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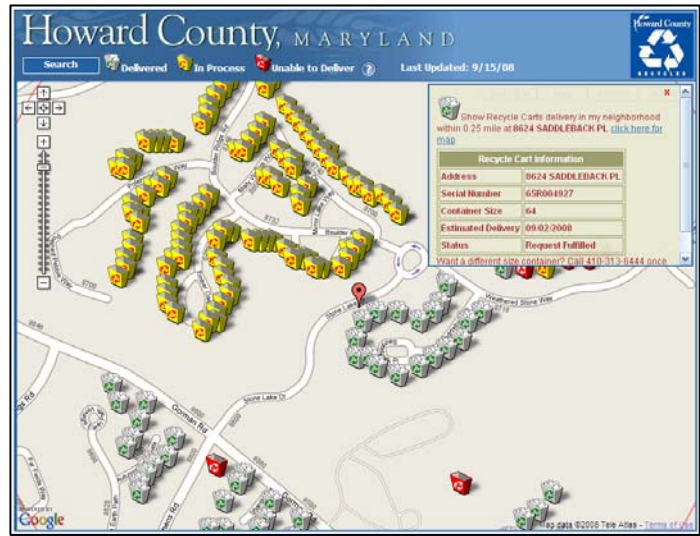
## Howard County Uses Google Map API To Update Citizens On Recycle Cart Delivery

*Rob Slivinsky, Howard County*

In September, Howard County Executive Ken Ulman and the Bureau of Environmental Services (BES) delivered the first of over seventy thousand new recycling carts to its residents.

The BES' successful pilot program, initiated months earlier, confirmed that the carts improved participation in the county's recycling program. To keep the residents informed regarding their recycle cart delivery date and other details, BES turned to Howard County's GIS Division.

After successfully implementing their first Google Map API application on a smaller internal county project a couple of



months earlier, the GIS Division determined that using Google might be the most effective and intuitive solution.

Within two weeks, the GIS Division had a beta application ready for the BES' approval. The Bureau of Environmental Services and other county offices tested the web application and provided valuable input. The web application went live Sept. 2, the same day the program was announced by press release.

The recycle cart delivery status application is updated every Monday through Saturday morning based on the

transactions of the previous day's deliveries. Residents may search for an address or street intersection. Once the address is found, the application displays all customer addresses as thematic recycling cart icons within a quarter mile of the desired location. If a cart has been delivered, the icon is displayed in the normal recycling cart colors, white with a green logo. If it is in the process of delivery or was unable to be delivered, the carts are color coded as yellow or red respectively. Information linked to the icons includes address, serial number, estimated delivery date, and delivery

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**See Howard County's Web Application in action:**

<http://gis.howardcountymd.gov/EnvironmentalServices/GMyRecycle.asp>

## Baltimore County Builds GIS Strategic Business Plan

*Doug Adams, Baltimore County*

Baltimore County's Office of Information Technology, in conjunction with the Office of Budget and Finance and the County agencies, initiated a management study on the use of GIS in Baltimore County. The purpose of the study was to provide information on existing layers, identify the key users and their uses; identify current benefits, including costs avoidance, revenue, and productivity gains; identify current costs, including software, hardware, support and maintenance; and deliver recommendations on key areas the County could focus on for the future.

The study was conducted by focusing on programs and activities that apply GIS technology and the associated costs and benefits. This analysis yielded recommendations that included changes to the organizational structure for GIS personnel, prioritization of database development and maintenance, suggestions for business process improvements or reengineering using GIS, and potential new applications applying GIS tools.

Since the study was approved by the County's administration, the plan is being executed as a series of Implementation Plans. The Implementation Plans are generally focused on a single topical area such as personnel, service level agreements, public access, application development and geodatabase maintenance and development.

A large portion of the study focused on the viability of GIS as a technology for use by local government. The most significant information obtained was a true picture of the cost and benefits of GIS to the County. The costs were broken down into the categories of enterprise, agency and capital. Enterprise costs include hardware, software, personnel and training. The agency costs looked at personnel, materials and software. The capital costs represent an average allowance for contracting support and enterprise database development. With an inventory of over 274 unique layers and climbing, geodatabase maintenance and development represents the majority of costs for delivering GIS.

Analyzing the time spent to perform an activity with and without GIS derived the hours benefits. The total hours were then multiplied by a standard rate for all personnel savings calculations. Additional benefits included

### **Annual Costs**

Enterprise	\$859,717
Agency	\$976,353
Capital	\$272,000
<b>Total</b>	<b>\$2,108,070</b>

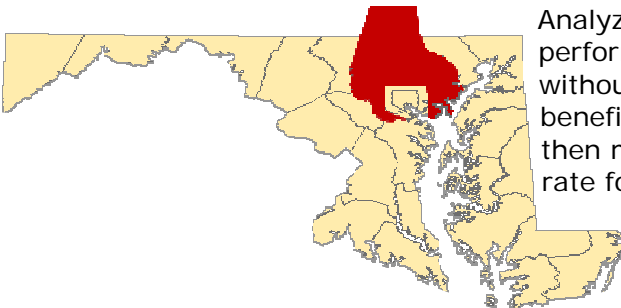
### **Benefits**

Personnel	\$4,052,895 *
Other	\$606,626
<b>Total</b>	<b>\$4,659,521</b>

*\*Staff time*

revenue from the license of GIS products and cost avoidance by applying GIS technology.

The impact of the GIS Strategic Business Plan is just beginning to be realized. GIS personnel have been reassigned to streamline operations. The Office of Information Technology is developing GIS Service Level Agreements to better define the GIS infrastructure, products and services. Another benefit has been the increase communication between agencies on GIS activities and database needs. Overall, the study charts a course forward for the use of GIS and offers the challenge to the agencies to further integrate GIS into their business processes.



**Read more about Baltimore County's GIS Strategic Business Plan:**

[http://www.baltimorecountymd.gov/Agencies/infotech/geographic\\_information\\_systems/strabusinessplan.html](http://www.baltimorecountymd.gov/Agencies/infotech/geographic_information_systems/strabusinessplan.html)

## The Maryland Statewide Addressing—Sharing Once for Multiple Projects

*Susan Wooden, Towson University Center for GIS*

The Maryland Statewide Addressing Initiative is now finalized. In partnership with ESRI, MSGIC and the Maryland Highway Safety Office, the Towson University Center for GIS (TU-CGIS) worked with Baltimore City and Maryland's counties to obtain and/or synchronize their addressing

data, using ArcGIS Server technology. Either by geodatabase replication or via FTP, all jurisdictions are not sharing their data to the statewide dataset housed at TU-CGIS.

The resulting map service is in a production environment with associated geodata and

geocoding services. The geodata service allows each jurisdiction the ability to extract a subset or the entire dataset. The geocoding service offers the ability to either batch geocode addresses in a table or use the find tool to located individual addresses.

The coordinated dataset is a milestone for Maryland. In 2001 the State Highway Administration (SHA) initiated a manual data synchronization effort intended to facilitate sharing the most accurate road data among the state's agencies and counties. The program evolved by 2006 into a pilot project to test the beta version of ArcGIS Server 9.2 and a SHA database schema.

In 2007, TU-CGIS began working with the Highway Safety Office to develop innovative crash reporting tools intended to make addressing data easily accessible to police officers at crash scenes and to traffic safety decision makers. ESRI contributed significantly to the project by donating ArcGIS Server software licenses to every Maryland county through Towson University.

The dataset is also being utilized by MD Map, Maryland's statewide coordinated base map.

Please contact Ashley Lesh Buzzeo, TU-CGIS GIS Specialist, at 410-704-2081 or [abuzzeo@towson.edu](mailto:abuzzeo@towson.edu) with any questions about the project.

Please contact Alison Rice at [arice@esri.com](mailto:arice@esri.com) with any questions about the ESRI software distribution.

### Partnership Receives 2008 NSDI CAP Award

*Towson University Center for GIS*

The Federal Geographic Data Committee (FGDC) awarded a 2008 National Spatial Data Infrastructure (NSDI) Cooperative Agreements Program (CAP) grant to Towson University's Center for GIS on behalf of Maryland and the National Capital Region (NCR). This latest award sets a national record for the FGDC and Maryland, which has won CAP awards almost annually since 2000. The grant enables Maryland and NCR to coordinate sharing critical geospatial data about landmark structures.

Landmark Structures Data Themes for Maryland and the NCR for The National Map and NSDI will establish an automated, sustainable means to collect and distribute landmark structures data to The National Map (<http://nationalmap.gov/>). The data will include the location and other characteristics of manmade facilities, based on homeland security requirements. Project partners include MSGIC and the Metropolitan Washington Council of Governments GIS Committee.

Demand for accurate, authoritative geospatial data is driving a variety of collaborative activities in the region. The grant is a valuable contribution to ongoing efforts to coordinate geospatial data across Maryland and NCR. The project will also help move the MD iMap initiative forward, which is intended to give Maryland agencies a consistent statewide base map, as well as serve as the secure means through which Maryland government agencies will share geospatial data. The grant will also help establish a regional geospatial infrastructure that supports both public and private use of GIS.

CAP funds equal 50% of the total project cost. The Center for GIS and project partners are contributing the remaining 50%.

For more information about the NSDI Landmark Structures project, please contact Missy Valentino at [mvalentino@towson.edu](mailto:mvalentino@towson.edu). For information about MD iMap, please contact Ashley Lesh Buzzeo at [abuzzeo@towson.edu](mailto:abuzzeo@towson.edu).

### Professional Development

## “What Is a GISP and How Do I Become One?”

*Kaushik Dutta, GISP, Maryland Transportation Authority and Lisa Sharpe, Maryland State Highway Administration*

At the recent Urban and Regional Information Systems Association (URISA) conference in Washington, D.C., the 2006/2007 Salary Survey for IT/GIS Professionals revealed that certified GIS Professionals (GISPs) earn an average of **\$8,500 more a year** than their non-GISP counterparts.

Given this news, the obvious questions come to mind: “What is a GISP and how do I become one?” This article answers both of those questions and offers insight on how this little piece of paper can help your career and your GIS community.

I’ll begin by defining “certification” as a process, often voluntary, by which individuals who have demonstrated a level of expertise in their profession are identified to the public and other stakeholders by a third party. In other words, certifications, by design, recognize expertise. The GIS Certification Institute (GISCI) is the third-party organization that manages the GISP Certification Program. The GISCI Board of Directors is comprised of appointees from URISA, the Association of American Geographers (AAG), National States Geographic Information Council (NSGIC), and the University Consortium of Geographic Science (UCGIS).

The GISP Certification Program, intended for GIS professionals with at least four years of experience, involves earning

and documenting points in three achievement categories: Education, Experience, and Contributions. Each of these categories has a minimum point requirement: Education, 30 points; Experience, 60 points; and Contributions, 8 points. After earning the minimum points, you must then earn an additional 52 points to meet the overall requirement for the GISP certification. You can earn the last 52 points in any one of the achievement categories or spread across all three categories in any combination.

I earned my GISP certification a little over a year ago, and my agency has been supportive by providing me with the funds to complete the GISP Certification Program. My agency also allows me to participate on various committees that support both our internal project work and the GIS community in general. My GISP certification validates my many years of work in the field of GIS.

As with an advanced degree from an accredited university in a particular field, the GISP certification serves as a “yardstick” to measure my qualifications and experience. It proves, to me and to others,

that I have a broad understanding of the industry and can provide expertise to a variety of disciplines. I also enjoy the networking opportunities afforded to me from being a part of the GISP community.

Since earning my GISP certification, I’ve come to value the GISCI’s Code of Ethics most. It serves not only as a guide for me in my professional conduct, but it also lets me now what I can expect from others. The code recognizes that we as professionals have obligations not only to those for whom we work, but also to our colleagues and to society. These obligations include calling attention to the proper and appropriate use of GIS and related technologies when addressing common issues.

*Acknowledgement: Scott Grams, Director of GISCI, for*



For more details on this Program, visit

[http://www.gisci.org/certification\\_program\\_description.aspx](http://www.gisci.org/certification_program_description.aspx)

### Professional Development

## **SU Offers New Grad Program in GIS, Public Administration**

*Salisbury University Department of Geography and Geosciences*

From retracing the 17th century voyages of Captain John Smith to tracking septic sources to help make Maryland cleaner, Dr. Michael Scott has spent the past few years demonstrating versatile uses of geographic information systems.

However, Scott, an associate professor in Salisbury University's Geography and Geosciences Department, is one of the first to admit that GIS skills only go so far in the workplace without the administrative skills to back them up.

"You can't operate in a vacuum," Scott said. "Even if 90 percent of what our graduates do in the work force relates to the technical side of geography, they still need a good sense of administration in working with cities, counties, states - even businesses."

This summer, SU began helping students bridge that gap through its new Master of Geographic Information Systems and Public Administration Program.

The format of the new program is unlike any other in the country, Scott said. With classes on campus and online, the one-of-a-kind degree combines the study of geographic information management with management of local government and municipalities. Designed for working professionals, it may be completed part-time in 25 months or full-time in 13 months.

"The web-based, user-friendly format allows people to earn the degree while working, which is a big selling point," Scott said. The program appeals to a wide range of students, currently including employees of non-profits, planning departments and the U.S. Coast Guard. While most of the current enrollees reside in Maryland or Virginia, Scott expects the program will soon attract students nationwide.

"We saw a real need for this," said Scott, director of the Eastern Shore Regional GIS Cooperative (ESRGC), which provides access to GIS technology, data, technical support and training on the

Eastern Shore. He said the program brings valuable expertise to the local towns and counties because many students will be placed with those jurisdictions to complete project requirements.

The new interdisciplinary program is taught by faculty from the Geography and Geosciences, Political Science, and Information and Decision Sciences Departments. Students also take three courses in University of Baltimore's Master of Public Administration Program.

For more information call 410-543-6030 or visit the program Website.

<http://www.salisbury.edu/geography/msgispa>

## **UMBC Introduces Master in Professional Studies for GIS at Shady Grove Campus**

This fall, UMBC launched its *Master in Professional Studies (MPS) — Geographic Information Systems* at the University's Shady Grove campus in Rockville.

This MPS program focuses on the computer science and information systems aspects of GIS. The goal is to provide an advanced level of education to professionals working or interested in the region's geospatial technology industry.

This 30-credit applied, graduate program consists of 10 courses which address four key areas: GIS databases, GIS application development, advanced analytical methods and tools, and reflections on practice.

The Master in Professional Studies—Geographic Information Systems requires a total of 30-credit hours. Students must complete 6 core courses and 4 electives.

For more information on the program, including admission requirements call 301-738-6081 or visit the program Website.

<http://www.umbc.edu/shadygrove/gis>

## Building a Future GIS Workforce Begins Early, Towson's CGIS Staff Discover

Some of Dumbarton Middle School's eighth-grade students may already be thinking about joining the GIS workforce within the coming decade, thanks to presentations they heard during the school's Career Day. In four dynamic 40-minute sessions, Ashley Lesh Buzzeo and Missy Valentino, GIS Specialists for the Towson University Center for GIS, used visuals and a mapping exercise to explain the various components that comprise a GIS career path.

According to Matt Ferenschak, Professional School Counselor and department chair at Dumbarton, the goal of Career Day is to give students information about the variety of careers available to them. To help students derive the greatest benefit from the day and consider the ways their interests and school subjects relate to future career choices, the guidance counselors offer each student the opportunity to take the Coin Career Assessment, a computer-assisted career guidance system. Areas of interests can

then be matched with a related career cluster.

"Based on immediate feedback from students," Valentino said, "We know that we helped them think about geography in ways they never did before."

Buzzeo agrees. "No matter what career they mentioned, we were able to show them how GIS can be used in those jobs, and not just in the science and technology cluster."

Career Day's organizers also wanted students to be able to ask about more personal information, such as the possibility of combining career and family life, the rewards and challenges the presenters experience within their careers, and the fringe benefits.

Still, the first topic students wanted to explore was salary. They were also interested in level of responsibility, the opportunity for travel, and whether or not jobs in GIS are enjoyable.

"We *love* our jobs!" Buzzeo and Valentino told the students.



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## MARK YOUR CALENDAR

### MSGIC

#### Quarterly Meetings

##### Fall

October 22  
Frederick County

##### Winter

January 21, 2009  
Howard County

##### Spring

April 1, 2009  
Washington College

#### Events

*GIS Day — November 19*

#### Conferences

*ESRI MUG  
October 28-30  
Newark, Delaware*

*MACo Winter Conference  
January 7-9, 2009  
Cambridge*