

Accessing GIS Data: Orthophotography and the New York State Interactive Mapping Gateway

11/14/2000

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Accessing GIS Data: Orthophotography and the New York State Interactive Mapping Gateway



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Acknowledgements

- NYS Department of State
- NYS Education Department
- NYS Office for Technology
- NYS Department of Health
- NYS Department of Transportation
- USDA Natural Resources Conservation Service
- MapInfo Corporation



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Developing internet access to digital orthophotography

- Improve quality and format of DOQQ data.
- Address data file size issues.
- Index entire data set
- Provide rapid geographic location functions.
- Access information about imagery.
- Enable imagery downloads.



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Imagery Enhancement

- DOQQ standard: no color correction.
- Data format not scaled to internet delivery.
- Rebalance: improved aesthetics and resolution
- Reformatted to internet delivery: 1.5 meg



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Web Application Design Principals - End User

- Determine target audience.
- Balance complexity with ease of use.
- Integrate functionality and tool design.
- Provide rapid data access.



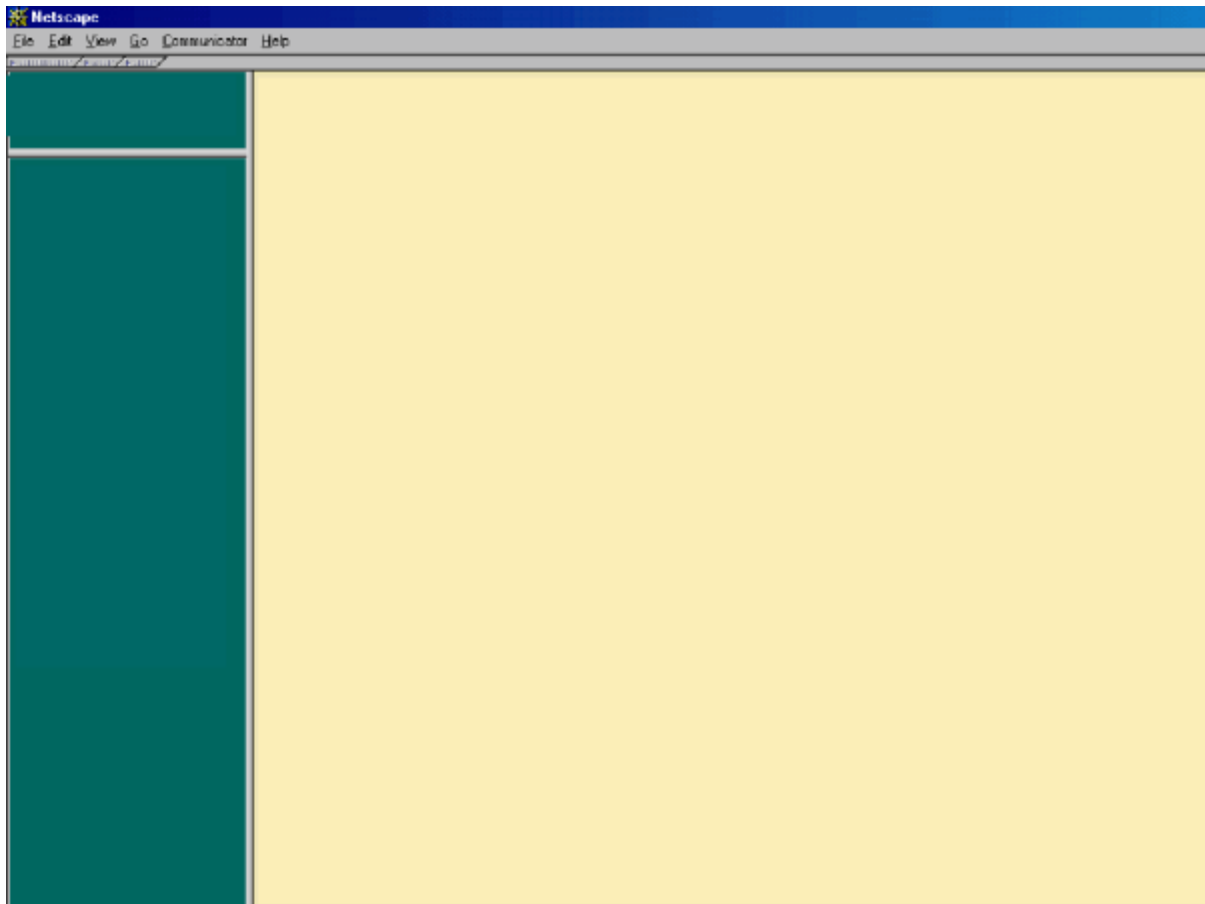
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Web Application Design Principals - Interface

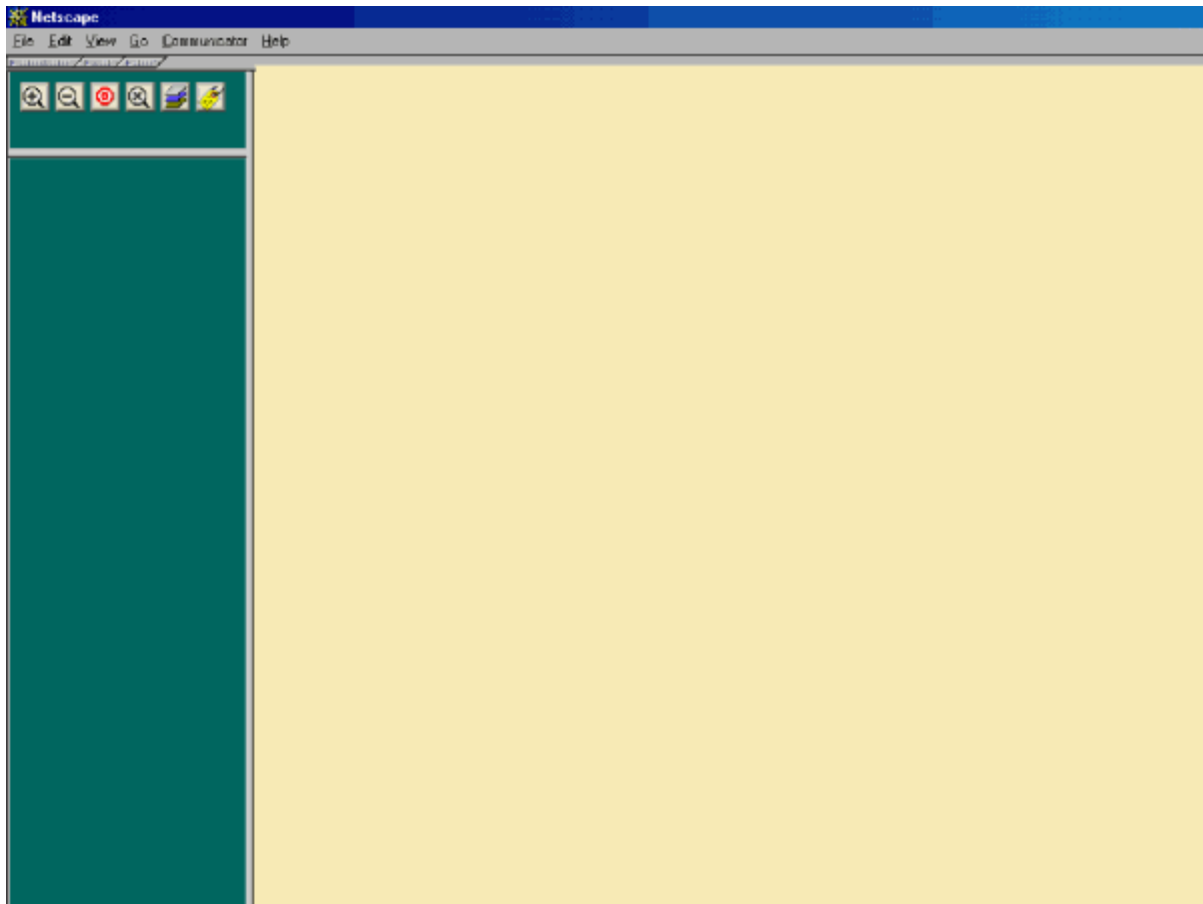
- Aesthetics and arrangement
- Interface information content
 - Button controls
 - Menu choices
- Map content
- Layering functions



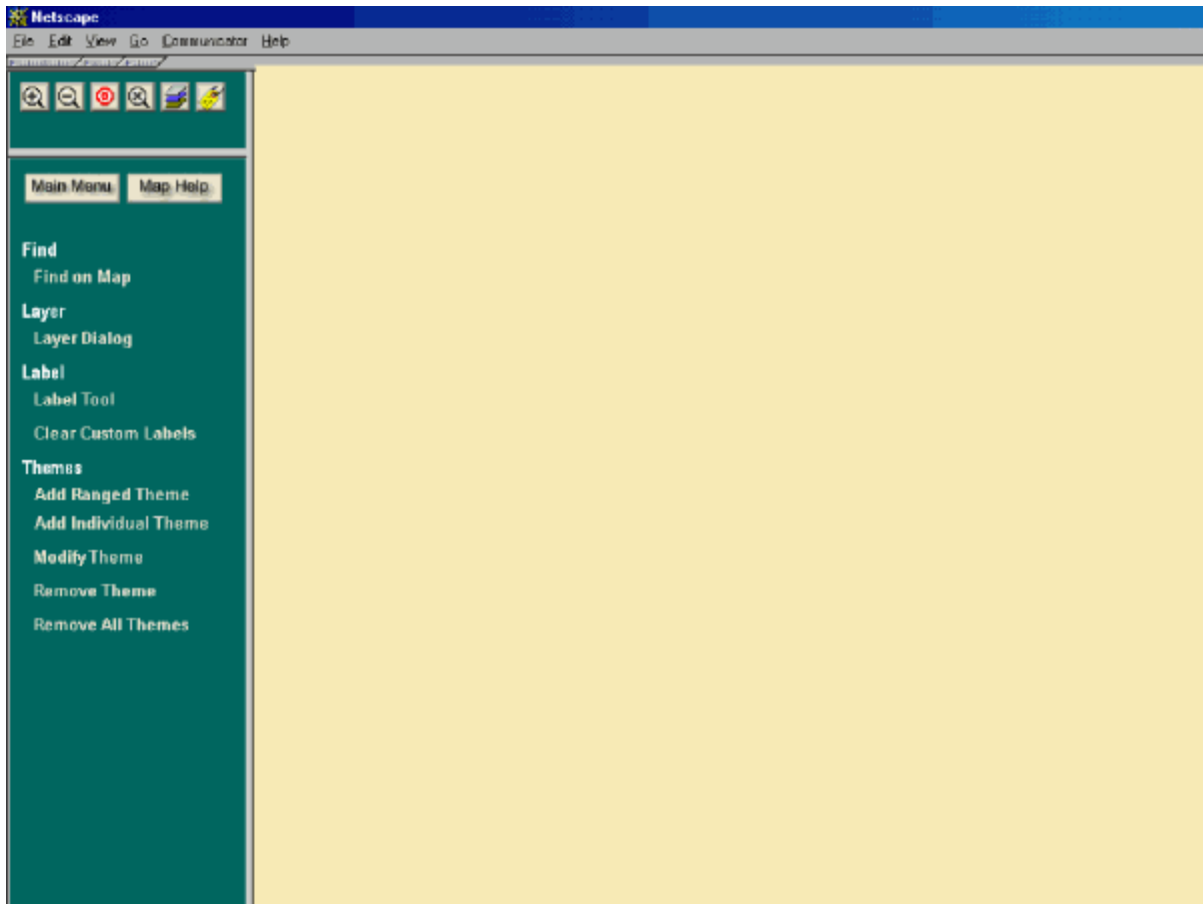
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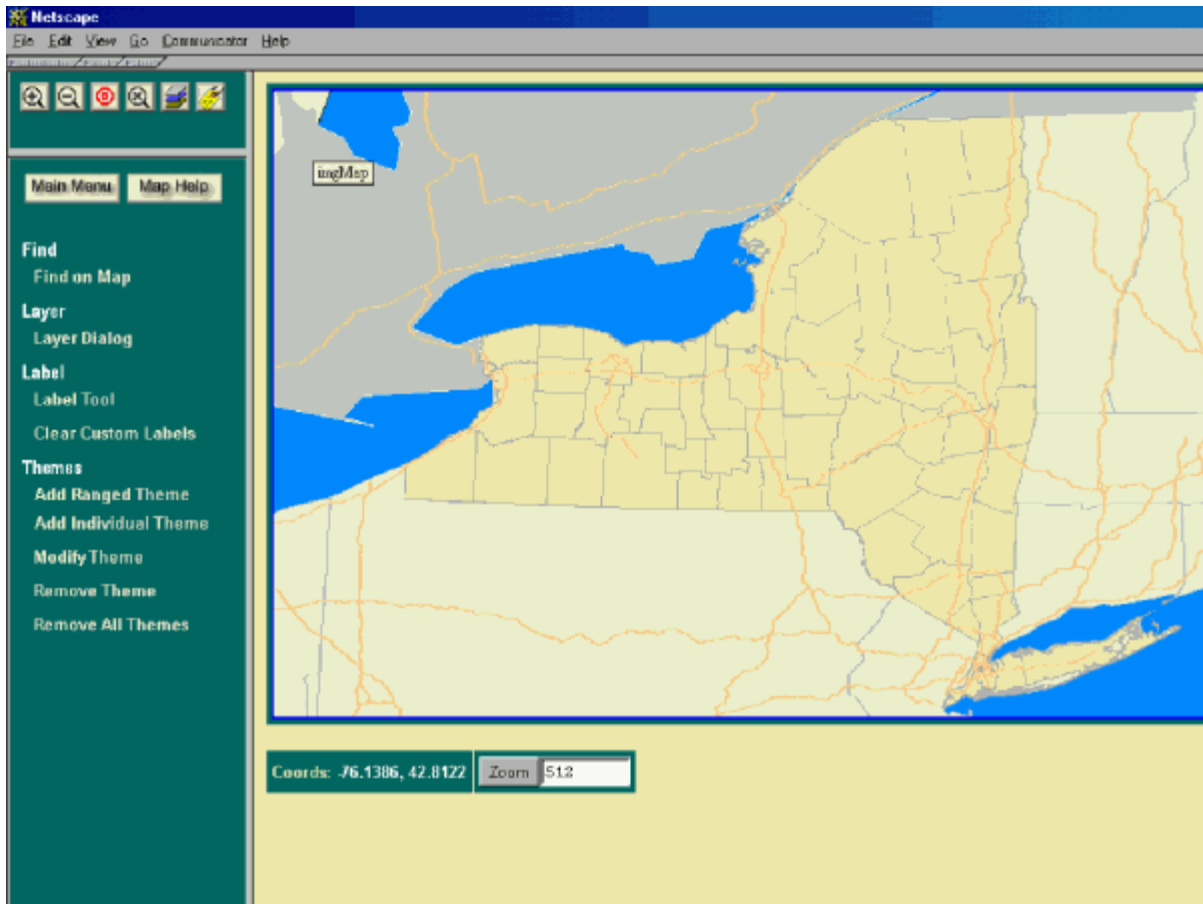
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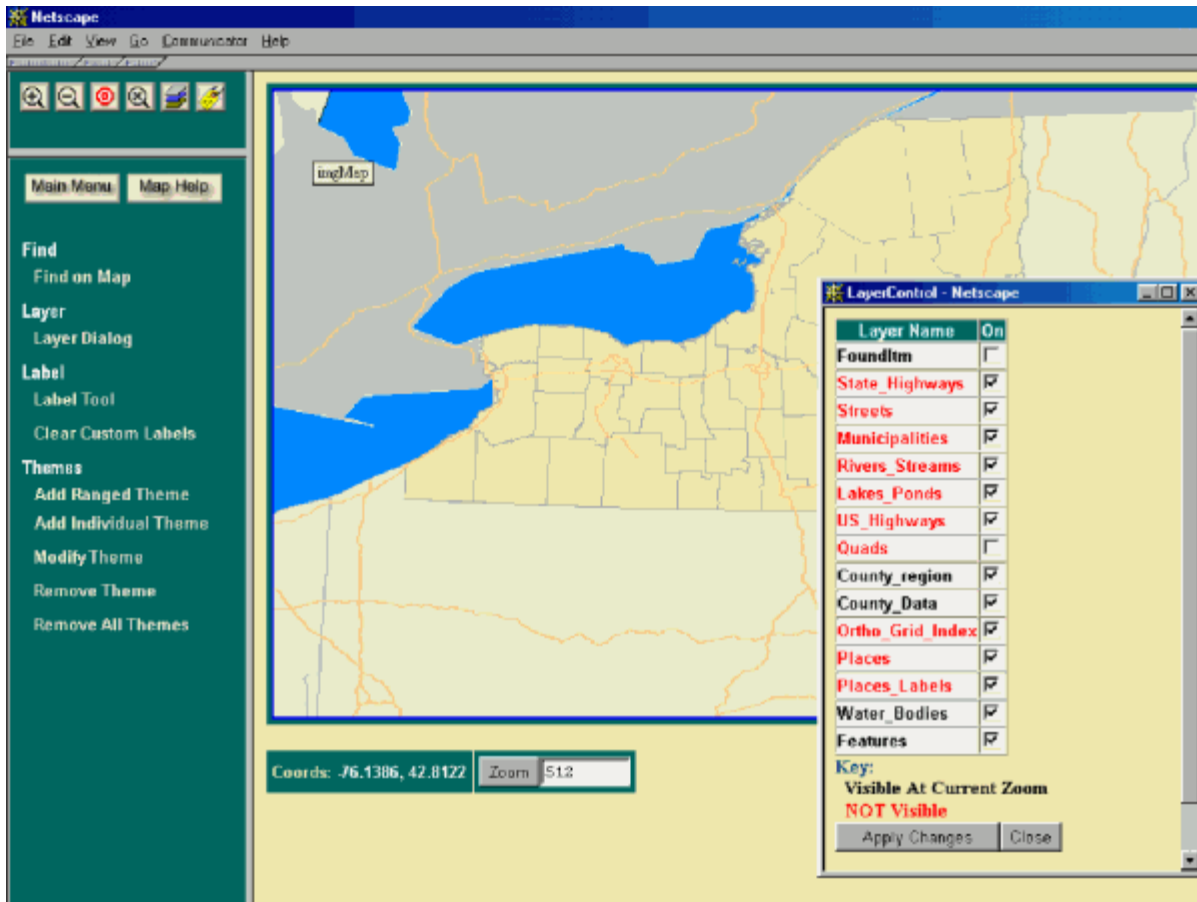
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Web Application Design Principals - Map Content

- Most overlooked aspect to date
- Requires data organization and planning
- Presetting map displays and levels



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Internet Mapping Gateway:

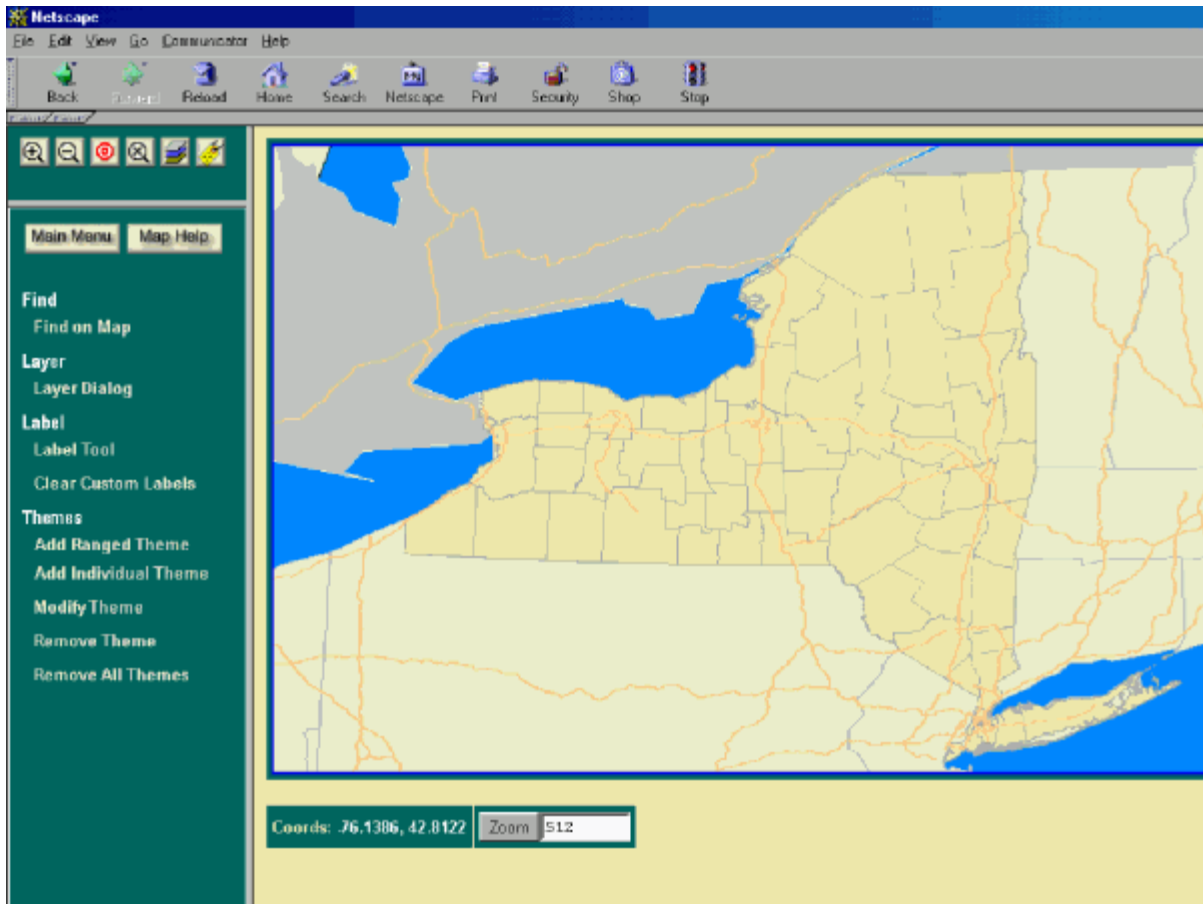
- How to navigate to a location
- Providing information
- Downloading maps and imagery



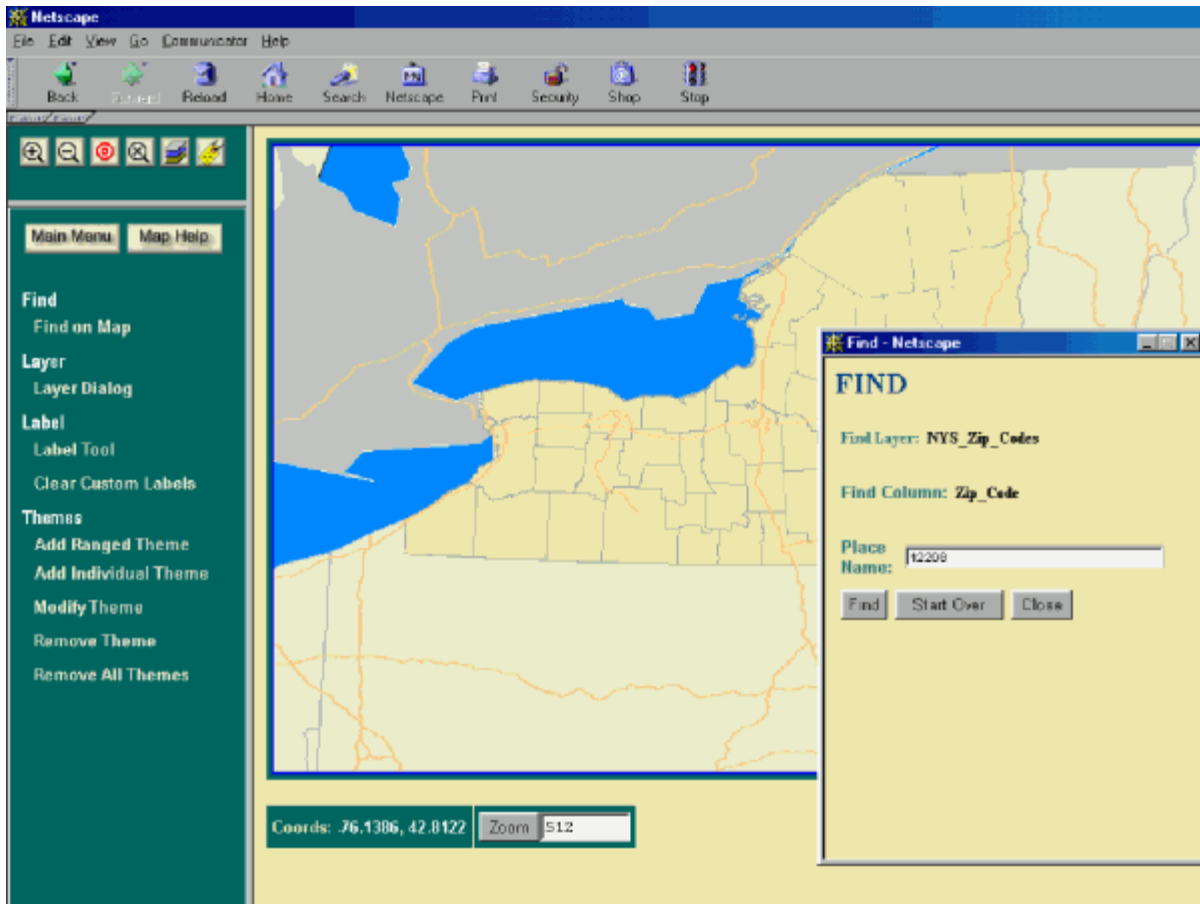
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The screenshot shows a web browser window with the title "Interactive Mapping Gateway". The main heading is "Statewide Digital Orthophotography". Below this, there is a list of navigation links: "Project Description", "Get Started With An Ortho Project" (expanded), "Guide Me!", "Orthophotography - Preview with Street Detail Maps", "Orthophotography - No Street Detail Map Preview", "Cooperative Test Site", "General Help", and "Metadata". To the right of the links is a vertical image of an aerial orthophoto of Shea Stadium, with a red square highlighting a specific area on the field. Below the image is the caption "Shea Stadium Orthoimage". At the bottom of the page, there are logos for GIS Connecticut, NYS Department of State (NYS Dept. of State), OFT (NYS Office for Technology), USDA, and New York State Library. The browser's status bar shows "Document Done".

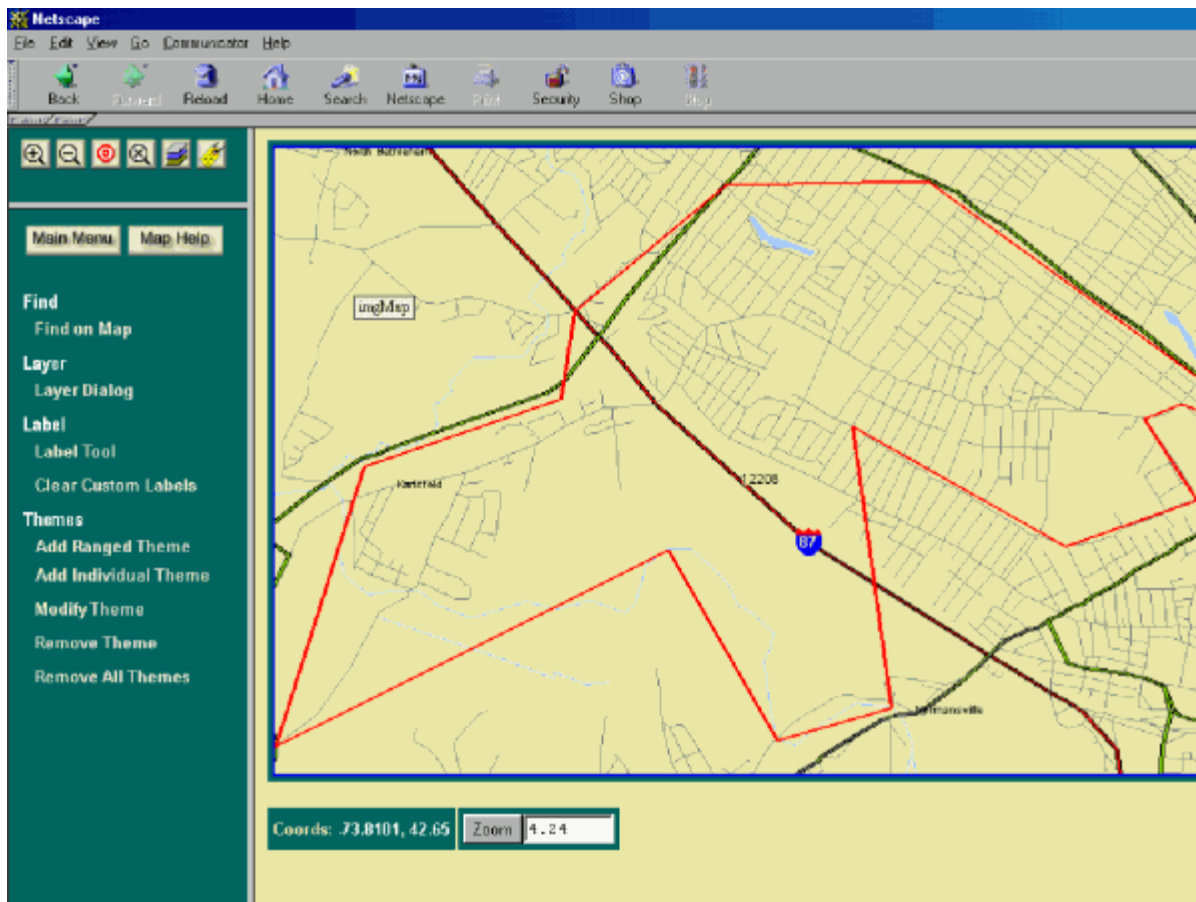




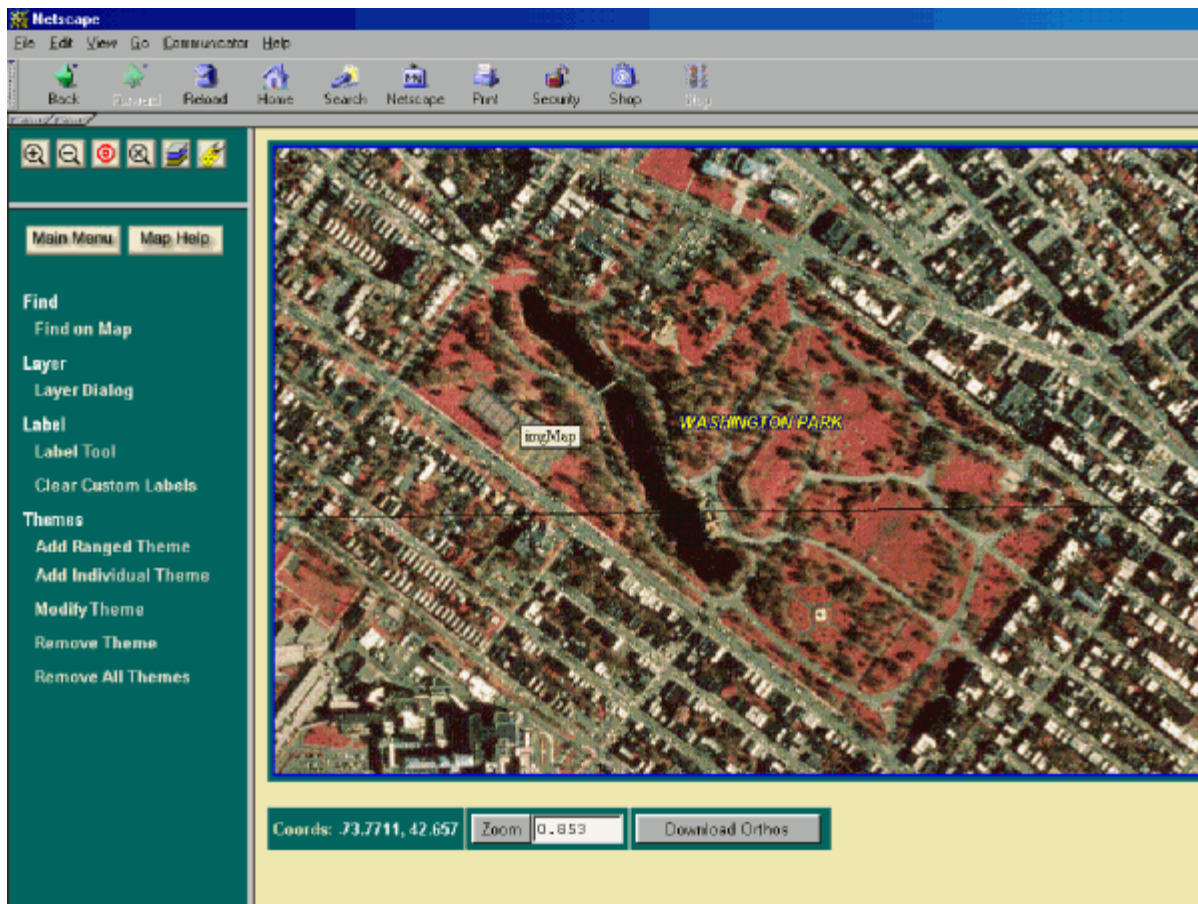
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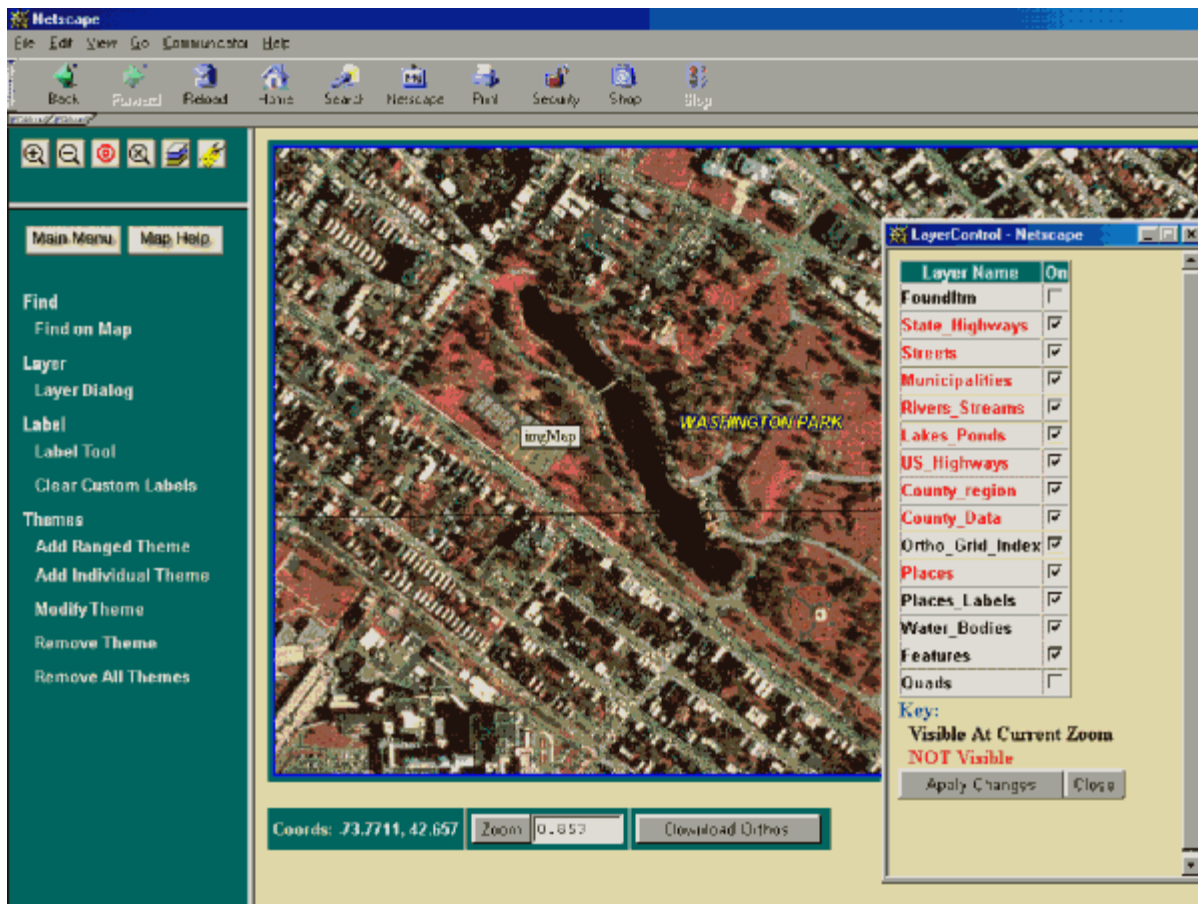
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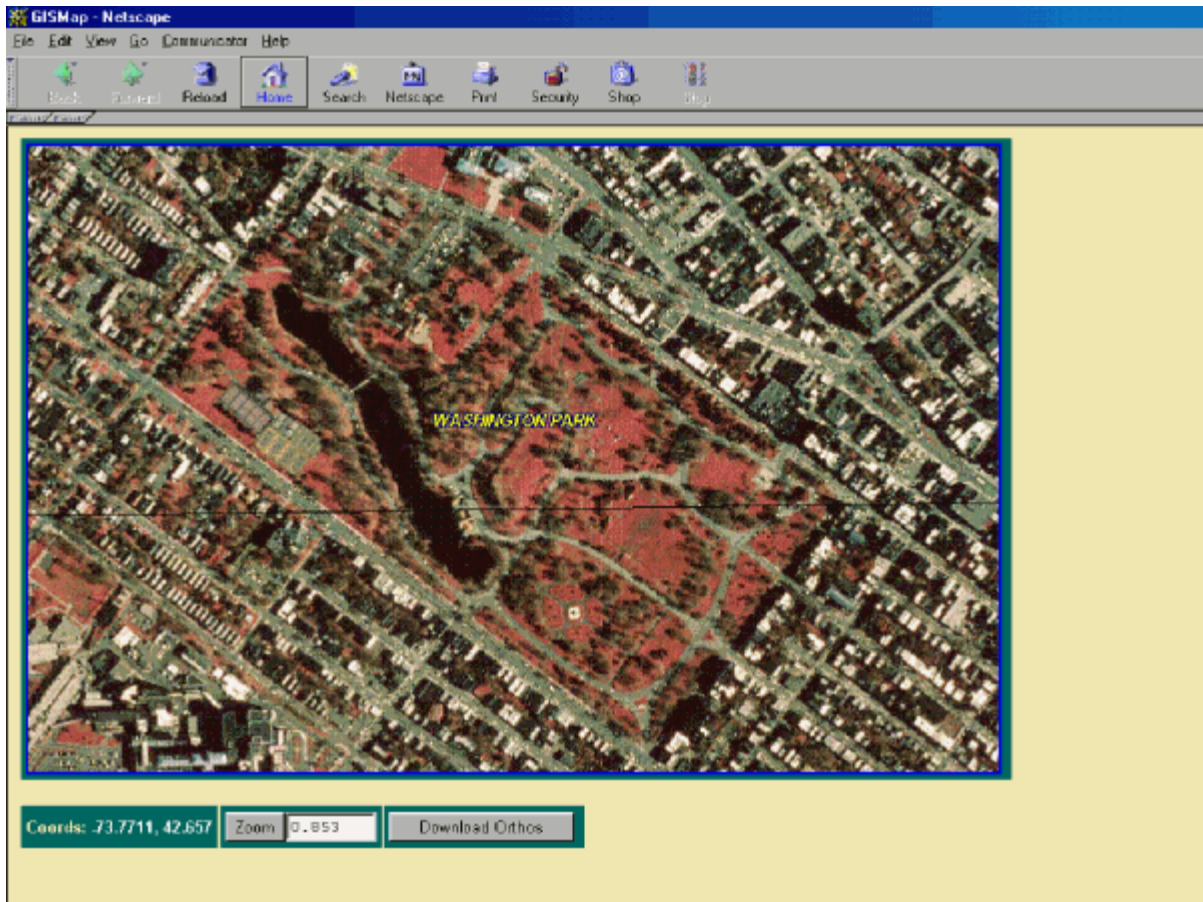
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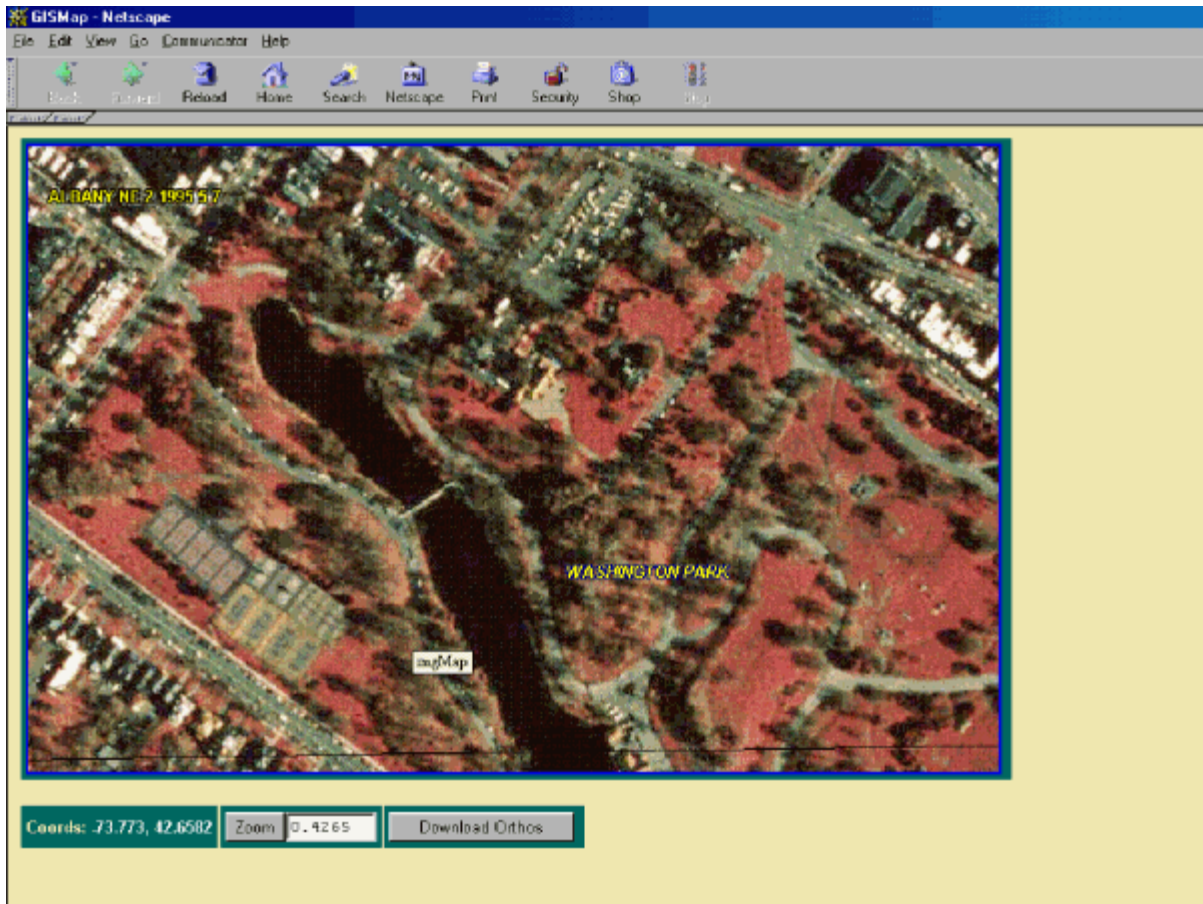
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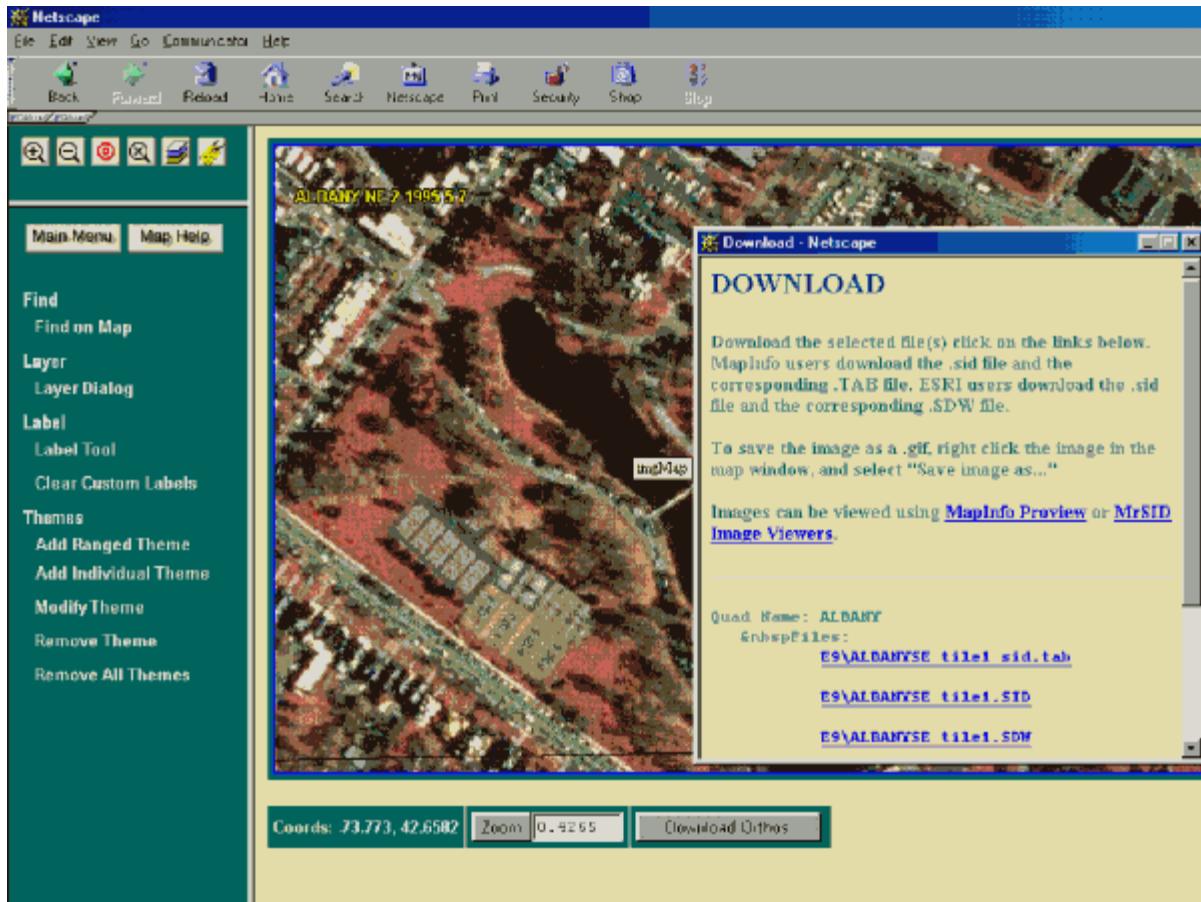
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Internet Mapping Gateway: Version 1

- File downloads: over 40,000 images
- Equal numbers of MapInfo and ESRI files
- Maps created: 1,000,000+
- Average maps per user: 22
- Record: over 500 maps in 6 hours!



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USGS NRCS Field Office Use

■ Internet Application

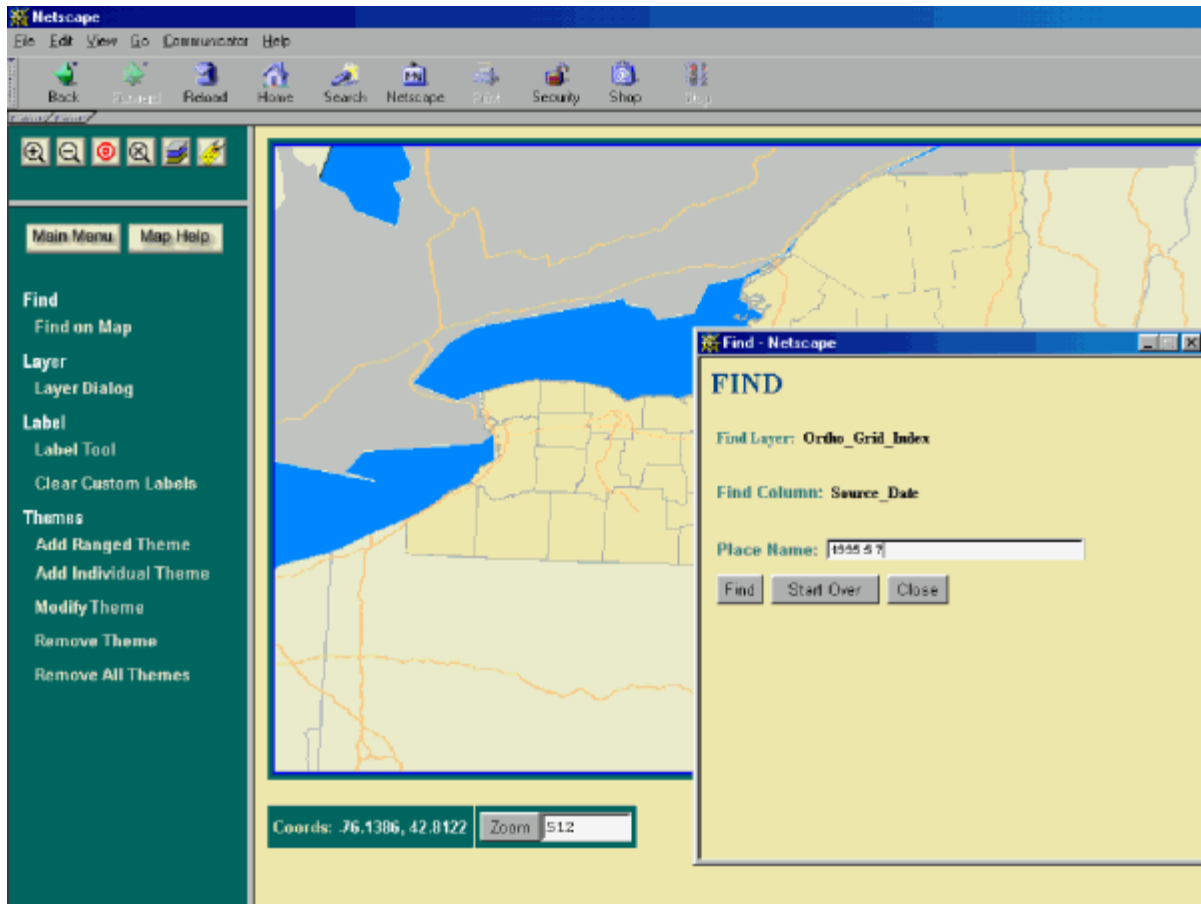
- PC and access line
- Central Imagery
- Printing capability
- Preset compositions
- Low cost

■ Local GIS Application

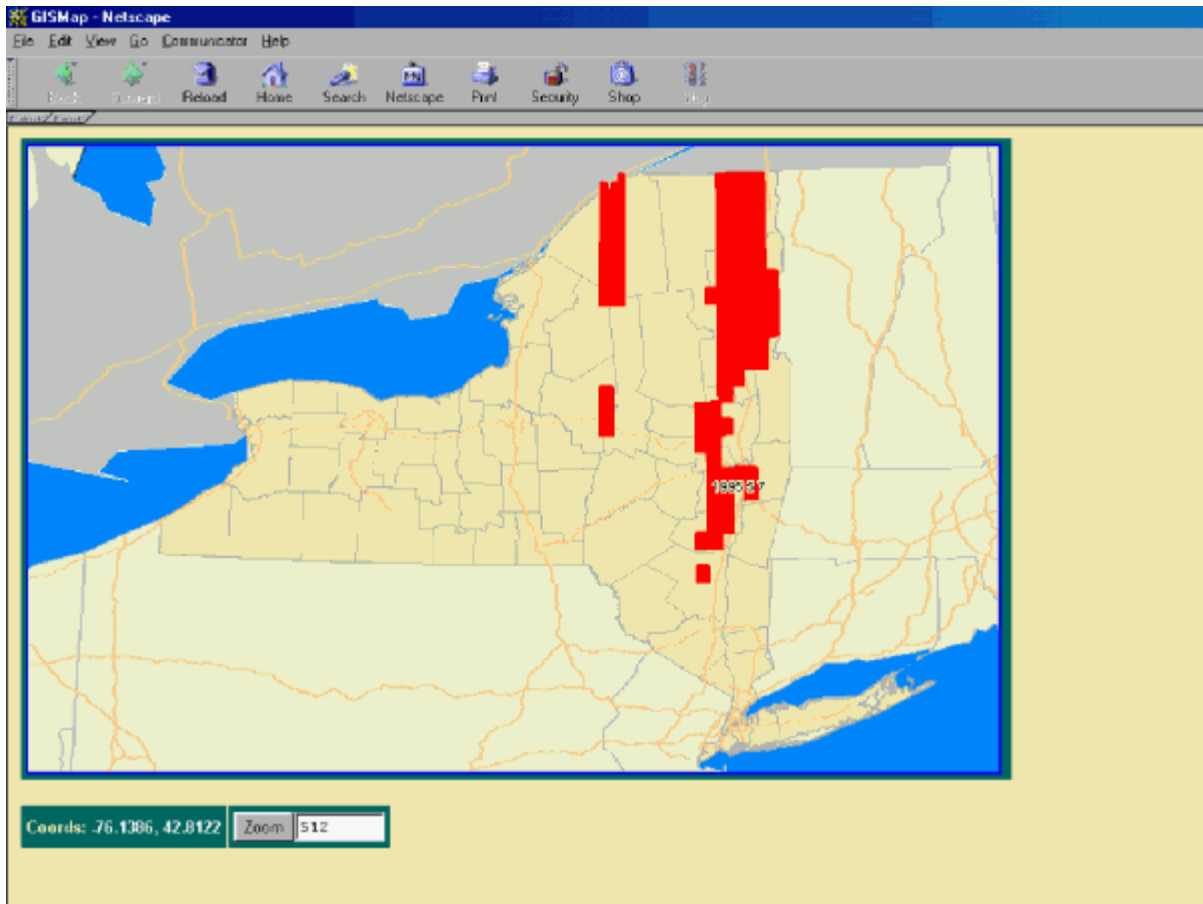
- Software license
- Software training
- GIS PC and storage
- Custom map content
- High cost



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Application Performance

- Need for statistical data
- Monitoring server activity
- Scalable architecture
- Measure of application value



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hahtsite Application Server Administrator

Server Groups:
NAME: STATUS:
■ Single ■

Create Copy Delete
Refresh View
License Information

DEVELOPED WITH
hahtsite

Directories Runtime Options Logging Options Logfiles
Statistics Access Rights Help Exit

Server Group: [Single](#)

Statistics on Activity since Startup

Number of states created	1475
Number of states timed out	1463
Number of states in use	11
Total public space in use (bytes)	2883584
Number of pages processed	36320
Number of pages with long run times	54

	Average	Minimum	Maximum
States per process per minute	0	0	3
Pages per completed state	23	1	408
State run time	16.787	1.875	456.007
State CPU time	0.333	0.000	47.964
Pages per process per minute	0	0	35
Page run time	0.687	0.000	120.062
Page CPU time	0.012	0.000	47.859
Page request time on queue	0.031	0.000	40.625
Page size (bytes)	6953	0	2924089

Return Help



hahtsite Application Server Administrator

Directories | Runtime Options | Logging Options | Logfiles
Statistics | Access Rights | Help | Exit

Server Groups:
NAME: STATUS:
■ Single ■■■■■

Create Copy Delete
Refresh View
License Information

DEVELOPED WITH
hahtsite

Statistics on Current Activity
Statistics on the current Application Server activity are gathered over one-minute time intervals. Values shown here are for the most recently completed one-minute interval, but do not reflect activity in the current collection interval.

Number of states created	2
Number of states timed out	0
Number of states in use	11
Total public space in use (bytes)	2883584
Number of pages processed	45
Number of pages with long run times	0

	Average	Minimum	Maximum
States per process per minute	0	0	1
Pages per completed state	0	0	0
State run time	0.000	0.000	0.000
State CPU time	0.000	0.000	0.000
Pages per process per minute	11	5	20
Page run time	0.841	0.000	3.156
Page CPU time	0.009	0.000	0.062
Page request time on queue	0.127	0.000	1.844
Page size (bytes)	7778	495	9457

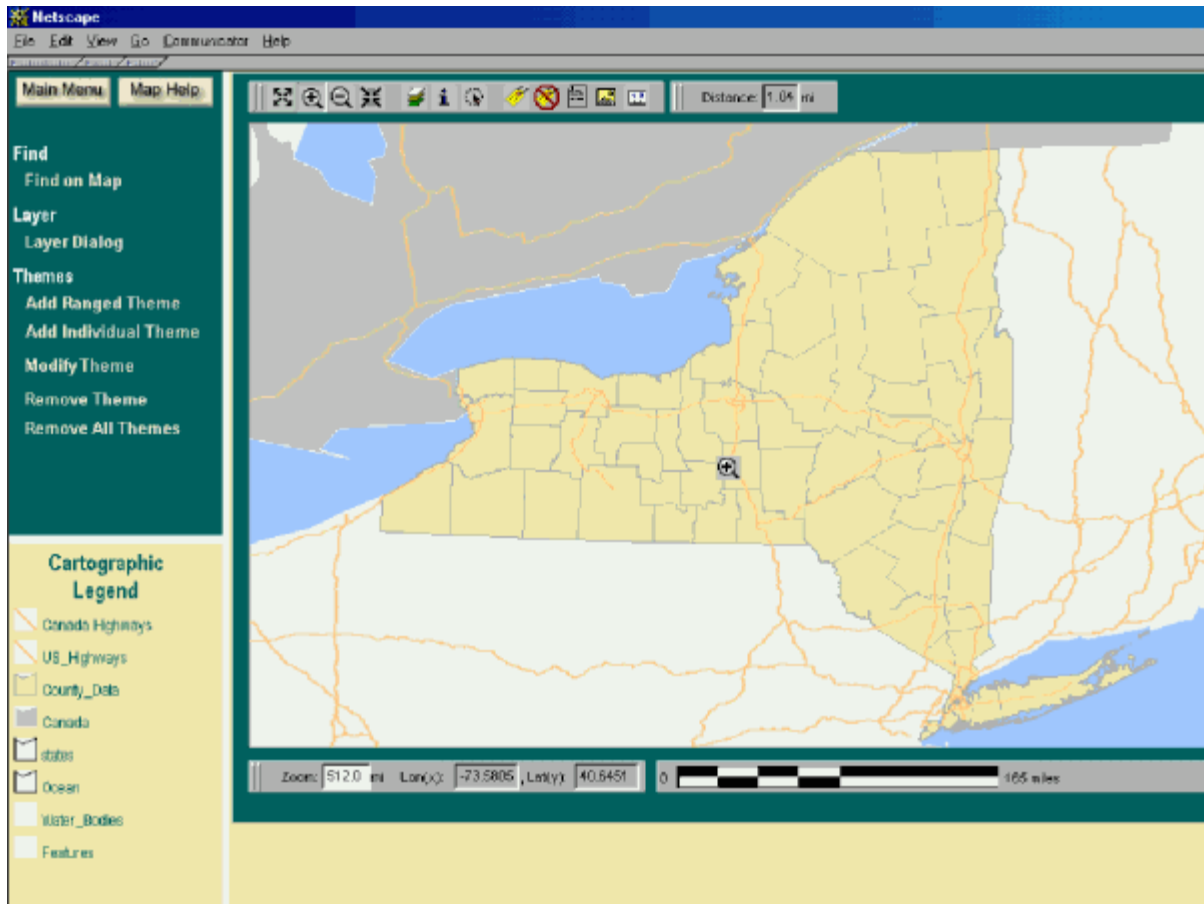


Continuous Development

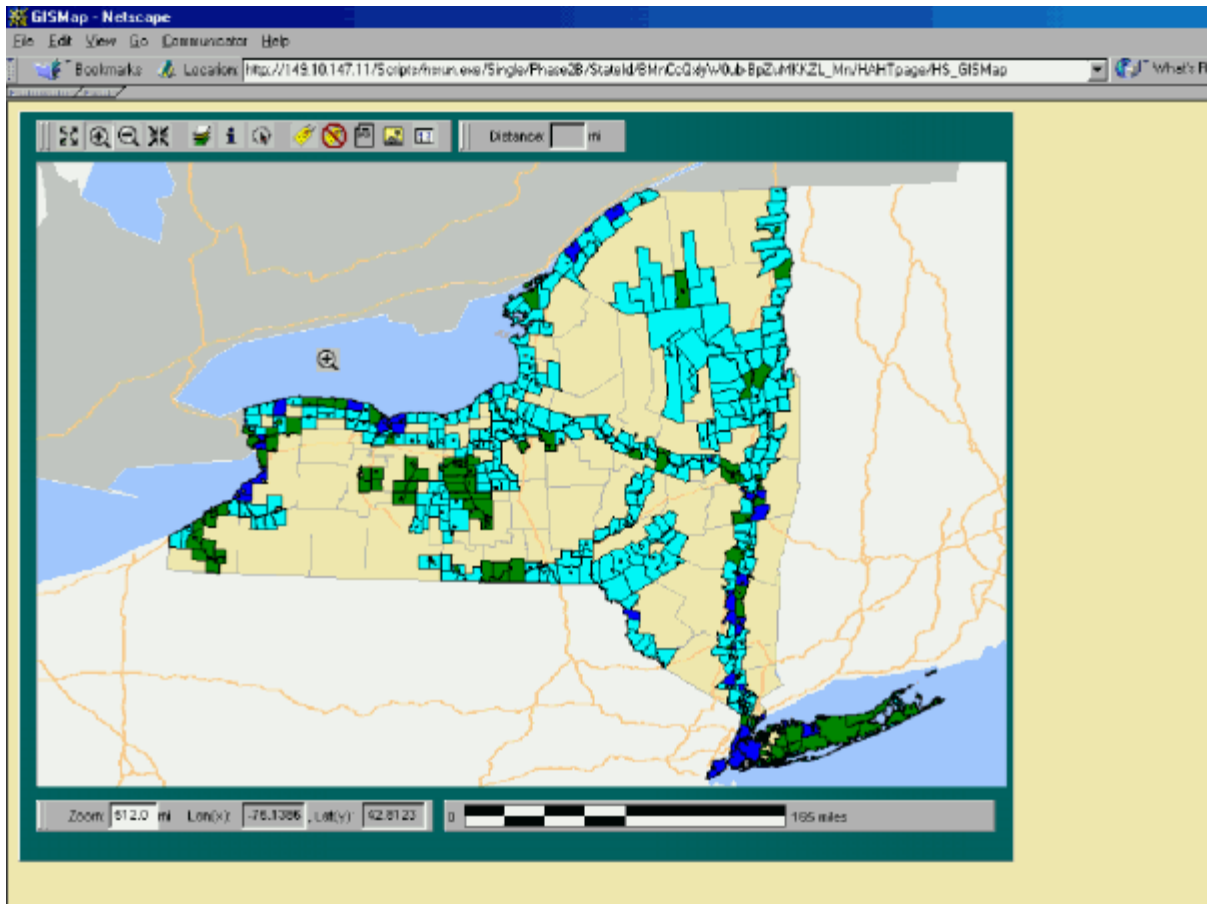
- Planned phased development
- Products rarely are static
- Opportunity for user feedback
- Capture improved technology



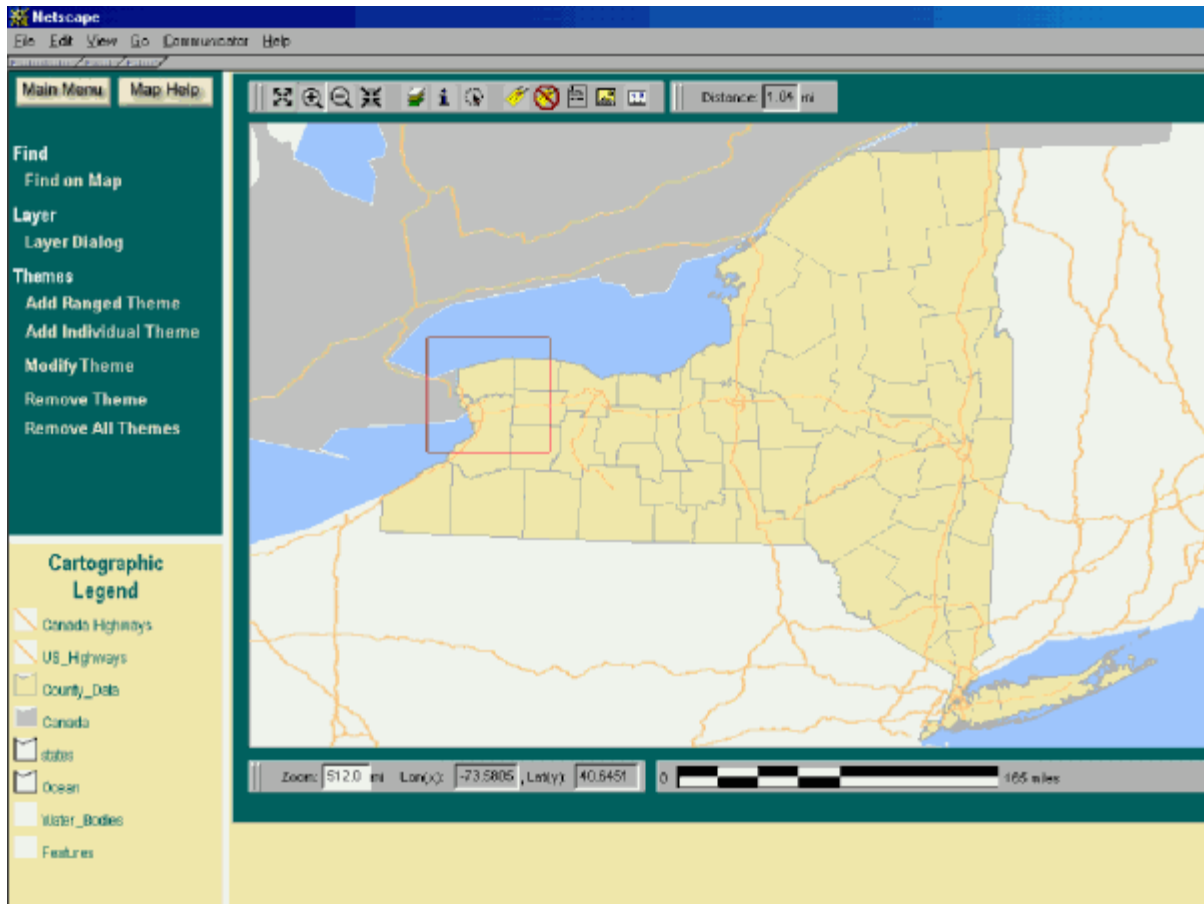
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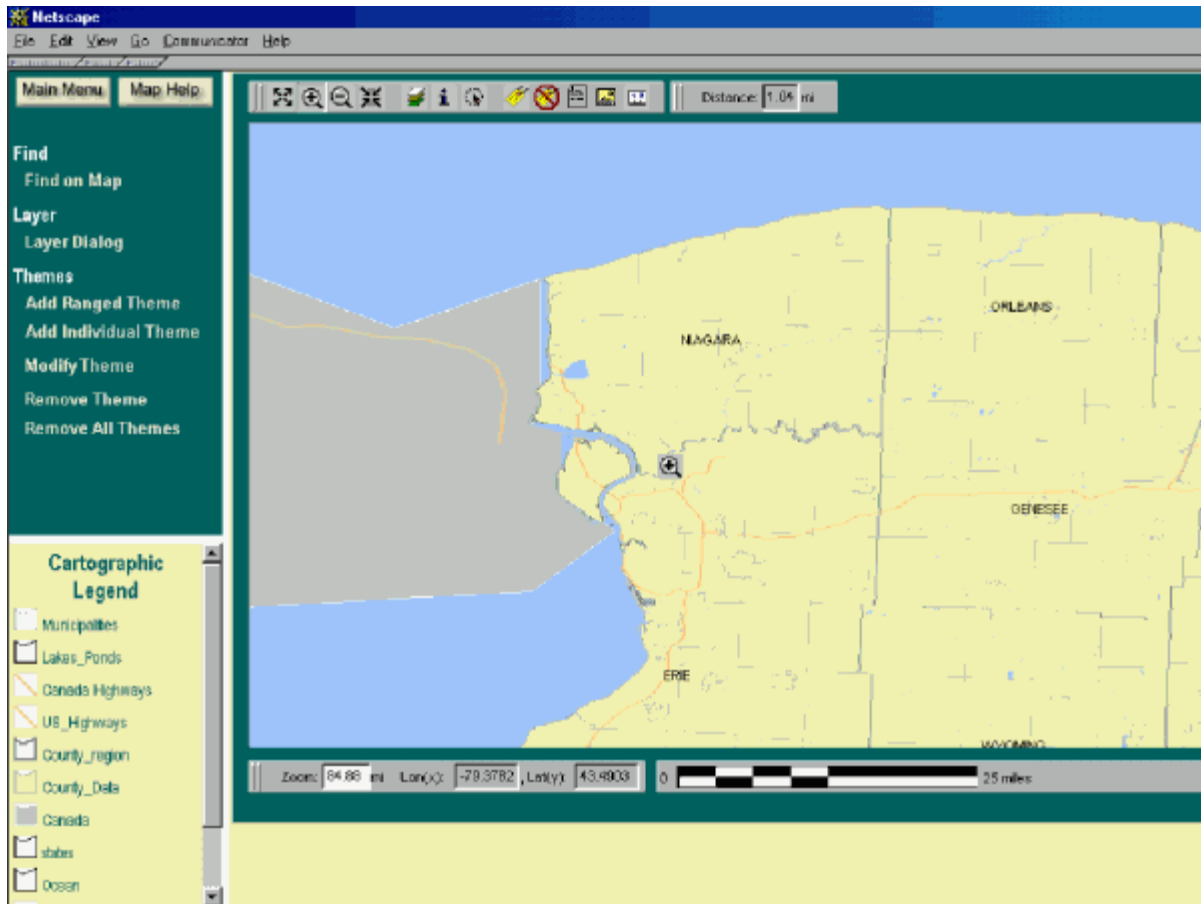
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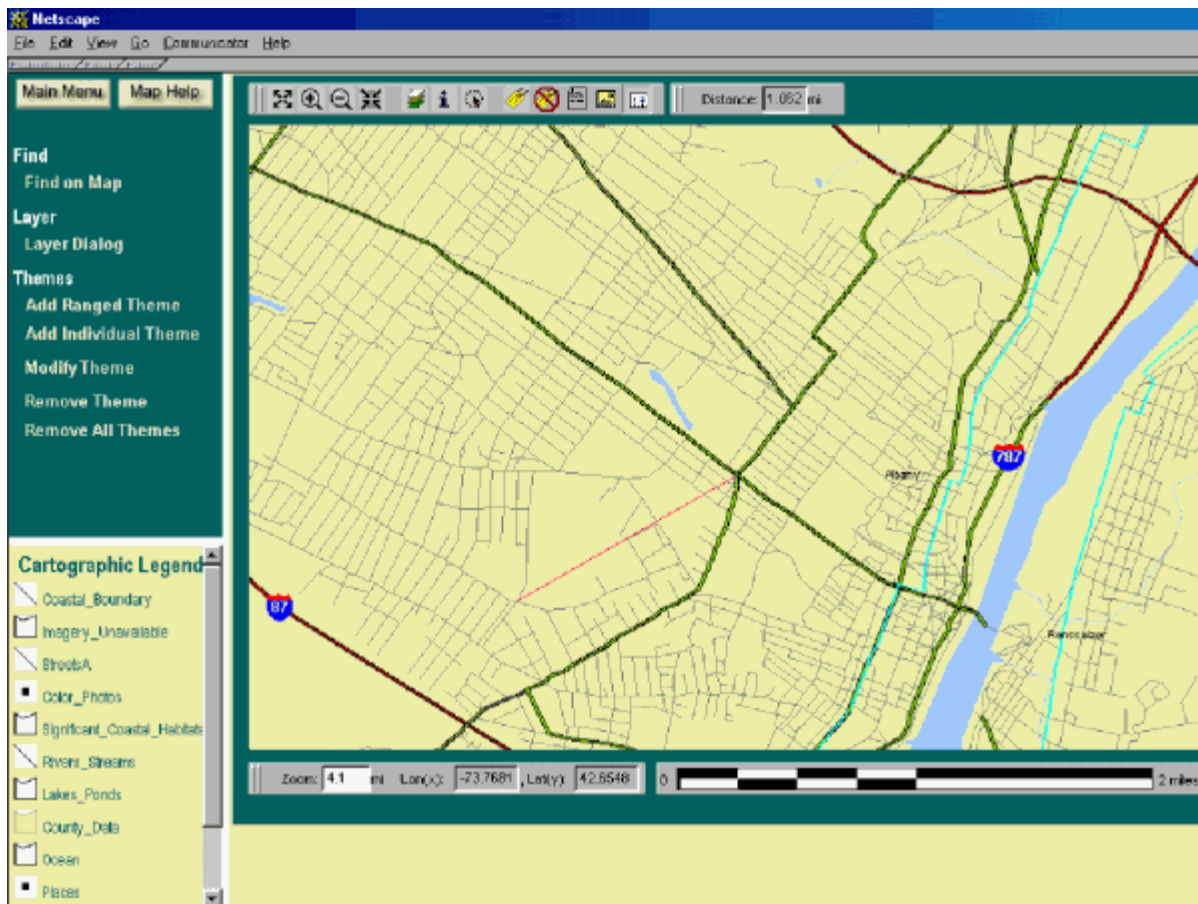
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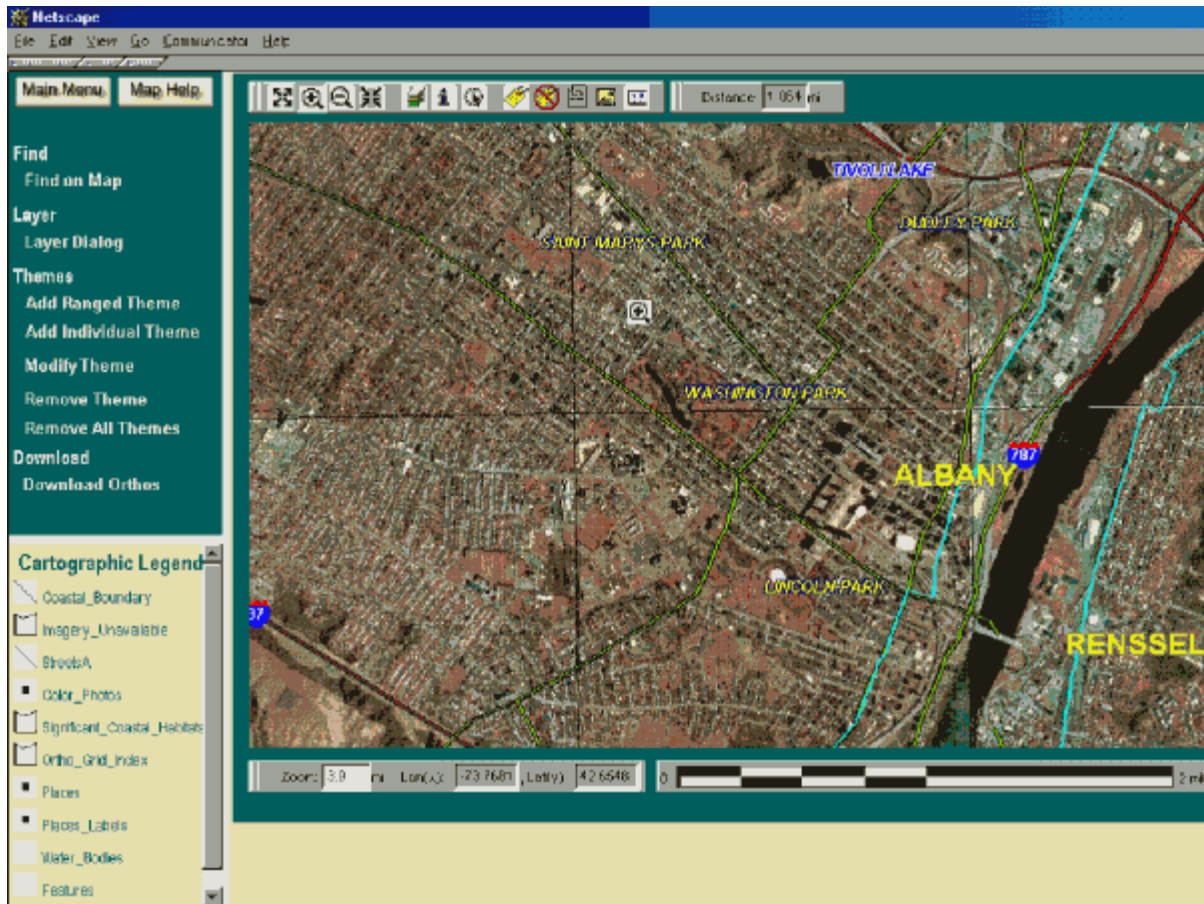
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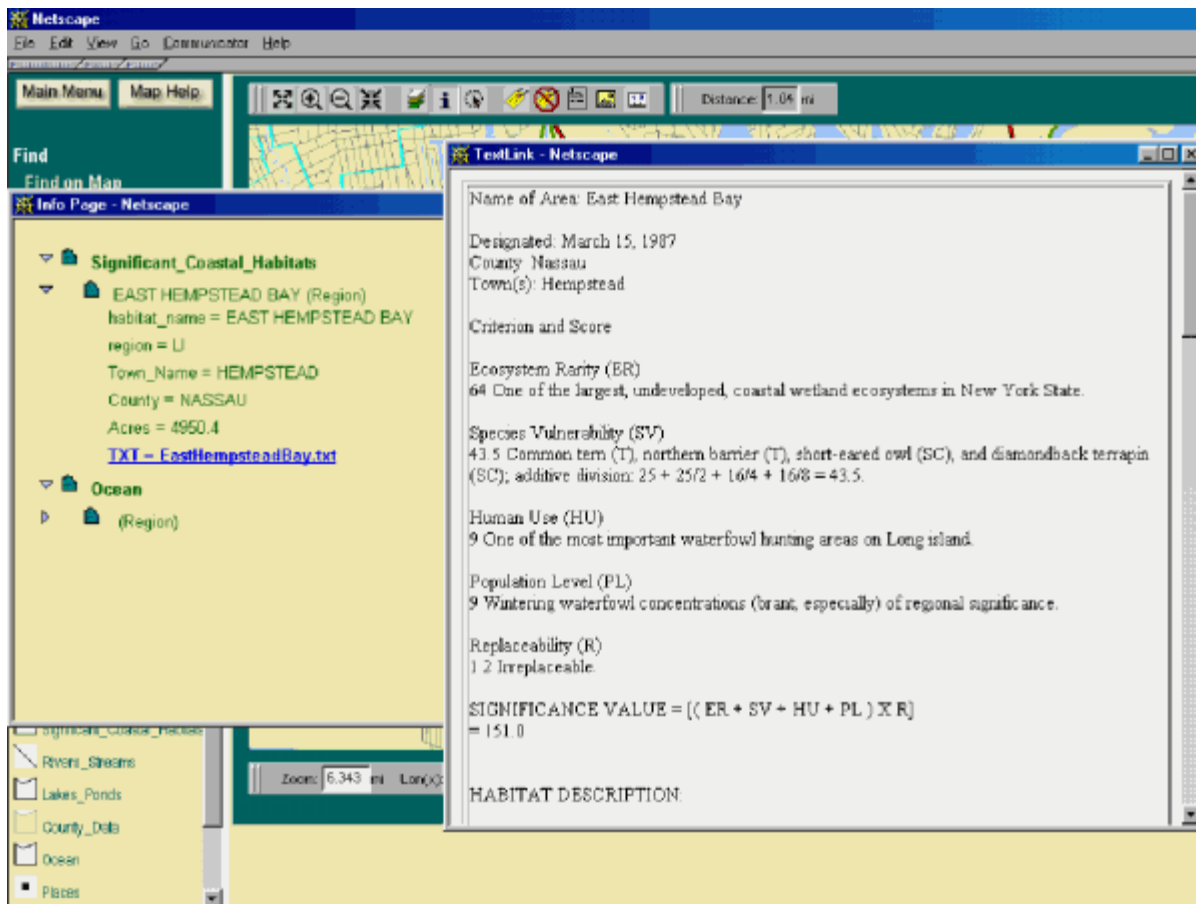
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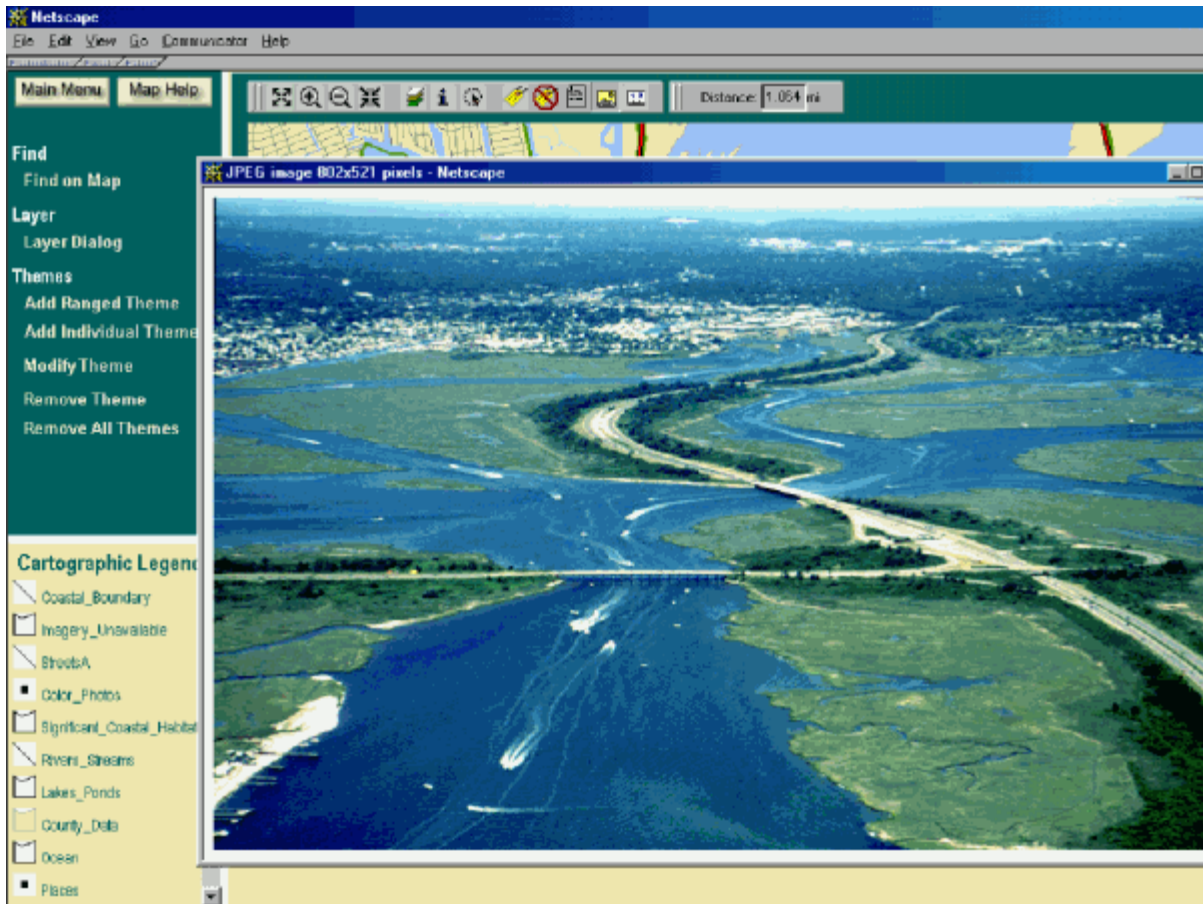


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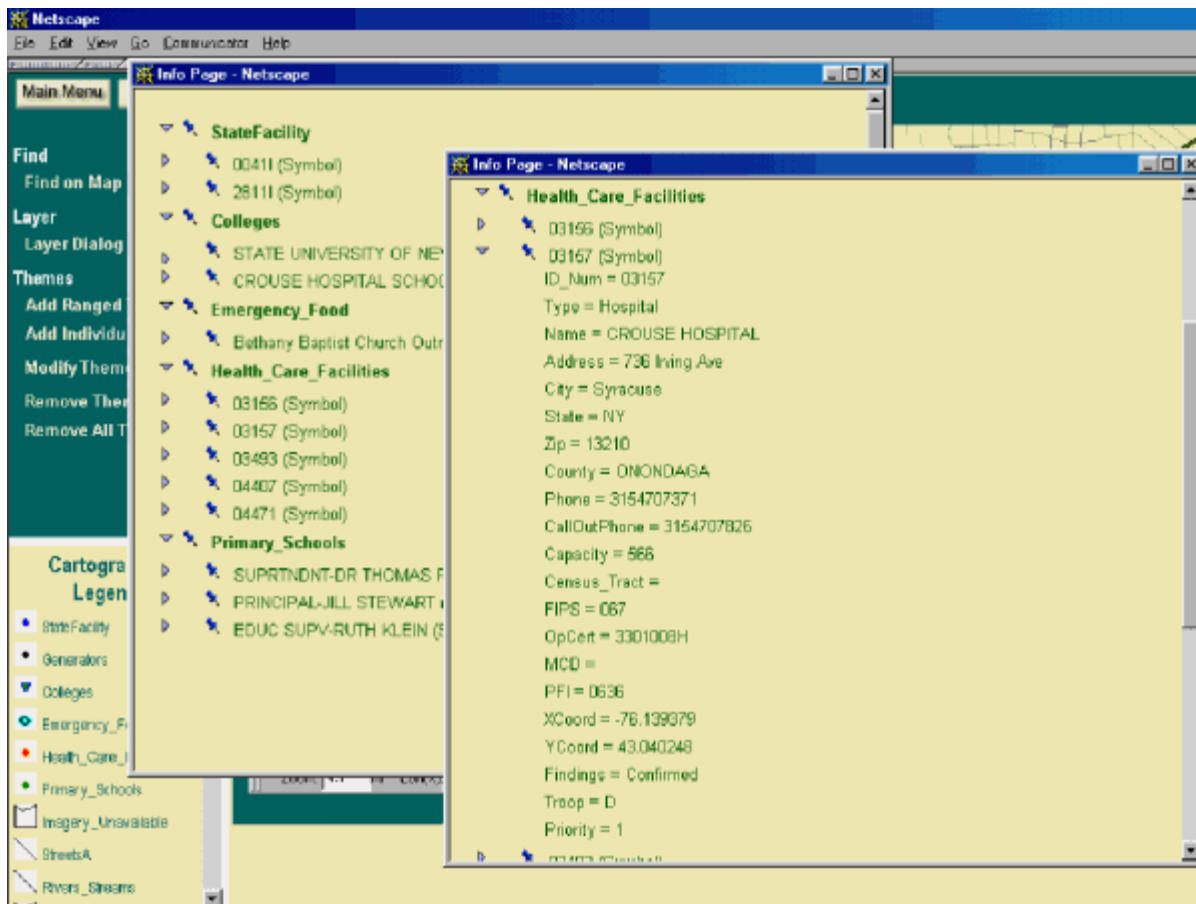


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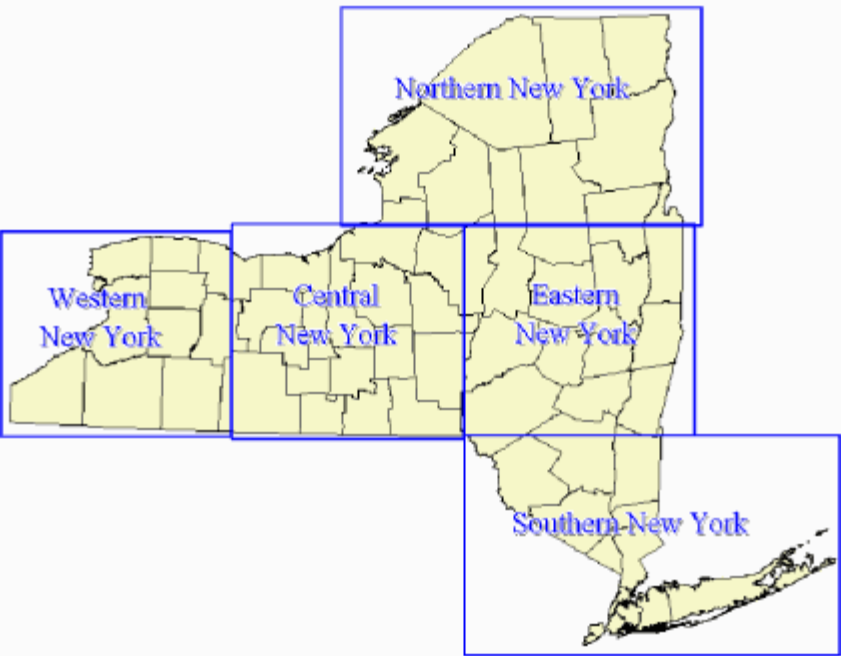


The screenshot shows a web browser window with the title "Interactive Mapping Gateway". The main content area is titled "Statewide Digital Orthophotography" and contains a list of links: "Project Description", "Get Started With An Ortho Project" (with a sub-link "Guide Me!"), "Orthophotography - Preview with Street Detail Maps", "Orthophotography - No Street Detail Map Preview", "Direct Download" (with sub-links "Introduction" and "Download"), "Cooperative Test Site", "General Help", and "Metadata". To the right of the links is a satellite-style orthophotograph of Shea Stadium, labeled "Shea Stadium Orthoimage". The footer contains logos for "GIS Clearinghouse", "NYS Department of State", "NYS Office for Technology", and "USDA". Below the logos, it says "Contact us", "You are here: http://www.ny.gov.state.ny.us/gatewgy/index.html", and "Last updated: 05/14/2000 16:44:09".



Downloadable Regions

Click on Region Below to Enter Downloadable Directory



Northern New York

Western New York

Central New York

Eastern New York

Southern New York

Navigation icons: back, forward, search, and refresh.

Click Region Below to Open Downloadable Directory

The map displays a grid of regions labeled D 4, D 5, D 6, E 4, E 5, E 6, F 4, F 5, and F 6. A legend in the top left corner indicates that orange hatched areas represent 'Imagery Unavailable'. Several regions, including D 6, E 6, and F 6, contain these hatched areas. The map is overlaid with a blue grid. The entire map area is enclosed in a white border with a small 'N' in the bottom right corner.





www1.nysgis.state.ny.us - /downloadable/E5/

[\[To Parent Directory\]](#)

11/12/99 12:27 PM	192	AuburnNE_tile0.sde
11/12/99 12:29 PM	1457203	AuburnNE_tile0.sid
11/15/99 12:27 PM	365	AuburnNE_tile0.sid.tab
11/12/99 12:29 PM	192	AuburnNE_tile1.sde
11/12/99 12:30 PM	1418712	AuburnNE_tile1.sid
11/15/99 12:27 PM	365	AuburnNE_tile1.sid.tab
11/12/99 12:30 PM	192	AuburnNE_tile2.sde
11/12/99 12:31 PM	1480672	AuburnNE_tile2.sid
11/15/99 12:27 PM	365	AuburnNE_tile2.sid.tab
11/12/99 12:31 PM	192	AuburnNE_tile3.sde
11/12/99 12:32 PM	1471065	AuburnNE_tile3.sid
11/18/99 12:27 PM	365	AuburnNE_tile3.sid.tab
11/12/99 12:32 PM	192	AuburnNW_tile0.sde
11/12/99 12:33 PM	1490055	AuburnNW_tile0.sid
11/15/99 12:27 PM	365	AuburnNW_tile0.sid.tab
11/12/99 12:33 PM	192	AuburnNW_tile1.sde
11/12/99 12:34 PM	1457711	AuburnNW_tile1.sid
11/15/99 12:29 PM	365	AuburnNW_tile1.sid.tab
11/12/99 12:34 PM	192	AuburnNW_tile2.sde
11/12/99 12:35 PM	1405903	AuburnNW_tile2.sid
11/15/99 12:27 PM	365	AuburnNW_tile2.sid.tab
11/12/99 12:35 PM	192	AuburnNW_tile3.sde
11/12/99 12:36 PM	1418615	AuburnNW_tile3.sid
11/15/99 12:27 PM	365	AuburnNW_tile3.sid.tab
11/12/99 12:36 PM	192	AuburnSE_tile0.sde
11/12/99 12:37 PM	1424802	AuburnSE_tile0.sid
11/18/99 12:27 PM	365	AuburnSE_tile0.sid.tab
11/12/99 12:37 PM	192	AuburnSE_tile1.sde
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11/12/99 12:40 PM	1281426	AuburnSE_tile2.sid
11/15/99 12:27 PM	365	AuburnSE_tile2.sid.tab
11/12/99 12:40 PM	192	AuburnSE_tile3.sde
11/12/99 12:41 PM	1250755	AuburnSE_tile3.sid
11/15/99 12:27 PM	365	AuburnSE_tile3.sid.tab
11/12/99 12:41 PM	192	AuburnSW_tile0.sde
11/12/99 12:42 PM	1481817	AuburnSW_tile0.sid
11/15/99 12:27 PM	365	AuburnSW_tile0.sid.tab



Future Plans

- Remain responsive to user group
- Add functionality for:
 - advanced feature searches
 - find by street address
- Oracle database ties
- Create and host custom data compositions
- Additional data download capability

