

# imagiNEWS

IMPROVING MICHIGAN'S ACCESS TO  
GEOGRAPHIC INFORMATION NETWORKS

## Another successful conference has been wrapped up!

By Sarah AcMoody, Alex Bellak, and Tara Maguire

We hit the ground running early this year during the 17th Annual IMAGIN GIS Conference and Expo. With a Sunday Golf Outing held at Taylor Meadows, some 20 participants turned out for the event on the sunny spring day. Congratulations goes out to all of the award winners from the golf outing:

### First Place Team:

Ron Martin  
Richard Francisco  
Patrick Lewman  
Chris Blough

### Second Place Team:

Scott Hurley  
Casey Hanson  
Janine Kwiecien  
Mike Leidlein

### Third Place Team:

Ed Bissell  
Joel Lenz  
Derek Moy  
Rick Jodoin

### Women's Closest to the Pin:

Linda Ramey

### Women's Longest Drive:

Bonnie Sroka

### Men's Longest Drive:

Rick Jodoin

### Men's Closest to the Pin:

Tom Fedokovitz

### Men and Women Longest

**Putt:** Patrick Lowman

This year's Conference was held for the first time at the beautiful and historic Dearborn Inn, built in 1931 on the grounds of Ford Motor Company. Sunday afternoon saw a workshop presented by Dan Daniels, Chief of the USGS Orthophoto Inspection group. On Sunday evening the seventh annual Vendor & Speaker Reception was held at Taylor Meadows. The reception was open to all sponsoring vendors and speakers as well as IMAGIN board and committee members. This reception is an example of the many benefits to participation and involvement within IMAGIN.

IMAGIN President Christopher Blough opened the Conference Monday Morning by highlighting the achievements of IMAGIN including this year's partnership between the Michigan Association of Planning and IMAGIN. As an effort to offer new content to both IMAGIN and the Michigan Association of Planning members, IMAGIN was proud to announce that this year's conference contained 14 American Institute of Certified Planners (AICP) certified workshops to allow AICP professionals to earn up to 24 Certification Maintenance (CM) Credits.

This year's conference theme was GIS: Strengthening our Economic Future and featured three distinguished speakers representing the state, federal, and educational communities who delivered captivating thoughts of the current economic environment facing the State and the challenges ahead. The morning keynote speaker was given by MSU Economics Professor Charles Ballard. The lunchtime plenary speaker was David Morris of the Michigan Economic Development Corporation. On Tuesday morning we heard from Mr. Robert Sawyer from the US Economic Development Administration.

Monday and Tuesday featured an outstanding mix of presentations, hands-on workshops, and vendor

*Continued on page 2*





**CONFERENCE** *Continued from page 1*

spotlights. Kim Wraight, with the support of Washtenaw County and numerous other equipment donors, organized the first series of hands-on workshops. She also kicked off the series of workshops on Monday with an Introduction to ArcGIS 9.2 session. This was followed in the afternoon by an in-depth hands-on training on Community Viz. Erin Perdu, from ENP & Associates, demonstrated the advancement of GIS technology and its impact on planning decision support systems.

The new Emerging Technology Series was also one of Monday's highlights. This is a new series of presentations that will be occurring throughout the State that focuses on new and innovative technologies that impact the GIS industry. As Monday's workshops came to an end, many stuck around for the opening day's Cinco de Mayo reception.

Tuesday was another day of showcasing the outstanding GIS efforts of communities and individuals, including recognizing the recipients of the scholarship and awards during the 2008 Awards Luncheon. The luncheon began with a recap of the IMAGIN Student Poster and Paper Competition. The competition, held in January at Schoolcraft College, was a great success and featured participants from six different colleges and universities throughout the State.

The Jim Living Scholarship, sponsored by Woolpert, LLP, was awarded to Heather Stricker of Central Michigan University. Heather is obtaining her Masters



*Barb Sanders presents the Jim Living Scholarship to Heather Stricker of CMU*

of Arts in Conservation Biology. She has done extensive GIS modeling of recovering wolf population and plans to continue on and earn a Ph.D. in sustainability.



*IMAGIN President Chris Blough presents Matt Malone with the IMAGIN Volunteer of the Year Award*

Matthew Malone of the City of Farmington Hills was the third recipient of the IMAGIN Volunteer of the Year Award. This award is given to an IMAGIN member in recognition of exceptional service to our volunteer organization. Matt has been an active member of IMAGIN since 1995, serving as a board member from 2004 – 2006 and as the current chair of the Services & Benefits Committee, where he plays many roles, one of which includes the lead editor of the IMAGIN E-News. Matt represents the geospatial discipline with energy and enthusiasm and is constantly delivering results. IMAGIN thanks Matt for his hard work and dedication over the years.

The City of Birmingham received the GIS for Everyone Award for its Retail Market Analysis Mapping website. The Retail Market Analysis Mapping project was formulated through a joint effort between the City of Birmingham Planning Department, GIS Services, and the Principal Shopping District (PSD). The intent of this project is to integrate data on businesses and vacant properties with a mapping feature which allows data to be represented visually on a map. They did this successfully with the creation of the website, which has encouraged a reciprocal relationship within the development and business communities, providing them with a tool and unique application that has truly provided GIS for everyone.



*Jessica Moy presents Dave Lusch with the Jim Living Geospatial Achievement Award*

The recipient of the Jim Living Geospatial Achievement Award was Dave Lusch of Remote Sensing & GIS Research and Outreach Services at Michigan State University. A regular attendee and presenter at IMAGIN conferences, Dave exemplifies the spirit and mission of the IMAGIN organization. Dave has been a constant and strong promoter of GIS at all levels and in all its forms for his entire career. He is a respected researcher, teacher, and colleague who has always promoted GIS in his classrooms and workshops and continues to enthrall his students and peers to this day. He is the author of over 30 publications, many focusing on Remote Sensing techniques and classification methods. Dave has served as the Primary Investigator/Co-Primary Investigator on numerous grants including ongoing contributions to groundwater stewardship through collaboration with health departments, non profits originations, and state agencies. His work through the years has resulted in the betterment of the State, its environment, its geospatial professionals, and its citizens. His prolonged dedication to the field of GIS, especially in Michigan, and his fellow colleagues makes him more than deserving of this award. IMAGIN thanks Dave for his years of hard work, dedication to IMAGIN, and to GIS in Michigan.

Also honored at the Awards luncheon were the Map Gallery award winners. Each year we again see our mapping professionals' great cartographic skills.

## **COOPERATIVE PRESENTATION**

1. Recreation, Open Space and Natural Resources – Map & Guide
  - Land Information Access Association
  - Michigan Coastal Management Program
  - MDEQ
  - NOAA
  - Frey Foundation
  - Partnerships for Change Program

## **DATA INTEGRATION**

1. Recreation, Open Space and Natural Resources – Map & Guide
  - Land Information Access Association, et al.
2. Dexter Township Buildout Analysis
  - Washtenaw County

## **ANALYTICAL PRESENTATION**

1. Detecting Land Cover / Land Use Change: Saline Michigan
  - Doug Rivet, Eastern Michigan University
2. Vision Based Policy
  - St. Clair County Metropolitan Planning Commission
3. Miller Avenue: Allen's Creek Storm Water Improvements BMP Locations
  - Orchard, Hiltz & McCliment

## **CARTOGRAPHIC DESIGN**

1. Registered Historic Sites and Districts
  - Oakland County Planning & Economic Development Service
2. Tax Assessment Map: Grand Traverse Band of Ottawa and Chippewa Indians
  - Land Information Access Association

*Continued on page 4*



*Some work got done too.*



*Aside from the outcome, Tom and Bill enjoyed the game...*



*as did Bob, Sarah, and Rainer*

## **CONFERENCE** *Continued from page 3*

3. Peshawbestown Address Map
  - Land Information Access Association

Tuesday also featured another day of Vendor Spotlight workshops, new to this year's conference. As Tuesday's sessions wrapped up it was time for conference attendees to have some fun and head to Comerica Park for a night of Tigers baseball. The Tigers took on the defending world champion Boston Red Sox. Fun was had by all, all that is perhaps except the Tigers who were defeated by the Red Sox 5-0.

Wednesday morning started off with the IMAGIN Board's Annual Meeting. IMAGIN is happy to announce the election of three new Board Members: Ken Koleda, Sarah Merz, and Scott Swan. In addition to the election of new Board Members, current Board Members Andrew Brenner, Tara Maguire, Jessica Moy, Bill Rowe, and Barb Saunders were reelected. Board Officers were also elected during the Annual meeting. Board Officers for the next year will be Scott Ambs (Jackson Community GIS) - President, Bill Rowe (Marquette County) - Vice President, Tom VanBruggen (Muskegon County Equalization) - Secretary, and Scott Swan (InfoGeographics, Inc.) - Treasurer.

Wednesday featured another full day of exceptional content including several well attended hands-on workshops and a special workshop presented by the USGS detailing the National Hydrography Dataset.

IMAGIN would like to thank the sponsors and exhibitors, the IMAGIN management staff, presenters, conference co-chairs and other members of the Conference Committee, volunteers, and all of the attendees for making the 2008 IMAGIN Conference a conference to remember. See you soon at the 18th Annual IMAGIN Conference in Lansing. The dates and venue of the 2009 Conference will be announced shortly. Enjoy your summer.

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Professional Recognition Committee Co-chair Sarah J. AcMoody of MSU RS&GIS can be reached at (517) 432-7447 or at [acmoodys@msu.edu](mailto:acmoodys@msu.edu)

Conference Co-chair Alex Bellak with the City of Troy can be reached at (248) 526-5137 or at [bellaka@troymi.gov](mailto:bellaka@troymi.gov)

Conference Co-chair Tara Maguire with the City of Birmingham can be reached at (248) 644-1800 or [tmaguire@ci.birmingham.mi.us](mailto:tmaguire@ci.birmingham.mi.us).

# Western Michigan University Physical Plant

## Program Status

Western Michigan University (WMU) is a public institution enrolling approximately 25,000 students. Its Physical Plant is responsible for all maintenance, landscape, and custodial services needs to support the educational demands of those students within the Main and Engineering Campuses in Kalamazoo, which together cover approximately 2 square miles (3.25 km<sup>2</sup>). The University employs approximately 1350 full and part time faculty, and 1800 staff. Funding for the GIS Department is through a revolving utility administration account.

In the late 1990s there was a realization that there was no set process to document the locations of underground, University, City of Kalamazoo, and Consumers Energy owned utilities. Like many municipalities, the University's utility information was tied up in the memory of two or three people. Obviously, this was not an optimal situation and everyone involved knew that something had to be done to organize a nearly 100 year history of underground utilities.

With this in mind, WMU Physical Plant staff set out to find out what other municipalities and universities were doing to solve this problem. The unanimous answer was "GIS". At the time WMU did not have the funding to go out and survey all underground utilities in one shot. Instead the Physical Plant set out to establish a relationship with the University's Department of Geography to complete the task in-house. In order to do this, the Physical Plant purchased two Trimble TSC1 GPS Receivers and joined the University's software licenses for Pathfinder Pro and ESRI GIS software. What is now the GIS Department within the University

Physical Plant has been functional since 1998 and is a joint effort between the Maintenance and Landscape Services Departments.

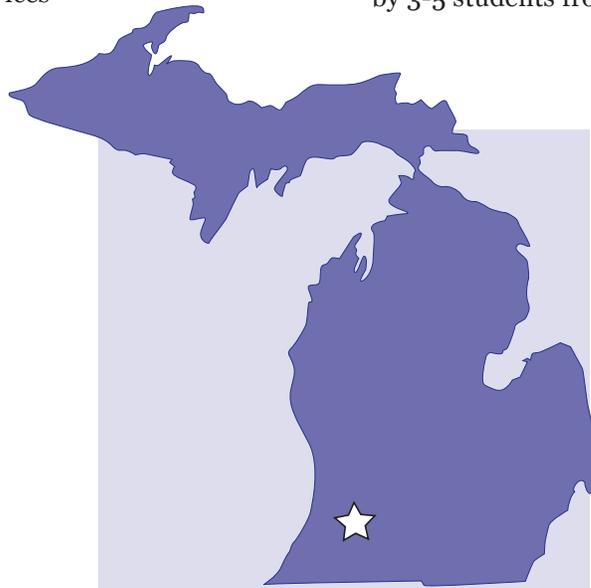
The GIS Department, which was originally operated by 3-5 students from the Geography and Engineering

schools, was overseen by Physical Plant staff. Many students cycled through the GIS Department and tackled a host of projects including updating the locations of underground campus utilities, a tree inventory, and mapping of the in-ground irrigation systems. GIS has been used to update the snow plow routing plans for each winter. WMU Landscape Services maintains and plows nearly 40 miles (64.37 km) of sidewalks. The Tree Inventory included collecting the GPS locations of nearly 4500 trees and recording their DBH (Diameter at Breast Height) and species. The GIS Department also works to establish partnerships with our governmental neighbors; Kalamazoo County and cities of Kalamazoo and Portage. In 2007 WMU partnered with the two cities to acquire 6 inch (15.24 cm) resolution Pictometry oblique and vertical aerial imagery and will also be partnering with the City of Portage to obtain a high resolution LIDAR elevation model. Finally, the Department

is currently partnering with both the City of Kalamazoo and Kalamazoo County to establish processes for the University to update and maintain the road and addressing data covering the University.

## New Programs and Activities

As increasingly accurate data were captured, the focus began to change from data collection to managing the data and leveraging it to help the University's preventative maintenance initiative (repair it before it breaks). The first step in this was to create a website



## Program Summary

**Population:** 1350 faculty, 1800 staff, and 25,000 students at the University

**Geographic Coverage:** Approximately 2 square miles (3.25 km<sup>2</sup>)

**Number of GIS Staff:** 1 GIS Manager, 3-5 Student Interns

**Annual Budget:** N/A



## WMU PHYSICAL PLANT *Continued from page 5*

for staff to be able to access the mapping data without being experts in running GIS software. The utility information is made available on the web through ArcIMS with the assistance from Physical Plant Network Services. This is currently available in the GIS Maps portion of the web site (<http://gis.pp.wmich.edu/>). This has been an invaluable tool for the Physical Plant in that it closed loops between departments and opened a line of communication from the Utility Managers back to GIS. When something is found that is incorrect, they have an easy way to communicate it back to GIS staff for correction. And the feedback from staff has resulted in the GIS beginning to track information on the condition of the utilities, as well as the locations of repairs, and work that was done.

In 2007 GIS students used their experience at the Physical Plant to compete in Google's 2007 International Model Your Campus Competition, where they completed 3D models of all 151 Campus Buildings which have been included in Google Earth. The concepts that were learned through the process lead to a new direction and goal of developing the data with the capability to move towards a 3D "virtual campus", in which any number of people would have the ability to view any feature of an underground utility, specifically the vaults in three dimensions without having to physically go underground. While this is still in its beginning state, continued data collection combined with annual inspection projects have the forward sight that 3D is the future. The high resolution Digital Elevation Model that the University will obtain will be an important piece of the puzzle in this initiative.

The Physical Plant is also building relationships with other University departments to help them better do their jobs or expand their services using spatial information. This ranges from the Admissions Department using GIS to create online 3D tours of the University to the Environmental Health and Safety Department using GIS to conduct Storm Sewer out fall surveys to eliminate illicit discharges and better model storm sewer discharge into Arcadia Creek (which flows through downtown Kalamazoo).

## Lessons Learned/Recommendations

At the beginning of 2008 the Physical Plant took a large step forward by creating a GIS Manager position to oversee projects directly. This is a new position within Utilities Administration. At the end of the day, after all the growth it has seen over the last 10 years, the GIS Department strives to keep its focus on the students and continues to supplement their educational experience. The University takes great pride in the experience it has been able to provide students enabling them to acquire GIS leadership roles in public and private GIS agencies throughout Michigan and the United States. Where most traditional City or County GIS agencies focus on creating efficiencies within business processes, the WMU Physical Plant GIS includes that but also sees GIS as a tool to promote WMU and showcase what its students are capable of doing.

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Physical Plant GIS Manager Dan List can be reached at (269) 806-7561 or [daniel.list@wmich.edu](mailto:daniel.list@wmich.edu).

Historical weather data for Michigan are available online back to 1887. The National Climatic Data

Center has gathered old records and scanned them into PDF format. Select "Michigan" from the list at <http://www7.ncdc.noaa.gov/IPS/CDPubs?action=getstate> and choose a date. The documents are free when accessed from computers within Federal Depository Libraries

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## DID YOU KNOW?

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and on computers accessing the Internet through .edu, .mil, and .k12 domains. Other users

are charged \$4 per document. The paper source documents are also available in many libraries. Other Michigan data from 1951 to 2000 are freely available from the Michigan State Climatologist's Office at <http://climate.geo.msu.edu/mi-map.html>.



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IMAGIN is a non-profit 501(c)3 organization comprised of individuals and organizations interested in the use and application of geographic information system (GIS) technology in Michigan. Our members are committed to improving the quality and availability of digital data necessary to make good use of GIS. We believe that cooperation and open communication are necessary to achieve these objectives.

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