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BROADBAND
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ADDRESS ENHANCEMENT SYSTEM USER'S GUIDE AND REFERENCE MANUAL

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Address Enhancement System

User's Guide and Reference Manual

Introduction

Through a grant received from the federal Department of Commerce's National Telecommunications and Information Administration (NTIA) the South Dakota Bureau of Information & Telecommunications (BIT) has established the State Broadband Initiative. The purpose of the grant is to gather information about broadband technology (High-Speed Internet) in South Dakota, document its availability, and promote its use throughout South Dakota. Information on this grant can be found at <http://Broadband.sd.gov>.

Part of the project is to create a statewide address point database. We believe that with county support we can create the most up-to-date and accurate address point dataset. If we are able to collect an accurate address dataset with an upgrade process included, it will have far reaching implications beyond the State Broadband Initiative project, including public safety (Next generation 911 address etc.), transportation and your own equalization needs.

The South Dakota GIS department has compiled a list of known addresses of each county in South Dakota and has developed a comprehensive website system for managing address data. We've done our best to preload the addresses for your county and position those addresses as close as we could come based on the street name and house number, but typically, we're off by a few dozen feet in towns, and even more in rural areas. Now we need your help to ensure the data in your county is the most up-to-date and accurate as possible. We need you to log into the website and, using your local expertise, verify the existing address points.

Better Address Data IS Better

Every address has a location associated with it. Your home address refers to the location of your house; an office with a suite number refers to a specific unit within an office building. We all use addresses to easily refer to the location of a specific place. When someone makes a 911 call, police, fire and ambulance use these address locations to know where to go. There are many other services which rely on the accuracy of an address's location to work properly, from sales tax, public safety (Next generation 911 address etc.), to transportation and hopefully your own equalization needs.

Many counties have provided very accurate locations for their addresses which put the location of the address in the middle of the rooftop it belongs to. Some counties have provided lists of addresses and we've done our best to generate an accurate location using streets and street segment numbers. For counties which haven't provided any addresses or locations, we've used as many sources as we can find to compile a good starting list of known addresses.

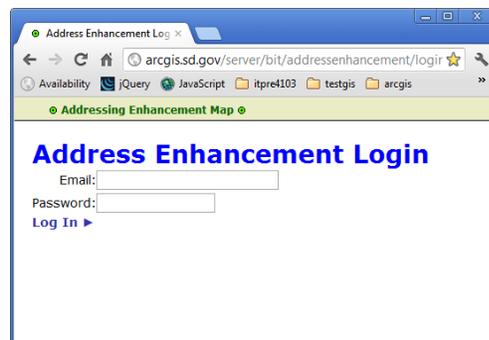
The South Dakota GIS department has developed a set of tools which allow us to adjust the position associated with each address and to fill in addresses that are missing. To test these tools, we've sent people out on the road to physically verify addresses and move points to the rooftops where they belong. One of the tools they use is this website. It's a comprehensive system for managing address data that you can also use to look up addresses in real time. When you use our system to improve your addresses, you can get a current copy of the points in your county at any time.

Note: If you already have a GIS system in place with verified local address points you can simply send us that data and we'll load it into the website system, and you can still verify it on this website as needed.

Getting into the System

Your county has been issued an account to update the points within the boundaries of your county. You'll need the supplied email and password to log in and work with your addresses.

- Enter this URL into your browser of preference to get started
- <http://arcgis.sd.gov/server/bit/addressenhancement>
- Enter the **Email** and **Password** supplied (password is case sensitive)
- Click **Log In**

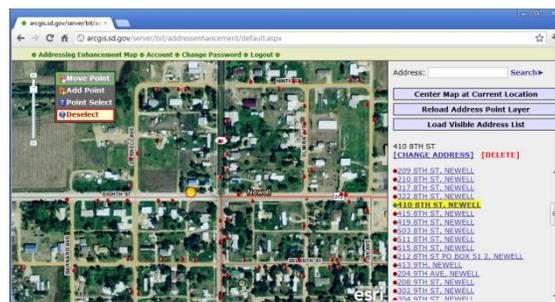


Moving Address Points

Now that you're logged in, you can do all sorts of things with your address data. The most common task you'll want to do is move an existing point to a more accurate location.

To move an address to the rooftop it belongs to, follow these steps:

- Zoom the map to the target area so you can see the neighborhood
- Click **Load Visible Address List**
 - This will display the addresses for all the dots that are currently visible on the map in a list on the right side of your browser
- Scroll to the **desired address** in the list on the right side of the screen and click it
 - The point is highlighted on the map with a yellow circle and red outline
 - **Notice** the menu options (in the upper left part of the map) - **Deselect** will be highlighted in yellow and red, indicating the point is active
- Click the **rooftop of the location/building** on the map where the point belongs
 - The point will move to that location
 - Note: You can click again to adjust the point if necessary
- **IMPORTANT:**
 - If **Deselect** is highlighted in yellow and red, a point is active. Clicking the map at any time while **Deselect** is highlighted will move the point.
 - Before zooming or panning the map, you will need to click **Deselect** to avoid accidentally moving a point.
- Once a point is adjusted in this system, its quality is set to the second highest value, symbolized by a light-blue dot



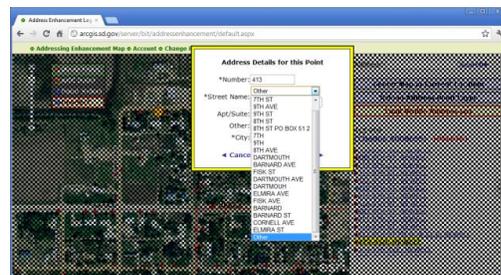
Dots are symbolized as follows:

- Red dots are the lowest, best-guess quality.
- Pink dots represent quality that is slightly better, usually the side of the road is more well defined.
- Purple dots are generally close to the correct driveway for the address.
- Blue dots usually match the rooftop. When moving an address with this system, the dots become blue.
- Green dots appear in counties where the address data supplied was very accurate and the rooftops were marked. Addresses which have been adjusted using our iPad app from the field are also colored green.

- Note: If the address you're looking for is not listed on the right side of your browser you can click "Load Visible Address List" to reset the list to include all points that are currently visible on the map

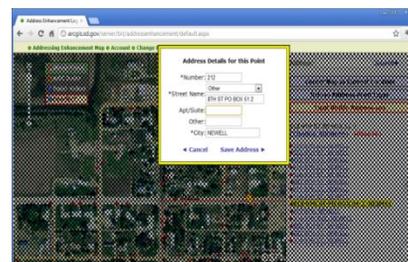
Editing Address Data

It is very likely that the addresses will have different names even though they're right next to each other on the same road. Addresses on "East Missouri Ave", for example, might be listed as "E Missouri Ave", "Missouri Ave", "E Missouri" and "Missouri". **It is preferable to use the variant which includes all the street information because it will match a search better.** A search for "400 Missouri" will match "400 E Missouri Ave" very well, but a search for "400 E Missouri Ave" will match "400 Missouri" poorly.



To deal with this, the site provides a way to normalize street addresses on the map

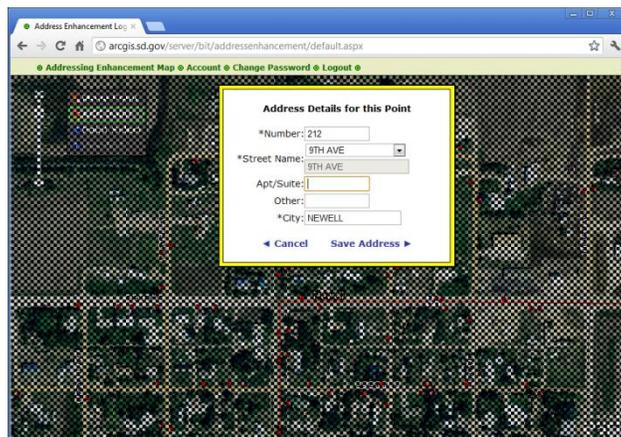
- Click **an address** in the address list on the right side of your browser as though you were going to move it
 - The address appears at the top of the list along with [CHANGE ADDRESS] and [DELETE]
- Click [**CHANGE ADDRESS**]
 - A pop up box appears with the various elements of the address
- You can edit any of the fields as needed
 - For Street Name, choose the high-quality version of the street name from the list. (For example choose "9th Ave" because it's better than just "9th" street name)
- If the street name contains too much information, such as an address and a post office box number (8th ST PO BOX 51), we can change the street to "8th St" and set the Apt/Suite value to "PO Box 512" to correct the invalid address
- Click **Save Address** to update the address information.
 - If the point was not moved previously, its color will not change because the quality of the location data has not been affected



Adding New Addresses

We started with as many sources for known addresses as we could find, but often valid addresses are missing from the data entirely. This is especially true of commercial addresses. When an address exists, but is not present in the system, follow these steps to add it to the system.

- Zoom the map so the new address's location is visible on the map
- Click **Load Visible Address List**
 - As long as one or more existing addresses are also visible on the map, this will populate the list of street names, which will simplify entering the new address
- Click **Add Point** from the menu options (in the upper left part of the map)
- Click **on the desired rooftop** on the map of the new address
 - The address details box appears.
- Enter the **address details**
 - Street number, choose or enter the full street name, enter any suite number and enter the city



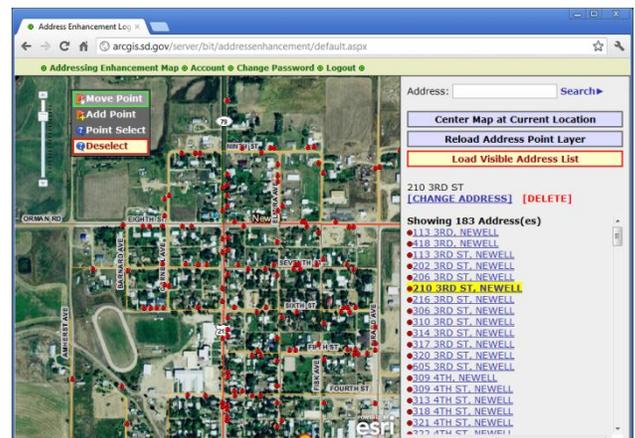
- **Remember**
 - It is preferable to use the variant which includes all the street information because it will match a search better.
 - Use consistent addressing for your county (i.e. name the streets the same – not using abbreviations or nick names)
- Click **Save Address**
 - Congratulations, the new address is added
- *You can click the map again to add additional points*
- When done adding new addresses, click **Move Point** from the menu options (in the upper left part of the map)
 - This will return you to the normal moving mode
- Click **Load Visible Address List**
- **Verify** the address you created appears properly in the system

Deleting/Removing Points

Sometimes, the data sources we used have the same addresses listed in different ways. We removed many of the duplicates, and sometimes you'll encounter a street with two sets of addresses, one with higher quality street names than the other. You'll want to move the good addresses to the corresponding rooftops, and delete the lower quality duplicates. This is where your local expertise is so valuable to having the most up-to-date and accurate data for your county.

To remove an unwanted point from the system:

- If your address list is not visible Click **Load Visible Address List** from top right menu
- Then **select the address you wish to delete**
 - The address will appear at the top of the list above [CHANGE ADDRESS] and [DELETE] buttons.
- Click [**DELETE**]
 - You will be prompted to confirm the delete
- Click **OK** if you are sure you want to delete/remove the address point
 - The point will be removed from the map
- Click **Load Visible Address List** to update the address list
- **Verify** the address has been deleted from both the list and the point on the map



Maintaining Account Information

Update your Account Information:

- Click Account in the bar at the top of the page
 - You can now update your Email Address, Full Name, Organization, and Phone

Changing your password

- Click Change Password in the bar at the top of the page
 - You can now enter a new password

Other Buttons and What They Do

The menu options (in the upper left part of the map)

- **Point Select**
 - Use this button to quickly find the address of an address point on the map
 - This is a method to confirm the proper address
 - Click this button, and then click on or near a point on the map to select the address that matches that point.
 - Warning: It immediately switches to Move Point - so be careful if you click on the map again and accidentally move the point to a wrong location!
 - You can Click Deselect (in the upper left part of the map) so you can safely pan and zoom the map without risk of accidentally moving a point.
- **Deselect**
 - Highlighted when a point is ready to be moved
 - Click Deselect to unselect the active point (highlighted on the map with a yellow circle and red outline) so you can safely pan and zoom the map without risk of accidentally moving a point.

Menu options on the upper right part of the screen

- **Address Search box**
 - If you know an address you can enter it
 - Enter all or part of an address you're trying to find and click Search
 - A list of addresses containing the search string is displayed
 - Note: This is why you want to be sure you enter in full proper addresses
 - Selecting an address from the list re-centers the map at the address's location and selects the point for repositioning
- **Center Map at Current Location**
 - When you click on this button it uses the browser's location service *if available* to center the map at the current location
 - **Note:** Only available if the device supports orientation, the arrow will point in the direction the device is facing and will move on the map to match the user's location
 - This is especially helpful when using this website from an iPad or other tablet with internet connectivity
- **Reload Address Point Layer**
 - Clicking this button will attempt to refresh the address layer on the map to show the most current positions of the addresses.
 - Sometimes the point does not appear to move or seems to be displaying older positions even though newer positions have already been shown.
 - This is usually a result of browser caching, and typically doesn't last long.
- **Load Visible Address List**
 - Displays the addresses for all points currently visible on the map.
 - When the map is zoomed or panned, this button turns yellow with red outline to indicate that the map has changed since the list was last loaded.
 - Note: As you zoom and pan around with the map, the address list doesn't automatically refresh when the map changes.