



ARTEDS USER MANUAL



Appalachian Regional Transportation and Export Data System User Manual

Contents

| | |
|--|-----------|
| 1. General Information | 2 |
| 2. Features..... | 2 |
| 3. Browser Specifications..... | 2 |
| 4. Launching the Mapping System..... | 3 |
| 5. Map Layout..... | 6 |
| 6. Instructions..... | 7 |
| 1) Zoom control..... | 7 |
| 2) Scale Bar..... | 7 |
| 3) Switch Basemap Tool..... | 8 |
| 4) Search Tool..... | 9 |
| a. Location..... | 11 |
| b. Company Name and Type..... | 19 |
| c. Port, County, Sales and employees..... | 20 |
| d. Data Sources..... | 22 |
| 5) Show / Hide Result..... | 23 |
| 6) Show /Hide Details..... | 24 |
| 7) Layers Tool..... | 25 |

1. General Information

The objectives of this manual are

- To navigate users to how to log into the online mapping application, ARTEDS, for the Appalachian Development Highway System (ADHS) GIS for Cost to Complete Estimate.
- To familiarize users with the website interface and tools which allow for searching, identifying and determining the location of companies within all thirteen Appalachian States.

2. Feature

By using the “ARTEDS Maps” feature, you can plot individual addresses, routes, or areas on a map, and describe them. Visitors can zoom and pan in the maps, allowing analysis from different viewpoints. The system is easy to learn and use, offering basic map rendering with no training in data analysis required. ARTEDS will be a great fit for people seeking a simple way to visually display a collection of information on the Appalachian Development Highway Cost to Complete Estimate.

3. Browser Specifications

To use all of the features and functions, we recommend the latest version of Internet Explorer, Mozilla Firefox, or Google Chrome.

4. Launching the Mapping System

1. Go to www.eadhs.org , the Appalachian Development Highway System (ADHS) GIS for Cost to Complete Estimate web site.
2. Click the ARTEDS link. This will bring you to the ARTEDS home page.

Geographic Information System for the Appalachian Development Highway System Cost to Complete Estimate

[2012 Cost to Complete Estimate System](#) | [Books](#) | [Cost Tracking System](#)
[2012 Cost to Complete Estimate System Guidelines and Software Training Manual](#)
[2012 Cost to Complete Estimate Overview](#) | [2012 Cost to Complete Estimate Update Process](#)

News

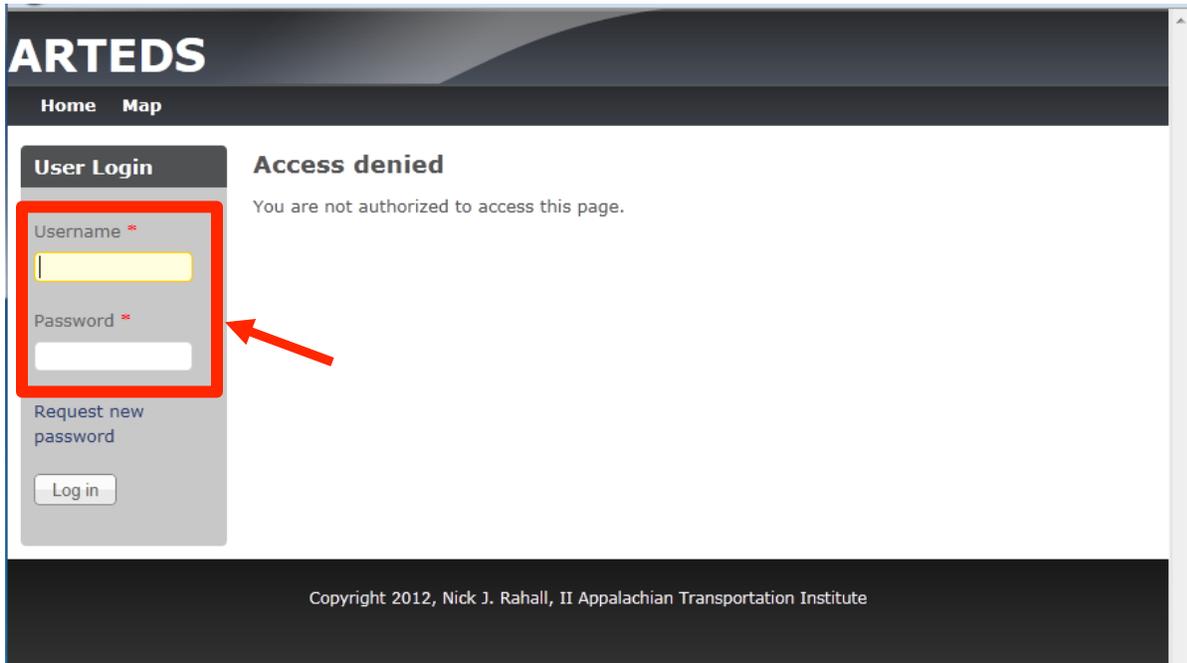
Site: **ARTEDS**
Site: [2011 Annual Status Update](#)
Link: [2011 Annual Status Update Instructions](#)
Site: [2011 Current and Planned ADHS Projects \(Project Priority\)](#)
Link: [2011 Current and Planned ADHS Projects \(Project Priority\) Instructions](#)
Site: [2007 Cost to Complete Utility Reports \(Test\)](#)

Welcome

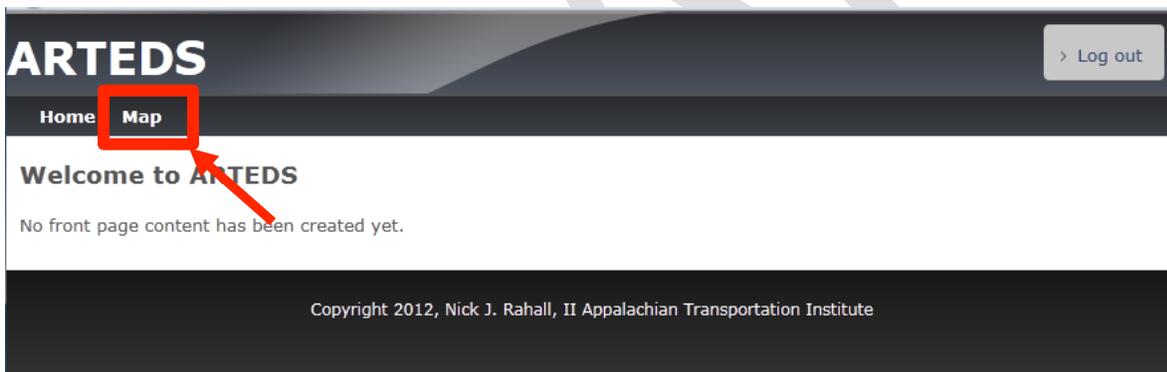
This web site is designed to support Appalachian Development Highway System (ADHS) GIS for Cost to Complete Estimate effort. State DOT and FHWA Division personnel who participate the cost estimate are welcomed and encouraged to visit this site. The site will be updated frequently upon new information is available and new questions regarding the cost estimate are addressed. You are always welcomed to send your comments and suggestions about the site to us via [Contact Us](#).

- [Vision](#)
- [Background](#)
- [Q & A](#)
- [ADHS GIS Project \(Phase I\) Executive Summary \(PDF 4MB\)](#)
- [2002 Cost to Complete Estimate](#)
- [Events/Notes](#)
- [2007 Cost to Complete Estimate Guidelines](#)
- [2007 Cost to Complete Estimate Software Training Manual](#)
- [Contact Us](#)

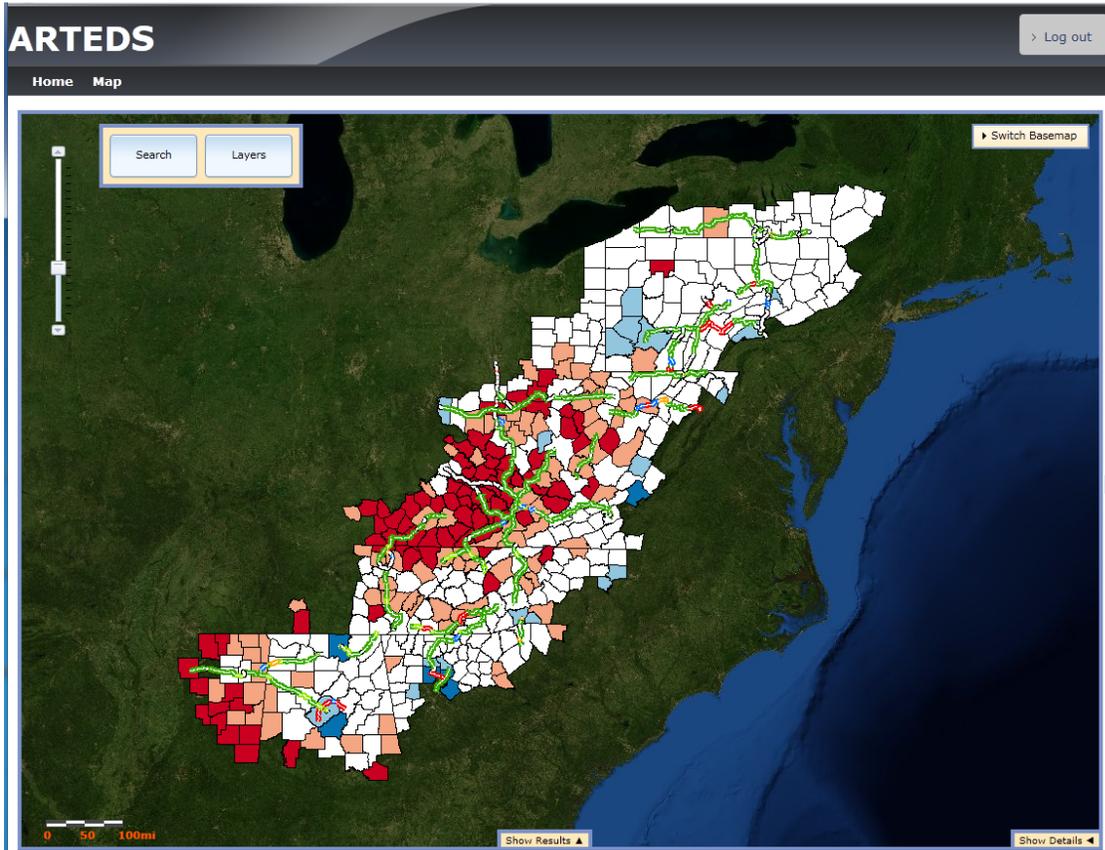
3. Login using your Username and Password.



4. Click the Map from the menu to access the online mapping system.



5. The map view will appear as an image shown below.

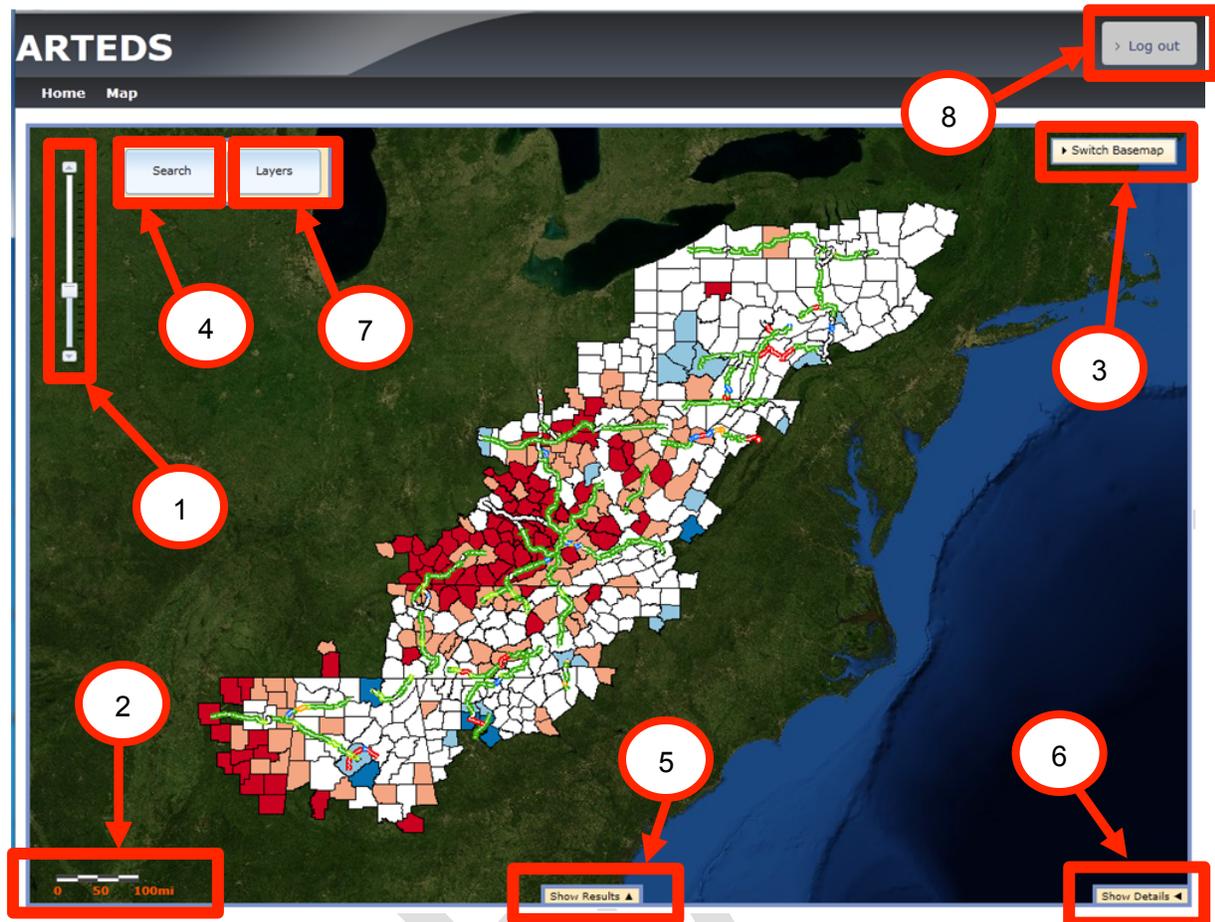


The legend below shows the information which represented by graphics on the map.

Layer

- ADHS
 - Complete
 - Remaining Stage Construction
 - Construction Underway
 - Design or RoW
 - Location Study
- Distressed Areas, FY 2011
 - Distressed County
 - At-Risk County
 - Transitional County
 - Competitive County
 - Attainment County
 - Distressed Area

5. Map Layout

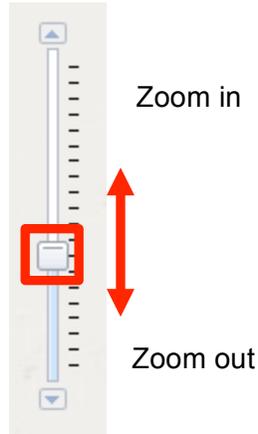


1. Zoom Control
2. Scale Bar
3. Switch Basemap Tool
4. Search Tool
5. Show / Hide Results
6. Show / Hide Details
7. Layers Tool
8. Log Out

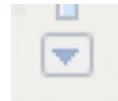
6. Instructions

1) Zoom Control

Zoom control enables you to change the map perspectives. There are 20 zoom levels from the closest to the farthest.



By clicking the arrow on the top, the map zooms in by one scale.



By clicking the arrow on the bottom, the map zooms out by one scale.

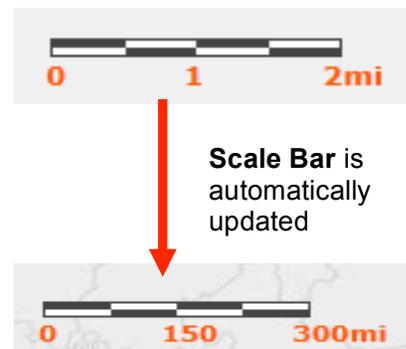
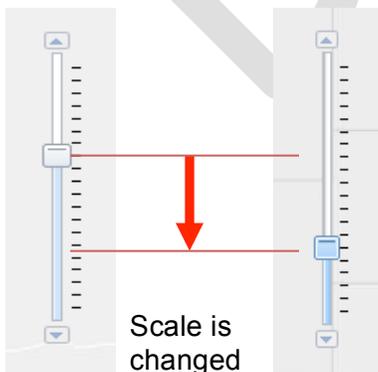
You can also drag the small box with your cursor up to zoom in, and down to zoom out.

There are also three different methods available to change the map scale.

- Scroll up on your mouse wheel to zoom in.
- Scroll down on your mouse wheel to zoom out.
- Double click on an area of the map for a fixed zoom in.

2) Scale Bar

The Scale Bar is located on the right bottom of the map and represents the map scale. When the scale of the map is changed, the scale bar will automatically get updates to the new scale.



3) Switch Basemap Tool

The **Switch Basemap Tool** gives you options to change the background of the map.

► Switch Basemap

By selecting the **Switch Basemap Tool**, nine individual map views will appear in the expanded area. To observe all map views, use the scroll bar on the right side. To hide the Switch Basemap Tool, click anywhere within the **Switch Basemap** bar again.

Each map has different scale availabilities and only displays at certain map scales.

By clicking on a desired basemap, the background layer will be changed. For example, if the Imagery basemap is selected and changed to the Topographic basemap, the map view would be changed from Figure A to Figure B.

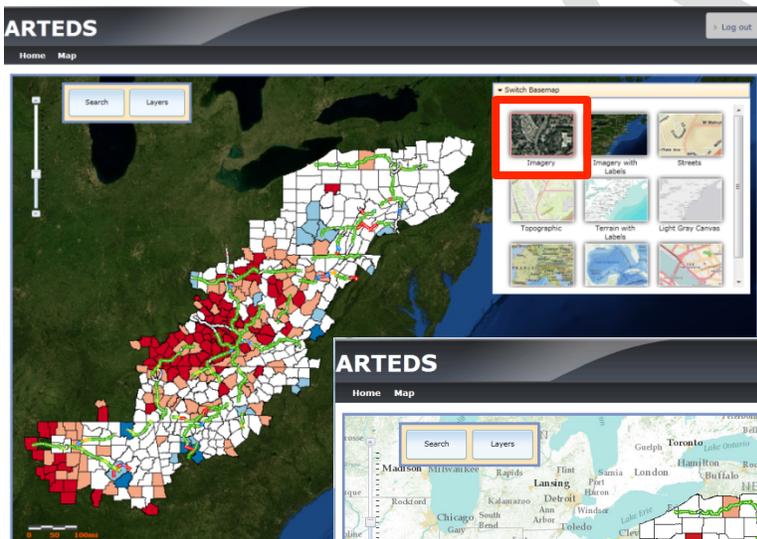


Figure A

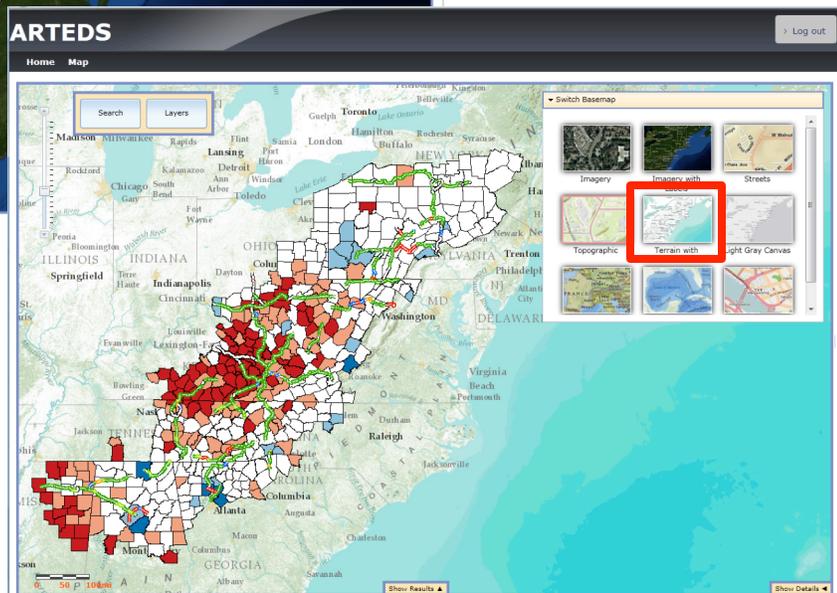
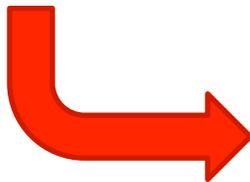


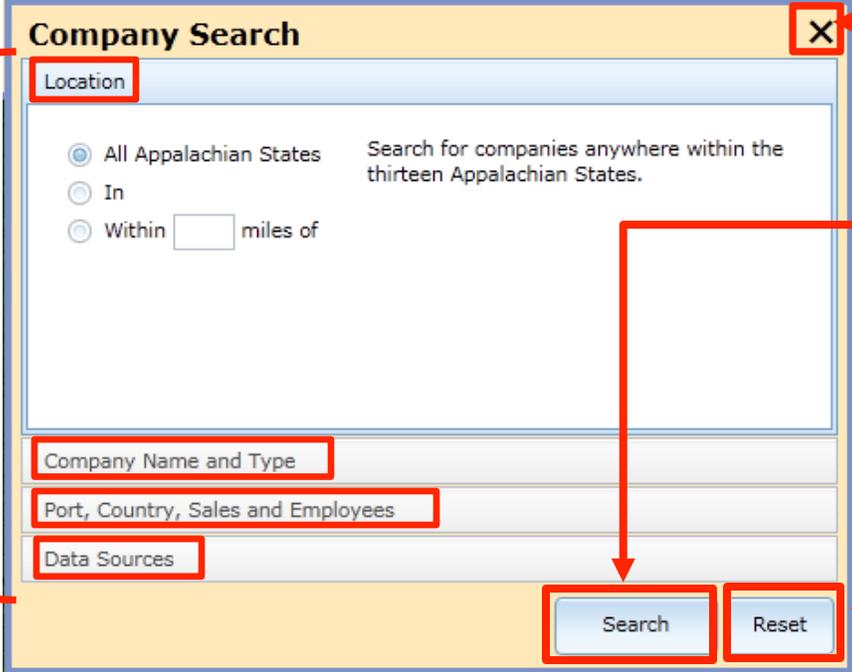
Figure B

4) Search Tool

Click the **Search** tool on the top left of the map.



The **Company Search** dialog box will pop up.



Click X to close the Company Search dialog box

After the search option is selected, Click the Search button to get the Company Search results.

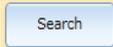
Click Reset button to clear the previous selections.

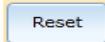
Search options

There are four different search options.

- Location
- Company Name and Type,
- Port, Country, Sales and Employees
- Data Sources

Please refer to page 11 to 22 for further details on search options.

By clicking , a search result appears at the bottom as shown below.

To start a new search, click  to clear the criteria from a previous search.

ARTEDS Log out

Home Map

Company Search ✕

Location

All Appalachian States State: West Virginia

In

Within miles of

State:

Company Name and Type

Port, Country, Sales and Employees

Data Sources

Search Reset

| Company | Address | Phone | DUNS | Sales | Export Value | Shipments | TEUs | SIC |
|---------------------------------------|--|------------|-----------|----------|--------------|-----------|--------|------|
| 3M Company | Jacobson Dr&Pocah. WV 26159 | 3047550719 | | 0 | (null) | (null) | (null) | 2869 |
| Bright Of America Llc | 300 Greenbrier Rd. Summersville, WV 26851 | 3048723000 | | 10000000 | (null) | (null) | (null) | 3999 |
| Newell C-E Inc | 257 Kennedy Park Marina Rd. Newell, WV 26050 | 3043871160 | | 3700000 | (null) | (null) | (null) | 3295 |
| Brentwood Industries Inc | 793 Corning Way, Martinsburg, WV 25428 | 3042649190 | 958745739 | 0 | 1545.56 | 1 | 0 | 3089 |
| Channel Crossing Matrix Inc | 531 Corning Way, Martinsburg, WV 25428 | 3042678932 | 3104387 | 1400000 | 51500.41 | 1 | 2.25 | 2631 |
| Chem-Pak Inc | 242 Corning Way, Martinsburg, WV 25405 | 3042621880 | | 3400000 | (null) | (null) | (null) | 2992 |
| Century Aluminum Of West Virginia Inc | 34 McMechan St. Ravenswood, WV 26164 | 3042736000 | | 0 | (null) | (null) | (null) | 3334 |

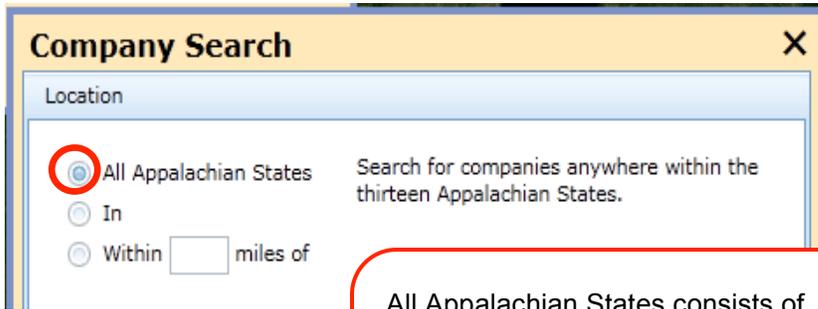
Even after the reset button is selected, the expanded search result will remain unless you click the **Hide Results** tab. (For more instructions on the **Results** window, please refer to the Show / Hide Results section of this manual on page 23.)

When you finish with your search, you can close the dialog box by clicking  on the upper right corner.

a. Location

The **Location** tool enables you to find a company / companies based on their selected physical locations.

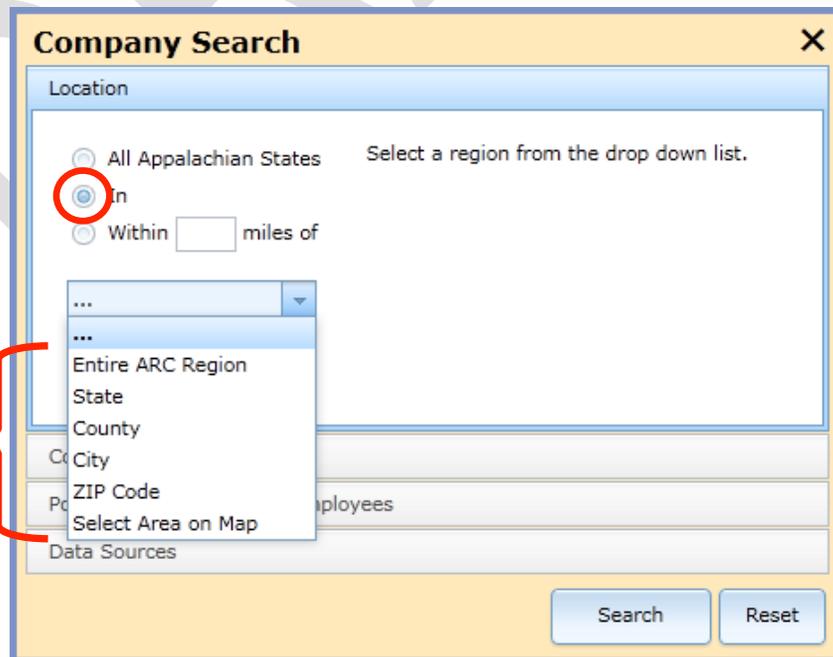
- **All Appalachian States** option searches the companies that fall within the boundaries of the thirteen Appalachian states.



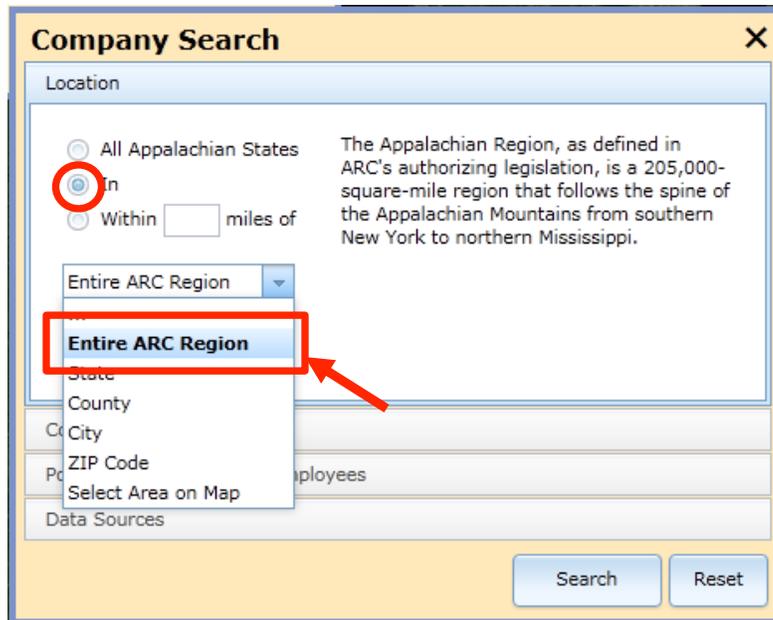
All Appalachian States consists of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, and West Virginia

- The **In** option enables you to search for companies by desired area. By choosing this option, a drop down list will appear. There are six area options available to select.

Choose one of the desired regions from this drop down list and click.

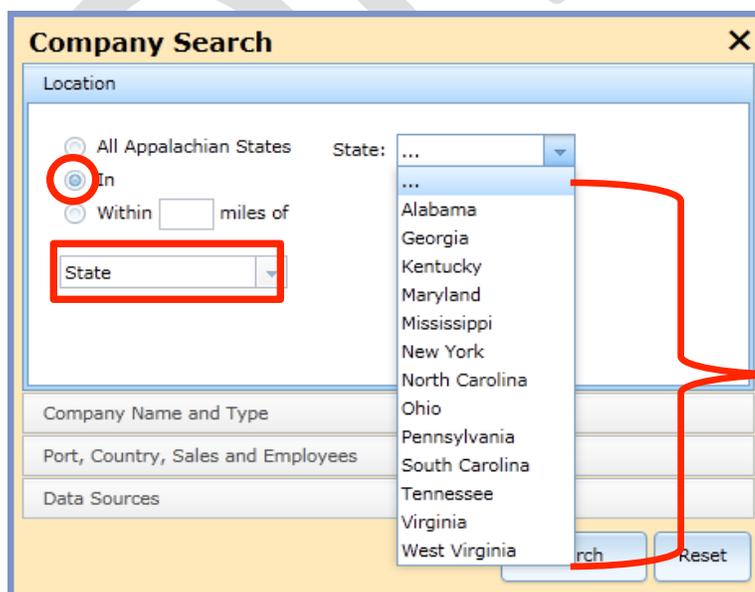


- **Entire ARC Region** option allows searching in the entire Appalachian Region which includes West Virginia and the parts of the states Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia.



! Since Entire ARC Region covers only part of each participated state except West Virginia, this choice may give different search results from All Appalachian State option.

- When **State** option is selected, a dropdown list will appear with state names. By clicking one of thirteen states, you can search the companies within the selected state boundary.



Choose one of the states by clicking

You can search the companies by county or city with a similar approach as selecting a state.

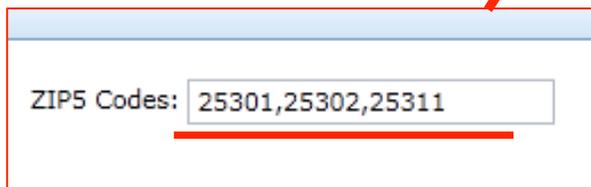
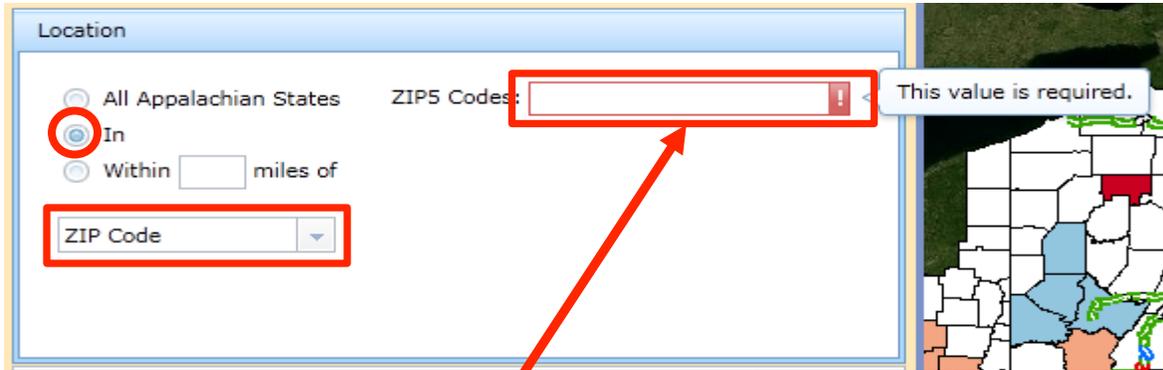
- When the **County** option is selected, two drop down lists will be shown to select a state and a county name. Using the **In** option with the **County** selection will search for companies located within the selected county's boundary. In this case, Georgia is selected as the state name in the State drop down list and the corresponding counties will appear in the County drop down list.

The screenshot shows the 'Location' search interface. The 'In' radio button is selected. The 'State' dropdown is set to 'Georgia'. The 'County' dropdown is open, showing a list of counties. A red arrow points to the scroll bar of the County dropdown, with a text box stating: 'To see all available county names, make sure to drag the scroll bar down to view the end of the list.'

- When the **City** option is selected, two drop down lists will be shown to select a state and a city name. The image below shows using "In" option with **City** selection which will search the companies located within the selected city boundary. In this case Mississippi is selected as state name and the corresponding cities will appear in the drop down list.

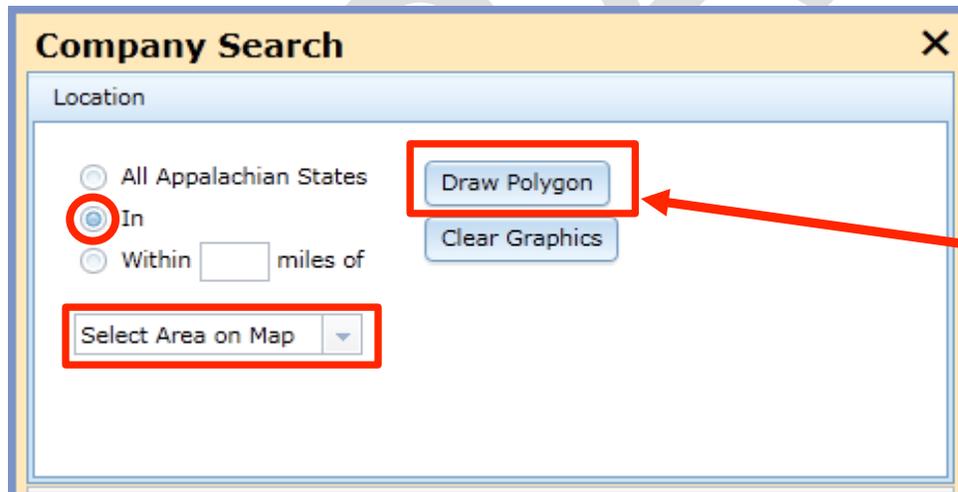
The screenshot shows the 'Location' search interface. The 'In' radio button is selected. The 'State' dropdown is set to 'Mississippi'. The 'City' dropdown is open, showing a list of cities. A red arrow points to the scroll bar of the City dropdown, with a text box stating: 'To see all available city names, make sure to drag the scroll bar down to view the end of the list.'

- **ZIP Code** option enables users to type five digit postal codes in the **ZIP5 Codes** box and search the companies located within desired ZIP code areas. To get search results, at least one valid ZIP Code is required and you can give multiple zip codes separated by commas.



More than one ZIP Code can be used for searching multiple areas by separating 5 digit ZIP Codes with a comma / commas.

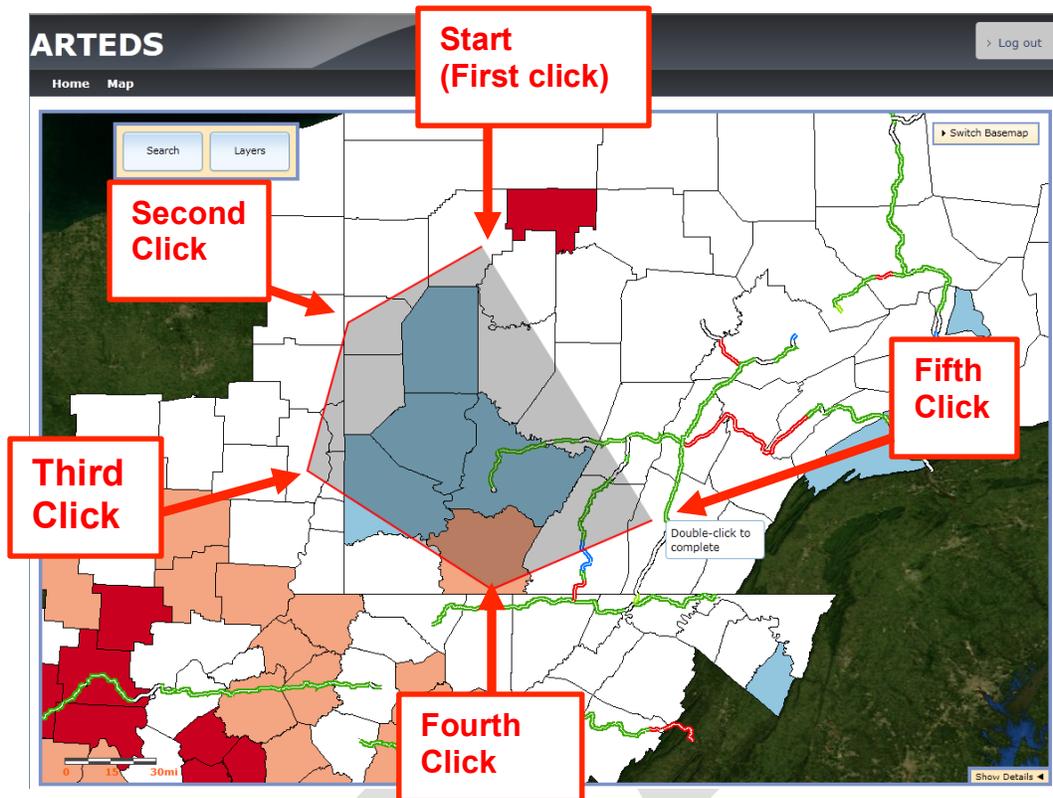
- **Select Area on Map** option enables users to search the companies by drawing polygons.



Click and start to draw a polygon on the map.

By selecting the **Draw Polygon** option, the **Company Search** dialog box will close automatically and you are ready to draw a polygon. You can add an angle by clicking at the desired location on the map.

The single click allows you to select the angles or sides of the polygon. Double click to end the selection and view the final polygon.



When the polygon is finished, the fill color of the polygon will change and the **Company Search** dialog box will be opened automatically.

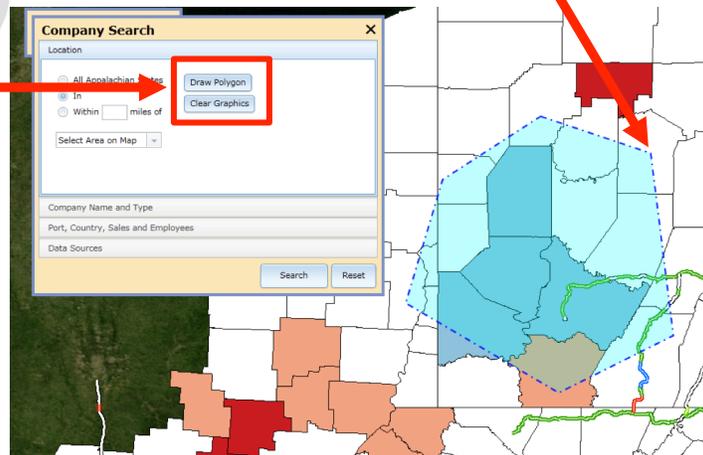
Finish drawing (Double Click)

To continue to draw another polygon, click the **Draw Polygon** button.

Draw Polygon

Before starting new search or to clear the polygon, click the **Clear Graphics** button.

Clear Graphics

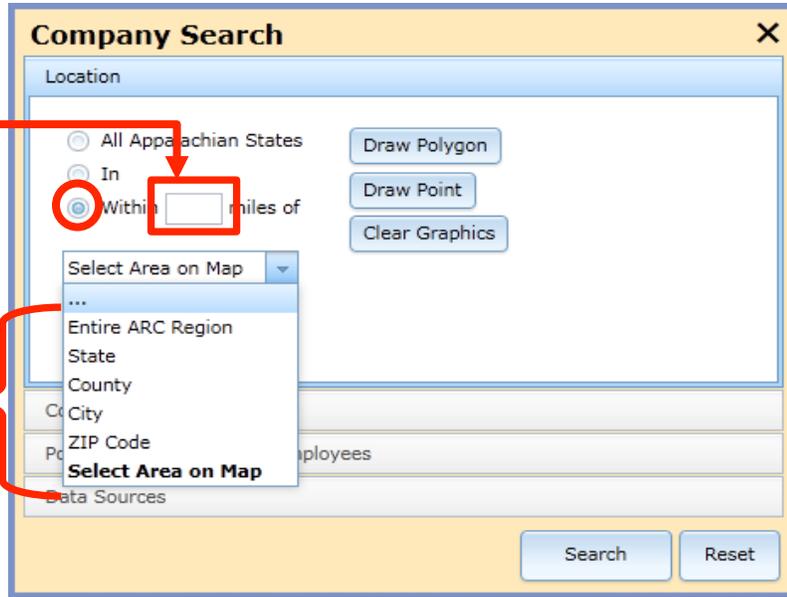


- **Within** **miles of** option searches using a combination of the desired range and a selected region.

By selecting this option, the same regional options will be listed on the drop down list.

Type the number how many mile of the range you wish to search from your selected region.

The same regional options are available as the **In** option except the **Select Area on Map** menu now includes a new drawing option, **Draw Point**.



For example, if you would like to search for the companies located within three miles and including Hancock County, you can type “3” in the box and select Hancock County. By clicking the Search button, the **Results** window appears and the map shows the searched area with three mile buffers.

Results window

The area searched by county within 3 mile of surrounding area.

Use the scroll bars in the result window to see entire search results.

| Company | Address | Phone | DUNS | Sales | Export Value | Shipments | TEUs | SIC | NAICS |
|-----------------------------|--|------------|-----------|---------|--------------|-----------|--------|------|--------|
| The Louis Berkman Company | 330 N Seventh St, Steubenville, OH, 43952 | 7402833722 | | 0 | (null) | (null) | (null) | 3441 | 332322 |
| Titanium Metals Corporation | 100 Titanium Way, Toronto, OH, 43964 | 7405371571 | 98435134 | 0 | 1117045.92 | 108 | 45.51 | 33 | 333612 |
| Hall China Co | 1 Anna St, East Liverpool, OH, 43920 | 3303852900 | | 0 | (null) | (null) | (null) | 2522 | |
| Bernays Weir-Cove Bakery | 1242 Pennsylvania AvenueXWeston, WV, 26062 | 3047484370 | | 0 | (null) | (null) | (null) | 5149 | 424480 |
| Buldog Rack Co Inc | Fort Steuben Rd, Weirton, WV, 26062 | 3047486401 | | 2700000 | (null) | (null) | (null) | 2542 | 337215 |
| Newell C-E Inc | 257 Kennedy Park Marina Rd, Newell, WV, 26050 | 3043871180 | | 3700000 | (null) | (null) | (null) | 3295 | 327992 |
| AI Solutions Inc | 1000 N Chester St, New Cumberland, WV, 26047 | 3045645694 | 800034878 | 0 | 929794.98 | 4 | 3.4 | 5356 | 531491 |

- By selecting the **Select Area on Map** option, you can search by drawing polygons or points with desired buffered area.

Draw Polygon

Figure A shows the polygon drawn using the same approach as the **In** option.

Figure B shows the searched map view within 20 miles of the polygon drawn on the map. The polygon appears with the 20 miles of buffered area in yellow on the map and the **Results** window is automatically expanded.

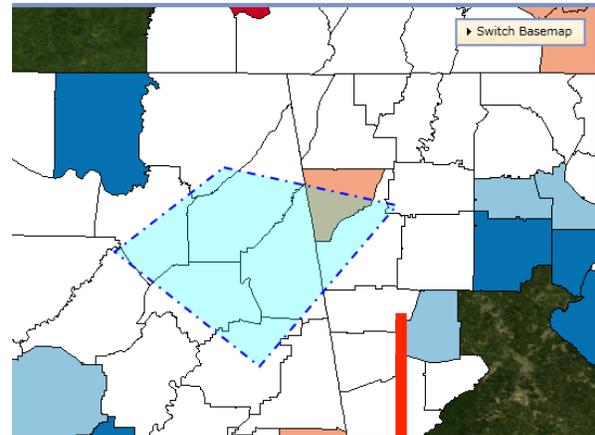


Figure A

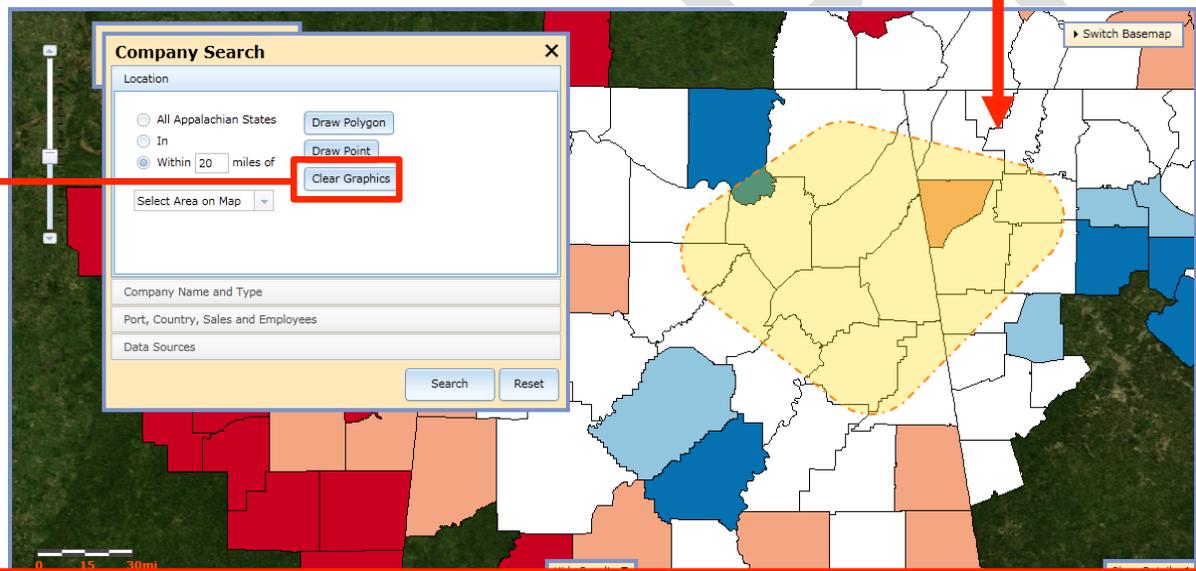


Figure B

To clear the polygons on the map, click **Clear Graphics** button.

Clear Graphics

| Company Name | Address | Phone | DUNS | Sales | Export Value | Shipments | TEUs |
|------------------|---|------------|-----------|-----------|--------------|-----------|--------|
| g Enterprises | 100 7th Ave SW, Attalla, AL 35954 | | 929847382 | 12595995 | 64164.03 | 2 | 1.3 |
| ir-Busch | 100 Busch Dr NE, Cartersville, GA 30121 | | 801498171 | 265736500 | 157910.27 | 8 | 31 |
| up Inc | 100 Marine Dr SE, Calhoun, GA 30701 | 7068794120 | | 0 | (null) | (null) | (null) |
| up Inc | 100 Marine Dr SE, Calhoun, GA 30701 | 7068794120 | 617620468 | 0 | 88136.4 | 1 | 2 |
| ams Trucking Inc | 100 NATIONAL DR, ANNISTON, AL, 36207 | 2568318600 | | 0 | (null) | (null) | (null) |
| e Llc | 100 Pirelli Dr SE, Rome, GA 30161 | 7063685800 | | 0 | (null) | (null) | (null) |
| ic Inc | 100 Pirelli Dr, Rome, GA 30161 | 7063685800 | 146665836 | 0 | 1581248.98 | 21 | 52.32 |

- You can search companies by the selected location using the **Draw Point** option with the desired numbers of buffer areas.

Draw Point

Type desired numbers of miles to search from the selected location.

Select the **Draw Point** option by clicking.

By clicking anywhere within the map, the location for the point will be selected.



By clicking the **Search** button, the buffered area appears on the map and corresponding results are shown in the expanded **Results** window.

Results window

| Company | Address | Phone | DUNS | Sales | Export Value | Shipments | TEUs | SK |
|--------------------------------|--|------------|-----------|-----------|--------------|-----------|--------|----|
| Beckwith Machinery Co | 660 S 13th St. Indiana, PA 15701 | 7244638743 | | 136500000 | (null) | (null) | (null) | |
| Elkin Manufacturing Inc | 2879 Oakland Ave. Indiana, PA 15701 | 7243496300 | | 39000000 | (null) | (null) | (null) | |
| W C Mc Quaide Inc | 101 Innovation Dr. Homer City, PA 15748 | 7244791400 | | 0 | (null) | (null) | (null) | |
| R S M Co | 527 S 13th St. Indiana University of Pennsylvania, Indiana, PA 15701 | 7244654381 | | 0 | (null) | (null) | (null) | |
| Nortelhal Technologies Inc | 9419 Rte 266 Hwy W, Homer City, PA 15748 | 7244795100 | 961940428 | 0 | 182855.99 | 1 | 2 | |
| A & W Equipment | 722 Young Rd. Indiana, PA 15701 | 7247285228 | | 75000 | (null) | (null) | (null) | |
| Specialty Tires Of America Inc | 1600 Washinton St. Indiana, PA 15701 | 7243496910 | | 0 | (null) | (null) | (null) | |

! Please use only points or polygons for the company search tool. Both points and polygons cannot be searched at once.

b. Company Name and Type

Company Name and Type option enables users to find the companies matched by their name or specific codes.

Type the company name or codes which match to your search criteria.

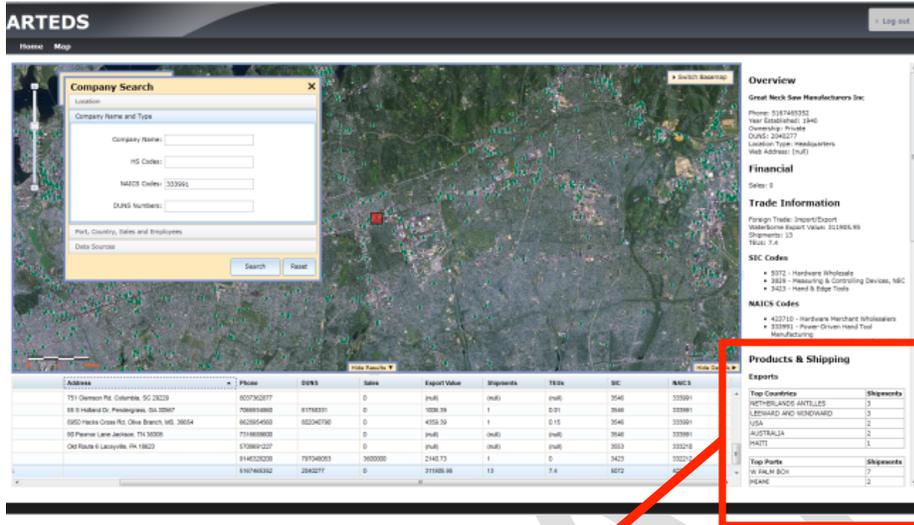
You can enter one or more numbers separated by commas.

| | Description | Example |
|--------------|--|---|
| HS Codes | The Harmonized Commodity Description and Coding System (HS) is the internationally standardized system of names and numbers for classifying traded products by the World Custom Organization. | 7985 – Miscellaneous Cargo 220190 – Other Waters, Ice, Snow |
| NAICS Codes | North American Industry Classification System (NAICS) is used by business and government to classify business establishments according to type of economic activity in Canada, Mexico, and the United States. The NAICS numbering system employs six-digit code at the most detailed industry level. | 333991 - Power-Driven Hand Tool Manufacturing 493110 - General Warehousing & Storage |
| DUNS Numbers | The Data Universal Numbering System (DUNS®) is a system developed and regulated by Dun & Bradstreet (D&B) that assigns a unique numeric identifier, referred to as a “DUNS number,” to a single business entity. The DUNS number is a nine-digit number, issued by D&B. | |

c. Port, Country, Sales and Employees

- Top Port and Top Country**

The database includes company's trading information. If the company has **Product & shipping** information, they will be listed in the **Overview** within the expanded **Details** window.



To see all of the overview information, use the scroll down bar. (Please see Show/Hide Details window on page 24)

Table A

| Products & Shipping | |
|---|------------------|
| Exports | |
| Top Countries | Shipments |
| BELIZE | 3 |
| BAHAMAS | 1 |
| GUATEMALA | 1 |
| Top Ports | Shipments |
| PT EVERGLADES | 4 |
| W PALM BCH | 1 |
| Top Commodities | Shipments |
| 8302 - HARDWARE, FIXTURES, CASTORS ETC & PARTS, BASE METL | 2 |
| 392690 - ARTICLES OF PLASTICS, NESOI | 2 |
| 392042 - PLATES, SHEETS ETC, NON-CELL ETC, FLEX POLY VY CHL | 1 |

Table A shows the example of the Products & Shipping data.

The numbers in the Shipment field show the rank order.

In this case, Bahamas and Guatemala are the two main countries to export to, and West Palm Beach is the port the company uses the most for shipments.

Top commodities are listed with HS code.

You can search companies using Products & Shipping Information.

The search approaches for both **Top Port** and **Top Country** are the same. Type the desired port name or country name in each box, and choose the rank order from the drop down list.

For example, if you would like to search companies which mainly export to Guatemala, type “Guatemala” in the Top Country text box, and select the desired rank number from the drop down lists.

Type the name of the port.

Type the name of the country.

Use the drop down list to choose the rank order.

- **Sales**

The **Sales** search option gives you the range of the sales amount of companies.

Choose the desired range of sales amount from the drop down list.

- **Employees**

The employee option allows you to search by the number of employees of the companies.

Port, Country, Sales and Employees

Top Port: Rank: Any

Top Country: Rank: Any

Sales: ...

Employees: ...

- ...
- 0 to 10
- 11 to 25
- 26 to 50
- 50+

Data Sources

Reset

Choose the desired range from the drop down list.

d. Data Sources

You can also choose the data sources. PIERS is a comprehensive database of U.S. waterborne trade activity around the globe. PA is the data source consists of the state of Pennsylvania.

Company Search X

Location

Company Name and Type

Port, Country, Sales and Employees

Data Sources

Our data comes from a variety of sources. Check below the sources you wish to search.

- PIERS
- PA

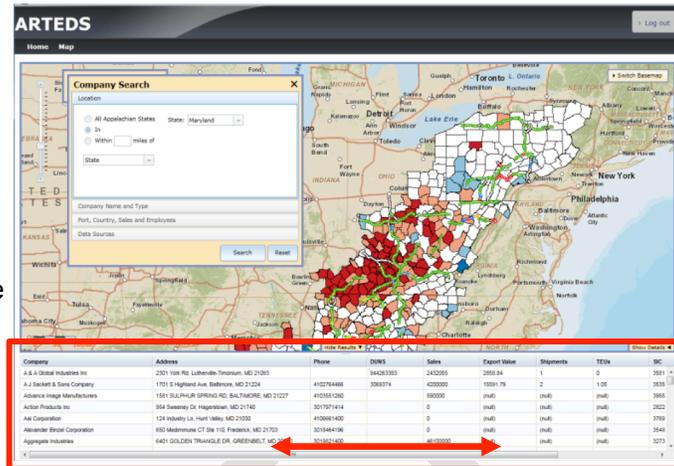
Search Reset

The check boxes for both PIERS and PA are checked by default.

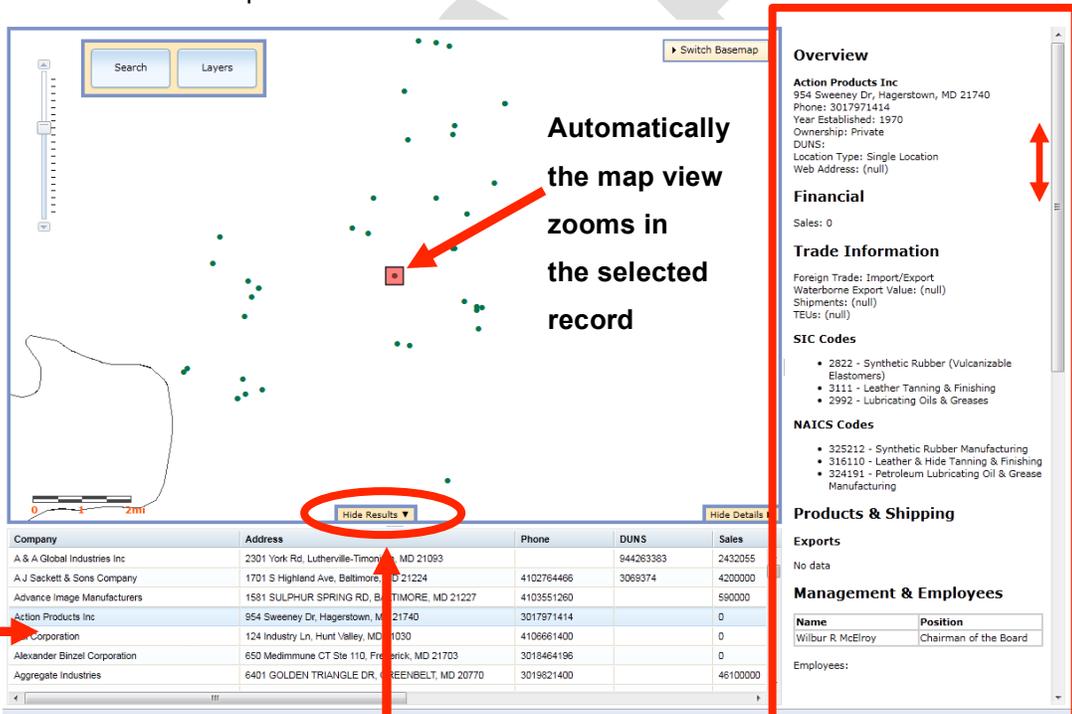
5) Show / Hide Results

By clicking the **Search** button after selecting one of the search options, the **Results** window will expand and show the results at the bottom of the map.

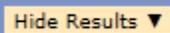
The results will be shown as an attribute table. Depending on the size of the internet browser window, you may need to use the scroll bar on the left and at the bottom to see the entire result.



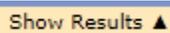
Selecting one record in the attribute table expands the **Details** window and zooms into the geographical location in map view.



To minimize the **Results** window, click the Hide Results tab.



To expand the **Results** window, click the Show Results tab.



6) Show / Hide Details

The **Details** window shows the particular information for the searched company when a company location is selected on the map, or a company record is selected in the **Results** window.

The screenshot shows the ARTEDS interface with a map and a details window. The details window is titled "Overview" and contains the following information:

Overview
Coca Cola Usa
1 Coca Cola Plaza, Atlanta, GA 30313
Phone: 4046262121
Year Established: 1988
Ownership: (null)
DUNS: 194999484
Location Type: (null)
Web Address: (null)

Financial
Sales: 160000

Trade Information
Foreign Trade: Import/Export
Waterborne Export Value: 28177897.54
Shipments: 120
TEUs: 462.78

SIC Codes
• 2086 - Bottled and Canned Soft Drinks and Carbonated Water

Products & Shipping

Exports

| Top Countries | Shipments |
|---------------|-----------|
| PUERTO RICO | 112 |
| JAPAN | 5 |
| GUAM | 2 |
| USA | 1 |

Top Ports

| Shipments | |
|--------------|-----|
| JACKSONVILLE | 112 |
| LOS ANGELES | 4 |
| OAKLAND | 2 |
| CHARLESTON | 1 |
| SEATTLE | 1 |

Top Commodities

| Shipments | |
|---|----|
| 330190 - CONCENTRATES ETC OF ESSENTIAL OILS | 75 |
| HEAD CONTAINER PAPER | 10 |

To minimize the Details window, click the **Hide Details** tab.

Hide Details ▶

To expand the Details window, click the **Show Details** tab.

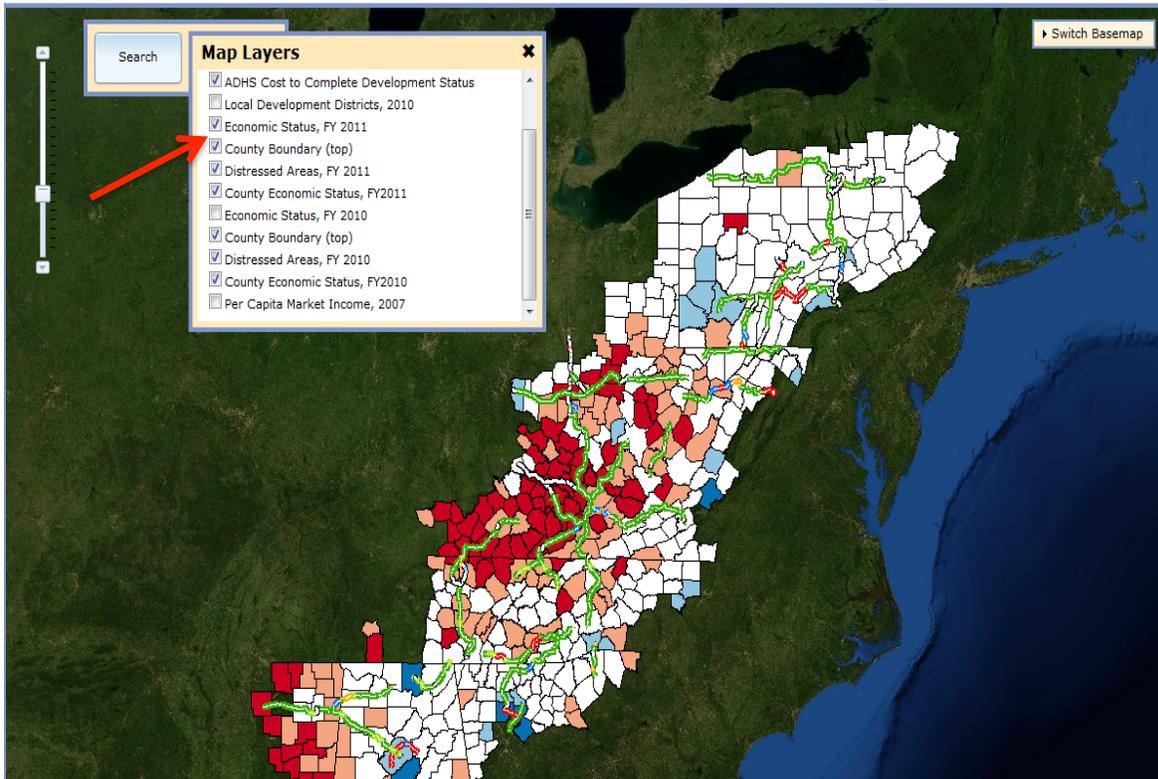
Show Details ◀

The **Details** windows consist of the following information:

- Overview
- Financial
- Trade Information
- Products & Shipping
- Management & Employees

7) Layers Tool

The ARTEDS interactive map starts with the traditional map as the base. The user can control what data is displayed on the map. Click on the **Layers** button on the top left hand corner of the map and a list of data will be displayed in the drop down list. Check [] marks indicate the data that is “turned on” on the map. Clicking on a check box will turn a data layer on or off. The map will redraw automatically. On the base map there are features turned on by default.



A layer that is not checked is available to the map but is not visible at the current zoom level of the map. For example, at the base view, the layer named Local Development Districts, 2010 is grayed out and the check box does nothing. The Exporters, Economic Status FY 2010 or Per Capita Market Income, 2007 map data is not displayed or “turned on” at the current view.