A NEW USE FOR YOUR EXISTING ESRI GIS SOFTWARE

A Message from Larry E. Newman, P.E., LEED-AP

Thank you for taking the time to read the latest newsletter from Spatial Systems Associates, Inc. As we move through this period of the year that we call the holidays and into 2010, I would like to extend to all of our clients, colleagues and competitors a sincere wish that each of you can take the time to appreciate what we have in this country, give thanks for our many individual blessings, take the time to enjoy family and friends, and find an opportunity to relax and rewind for the coming year. This has almost certainly been a difficult year for all of us. Passing through the worst recession in seventy years, we have all witnessed significant stock market declines, reduction in home values, mortgage defaults, bank failures, and job losses that, at least in my lifetime, have been unprecedented. While the government is now telling us the recession has ended in this region, Spatial Systems has certainly not seen much improvement yet. Shrinking state and local government budgets and requests to do more with less or at least to do the same with less are affecting us all, and our ability to implement and support GIS technology.

Recent executive orders and environmental legislation are requiring federal agencies to reduce energy use by 30% between now and 2015, and to reduce water consumption by 20% in the same time period. (See *Executive Orders* this page.) States, counties and municipalities are following suit. In Maryland, new stormwater regulations about to go into effect will require significant changes to the way developers handle stormwater disposal. These regulations attempt to improve the quality of our surface waters while restoring depleted groundwater aquifers. In addition, U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) guidelines define desired sustainability measures that can be taken for neighborhoods, individual buildings and interiors. All of these measures have the potential for reducing the operating cost of facilities while working to improve the environment.

Why should GIS professionals be concerned about new sustainability and environmental guidelines? Aside from the fact that we all should be working to improve our environment, current GIS tools can provide an effective base for monitoring, measuring and analyzing a variety of operational characteristics for facilities. Spatial Systems has developed a new set of tools based on ESRI's enterprise web-based offerings that offer both interior and exterior Facility Management Information System (FMIS) functionality. As a GIS professional utilizing ESRI's solutions, you may already have all of the components necessary to implement a comprehensive facilities management solution for your organization. We call these tools SpatialMMS for Monitor, Manage and Save.

EXECUTIVE ORDERS: UPDATE

Recent executive orders and federal legislation have strengthened the need for implementation of FMIS technology.

- *Executive order 13423, "Strengthening Federal Environmental, Energy and Transportation Management,"* *requires Federal agencies to lead by example in advancing the nation's environmental performance by reducing energy intensity by 3% annually or 30% by 2015 and reduce water use by 20% in the same period.*

- *Executive order 13327* *requires Federal agencies to establish systems to categorize and manage real property assets*

- *The Energy Policy act of 2005* *requires Federal facilities to reduce consumption of energy from a baseline established in 2003 by 20% before 2015.*

EXECUTIVE ORDERS continued on page 3

products

New Federal and State Monitoring Requirements

In the SPOTLIGHT

Introducing SpatialMMS

There is a lot of talk these days about sustainability. The U.S. Green Building Council (USGBC) was implemented in the early 1990's. USGBC established the Leadership in Energy and Environmental Design (LEED) certification process for buildings in the late 1990's. The LEED building certification process provides an opportunity for both new and existing buildings to become LEED certified as either Certified, Silver Certified, Gold Certified or Platinum Certified by adhering to certain guidelines and standards for site selection and maintenance, water consumption, energy consumption, indoor environmental characteristics, reuse of building materials or use of recycled materials, and innovative techniques to achieve such objectives.

USGBC accredits professionals as LEED-AP who exhibit knowledge and experience in the use of these sustainability techniques. Building owners have come to understand that having their building certified means that the resale value is higher, the amount that is chargeable for leases is higher, and the operational costs are lower. Paybacks for the use of these techniques can often be measured in months rather than years.

The U.S. General Services Administration (GSA), one of the largest space providers for federal agencies, has determined that they will no longer build, lease or operate facilities that are not at least LEED Silver certified beginning in 2010. This means that there is a significant need to go through the certification process for new and existing construction for owners who have a desire to lease their buildings to the federal government. States, counties and municipalities have likewise determined that it is in their best interest to build and operate facilities that are LEED certified.

Executive orders and environmental legislation that have been issued over the last several years similarly require a reduction in the use of energy and water—as much as a 30% reduction in energy use by 2015 and a 20% reduction in water use in the same timeframe.

Spatial Systems Associates has been working with clients like these for over fourteen years, assisting in the implementation and support of ESRI's GIS technology. We have recently developed a set of web-based tools utilizing ESRI's enterprise server technology that monitors consumption of energy and water within facilities, stores and manages information that is necessary to manage facilities, provides analysis and reporting tools to the building manager, and provides a mechanism to provide required information to building maintenance personnel or organizations like the USGBC for use in the LEED building certification process. We call this set of tools SpatialMMS. Literature describing these tools and how they can be used to reduce operational costs of any facility while developing, maintaining and formatting data

Integrating GIS and Microsoft SharePoint® Technology

For some of our clients, SSA has been utilizing the MicroSoft Sharepoint technology to facilitate integration of legacy data systems with new implementations of GIS. Microsoft SharePoint® is an integrated suite of server capabilities that provides comprehensive content management, accelerated shared business processes, enterprise search capabilities and facilitation of information across boundaries and organizations.

The technology provides the ability for effective project management of workflows, processes and users inside a single organization for multiple projects or across multiple organizations participating in a single project. Access to a SharePoint system occurs via a web portal that contains a series of sites and sub-sites.

While SharePoint typically provides users the ability to work with and access files from other Microsoft products, it can also be integrated with ESRI technology and spatial data. Extracting non-geographically linked data from legacy systems can be accomplished and given a spatial component through the use of a GIS application. The spatially linked features can be displayed through an interactive map that has been embedded into a SharePoint website. The two technologies provide dynamically updated data that is displayed with a unique visual component in a collaborative environment supporting an organization's existing workflows.

Using SharePoint and GIS together makes data widely available, improves workflows and saves money. For more information on how this technology might be beneficial to your organization, contact your Spatial representative. SSA

Spatial Systems has recently updated our website. There is a wealth of information on our new site regarding ESRI's current offerings, examples of our more recent projects, and a description of our new SpatialMMS FMIS offering. I invite you to visit our website at **www.spatialsys.com,** review our new look, and email me back with your comments—positive or negative. I really would like to hear from you. SSA

- *T**he Energy Independence and Security Act of 2007** is an omnibus energy policy law that consists mainly of provisions designed to increase energy efficiency and the availability of renewable energy, including reestablishment of the requirement for a 30% reduction in energy use in Federal buildings by 2015.*

Copies of this legislation are available on Spatial's website at http://www.spatialsys.com/FM/Publications/index.html

SpatialMMS, a new product from Spatial Systems Associates, Inc. based on ESRI's Enterprise Server technology has been designed to assist Federal, State, Local government and other organizations in meeting the requirements of this legislation. For more information please contact a representative at Spatial Systems Associates, Inc. SSA

used for LEED certification is available on our new website, www.spatialsys.com. Together, these tools form a Facility Management Information System (FMIS) utilizing ESRI's standard tools and concepts as a base. Spatial can help you to implement these tools on your server, or we can provide hosting services for you while the data and customization is completed. If you would like to arrange a demonstration of the technology or simply discuss how these tools can be of benefit to your organization, please contact Spatial via phone or email, and request an appropriate meeting. We look forward to sharing with you how the GIS technology you are already familiar with can be used in a new and productive way. SSA

GIS — GEOGRAPHIC INFORMATION SYSTEMS

Needs/Cost Benefit Analysis
Excited, curious or confused about the potential for GIS in your organization? Spatial Systems has been implementing these technologies for years. Allow us to evaluate your needs, project the potential for savings or increased revenues, and otherwise explain the potential for GIS in your business.

GIS Systems/On-Site Consulting
Maybe you need a little help bringing it all together. No one ever said GIS could be integrated overnight. Let us come on-site, provide implementation management and QA/QC to help you enable this time and money saving technology.

Web-Based Hosting
Perhaps you don't really want the hassle of building and maintaining a GIS internally. Consider allowing Spatial to host your GIS data or its services and make GIS functionality available to you and/or your clients over the Internet.

Wide-Format Scanning
Make it digital! Convert maps, blueprints, and imagery into a new theme/layer for your GIS. Unlimited length specifications with widths accepted up to 50". B/W, full-color, with various resolutions and output formats available.

Analysis
If you simply want to be able to take advantage of the ability of GIS technology to help meet the needs of your organization without the bother and cost of acquiring GIS software and learning to use it, Spatial Systems offers the services of our experienced staff to perform analysis and produce suitable reports and cartography for you.

Vectorization
Take all of your hardcopy or image files and turn them into topologically structured GIS compatible layers, with attribute links to your database.

Integration
Combine the new datasets with your existing data or models to fully integrate GIS technology with your legacy data systems.

FMIS — FACILITIES MANAGEMENT INFORMATION SYSTEMS

System Design
We specialize in the use of legacy systems and data in the implementation of our SpatialMMS product line. Allow us to sit down with you to understand your need for FMIS technology and to recommend the most effective approach to implementation.

Data Development
Whether you have no as-builts or a sophisticated Building Information Model (BIM), or anything in between, Spatial is prepared to use what is currently available in the establishment of a consistent and accurate dataset that is customized for your facility. When necessary, our field staff will gather relevant information onsite to meet the requirements of your desired functionality.

Monitoring Tools
Spatial will arrange, when necessary, for the installation of energy, water and indoor environmental sensors to capture relevant data for your facility. If your facility already has a monitoring or other control system, Spatial will integrate our SpatialMMS tools to use the output from those systems to the extent allowable by your other vendors.

Dashboard Customization
SpatialMMS utilizes a fully customizable dashboard for your interface with the system. By understanding your specific requirements, we will deliver a web-based solution that meets your requirements.

Hosting
If preferred, Spatial Systems will host your FMIS data and interface on our in-house server. There is no need to purchase hardware or software to take advantage of this technology, and access to your facility data can be made available to anyone you designate who has access to the internet.

Alerts
If any of the monitoring technology detects that the readings from a sensor falls outside of parameters that you establish, SpatialMMS can generate an alert in the form of an email, a mail message, or establishment of a new work order in your existing work order management system.

Reports
Reports from SpatialMMS can be generated on demand or on a regularly scheduled basis to confirm for you that the system is operating properly to report the periodic results of automated analysis of the collected data.

CONTACT US

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