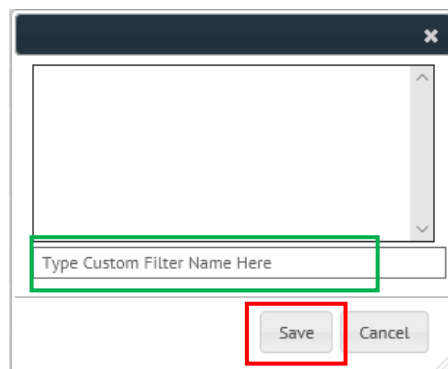
Once the logic window shows all of the factors that you want your filter to be based off of, go ahead and press the  button.

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.

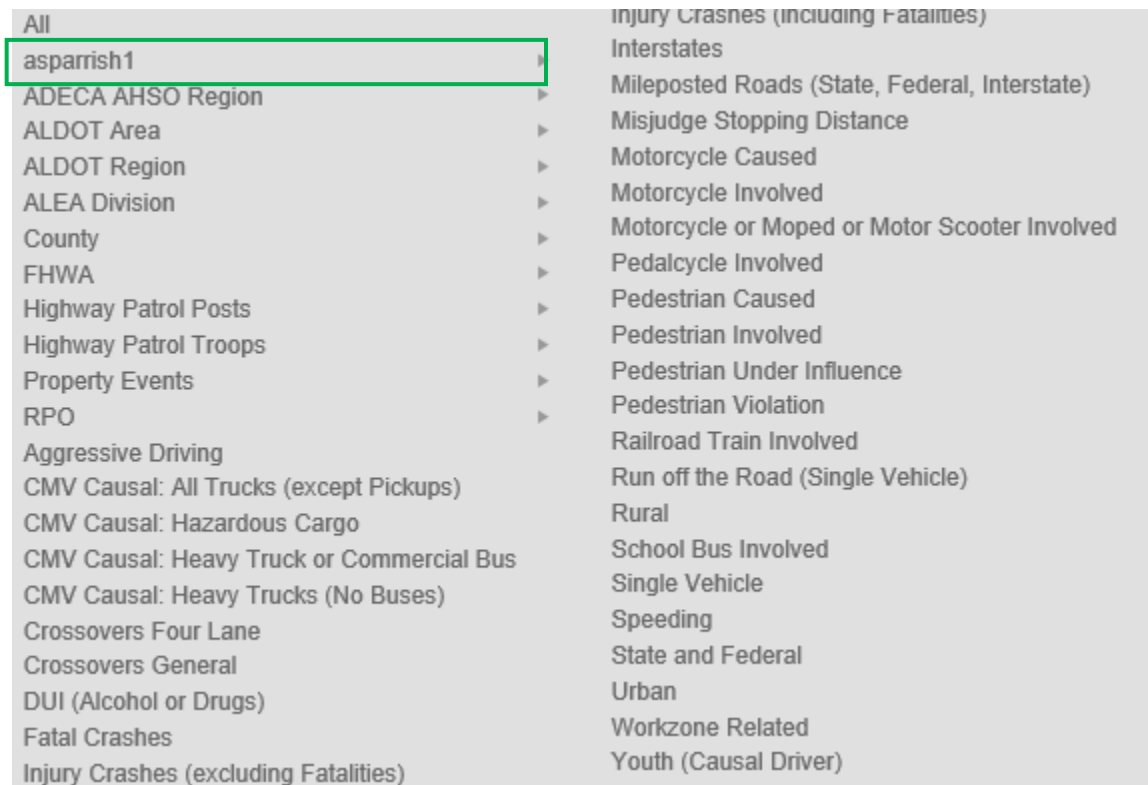


To name your filter, just type in whatever you want to call your filter in the “Type Custom Filter Name Here” box. For our exercise, we’re going to name our new filter “Deer on State Roads”.

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.

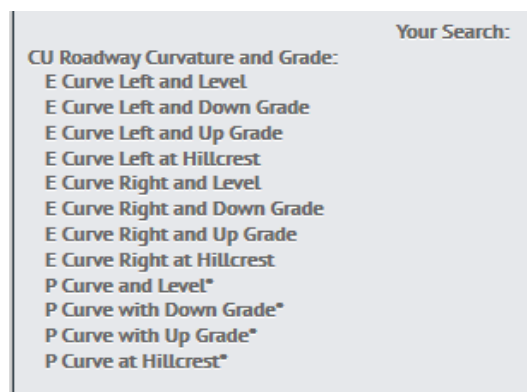


Notice that there is a special filter group called "your user name". Inside of that group will be all of the filters that you create.

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:



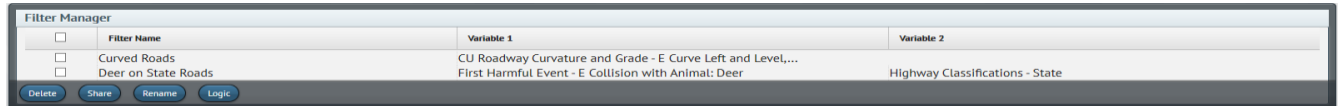
Once you have added all of the codes that you want to include in your filter, repeat the same processes as before to create your custom filter. Name the filter “Curved Roads”.

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.

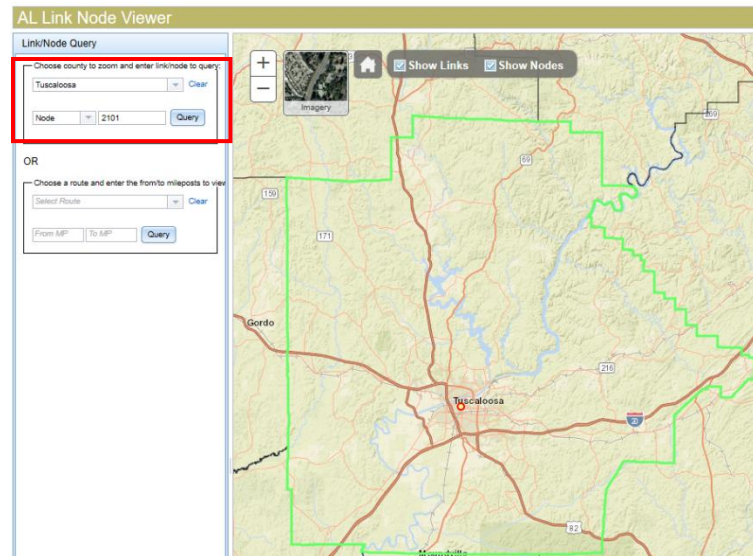
With using custom filters, there are so many more possibilities that are unlocked with limiting searches down to very specific outcomes, as well as being able to share those filters around to whoever needs them for easy access and increased productivity.

Link/Node Viewer

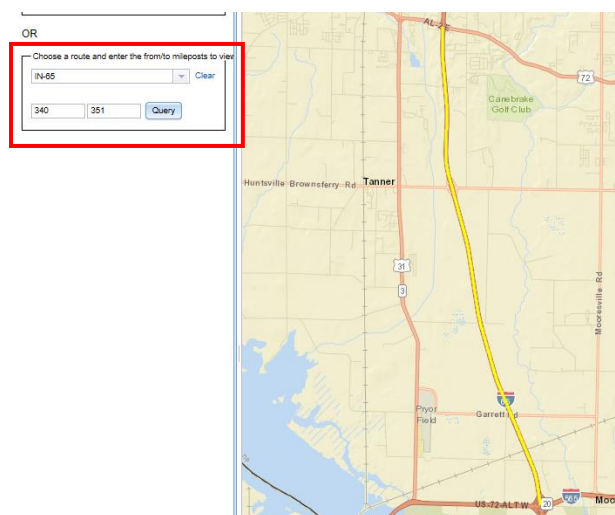
This website was created to replace the previously outdated website. The new site allows us to actively update link and node information.

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.

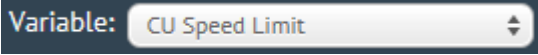
About This Datasource – tab that shows the user the date range of the data source, as well as the amount of variables and filters present in the dataset.

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.



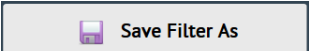

Variable Search –  allows the user to search specific variables for individual choices underneath of those variables.

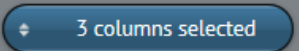
Chart –  changes the chart type in the search window.

Reset Search –  resets the selection criteria to default settings

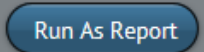
Load Filter –  loads custom filters into the search tab


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

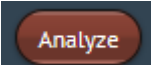
Search –  runs a search of the dataset for results that fit into the user-selected filters and variables.

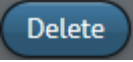
Columns Selected –  allows the user to customize the columns displayed in the search tab's results.


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

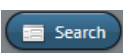
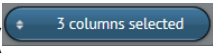

Deer Variable Search:

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

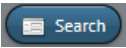

1. Change the two date boxes to January 1, 2017 and December 31, 2017 (01/01/2017 and 12/31/2017).
2. Press the “Add New Route” button.
3. Change the dropdown menu to “IN0065”.
4. Enter “340” into the “From:” and “351” into the “To:” boxes.
5. Press the “Search” () button to generate results.
6. Click 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

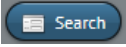
1. Change the two date boxes to January 1, 2018 and December 31, 2018 (01/01/18 and 12/31/2018).
2. Press the “Add New Route” button.
3. Change the dropdown menu to “IN0020”.
4. Enter “71” into the “From:” box and “73” into the “To:” box.
5. Press the “Add New Route” button.
6. Change the dropdown menu 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.

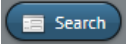
Link and Node Selection Tool: Tuscaloosa Link 1185

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.


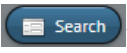

Link and Node Selection Tool: UA Corridor on Link 1185

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



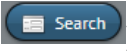
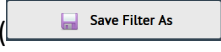
Link and Node Selection Tool: Tuscaloosa Node 588

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.

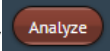
Drill Down Tab: Tuscaloosa County, State Roads, Collision with a Deer

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.

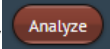

Drill Down Tab: Multi-Select

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.

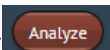
Cross Tab: Year and Month


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

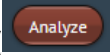
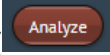
1. Change the Row dropdown menu to "Year".
2. Change the Column dropdown menu to "Month".
3. Press the "Analyze" () button to create the crosstab.
4. Click the "Use Third Dimension" check box.
5. Change the Third Dimension dropdown menu to "Time of Day".
6. Navigate to the time range "1:00 to 1:59 AM" 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

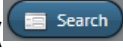

1. Change the first filter dropdown menu to "DUI (Alcohol or Drugs)".
2. Change the second filter dropdown menu to "County\Tuscaloosa County".
3. Change the Row dropdown menu to "Time of Day".
4. Change the Column dropdown menu to "Day of the Week".
5. Press the "Analyze" () button to create the crosstab.
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.