



Geographic Information Systems Technology News

The Newsletter of the New York State
GIS Coordination Program

George E. Pataki
Governor



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NYS GIS Clearinghouse: <http://www.nysgis.state.ny.us/>

UTILIZING GIS TO ASSIST WITH GASB34

By Robert Mateja, GIS Coordinator
Town of Colonie

The Governmental Accounting Standards Board (GASB) has adopted new requirements for annual financial statements prepared by state and local governments. GASB Statement Number 34 (GASB34) requires all government entities that receive federal funding to report on the value and condition of all their physical assets and infrastructure, including storm and sanitary sewers, public roadways and water distribution systems.

In order to meet the requirements of GASB34, an inventory of all infrastructure assets (i.e. fire hydrants, manholes, catch basins etc.) was needed. With only paper maps on file, an easier method was required. The Department of Public Works realized that GIS could be used as a tool to assist with this endeavor.

Previous to commencing this effort, the Town had already been utilizing GIS. The tax parcels had been digitized, as well as many other geographic features such as road centerlines and watercourses, among many others. The foundation for the GASB34 effort had been laid.

Among the major challenges faced by the department was the aging of the Town's infrastructure as well as the problem of inaccurate and piecemeal record keeping and mapping. Some areas of the Town's 51 square miles were completely missing record mapping altogether, requiring fieldwork for verification. In GASB34, the department was faced with the dilemma of needing a way to collect the missing and inaccurate information quickly and accurately. The solution lay in a marriage between GPS and GIS. The Town purchased two Trimble TSC1 asset surveying units. These GPS units offer sub-meter accuracy and the data would be easily integrated into the Town's GIS.

Methodology

The Town contracted with a private engineering firm to perform the first pass of data collection in the public right of ways. The Town was divided into various sections, and record mapping was provided when it was



available. The firm completed the first pass within six months.

For quality control and assurance purposes, each department within Public Works, the water district, the sewer department and highway department, received a 200 foot scale map that featured the infrastructure that had been collected overlaid upon the tax parcels and road right of way. The features that had been collected were then compared to the existing record mapping.

Further complicating the project, each department required different levels of accuracy. For example, the Water District required a 1'-2' level of accuracy, due to the small scale of their infrastructure. It was essential that valves and hydrants appear graphically correct. However, for the storm and sanitary sewers, only 6' - 8' accuracy was required, owing to the larger scale of the features.

Once it was ascertained that the data was correct,

the Department began to "connect the dots" for the water distribution system, sanitary sewer system, and storm sewer system. AutoCAD was used for this process, since the drawing tools in AutoCAD are superior to ArcView 3x. However, once the Town updates their GIS to ArcView 8x, the project will then be processed entirely in ArcView. This will save a significant amount of time that is spent converting data back and forth between AutoCAD and ArcView during editing. Once the features are all connected, the Department will then perform another QA/QC sweep to determine that the connections are all correct, as are flow directions for sanitary and storm water sewers.

Where we are now...

Each department within DPW has achieved varying levels of completion. The Water

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Utilizing GIS... (continued from page 1)

District and Sewer Department have both almost finished the connections for their infrastructure systems. Once that has been completed, QA/QC will be performed to result in the finished product. The Highway Department is much further behind the other departments and is still collecting data in the field.

Once the locations of the features have been finalized, attributes must be assigned to the data. Currently we only have condition of point features and diameter and length of pipes. At this point, the Department is beginning to provide data to the Comptroller's Office for reporting. The infrastructure can begin to be quantified, for example, in terms of the number of sanitary manholes that are considered good condition, or the linear footage of 8" diameter water mains. Soon, information will be available for ages and materials of the various features.

The Department of Public Works has also been able to expand the use of this new data. For instance, an asset management system will soon be implemented. The application will be integrated into our existing GIS. This system will issue and track work orders, facilitate inventorying physical assets, and track maintenance history.

The data also proved useful with the Town's preventative approach to the West Nile Virus. We are able to keep track of how much larvicide has been used and which storm sewer structures received treatment.

Summary

GASB34 is here to stay. Meeting the requirements of GASB34 is necessary for governments to receive an audit opinion that conforms to accounting principles. Clean audit opinions are necessary of a government that has any outstanding bonds or has need for future bonding.

Meeting the infrastructure requirements of GASB34 has been a big challenge, fortunately, the use of GIS has made reporting the infrastructure significantly easier. Cooperation between finance, engineering, public works and MIS departments is needed to be successful. The newly created asset management system will make future reporting easier. The GIS has also supported other activities within the Town, in the Planning Department and Assessor's Office.

For more information on how GIS was used to meet the requirements of GASB34 please contact Robert Mateja, GIS Coordinator, at 518-857-8178 or e-mail: matejar@colonie.org

Please visit <http://www.gasb.org> for more information on Governmental Accounting Standards Board GASB34.

New York State GIS Day 2002



Governor George E. Pataki has proclaimed September 25, 2002 as New York State GIS Day. The formal Proclamation recognizes the value of GIS in homeland security in addition to encouraging citizens and businesses to learn more about how GIS can be used in their community. Plans are underway for GIS Day 2002 on September 25th at the Empire State Plaza. The event will be hosted in conjunction with the Government Technology Conference.

The NYS Office for Technology highlighted last years GIS Day by hosting an exhibit on November 14th and 15th as part of the 2001 Government Technology Conference held at the Empire State Plaza. The booth display included uses of Geographic Information Systems technology by local government, State agencies and K-12 schools. On November 14th, Kingston High School students and their teachers were on-site to discuss how they use GIS to improve decision making in their communities. In addition, Ulster County's Environmental Management Council displayed materials on current GIS programs and applications for local government. On the 15th, State agency representatives from the Department of Transportation and Department of State were available to answer technical GIS questions and describe how GIS is being used to support more effective and efficient decision-making in their respective agencies.

If you would like more information, or if you would like to participate in GIS Day 2002, please contact Elizabeth Novak at 518/443-2042 or elizabeth.novak@oft.state.ny.us.

Who's Who in GIS

Would you like to be added to the "Who's Who in GIS" Listing? Please send an e-mail to the nysgis@oft.state.ny.us. For more information, please visit <http://www.nysgis.state.ny.us/whoismain.htm>

New Free Training Class "Introduction to GIS for Decision Makers"



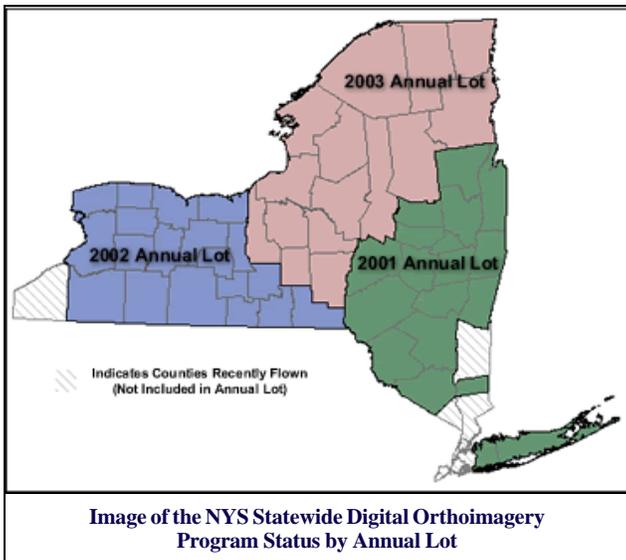
Training Class on Long Island, New York

The New York State Office for Technology's (OFT) Center for Geographic Information is pleased to announce a new, free training class "Introduction to GIS for Decision Makers." The class is being offered in coordination with the NYS Technology Academy and the NYS GIS Coordination Program. This 3-hour class introduces government managers and local officials to how GIS can be a valuable tool to improve decision-making and more efficient delivery of government services. Attendees learn how State agencies and local government are currently using GIS. The instructors illustrate a variety of GIS applications for economic development, emergency services, capital project planning, real property assessment, facility management, and much, much more. In addition, the class reviews the basic components of a GIS, technology trends, free available resources and funding opportunities.

To date, the class has been held in Albany, Syracuse, Mt. Morris and Long Island. Future classes will be held in Albany as part of the Quality Communities Conference on October 22, 2002. The free class is available to State agencies, local governments and members of the NYSGIS Data Sharing Cooperative. For more information on upcoming classes and to register on-line when a class has been scheduled, please visit the NYSGIS Clearinghouse at <http://www.nysgis.state.ny.us/resource.htm>. Due to the expected high demand, make sure to register on-line to ensure seating is available. If you have any questions, feel free to contact Elizabeth Novak at the Office for Technology at 518/443-2042 or elizabeth.novak@oft.state.ny.us.

At One-and-a-half Years Old NYS Digital Ortho Program Expands Across the Empire State

In the middle of its second year, the New York State Wide Digital Orthoimagery Program (NYSDOP) is expanding across the State. Since the contract was signed in February 2001, a large part of eastern New York was flown in April 2002 and new orthoimagery is available to the public. Flights over the western part of the State were



orthoimagery. This Annual Lot covers 19 counties, an area which includes the Buffalo, Rochester, and Binghamton urban areas. Work is following an aggressive schedule, with the goal of having imagery flown in April 2002 available by early 2003.



2001 Annual Lot Natural Color Digital Orthoimagery

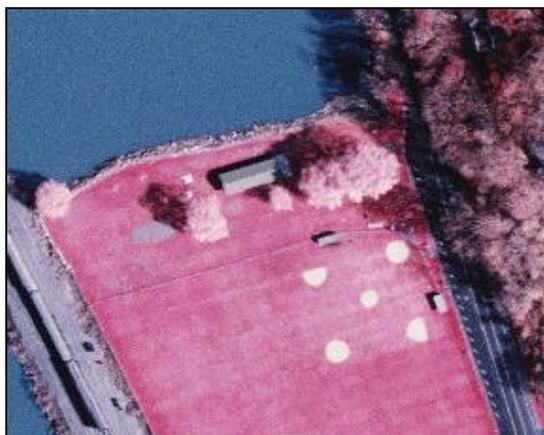
The New York State Department of Transportation's Photogrammetry Section and Survey Section have been reviewing the orthoimagery to ensure spatial accuracy and image quality. Accordingly, OFT is pleased that VARGIS, LLC, the State's contractor, is meeting the State's expectation to improve pre-existing statewide coverage by producing quality imagery.

The cyclical nature of the NYSDOP continues as OFT is already planning for producing orthoimagery for central and northern New York in 2003. Completion of this area would mark the end of the first cycle of the NYSDOP. The goal is to build upon the successes in 2001 and 2002 by producing and supplying high quality orthoimagery across New York State by early 2004 and then updating the imagery on a regular basis in subsequent years.

completed in April 2002, and this orthoimagery should be available by Spring 2003. The State Office for Technology (OFT) has developed a plan to cover the rest of the State and finish the first NYSDOP cycle in 2003.

The majority of the orthoimagery for the 17 counties flown in the 2001 Annual Lot is available to the public in the New York State Plane Coordinate System. Orthoimagery has been delivered to each County. Copies of the orthoimagery can be downloaded from the New York State GIS Clearinghouse. Additional copies in the Universal Transverse Mercator coordinate system will be made available during the Fall of 2002

As the imagery from the 2001 flights is made available, aerial photography for the 2002 Annual Lot is being turned into



2001 Annual Lot Color Infrared Digital Orthoimagery

Information on the status of the NYSDOP can be obtained at <http://www.nysgis.state.ny.us/orthoprogram.htm>. For more information, contact Tim Ruhren at the Office for Technology at 518/443-2042.

CORSE2002

Ninety-nine teachers from fourteen states—some from as far away as California, Maine, and Mississippi—gathered in Auburn, NY on June 26-29 to attend the Conference on Remote Sensing Education (CORSE2002). This was the second consecutive year the Institute for the Application of Geospatial Technology at Cayuga Community College (IAGT) hosted the event. Professor Lee Herrington, of the State University of New York College of Environmental Science and Forestry, once again served as Conference Coordinator.



Tom Hanley and Terry Weiler, teachers from Wilson Magnet High School in Rochester, geo-referencing features of Emerson Park on Owasco Lake.

CORSE2002 aimed at providing both novice and advanced participants with hands-on experience integrating Geographic Information Technologies (GIT) into their curriculums. On the last day of the conference, a Service Learning activity was assigned that required the teachers to actually apply the knowledge and skills they gained from the previous days' learning.

Service Learning, an educational approach that blends community service and learning activities, was strongly emphasized at CORSE2002. Rick Fritschler, Director of the Mid-Hudson Service Learning Institute for Watershed and Environmental Studies, along with his dedicated staff, designed the Service Learning component. Before the conference, City of Auburn

and Cayuga County Planners were consulted. They mentioned it would be useful to have a base map of Emerson Park, a park located on the shore of Owasco Lake in Cayuga County, where several improvements had been proposed and were in the process of being debated. The Planners had access to an architectural rendering showing a final vision of the proposed improvements, but they did not have an up-to-date base map depicting geographically referenced features of the park as they exist presently. Rick's crew brought a mobile GIT laboratory to the park. The conference participants collected data and georeferenced the park's infrastructure from roads to utility lines. At the conclusion of the conference, Michele Beilman, Chairperson of the Cayuga County Parks and Trails Commission, was presented with the map of Emerson Park on CD.

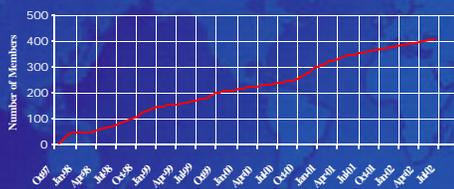


Mobile GIT Lab on the Emerson Park site, where data collected was interpreted and recorded digitally on a CD that was presented to the Parks Commissioner.

CORSE2002 was truly a successful collaborative effort of its co-sponsors, including NASA, IAGT, Cayuga Community College, the International Center for Remote Sensing Education, SUNY College of Environmental Science and Forestry, the New York State Education Department, the Mid-Hudson Service Learning Institute, the Institute for the Development of Commercial Remote Sensing Technologies, and the International Center for Remote Sensing Education.

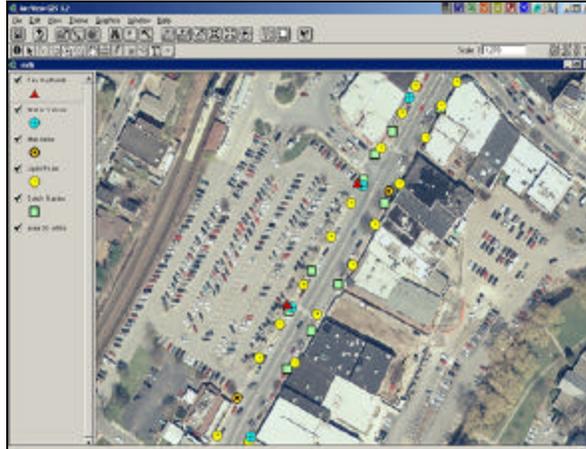
To learn more about CORSE2002, visit the Web site at: <http://www.racne.org/corse/>.

Growth In GIS Cooperative Membership



Westchester County GIS

For over 13 years, Westchester County has designed, built, and continually evolved its county-wide GIS program and is recognized for its leading role in assisting county government and local governments in GIS implementation and education. A continuous technological change from mainframe GIS in the late 1980's to multi-lingual Internet GIS data serving in the late 1990's has formed the backdrop of a GIS program - first supported by the Department of Planning and more recently centered in the Department of Information Technology - which ranks in the top tier of U.S. county GIS systems.



This map, which shows a section of central business district in Mount Kisco, NY, illustrates how digital orthophotography can be integrated with street feature data collected independently with GPS equipment.

The County's GIS program maintains strong administrative and management support and continues to be a strategic priority for Westchester County Executive Andy Spano and Chief Information Officer Dr. Norman Jacknis.

While early GIS applications emphasized land use and environmental applications, Westchester County now supports GIS applications in critical public service applications such as emergency response, health and human services (West Nile Virus), transportation, automated land information systems (tax mapping), and infrastructure management. County GIS staff are currently coordinating development of the first-ever countywide high accuracy base map (1"=100') consisting of both true color digital orthophotography and a wide range of planimetric data.

The County's GIS web site <http://giswww.westchestergov.com> will continue to expand and serve as the backbone for many of the County's GIS initiatives. Already, the site provides a range of interactive mapping functions serving environmental, cultural, tax maps, and local government information. More than 75 layers of county data are provided at the site available for

download in ARC/INFO export format. Having started developing metadata (text files) over ten years ago, County GIS staff were able to effectively transition in creating NSDI compliant metadata which is stored at the New York State GIS Clearinghouse. Launched in April 1999, the site has steadily expanded to serve as a portal for information on training/

educational opportunities, GIS links and local government GIS programs and contacts.

Westchester County GIS provides the option to local governments to host their web mapping and GIS applications at the County's site. This working model between the County and

local government reduces the need for municipalities to assemble the technical, fiscal, and administrative resources needed to host a GIS web mapping site. The county's site currently offers ArcView IMS, Map Objects IMS and ArcIMS applications. Data is stored in an assortment of coverages and shapefiles, as well as in ESRI's *geodatabase* model which is implemented with both Oracle 8.1.6 and ArcSDE 8.1. The web configuration also includes Microsoft IIS web server. Both a UNIX Solaris database server and a NT web server are required to support the applications.

The county was selected as one of fifty sites in the United States to demonstrate a GIS application on Capitol Hill in Washington, D. C. as part of the 1999 National GeoData Forum conference. In 1997, Westchester County GIS was awarded a *Best Practices Award* from the New York State Forum for Information Resource Management. Staff also serve as adjunct professors at Westchester Community College teaching introductory GIS coursework and assisting researchers at Columbia University in pioneering the use of GIS in child and adolescent mental health services.

For more information contact: Sam Wear, GIS Manager (914) 995-3047 or e-mail at stw1@westchestergov.com.

Fulton-Montgomery Community College - Fire District Team Builds Emergency Evacuation Site Program For Area Medical Center

For over 30 years Fulton Montgomery Community College, nestled in the farmland of New York's Mohawk Valley, has offered a quality education to the residents of the small cities and towns resting at the southern end of the Adirondack Mountains. Now, the college's new Spatial Information Technology Center, funded by NASA's Stennis Space Center in Mississippi, is using GIS technology, innovative team building, and a community service attitude, to help save lives while continuing that tradition.

The two-year old Spatial Information Technology Center, (SITC) is dedicated to three areas of focus: Education, Regional Economic Development and promoting public awareness of the technology and capabilities of GIS, GPS and Remote Sensing.

Since its inception SITC has completed several projects including mapping over 23 miles of ski trail in the Charleston State forest. This project was completed in cooperation with the Department of Environmental Conservation of the State of New York and the Mohawk Valley Hiking Club who maintain the trails. Another project that was recently completed was a Rail to Trail map that depicted over 8 miles of old Rail Road bed that has been converted to a scenic walking and biking path. The Trail running from the southern end of Johnstown through the city of Gloversville winds its way along to the town of Broadalbin at the entrance to the Adirondack State Park.

For its most recent project, SITC has teamed up with 17 Fire Districts in Fulton County to identify and map "PDEES" (Pre-Determined Emergency Evacuation Sites), for a regional emergency helicopter service serving this often challenging and sparsely populated region. Prior to this project, the helicopter crew, based at Albany Medical Center, more than an hour's drive by car, often had to rely upon familiar visual landmarks and radio communications to be "talked-in" to landing sites that may be ill equipped to receive an aircraft.

Using a Trimble TSC1 backpack and GeoExplorer3, ArcView 3.2a and their state of the art classroom/lab, SITC staff selected Mayfield Fire District, 10 miles north of the campus, to act as their pilot program for the



Fulton—Montgomery County Community College—Fire District Team

project. With the help of Mayfield's Assistant Fire Chief, Myron Messak, SITC Technical Coordinator, Tim Hallock, gathered the site information a helicopter crew would need to land at a site, rescue a patient and return safely to Albany Med, about a 20 minute ride by air.

After gathering the landing site information, Tim Hallock used the color infra-red aerial photography available through the New York State GIS Clearinghouse as the base layer for his map, adding additional information such as a description of the landing site surface, any potential obstruction hazards near the landing site and identifying radio frequencies used, completed the layout of each site selected by Messak. SITC produced a map unique to each site to be provided to both the fire district and the helicopter service. The culmination of the test phase came when SITC hosted a meeting with representatives of the 17 fire districts, the Fulton county Civil Defense Coordinator and the county Sheriff's department. Also attending the meeting was neighboring Montgomery County's Fire coordinator and Civil defense coordinator. The presentation of the project was enthusiastically received and SITC encouraged each district to follow Mayfield's lead.

Each district is being asked to identify four sites in their communities. Each site chosen must meet the standards that are set forth in Albany Med-Flights brochure, additional consideration in site selection should be given to seasonal limitations. Messak stated that what is a grass field today could be under 3 feet of snow in winter or corn next spring.

All indications are that SITC staff is about to be even busier than ever at their new facility. As Tim Hallock stressed during his October 24 presentation to the fire fighters, "We're are not trying to replace anything. We're working to enhance what is already a vital, life-saving, service to our communities and region." All involved agree it's just the beginning of what can come when an enthusiastic GIS team joins essential service providers to improve a region's quality of life and the safety of those who live there.

You can visit FMCC's Spatial Information Technology Center at www.sitc.cc. The program offers a variety of programs including a one-year certificate, and an Associate of Arts degree in Spatial Information Technology.

NYS GIS Coordination Program Annual Survey Results

On Wednesday, June 5, 2002, the NYS GIS Coordination Program held its annual strategic planning meeting to prioritize activities for the coming year. To gather input and feedback from our customers, a survey was developed and posted on the NYS GIS Clearinghouse. These responses were invaluable in establishing priority GIS projects for the coming year including framework data development projects, expanded outreach and training offerings, and Clearinghouse enhancements to improve data access. For more information on the survey results, please visit http://www.nysgis.state.ny.us/surveys/02_survey_results.htm

The NYS GIS Coordination Program would like to thank all of the respondents for participating in this important process. If you missed out on the opportunity to participate this year, we will be surveying the NYS GIS Community again in May 2003. Please keep an eye on the Clearinghouse at <http://www.nysgis.state.ny.us/> for more information and thank you in advance for your participation!

GIS Roads Project Underway

In July 2001 the New York State Department of Motor Vehicles (DMV), in partnership with the NYS Department of Transportation (DOT) and the NYS Office for Technology (OFT), awarded a three-year contract to Environmental Systems Research Institute (ESRI) to develop an Accident Location Information System (ALIS). The goals of the project are to:

- Improve the accuracy of location coding of motor vehicle accidents,
- Allow DMV to accept coordinates and street addresses as valid inputs to location coding,
- Increase the daily production achieved by the DMV location coding unit, and
- Achieve savings due to re-use of the GIS roads files by others.

A component of this project is the development of a 1:24,000 scale roads and address file for New York State. The file will contain road centerlines, address ranges, the official and alias road names, and, where applicable, State and county route numbers. In addition, the file will incorporate railroads and bridges, highway reference markers and mileposts, census block groups and tracts, civil and public land boundaries, 5 digit zip codes, and landmarks such as schools,

hospitals, public offices, etc.

A street file of this type, more accurate than any of the commercially available products, will have many uses beyond this project. In particular, a growing number of Geographic Information Systems (GIS) applications by State and county government agencies will be able to use the new street file to provide improved government services including health studies, law enforcement, homeland security, and much more.

The digital street map file will be created from sources obtained through the State as well as county governments who choose to participate. The State will provide aerial imagery and older street files, while counties are being asked to provide current street and address information from existing inventories, GIS files, or E911 systems, excluding any personal information, i.e., individual's names. This is a completely voluntary program and counties are not obligated to participate. However, the resulting street file and the potential life-saving benefits of improved accident reporting and other uses will be greatly enhanced with the use of county information. Once completed, counties will be granted unrestricted use of the final product, enabling them to use the product in any way they choose. Hopefully, this will assist

counties in their development of GIS applications to improve a wide array of county services.

We are looking for volunteers! In July, the Office for Technology contacted county governments directly to invite them to participate in this exciting project. The current contract is organized in 10 production lots; each lot includes a grouping of counties. Currently, OFT is in the process of working with individual counties to ascertain what information they would like incorporated into the product. If you have any questions or would like more information, please feel free to contact Ms. Elizabeth Novak of the Office for Technology at 518-443-2042 or by email at elizabeth.novak@oft.state.ny.us.

Once developed, a statewide file of this nature will require continual maintenance. At this time, OFT is pursuing options for an on-going, collaborative maintenance program with county and local governments. The Local Government Advisory Committee (LGAC) of the NYSGIS Coordinating Body has been charged with developing a proposal for this program and is currently working on a draft. For more information on the proposal contact Joe Jones, Chairperson of the LGAC at jjones@nysnet.net or call Elizabeth Novak or Cheryl Benjamin at 518/443-2042.

FREE GIS Online Support Through 2002!!!

In January 2002, the NYS Office for Technology, Center for Geographic Information launched the New York State GIS Help Desk Pilot.

This web-based help desk pilot is intended to provide support for both general GIS questions and specific questions regarding the technical use of ArcGIS Desktop: ArcEditor; ArcGIS Desktop: ArcInfo; ArcGIS Desktop: ArcView; ArcInfo Workstation; ArcView GIS 3.x; and MapInfo Professional.

New York State residents and organizations may submit GIS technical questions online. These questions will be answered within one (1) business day and all questions and answers will be included

in a searchable Knowledge Base available to the public. In addition to the searchable knowledge base, visitors can access the Help Desk's Frequently Asked Questions section

for quick tips. "Questions of the Week" from the Help Desk will also be posted to the GISNY-L listserv.

You may visit the Help Desk directly at <http://www.gishost.com/gishelpdesk> or from the NYS GIS Clearinghouse at <http://www.nysgis.state.ny.us>.

We encourage you to provide us with feedback http://www.nysgis.state.ny.us/forms/helpdesk_survey.htm on the NYS GIS Help Desk Pilot. This input will provide valuable assistance in the further development of the GIS Help Desk Pilot.

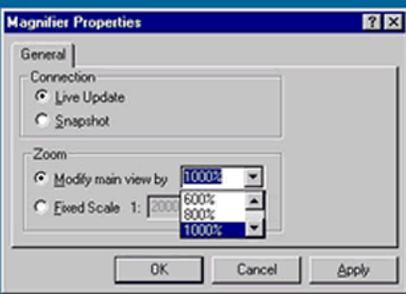
Thank you for your continued support and interest. If you have any questions or concerns, please contact the Office for Technology at 518-443-2042 or e-mail us at nysgis@oft.state.ny.us.

Question:

How can the magnification of the Magnify Window be altered?

Answer:

First, open the Magnifier window. Right-click on the window header to access the context menu, and select "Properties" from the list. When the Magnifier Properties dialog appears, click on the Zoom dropdown menu and select an option or type a value in the space provided.



Sample of a GIS Online Support Question and Answer

SPATIAL INFORMATION TECHNOLOGY – IT'S ALL AROUND YOU!

For the third summer in a row, the Spatial Information Technology Center (SITC) at Fulton-Montgomery Community College offered a high tech summer program to local youths. Running between July 29 and August 2, fifteen children from Johnstown, Gloversville, Canajoharie, Galway, Tribes Hill & Perth enjoyed half-day sessions, both in and outside the classroom.

The kids learned about satellite and aerial photographs, global positioning systems, what remote sensing is, and how maps are made. The weather was perfect on Tuesday when the kids launched huge 7-foot kites into the sky that had disposable cameras attached to them to take photos of the college's landscape below. Made of balsa wood, the contraption was hooked up to a rubber band and a kitchen timer, which was automatically set to take photos of the college grounds from 200-300 feet above the ground.



This was different than Summer Camp 2001, during which similar "remote sensors" were launched attached to large helium-filled weather balloons. Of the three cameras made this year, only one survived the gusty wind. Afterwards, the kids came in and talked about how difficult it is to take aerial photographs. The next day the class visited Valley View Aviation at the Fulton County Airport and talked with Graham Pritchard about how airplanes take aerial photographs and use GPS to navigate.

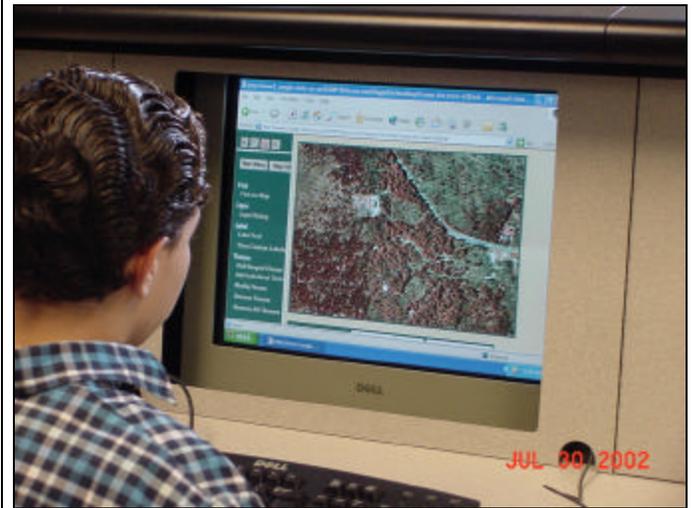
One of the highlights of the week was a GPS "treasure hunt" on campus. Sixteen "treasures" were set up all around the campus. Using their GPS receivers, the kids were given the latitude and longitude coordinates and expected to find the "treasures." It is these coordinates that can guide you from here to Albany, even to China! One participant comment was, "very hot but using the GPS units was very cool!"

SITC also visited the Johnstown Public Library Tuesday, August 6 and again on Tuesday, August 13. At the Library, SITC Education Coordinator John Borst worked with six kids between the 2nd and 4th grades. In addition to making model satellites, Borst also demonstrated how the handheld GPS receivers "talk" with the GPS satellites that are in orbit about 12,000 miles above the earth.

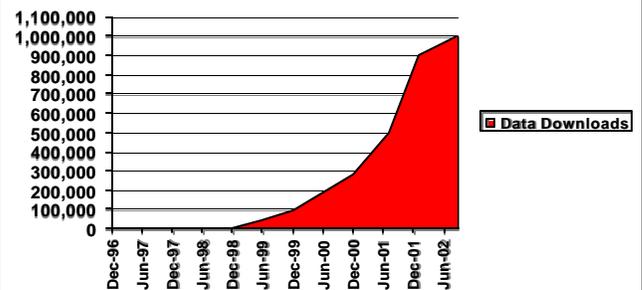
SITC and FMCC have officially established an educational program encompassing studies in the disciplines of geographic information

systems (GIS), global positioning systems (GPS), remote sensing and cartography. Interested students can enroll in either a two-year Associate's Degree program, a one-year Certificate program, or can use SITC courses to fulfill elective requirements in other FMCC educational programs.

The SITC website can be found on the Internet at <http://www.sitc.cc>.



Increases In Data Sharing



This graph demonstrates the rapid growth in data sharing in the NYS GIS Data Sharing Cooperative

How do I Become a Cooperative Member?

To learn more about benefits of participating in the NYS GIS Data Sharing Cooperative, visit <http://www.nysgis/gis/datacoop.htm> or by calling Bruce Oswald at the NYS Office for Technology at (518) 443-2042 or e-mail at bruce.oswald@oft.state.ny.us.

Advantages of the Cooperative



- Avoids duplication of data development
- Improves existing datasets
- Saves money, reduces project time, and saves limited staff resources

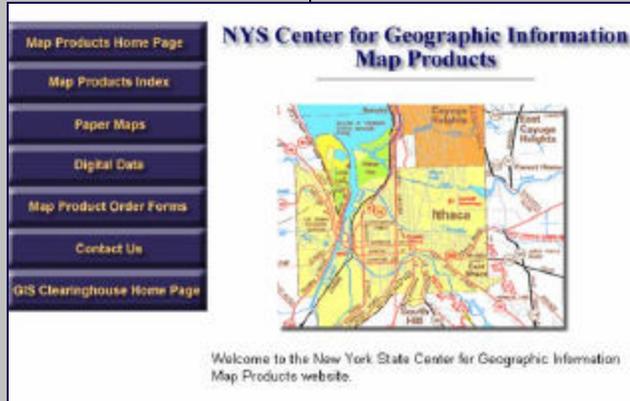
Visit the New Office for Technology On-line Map Product Area!

In February 2002, the Map Information Unit was transferred to the Office for Technology along with the NYS DOT Base Mapping function. The Map Information Unit was responsible for the sale and distribution of both paper and digital map products. The NYS Office for Technology, Center for Geographic Information has assumed the map sales/distribution function and has developed a new On-line Map Products area on the NYS GIS Clearinghouse http://www.nysgis.state.ny.us/mapsales/map_index.htm.

The Center offers both paper and digital map products for purchase. Paper map products consist of the New York Statewide Base Map series and several specialty products. Products ranging from large scale quadrangle maps to small scale state maps are available. In addition, the Center sells the Inventory of Aerial Photography, a reference work which describes aerial imagery of New York State taken since 1968, and lists where copies may be viewed or purchased.

Some of the paper map products are available in digital raster format. The 1:24,000 Scale

Quadrangle Base Maps can be downloaded free of charge while the 1:250,000 Scale New State Base Map files can be purchased. Statewide digital vector files are also available for the following themes: roads, boundaries, hydrography, railroads, and many more. To view a complete listing of both the paper and digital map products, please visit our Map Products Index.



The Center also maintains an aerial photo collection which the public is welcome to use at our physical address during regular business hours. The photography is limited to New York State, consists primarily of Panchromatic contact prints, and ranges from recent coverage back to the 1940s for certain areas. Reproductions of selected photos are available for purchase through the Center; copies of other photos may be available from their respective film owners.

Sales of all base map products, both paper copies and digital files, are handled through the NYS Office for Technology, Center for Geographic Information. For instructions on how to order maps, please go to the Map Product Order Forms.

If you have any questions or require order forms to be mailed to you, please send an e-mail to mapsales@oft.state.ny.us.



MARK YOUR CALENDAR!

The 2002 NYS 18th Annual GIS Conference
Holiday Inn
Liverpool, New York

October 10-11, 2002

The New York State GIS Conference has become a major GIS professional development opportunity for hundreds of GIS users in the State. The conference is a great place to discover how New Yorkers are using GIS to accomplish important objectives in the public and private sectors. Technical presentations feature working professionals who share their GIS experiences and solutions in dealing with real world problems like yours.

Meet fellow New Yorkers active in the GIS field, exchange information and experiences, and seek solutions to your geographic data management needs.

For more information, please go to <http://www.esf.edu/nysgis/2002.htm>.

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