

FERNDALE GIS VIEWER TUTORIAL

Basics

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Introduction

An IMS is an "Internet Mapping Service." One of the most popular IMS creation programs is ArcIMS from ESRI. These programs allow distributors to display spatial data (maps) that users can access from almost any computer through the internet. Users can even customize the maps they view by selecting the visible layers, so only the desired layers are seen. Interaction is also possible through zooming, panning, querying, as well as identifying and finding specific features.

Opening Screen

When you first open up the IMS, you'll probably see a screen that looks something like this: (although keep in mind that many websites are customized in different ways and might have been modified with a new layout)

Ferndale Map Viewer

Layers

Visible Active

- Current City Limits
- Current Urban Growth Area
- Streets
- Sewer Surcharge Area
- Land Parcels
- Schools
- Probable Wetland Area
- City Parks
- Shoreline Jurisdiction Line
- Shoreline Plan Land Use Designation
- SMP 100yr Floodplain (NOT FEMA)
- FEMA Floodway
- FEMA 100-year Floodplain
- Significant Waterways
- Slopes Greater Than 20%
- Official Zoning
- Comprehensive Plan
- Aerial Photo-April 2006

Refresh Map

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0 3000ft 0 910m

Land Parcels

[Save attributes to text file](#) [Help for saving file](#)

Rec ID	OID	GEOCODE	ACRES	AREA_FEET	ADDRESS	HOUSE_NUM	OWN_NAME	OWN_ADD1	OWN_ADD2	OWN_ADD3	OWN_ADD4
1	0	380219356503	38.5165197627	1877779.60086	2225 THORNTON RD	2225	FERNDALE SCHOOL DISTRICT 502	P O BOX 698			FERN

Identify

Parcel Lookup (Enter 12-Digit PIN): Go

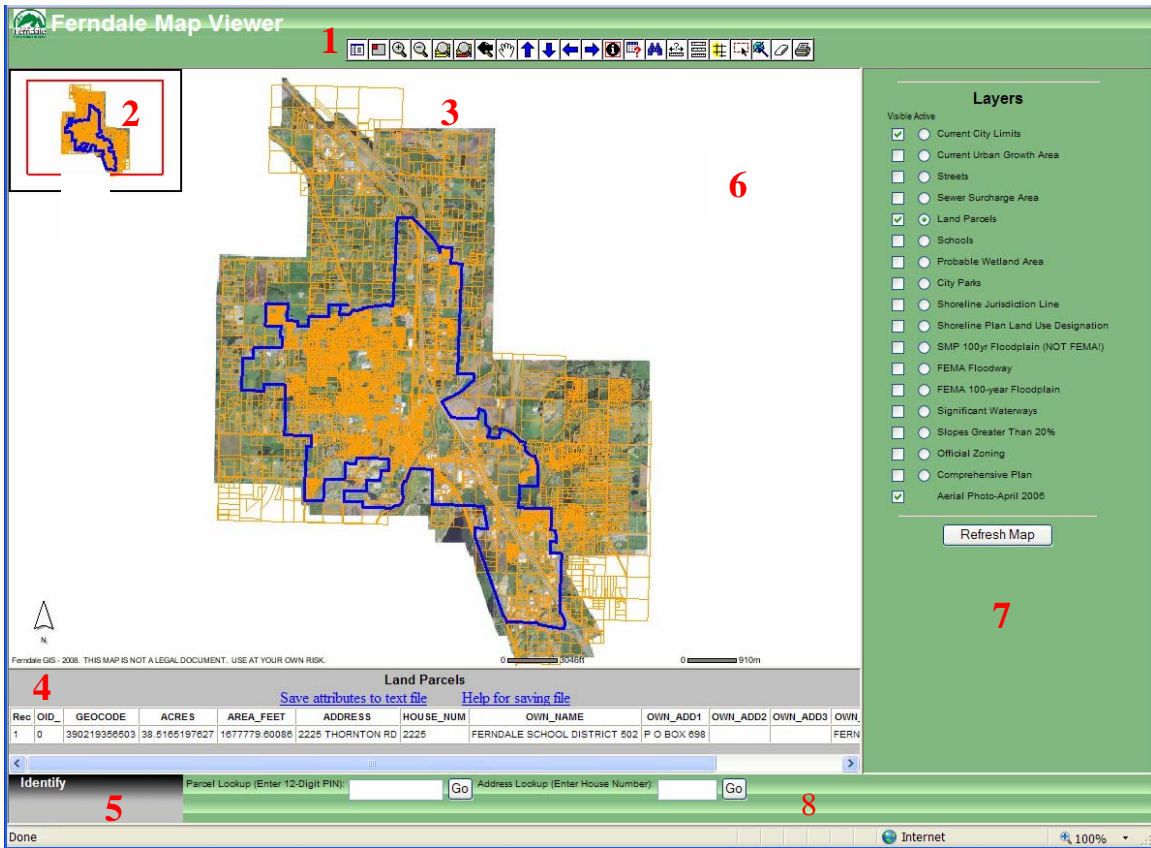
Address Lookup (Enter House Number): Go

Done

Internet 100%

Frames

As you can see, the page is divided up into different frames. Each frame has a different function.



























The main components of the window are:







1. Toolbar
2. Overview
3. Top
4. Tool Usage
5. Active tool
6. Map frame
7. Layers or Legend
8. Quick Parcel Search

Description of Toolbars






Frame Name	Description
Toolbar	The toolbar is the frame you use to select an action that can be performed on the map (such as panning, zooming, or measuring).

	<p>Toggle legend or layers   Toggle overview map </p> <p>Zoom in   Zoom out</p> <p>Zoom to full extent   Zoom to active layer</p> <p>Zoom to previous extent   Pan</p> <p>Pan north   Pan south</p> <p>Pan west   Pan east</p> <p>Identify   Query data</p> <p>Find   Measure</p> <p>Select distance units   Buffer</p> <p>Select by rectangle   Select by line or polygon</p> <p>Clear selection   Print</p>
Overview	Provides an overview image to show you where you are in the map
Top	The main menu to navigate around the NMDA DRASTIC web page.
Tool Usage	This is the frame where you will see an action for most tools, such as the results any time you identify a feature in the map or the options for performing a query.
Active Tool	This tells which tool is currently active. You can also determine the active tool because it will have a red box around its icon:  . In this case, the zoom in button is active because of the red box around it.
Map	This is where the actual map data is presented.
Layer	This is where the legend or list of layers is displayed.


Panning and moving around the map

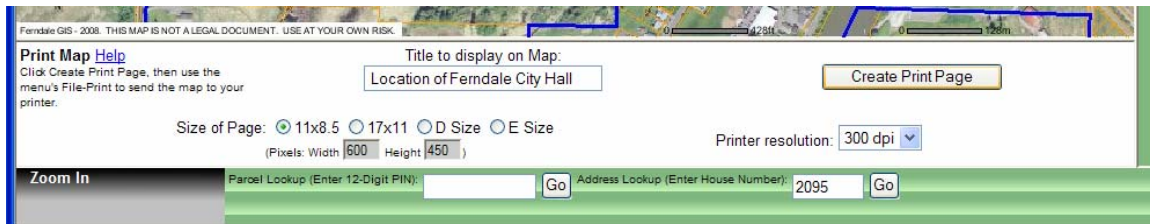
If you want to pan the image (view adjacent areas north, south, east, or west), there are a few tools to which you can use. There are five main buttons to use for panning. Pan  allows you to manually move around the map using your mouse and holding the left mouse button. The four arrows     will automatically pan in that particular direction. For example,  will automatically pan the map north.

Zooming

The easiest way to zoom is with the "zoom in"  and the "zoom out"  buttons, which appear as a magnifying glass with either a positive/plus sign (zoom in) or a negative/minus sign (zoom out). In Addition, there are three other types of zooming: zoom to full extent, zoom to active layer, and zoom to previous extent. Zoom to full extent  will zoom out as much as the map possibly can- to view the complete extent the map encompasses. Zoom to active layer  will zoom to the full extent of whatever layer is current active. Zoom to previous extent  will zoom to the last zoom level you were displaying the map at.

Printing

To print out a map, zoom to the desired level. In the toolbar, select the print icon . At the bottom of the page, in the tool usage frame, you will see your options for printing, including typing in your desired title. Before selecting the "Create Print Page" button, however, make sure pop-ups are allowed for <http://www.cityofferndale.org> . Otherwise, you might have problems if you have a pop-up blocker. You can also select the page size and resolution. All maps will print landscape, so make sure you set your printer to landscape. We do not recommend printing larger than 17 x 11, and our server may not generate a map for the larger D and E sizes. For larger sizes we recommend you contact the City of Ferndale. Once you click the Create Print Page button, a new window will open. This new window will be print-ready. You can use the web browser's "print" or "print preview" option to further layout and print the page. There is a nice [HELP](#) link in the print section to guide if you need more help.



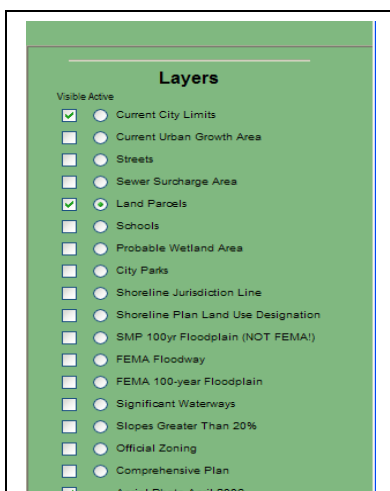
Printing html documents can be a pain, so you may have to play around with the zoom feature in print preview, as well as your printer settings to get a map you like.

Layers Frame

The layers frame displays all the layers that the map contains. You can select which layers you want to be seen by clicking the square box to the left. If there's a checkmark present, the layer is currently seen on the map.


The Active Layer

This is an important concept when using an IMS. The active layer




lets you identify, buffer, select, and query features for that particular layer. Only one layer can be active at a time (depending on the IMS setup). You'll know a layer is the active layer if the circle directly left of the layer name has a black bullet in it.

Identifying a feature

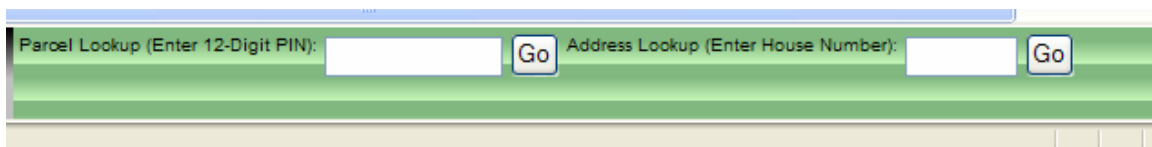
Before you can identify a feature, you need to make sure the correct active layer is selected. For example, if you want to identify a particular road, make sure it's the right road layer- interstate, U.S. highway, or state highway. You can confirm this by looking at the legend to pick out the layer. Once the active layer is selected, use the toolbar to pick out the  identify tool. You can then move the mouse over the feature you want to identify and left click that feature. The results will appear in the identify frame in a table.

Performing a query

To perform a query, click on the query icon in the toolbar . This will bring up query options in the identify frame. There will be options available to perform the query- such as selecting the desired field in the table (i.e., a particular column of data- such as "Name" or ID number if known). The next choice is for the operator. This gives a command of what you want. The software will query out something that is equal to "=" your search, like your search, greater than or less than your search (if using a numerical value), etc. The next option allows for the text or numerals to be input. After that's done, click "Add to query string." You can continue to modify the query by using the options over again, after using joining terms ("And," "or" "Not," etc.). Finally, to perform the query, click "Execute."

Quick Parcel Query

If you know the parcel number or address of the parcel you wish to select, you can type it in the box here:



The image shows a search interface with two input fields and two "Go" buttons. The first input field is labeled "Parcel Lookup (Enter 12-Digit PIN):" and the second is labeled "Address Lookup (Enter House Number):".



The parcel number will be a 12-digit number like 380220123456. Press to select and zoom to the parcel. Or, if you know the street address of the parcel you are looking for, just enter the House Number (1234) and the map will return a table of all parcels with house number 1234. Then you can narrow down the results by clicking on the address you are looking for, and the map will automatically select and zoom to the parcel at that address. See image below.

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Rec	OID	GEOCODE	ACRES	AREA_FEET	ADDRESS	HOUSE_NUM	OWN_NAME	OWN_ADD1	OWN_ADD2	OWN_ADD3	OWN
1	0	390229007541	1.09816697883	47836.153598	2095 MAIN ST	2095	CITY OF FERNDALE	P O BOX 936			FERN
2	0	390220066308	0.355187132227	15471.9514798	2095 DIANE CT	2095	RICHARD D & KATHERINE H WALSH	2095 DIANE CT			FERN
3	0	390217030233	0.0848488521336	3696.01599894	2095 CALICO LOOP	2095	MALLOY VILLAGE LLC	1954 W CARSON ST #B			TORR

Zoom In Parcel Lookup (Enter 12-Digit PIN): Go Address Lookup (Enter House Number): 2095 Go

Measuring a feature

To measure a feature, use the measuring icon . This will bring up a bar at the top of map and overview frames. In order to measure, simply click anywhere on the map. This will be the starting point. Click again for the second point. The measuring bar at the top will list the total distance (between all the points you've clicked) and the last segment-between the last two points added. If the units aren't the desired units, simply click the "select distance units" button . This will cause a box to open up in the identify frame where you can select the desired units from a dropdown menu.












Finding a feature












If the specific feature (e.g., a town name, a specific road, etc.) is known, you can "find" a feature. Simply click the find icon  in the toolbar. A box will open up in the identify frame, where you can type in the search term.

What's the difference between a query and a find?

A "find" will simply point out the location of the feature, while a query will select a specific feature in order to be used for other tools (such as a buffer).

Description of Toolbar Icons

Icon	Name	Description
	Toggles Legend or Layers	Changes the layer frame display to either the legend or the list of layers. The layers list is the default in ArcIMS. It shows the different layers in the map, which can be seen at the particular scale you're at, which is the active layer, etc. The legend is a graphic that can be used to help interpret the map- a key to the map.
	View overview map	Displays or undisplay the overview map in the upper left corner of the map. The overview map provides a zoomed out version of the map to identify the location of the main map frame.
	Zoom in	Allows you to zoom in on the map by clicking the left mouse button on the map and creating a "box" around the desired area to zoom in.
	Zoom out	Allows you to zoom out of the map by left clicking the mouse, with the arrow over the area you want to map centered on.
	Zoom to full extent	This will zoom out as much as possible, to reveal the complete map.
	Zoom to active layer	Zooms to the complete view of the layer that is currently selected (the active layer).
	Zoom to previous extent	Zooms to the last extent or scale the map was viewed at.
	Pan	Will move the map by holding down the left mouse button and "dragging" the map until it's in the desired position.
	Pan north	Moves the map north by simply clicking the button- no clicking on the actual map is necessary.
	Pan south	Moves the map south by simply clicking the button- no clicking on the actual map is necessary.
	Pan west	Moves the map west by simply clicking the button- no clicking on the actual map is necessary.

	Pan east	Moves the map east by simply clicking the button- no clicking on the actual map is necessary.
	Identify	Identifies a selected feature that is active.
	Query	Allows you to select features through a search.
	Find	Allows you to perform a search on a particular feature based on name.
	Measure	Allows you to measure between two or more points.
	Set distance units	Allows you to change the units (miles, kilometers, feet) that you're measuring in.
	Buffer feature	Allows you to create a buffer of a desired distance around the feature.
	Select by rectangle	Allows you to select features in the active layer by creating a rectangle.
	Select by line or polygon.	Allows you to select features in the active layer by drawing a line or polygon.
	Clear selection	Clears any features that are currently selected.
	Print Map	Will print the map at the current zoom level you see on screen. (Note: Pop-ups must be enabled).