CFGIS Central Florida Geographic Information Systems NEWSLETTER

JULY 6, 2010

VOLUME 2- YEAR 2010

"Believe you can and you're halfway there." Theodore Roosevelt

Save the date:

CFGIS Users Group Meeting July 30th, 2010.
Join us for a fun day of GIS and much more!

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Editorial

We have so many reasons to celebrate the fact that we, GIS professionals, are catalyst of change that are at the right place, the right time, and most importantly doing the right thing.

The GIS profession has proven time after time to be an essential support to not only decision making processes, but also being the backbone of operational service logistics. GIS can help anticipate accurately the next actions to be taken towards becoming an invaluable planning tool.

The GIS community is coming together to assist, analyze, and deliver cutting edge technological products that help make better decisions. The Deep Horizon Oil Spill is the most prominent example of how GIS is a multi-level and multi-scale tool. To be successful GIS needs collaboration.

The power of collaboration and integration of people, data, resources, and expertise are noticeable in various scales. The local level can be exemplified by the successful Lake County City View study case. At the national level NOAA's GeoPlatform website provides support for the relief efforts in the Gulf of Mexico.

Collaboration starts at your desk when you document the metadata process steps. Providing detailed data allows others to accurately utilize and enhance your original data.

Collaboration extends to higher levels when you contribute pro-actively to networking and interchanging knowledge by: publishing articles in specialized newsletter; attending or presenting at GIS users group meetings; sharpening your skillsets, attending conferences, volunteering with GIS groups; or just walking the extra mile!

In the upcoming months several GIS events will be held locally including: GIS Users Groups meetings, regional workshops, a national GIS conference, and local GIS Day celebrations. Don't miss the chance to be part of the change… get involved and collaborate with other GIS professionals… Make a difference… Together we can accomplish much more.

By Claudia Paskauskas, GIS Manager – East Central Florida Regional Planning Council

"It's kind of fun to do the impossible."
Walt Disney

UPCOMING - CFGIS Users Group Meeting – July 30, 2010

By the ECFRPC GIS Team

Mark your calendars, the next CFGIS Users Group Meeting will be **July 30th at the FDOT D5 Urban offices in Orlando from 10 am to 12:30 pm.** This Users Group meeting will highlight how GIS is being utilized to support Emergency Preparedness efforts. The meeting will consist of presentations on catastrophic planning and preparedness, statewide all hazards emergency management approach including the recently completed Statewide Hurricane Evacuation Study, SLOSH modeling, and Transportation Analysis modeling.

As always the CFGIS Users group provides for excellent networking opportunities, informative presentations, and raffle prizes. Plan to join us on the 30th for another great CFGIS Uses Group. Download the agenda and get driving directions. To breeze through the sign in line, preregister by clicking here. CFGIS users groups are free of charge. All you have to do is showing up!!!

What's New?

By the ECFRPC GIS Team

"What's New" will connect you with the latest and greatest in GIS happenings all around the region. This quarterly publication announces very exciting news from all over the region.

- **FDOT SISM Tool, Newly Deployed Portal at CFGIS:** DOT just deployed the FDOT Interactive Mapping Portal at the CFGIS website. The portal now includes the newly developed Strategic Intermodal System Implementation & Management (SISIM) portal. SISIM is an interactive tool to allow SIS partners in the FDOT district to share and track information concerning the implementation of operational improvements for SIS facilities. The information provided in the portal can be used by public and private stakeholders to determine what is needed to maintain mobility and assist with the development of mitigation strategies along important SIS corridors and multi-modal connections vital to the economic health of the region. Visit http://cfgis.org/sisim/ to learn more and explore CFGIS's newest tool.

- **CFGIS is now on LinkedIn and Facebook:** CFGIS has pages on the social networking sites LinkedIn and Facebook. The social networking sites are being used to help GIS professionals in the central Florida come together to share experiences and discuss relevant topics. Be sure to join the CFGIS groups to stay informed and to participate in the discussions look for the CFGIS group.

- **DEP Announces New StormSmart Coasts Website:** On June 1st, the Florida Department of Environmental Protection (DEP) Office of Coastal and Aquatic Managed Areas (CAMA) announced the launch of StormSmart Coasts website at www.stormsmartcoasts.org. StormSmart Coasts is a new website that helps coastal communities identify activities that should be done before, during, and after a severe weather event. The new website provides state specific, in-depth information about potential hazards, how to minimize risks, improve emergency response and more. State and local emergency contact lists are available. StormSmart Coasts also provides instruction on uniting community, public and private organizations and volunteers in tackling the challenge of clean-up after a storm. The site's "Your Community" section highlights on the ground, local actions implemented to address challenges like hurricanes, sea level rise, climate change and flooding.

A related site, StormSmart Connect (www.stormsmartconnect.org) provides a virtual community for coastal decision makers. This web-based collaboration of coastal managers moves beyond the application of guidance documents and prescribed information. Members of StormSmart Connect can quickly find people working in similar areas or on related topics, join or form discussion groups, share documents with others, and participate in site-wide forums. (Source – Florida APA Journal)

- **South Florida GIS Expo Call for Paper Abstracts:** The 17th annual South Florida GIS Expo being held September 9th and 10th at the Palm Beach expo center is now accepting abstracts for presentations. Visit www.sfgisexpo.com to submit your presentation abstract online for consideration. The cutoff date for abstract submission is July 12.

Get Involved!
Volunteer with CFGIS, GIS Day is coming. Email Claudia@ecfrpc.org. for more information.

"The difference between the right word and the almost right word is the difference between lightning and a lightning bug."
Mark Twain

- **Have you commented in the ECFRCP SRPP yet?** The East Central Florida Regional Planning Council unveiled it draft Strategic Regional Policy Plan this month. The entire plan is available at the agency's website www.ecfrpc.org. The ECFRPC encourages you to share your comments about the draft SRPP by filling out a quick survey available the agency's website.

- **Central Florida GIS Workshop being held in September:** The 4th annual Central Florida GIS workshop will be held this September 23-24 at the Ocean Center, Daytona Beach, FL. Click here for additional details and registration.

- **URISA National conference to be held in Orlando:** URISA's Annual and International conference will be local this year. GIS-Pro 2010 is the new branding of the URISA's annual conference that brings together GIS professionals and practitioners from all over the United States and world.

  The conference will be held at the Hilton Bonnet Creek hotel at Disney's properties from September 28 to October 1st.

  The conference comes this year with an innovative format offering several training opportunities, interactive panel sessions, papers presentations, and much more. The conference registration fees have been **revisited** on an attempt to accommodate the current economic challenges faced by several organizations. Registration will be open soon. Stay tuned!

  For more information about the URISA GIS-Pro 2010 conference visit the www.gis-pro.com website.

- **CFGIS Website and Data Clearinghouse updating:**
  - **A New Set of Regional Future Land Use** files by county have been published to the CFGIS clearinghouse. This updating reflects comprehensive plans amendments that had a letter of intent issued by March 31st, 2010.
  - **Regional Conservation Datasets Updated** include committed conservation, proposed lands, and mitigation banks throughout the six county East Central Florida Region and Polk County.
  - **Updated Maps are Available for Download:** Visit the CFGIS map gallery to see our newly updated maps including committed conservation, future land use, and a regional basemap
  - **If you Want to Make a Difference or just be searchable**, share your shapefiles, geodatabases or metadata XML files with CFGIS. Your contribution to the community is invaluable.
  - **Visit the Education page at the CFGIS website**. New training opportunities and conferences announcements have been placed.
  - **Step up and try your luck with the CFGIS Summer Puzzle**. You can download the Puzzle by going to www.cfgis.org and clicking in the CFGIS Puzzle link. Answers for the CFGIS Spring puzzle are now available

- **Are you a FLURISA member?** If you are not a Florida URISA member we encourage you to go to www.flurisa.org website and join the Chapter membership. Besides the great opportunity to be up-to-date in the State and regional GIS whereabouts you will be also start building the base to become a GISP. Being a member of at least one professional organization is one of the requirements to become a GIS professional. Don't miss the opportunity to become a member today! The FLURISA board waived the membership fees for this calendar year.

Save the date:

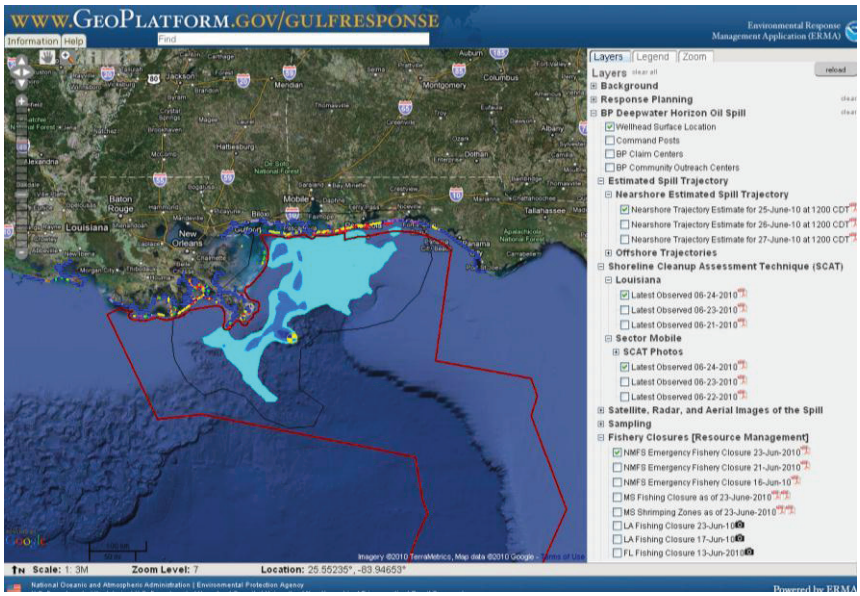
CFGIS GIS Day Celebration October 28th, 2010. *Join us for a fun day of GIS and much more!*

"All things are difficult before they are easy." Thomas Fuller

NOAA Interactive Map Tracks Gulf Oil Spill

By: Alice Lipowicz, Federal Computer Week Magazine - June 17, 2010

The public can now track Deepwater Horizon-BP oil spill recovery data online via a near-real-time interactive map at a new web site created by the National Oceanic and Atmospheric Administration. The GeoPlatform Web site, launched June 15, includes regularly updated geospatial data from several federal and state agencies on the oil spill trajectory, closed fishery areas, impact on wildlife and Gulf resources, daily position of research ships, and affected shorelines.



Data published on the site is received from NOAA, the U.S. Coast Guard, the Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Geological Survey, the Homeland Security Department, NASA and several states. "This Web site provides users with an expansive, yet detailed geographic picture of what's going on with the spill," Jane Lubchenco, NOAA administrator, said in the news release June 15. "It's a common operational picture that allows the American people to see how their government is responding to the crisis."

NOAA worked with the University of New Hampshire's Coastal Response Research Center to develop the Web-based geospatial platform designed for federal and local response activities and adapted for public use.

A separate public Web site, **Deepwater Horizon Response** sponsored by federal agencies, has been operating for several weeks offering news, announcements and information about the disaster. It is operated by the Deepwater Horizon Unified Command, which consists of DHS and the Defense and Interior departments, as well as other federal agencies, BP and other private entities.

In addition, the Unified Command recently set up a Deepwater Horizon Response Facebook page that links to its other Web site. Click here to read the full article

"Far and away the best prize that life has to offer is the chance to work hard at work worth doing." Theodore Roosevelt

City View Application Combines Collaboration with Integration:

By Sue Carroll and Kevin Willis, Lake County GIS - June 12, 2010

In the last several years GIS technologies have overwhelmingly become the tool of choice to combine collaboration with integration. Many times this produces enterprise solutions among similar but separate entities. Lake County has joined forces with eight local municipalities to provide citizens with an Interactive GIS Web Map named City View, which displays City Zoning and City Future Land Use for all participating municipalities in a single web application. Re-using existing data, the application takes advantage of both county and city sources of

Remember to send CFGIS your new and updated metadata files for addition in the Clearinghouse. For more information, E-mail: Claudia@ecfrpc.org

Are you a FLURISA member yet?

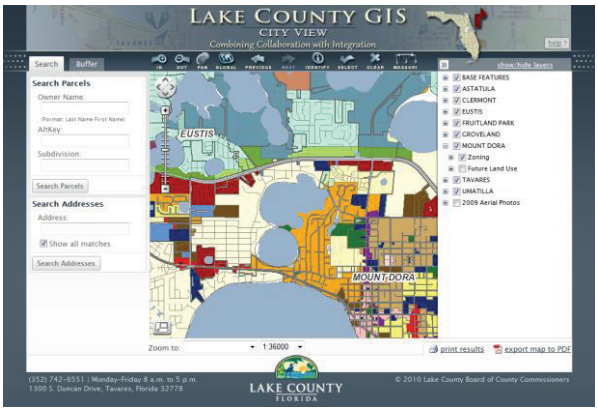
information resulting in a collaborative effort that promotes synergy and eliminates duplication of work.

Background:
Hosting an Interactive GIS Web Map can be a daunting task and not all municipalities in Lake County have the resources to tackle it. Nor should they when the County itself has access to data, hardware, and software to provide such services. In the spirit of collaboration, Lake County GIS has hosted several city web maps featuring zoning and future land use data over the years. Originally, eight separate web maps were hosted as a courtesy to the local municipalities on the county's ArcIMS web platform. When the county GIS Division upgraded to the more efficient ArcGIS Server platform, it only made sense to upgrade the City View maps as well.

The Issue:
The question arose, "Is hosting eight separate city maps the most efficient use of the new server and staff time to keep information up to date?" The answer, obviously, was "no". In taking advantage of the opportunity to upgrade the existing ArcIMS web maps to ArcGIS Server, the county wanted to create a more positive and intuitive experience for the user and combine disparate data from multiple sources into a single application. Also on the agenda was a desire to maintain a standard look and feel between the City View application and the county's existing Interactive GIS Map.

The Solution:
In order to meet the goal of a standard look and feel, it was decided to duplicate the existing Lake County GIS Interactive Map, rename it City View, and change some of the data available for viewing. This preserved all the familiar functionality so users would not have to learn to use two different maps. In addition, all city zoning and future land use data were combined to create two all-city feature classes. There was one feature class for zoning and one feature class for future land use, rather than separate feature classes for each city.

Lake County does not currently permit outside agencies access to its SDE geodatabase, and has not implemented web editing yet; however, participating cities periodically upload new data to a secure FTP site and a county GIS Analyst updates the geodatabase used in the web application. Lake County GIS is continually seeking how to best leverage GIS resources efficiently to benefit the broadest range of users at the lowest overall cost.



The final product resulted in Lake County's new City View interactive map which now makes all participating city land use data available in one map. The user can interactively zoom to a desired area, or use the Zoom to dropdown list of cities to go directly to the extents of one of the participating cities. The Identify button allows users to see exactly what zoning code or future land use designation is on a particular property. The Help page lists the participating cities' web pages where additional information can be obtained, along with an explanation of how each of the buttons function. Users can also search for specific properties using various criteria.

All data layers are organized into logical groups based on themes in the table of contents. The county's base map features are in a group called BASE FEATURES (including such layers as streets, lakes, parcels, etc...) and individual city layers are grouped by city name. The user can turn on or off a whole city with a single click, making the data more easily accessed and understood. The thematic group layers concept used in all our GIS interactive maps should make City View easy to use especially for those users who are already familiar with the ArcServer based County View interactive map.

The CFGIS Map Gallery has been entirely refreshed. Check it out at www.cfgis.org!

The Benefit:

Combining all the city data into two layers (city zoning and city future land use), and creating a single web map to query and display the data has saved development and maintenance time for county staff. For city staff, time once spent answering phone calls and inquiries concerning land use codes can now be redirected to more productive work. It has also provided valuable information to the public in a single location. Research has become easier and decisions can now be made quicker.

City View may become the flagship project that will open the door to additional future intergovernmental collaboration efforts utilizing GIS technologies. It is often during challenging economic times that sharing of data and resources is more acceptable and can enhance efficiencies which produce more all encompassing solutions to best leverage GIS technology investments. Federal, state, and local governments are realizing that GIS technologies add tremendous value by visualizing choice across all business functions.

Furthermore, many entities are realizing that GIS technologies often champion a cause greater than itself as intergovernmental collaboration becomes more than just a buzzword these days. Collaboration is becoming more integrated into the strategic plan of many organizations, and at the very least within IT and GIS entities. The goal is to "help people make better decisions" and achieving this through economies of scale where applicable. City View is an excellent example of how this can be accomplished.

Upcoming CFGIS GIS Day Celebration – October 28, 2010

By the ECFRPC GIS Team

GIS Day is recognized worldwide, it has been part of the geographic awareness week celebration since 1987 when the National Geographic Society first began the week long celebration. It was in this spirit that the Central Florida GIS Day Celebration was created and this year we are continuing the tradition.

Need GISP Points? Volunteer with CFGIS!

Be sure to **join CFGIS on October 28th, 2010 at the Turkey Lake Service Plaza** as we celebrate GIS Day. This year's celebration is a great opportunity to network with peers, see great presentations from throughout the region, and raise awareness of GIS throughout the Central Florida community.

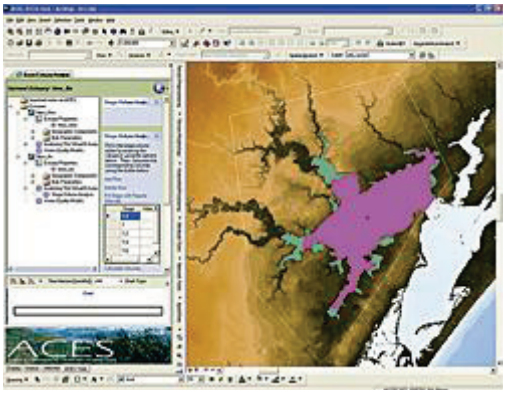
The Celebration will take place from 10 am (registration 9:30 am) until 3 pm and will include a government exhibit area, map gallery, presentations, and other activities occurring throughout the day. Attendees will have the opportunity to win raffle prizes and compete in fun spatially themed games. Be sure to check the CFGIS website as the meeting gets closer to learn more about this great GIS celebration. Preregister for the event by clicking here.

If you have questions about volunteering, presenting, sponsorship opportunities or any additional information please contact Claudia Paskauskas at Claudia@ecfrpc.org or visit www.cfgis.org for additional information.

"Ability is what you're capable of doing. Motivation determines what you do. Attitude determines how well you do it." Raymond Chandler

The Virtual Estuary – New GIS Tool for Exploration and Analysis

By Sandra Fox, SJRWMD and Stephen Bourne, PBS&J -ArcUser Spring 2010



A new GIS tool is under development that will help scientists better effectively study coastal and estuary systems. The tool is being designed through the cooperation of the St. Johns River Water Management District and several entities. The tool, when completed, will be one of the first comprehensive coastal and estuarine tools. By using the tool, scientists will be able to better monitor the health of complex estuarine environments. To read the full article click here

GeoDesign: The Emergence of a Tight-Coupling Approach in GIS and Spatial Planning

By Juan Carlos Vargas-Moreno, MIT – Planning Technology Today

Technological innovations are changing both the practice of planning and design, and the ways proposals are generated, evaluated, executed and monitored. Today's hardware and software allow designers and planners to rapidly construct sophisticated support systems and execute previously impossible solutions. The term GeoDesign has been proposed to refer to these innovative approaches which integrate geospatial analysis with the planning and design process. This article aims at gathering the most important concepts and definitions, and sharing my views on this concept and its attributes.

The definition of GeoDesign is the first challenge. Some definitions refer to GeoDesign as the set of techniques and enabling technologies for planning built and natural environments in an integrated process (Flaxman, 2010). The shortcoming of this definitions is that it conceives GeoDesign as a collection of processes and supporting technologies already established in traditional disciplines. Here GeoDesign results only on technologically-enhanced propositions .

Conversely, understanding GeoDesign as a "tight-coupling" may serve better in a context where the design processes and related technologies are systems in continuous transformation and evolution. Under a "tight-coupling" vision, GeoDesign must be conceived as the result of a systems integration process. The integration of systems essentially seeks to fuse capabilities of the individual systems in order to provide the desired level of usability (Abel, Kilby, & Davis, 1994). Therefore, I suggest defining GeoDesign as the act of integrating the constantly transforming techniques, concepts and approaches in design and planning with GeoSpatial systems and technologies. GeoDesign's aim is to create more comprehensive and rapid solutions for both processes and forms of the built and natural environment. This definition suggests transforming design and planning practices to a technology-supported feedback loop that allows the rapid conceptualization, articulation, visualization, modeling, and monitoring of transformations in a variety of geographic environments.

Click here to Read the Full Article

"Fundamental progress has to do with the reinterpretation of basic ideas."
Alfred North Whitehead

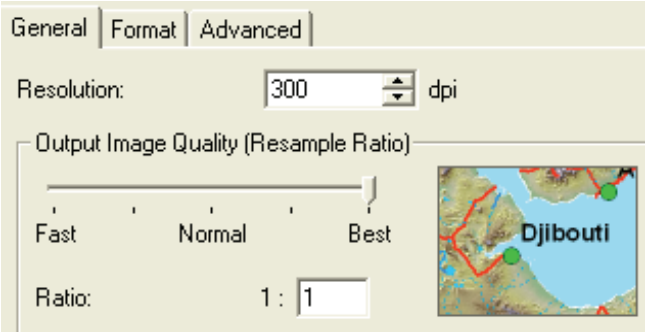
Tips and Tricks: Exporting a Map, Understanding your Options

By Keith Smith, East Central Florida Regional Planning Council

Most GIS practitioners have experimented with variations on DPI (dots per inch) and the various formats which are available for export, but along with the resolution tab there are two additional tabs for exporting maps which can be very valuable and help to make maps look even better. This tips and tricks will explain the three export tabs providing an understanding of not only how to use them but why they make a difference.

Remember to visit www.cfgis.org to see our updated maps!!!

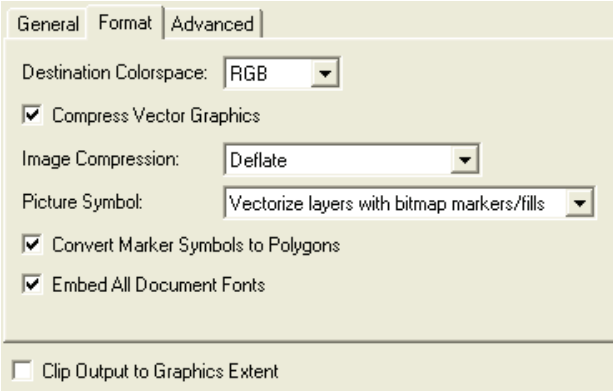
"Good actions give strength to ourselves and inspire good actions in others." Plato



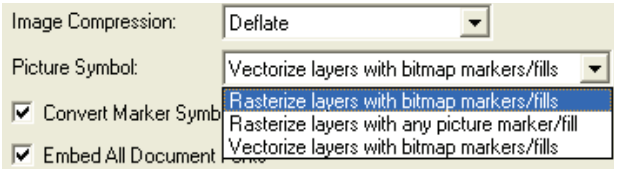
The first tab which is the most commonly used is the general tab. This is where the DPI is set and the image quality is determined. While this tab is fairly clear for users to understand the higher the image quality and the higher the DPI, the more crisp the map output but what many don't realize is how DPI makes a difference. The DPI is actually related to a measurement of spatial density, meaning the number of dots which can be placed within 1 inch. This density will make a large difference on raster data. Vector data being mathematical in nature is not as easily affected by DPI but portions of the vector lines may be composed of raster images, as well as other map elements. In short the higher the DPI the more crisp the image but the larger the size in most cases.

The Format Tab has options pertaining to the way that the computer will interpret the colors and how images will be treated.

The destination colorspace defines what type of color scheme will be utilized. RGB represents the additive colors of Red, Green, and Blue. CMYK represents subtractive colors Cyan, Magenta, Yellow, and Black. Determining which colorspace will be used can be determined by the ultimate use of the map that is being exported. Computer monitors use the RGB colorspace for displaying colors, while many printers use CMYK for printing. This can be noticed in some cases where the printed map has certain colors that seem to be heavier or more faded than the digital version. If the primary use of the map will be for display on screen or in a PowerPoint presentation then the RGB settings will give the best results but if the intentions are exporting the map for print then the CMYK will give the best results.

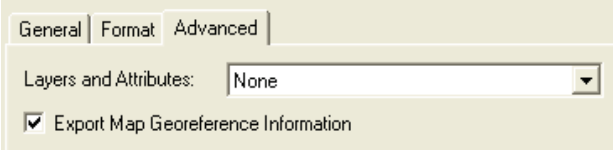


The Compress Vector Graphics checkbox is very straight forward this option will help to reduce the overall size of the map output by performing a compression on the graphics in the map document. There are several options for compression RLE, LZW, or deflate. RLE (run-length encoding) is an older format which was designed for compression of simple images but use on complicated images can cause the file size to become large. LZW (Lempel-ZIV-Welch) compression is a lossless image compression which is generally associated with TIFF images. This works by identifying patterns and then saving them to reduce the overall size. The third option is deflate, deflate is also lossless compression format but works to compress using bit reduction and removing duplicate patterns into one.



In the picture symbol dropdown there are three options, rasterize layers with bitmap markers/fills, rasterize layers with any picture marker/fills, and vectorize layers with bitmap markers/fills. Certain map elements will become raster when exported including transparencies, images and picture symbols. When exporting from Arcmap the layers below the data layer that contains the BMP or transparent symbology will be converted to a flat image. The vectorize layers option avoids this flattening and keeps outputs as vectors with the exception of transparencies which must undergo a rasterization. The rasterize layers option will prevent the BMP and transparencies from causing rasterization to all layers underneath them in the map document.

The Convert Marker Symbols to Polygons and embed all document fonts are useful in ensuring that the specific fonts and unique symbology appear on any users computer. While this increases some size of the document it is good practice to keep these options checked to assure that others will see the map as intended, especially in the case of specialized custom symbols.



The final tab is the advanced tab. In some cases special attributes and layers for export that can be contained within a PDF document can be exported. These additional options may not always be available or require additional software to fully be utilized. Under the dropdown for layers and attributes there are options to export PDF layers only or PDF layers and feature attributes, along with a checkbox to export Map Georeference Information. Some adobe acrobat products have a layers tab and the object data tool which allows layers to be turned off and on and select information about attributes displayed.

These three tabs when utilized fully can create professional maps and ensure that the map output is displayed properly.

Upcoming Events

- **July 30 - CFGIS Users Group Meeting - FDOT D5 Offices - Orlando, FL**
- September 9-10 - 17th Annual South Florida GIS Expo - Palm Beach, FL
- **September 14-17 - Florida APA Annual Conference - Tampa Bay, FL**
- September 23-24 - CFGIS Workshop - Daytona Beach, FL
- **September 28 - Oct 1st - URISA Annual Conference GIS-Pro 2010 - Orlando, FL**
- October 15 - 17 - NEXT GEN Expo - West Palm Beach, FL
- **October 28 - CFGIS GID Day Celebration - Turkey Lake Service Plaza Orlando, FL**
- November 17-18 - SHRUG - Tallahassee, FL

Check the CFGIS website (www.cfgis.org) for more events!

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