

Meeting Description: Michigan Geographic Framework Users Meeting

Date: December 5, 2002

Time: 10:00 a.m.

Location: Michigan Center for Geographic Information, George W. Romney Building, 10th Floor, Conference Room

I. Approval of November Meeting Minutes

II. Geographic Framework Program

A. Act 51 Reconciliation Update

Rob Surber, Michigan Center for Geographic Information (CGI), distributed a status map. The reconciliation process is well underway. Seven counties in the thumb area and Berrien County are completely seamed. Thirty-four counties are getting a second round of quality control at Michigan State Industries (MSI). Everett Root, CGI, added that MSI moved equipment and staff a week ago Monday to their new location in Detroit.

Rob Surber, MSI, commented that MSI is doing a complete check of CGI's work. They are also checking the differences between certified road names and what is in framework and identifying those in a data base form that will go to local engineers for review. Seventeen counties are in the CGI quality control process. Fifteen counties are in the basic reconciliation process. Ten counties in the Upper Peninsula will be assigned next week. Smaller counties are taking about a week to do reconciliation. The challenge is in map production work. Act 51 process is done on hard copy. The Act 51 process is identifying mileage for road funding. CGI is finalizing decisions of what is on the map. Will have rolling within the next couple of days. Distributed Macomb County and Saginaw County maps as an example of discrepancies. This will be available for engineers to review. The miles that the counties claim are what are posted. A basic map will go with the reference map and it displays by township and differentiates by road ownership, by level of the road, 425 areas, and a complete review of boundaries as certified by the Office of the Great Seal. These will go out in January to county engineers and they will have three months to finish the work.

Ann VanSlembrouck, SEMCOG, asked how the mileage number in red is derived.

Rob Surber, CGI, responded that the differences between what the county is claiming on their Act 51 maps and what is in GIS. CGI is asking them to verify it. Anything in the rural areas less than 100 feet difference between what is on the photo and what they are claiming, CGI is taking what county has and anything over 100 feet is marked by CGI. In urban areas, clearly defined cal-du-sacs and is greater than 30 feet is being marked.

Everett Root, CGI, added that the intersection to intersection lengths come out of the GIS.

Rob Surber, CGI, commented that that comes from the repositioning of the state based on digital ortho photography product. The differences are often negligible.

Everett Root, CGI, added that one county had 1,600 miles of roads and there was only 8 miles different.

Rob Surber, CGI, commented that repositioning shows +/- 10 feet. In the past there hasn't been one way to fairly review everyone's work at one time. After the counties review the maps, they have Act 51 reporting forms and map updates to return to CGI. At this time they send it as a hard copy product. The plan is to move this to a complete digital process. It will be a phased-in approach. The key is that the county engineers approve it.

Valdis Kalnins, Allegan County, commented that it seems that it would be easier if they returned in hard copy form and then changes could be made as part of the reconciliation process. The GIS could then submit any new Act 51 roads. How long will it take CGI to make the updates and what version of framework will it be on?

Rob Surber, CGI, responded that it will go on the next referencing version of framework. And Rob suspects that it won't settle down for a couple of years.

Jeroen Wagendorp, Allegan County, asked how CGI deals with roads that cross township boundaries?

Rob Surber, CGI, responded that it is defined by convention.

Everett Root, CGI, added that they total up county road mileage and be sure that it only gets labeled on one map.

Rob Surber, CGI, commented that whoever owns the road is an issue and is captured as part of this process from previous reporting. It is identified symbolically as a different line type. They are going to see what they are used to seeing. CGI will try to minimize cartography product changes. At this time, the process is a year lag time from when they report to when they receive money, but the word is that the process will be speeded up. As roads are being built they will be added in right away and the Act 51 process becomes an attribute. It will be available for geographic information system (GIS) users sooner. Oakland County is going to MSI today for quality control. Macomb County is done tomorrow and going out. CGI has 3 shifts working on Wayne County and they work on the live file. Kent, Ottawa, and Jackson Counties will be sent to MSI next week. A couple of the Upper Peninsula counties that were repositioned and National Hydro Dataset (NHD) preparation are being integrated before starting this process.

B. Framework Versioning

Rob Surber, CGI, reported that at the last meeting put out a proposal of 1 referencing version per year to be delivered around April–June. That is coinciding with systems ((Transportation Management System (TMS), crash system, RoadSoft, Act 51)) that require a new version. The Asset Management law and council expects the counties back by in May 2. The point is that this file will be referencing version – it will have mile points at all intersections and will be able to migrate data from version to version. CGI will produce on demand at other times as needed but it will not be an official referencing version. It will come with labels and if data is put on this you will have to migrate it. CGI will come out with an Act 51 version to produce cartographic map products. This will be made available on the CGI web site and will come with caution labels. If there is need for a GIS version with a particular date, it will be a custom version. CGI will keep copy an archive of that version. In 2003 there will be referencing version and Act 51 version.

Scott Oppman, Oakland County GIS, asked what the lag time will be and what will it include

Rob Surber, CGI, commented that at this point in the process many roads have been sent in that will be later than December 31, 2002. So by the time CGI gets to the referencing release all the trunkline will be up-to-date. It takes a few weeks to do quality control. With the Act 51 process being revised, hope there will not be that lag time. Will work toward having it within a few months of the time the roads are built. CGI will be the last resort for functioning in this area. Want to get the updates in as soon as possible, but they won't be certified until they go through the process.

C. Digital Ortho Update

Sherm Hollander, Michigan Department of Natural Resources (MDNR), distributed a status map. There are holes in the Upper Peninsula. Marquette and Luce Counties are now complete. They are acquiring a large block of western Upper Peninsula DOQs from the United States Geological Survey (USGS) in January. The entire region will be done then. MDNR is getting work in production. Roscommon County is scheduled for reprojecting. They are waiting for final production block for portions of Montmorency, Otsego, Emmet, and Cheboygan Counties. There has been a 7-year update cycle. Michigan will be eligible for reflight around 2005.

Rob Surber, CGI, stated that the state is shifting its funding priorities because of Homeland Security.

Sherm Hollander, MDNR, added that ortho photography cost-share funds have been redirected to the Homeland Security effort.

Rob Surber, CGI, commented that the intent of the state is to have a regular cycle. There is a need at the state level to do business.

Valdis Kalnins, Allegan County, asked if there is a plan to do a 1998 Series for the southern part of Clinton.

Sherm Hollander, MDNR, added that they are trying to get funding to fill in the rest of the state. This is the final year for the contract that is in place with private contractor and hope to get as much done as soon as possible.

Jeroen Wagendorp, Allegan County, stated that St. Joseph County has just been done locally.

Sherm Hollander, MDNR, commented that there are a lot of counties that are doing their own high-resolution orthos.

Rob Surber, CGI, commented that if a county is interested in talking about sharing, please contact Rob Surber or Sherm Hollander. The issue is that the state is going to make sure it can conduct business however they can get there.

D. National Hydrography Dataset (NHD)Update

Rob Surber, CGI, reported that he met with Washington folks about the statewide proposal. They like it and they like the proposal and the approach but the issue is money. The priorities have been revised priorities to cover watersheds which end up in 17 in the 5 urban areas in Michigan which are classified as 133 nationwide areas. The areas are southeast Michigan, a little of Monroe County, Flint, Lansing, and Grand Rapids. This covers whole or part of 17 watersheds. The approach that CGI would take is to do the complete watershed even if they touch the urban area in any way. The USGS feels comfortable with that. The number of hydro arcs is about 1/3 of the state that would be receiving hydro attribution. Other than the St. Joseph watershed and the tip of the thumb it is a good chunk of the state. St. Joseph area is to be done through an Environmental Protection Agency (EPA) grant with Indiana.

Scott Oppman, Oakland County, asked how counties that have higher resolution NHD attribution would be handled.

Rob Surber, CGI, responded that they would need to look at how to incorporate them not only for the first time but also for long-term maintenance. That is part of the Innovative Proposal (IP) because there will be some work with standards and interface information sharing.

Jeroen Wagendorp, Allegan County, asked about the county drain layer.

Rob Surber, CGI, asked if counties coordinate at the county line for the balance of a watershed – is there a business interest for them to do so?

Scott Oppman, Oakland County, responded that if it is a drain that they have responsibility for maintaining outside the county boundary.

Rob Surber, CGI, stated that under the U.S. Forest Service (USFS) agreement, the group agreed that if they had better hydro centerline and it supports their business, take it and drop into state's network. That integration is covered under IP grant for a subsequent year. He was not sure of the timeframe - may have time to work on the issues.

Scott Oppman, Oakland County, commented that it was a pain to convert the NHD to their high-res hydrography. And it will be important for them to maintain that because of the EPA grant requirements they have tied to the Reach data.

Rob Surber, CGI, added that in addition to county geography information system (GIS) offices, the drain commissions' communities would also be interested. Rob will speak to the drain commissioners in February. There will be a hydrologist on the project and they want to tie in the Michigan Department of Transportation (MDOT) maps from drain commissions.

Joyce Newell, MDOT, stated that MDOT is sent an assessment for using drains for roads.

E. Framework Pilot Partnerships Update

Rob Surber, CGI, reported that they are working with a couple of counties now in exploring how to send updates to framework in support of state to local processes. Branch and Allegan Counties' clerks are becoming interested in off-loading the work.

Jeroen Wagendorp, Allegan County, stated that he met with clerks to be sure that they are not stepping on toes and the clerks are happy to turn the work over to the GIS office.

Valdis Kalnins, Allegan County, reported that things are working fine with Rayan Ray, CGI, and their focus on new roads. Because some roads are not in framework and may be moving voters around, instead of faxing to CGI, they are faxing to the county GIS office and they put in roads.

Rob Surber, CGI, commented that the clerks are satisfied with the information going in.

Jeroen Wagendorp, Allegan County, added that townships have a way of doing things themselves and they are fine with the changes.

Valdis Kalnins, Allegan County, added that the main issue is turn around time.

Rob Surber, CGI, stated that one time a county sent in requests and CGI missed roads and the clerk caught it.

Valdis Kalnins, Allegan County, added that Allegan GIS would like to move Act 51 to same method.

Mike Hass, Branch County, stated that Branch County would also like to get behind this.

Rob Surber, CGI, commented that CGI is working on more automation. There are pros and cons.

F. United States Postal Service (USPS) ZIP Code Partnership

Rob Surber, CGI, reported that CGI has started a partnership with USPS. CGI wants to map on hardcopy zip code changes and put in a description. If it works well, would like to do more. The USPS came to CGI because clerks want better information.

G. United States Geological Survey (USGS) State Cooperators Forum Report

Rob Surber, CGI, reported that the eastern USGS Forum talked about the NHD elevation ortho program. Then they worked at trying to make sense of other programs. The National Spatial Data Infrastructure (NSDI) is the center point to all programs. The Geo Spatial 1-Stop is an acceleration to the NSDI concept, which means standards are developed and there is a portal for sharing information. The national map got the most activity and that is an extension of the topography map concept. The world is moving to a digital environment. It is taking thematic maps as well. A pilot is underway. At this time, they didn't have the pilot information available. The states want guidance. The National Map is looking for updates by theme. USGS has taken the lead in hydro and ortho elevation but transportation got fuzzy. The Census Bureau is the lead for government boundaries and the road network. The state of Michigan and the Census Bureau are talking about a relationship that share updates.

Gordon Rector, U.S. Census Bureau, reported that they have a contract with the Harris Corp. The Census Bureau hopes to see a list of counties and states to reposition and a timetable.

Scott Oppman, Oakland County, stated that a National Academy of Science is to study National Map and it is going to impress that there should not be a local data set and state data set.

Ann VanSlembrouck, SEMCOG, asked if orthos and partnering were mentioned.

Rob Surber, CGI, responded that they are very interested in the 133 urban areas and that SEMCOG is working on a 2005 plan. Would like to send group to talk to SEMCOG and Grand Rapids. They obviously have to target certain areas first.

III. Michigan Department of Natural Resources (MDNR) Projects and Activities Sherm Hollander, MDNR, nothing to report.

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that their staff is working on Act 51. They produced a tabular physical referencing (PR) finder tool. It is a FoxPro program and if there is a divided road it gives both sides on the screen. Crash location is using Version 1 until Version 3 is released. The Transportation Management System (TMS) put out Version 1 for all user testing but are moving to Version 2 quickly. They have migrated data previous to Version 1 to Version 1 with no problem. TMS has a road referencing system but no mapping. It is a precursor to the Asset Management System. There is discussion of using TMS. They had originally been working on coding all-season roads because it is in the state budget there is a law to come up with statewide map by October and they will migrate to Version 3 framework and carry along with framework. MDOT decided not to go strictly with Census Urban Area Boundaries for expansion for transportation use. None will be approved until January, but will then be added into framework. This will determine whether a road is considered urban or rural for federal funding purposes.

Mike Hass, Branch County, asked how the boundaries are drawn.

Joyce Newell, MDOT, responded that she assumed the Census boundaries and might have included old boundaries before 2000 census.

Rob Surber, CGI, added it is detailed and CGI has information.

Joyce Newell, MDOT, commented that Federal Aid boundaries have to include Census boundaries and can include areas that are considered urban.

Rob Surber, CGI, added that this has implications to Act 51 funding formula.

Joyce Newell, MDOT, added that funding is related to whether it is urban or rural. There was a question regarding Wayne State and Capital Data on coding city bus routes (linehaul routes) on a Phase 2 product - looking for a way to bring forward to a current version. Work done then probably needs to be updated. There is a person who plans to code it manually.

Ann VanSlembrouck, SEMCOG, commented that SEMCOG did work on bus routes a couple years ago. Is it Detroit Department of Transportation (DDOT) or Smart?

Joyce Newell, MDOT, added that any established bus route throughout the state. MDOT wants to bring forward to Version 2. MDOT contacted Wayne State University to do the work originally. MDOT wants CGI to get all-season roads and functional classifications on the web. They may also do with bus routes. Next week their GIS team will be out collecting data in RoadSoft in Macomb County (picked by Asset Management Council).

V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities

Nobody present.

VI. Michigan State Police (MSP) Projects and Activities

Eric Nischan, MSP, reported that they are wrapping up buying Map Image Viewer. Eric went to St. Clair County 's monthly GIS user meeting. The Marysville Fire Department is using a GIS for their emergency management system (EMS). St. Clair County got software from an ESRI grant for Homeland Security. They are using the framework.

Rob Surber, CGI, commented that there is a new initiative to handle all 9-1-1 cell phone calls for the entire Upper Peninsula through the MSP at one location. They need a good base. Some company is working with the MSP.

Eric Nischan, MSP, added that he talked to Tom Newell, MSP, who is the bridge between technical and GIS communication. St. Clair County is installing 6 cores towers for global positioning system (GPS), which will continue operating reference stations to get survey grade accuracy. They have a 12-mile diameter for survey grade accuracy. They are paying for because of cost savings they can get for surveying - they will not have to go out and manually survey.

Scott Oppman, Oakland County, asked if the state police have established a standard data layer for Homeland Security issues that they want the counties to collect.

Eric Nischan, MSP, responded that he is trying to get a definition for critical infrastructure for Homeland Security.

Scott Oppman, Oakland County GIS, asked who is responsible for making the decision.

Eric Nischan, MSP, responded that there is a Homeland Security section that is in charge of coordinating all of this.

Scott Oppman, Oakland County GIS, commented that we need to be sure we are all collecting the same data.

Rob Surber, CGI, stated that we are in a transition now with our new governor coming in. There is also the Chief Security Officer, Department of Information Technology, who is responsible for Homeland Security technology. It comes down to who is going to be leading this effort.

Scott Oppman, Oakland County GIS, stated that as GIS professionals they should get together as a group and compare what information they have been asked to provide. And they could all collectively gather the same information for their areas.

VII. Michigan State Industries (MSI) Projects and Activities

Nobody present.

VIII. CGI Projects and Activities

A. Map MI Demo Announcement

Rob Surber, CGI, reported that Map Michigan will be unveiled the third week in January. It is the state mapping service to find routing around the state. There will be a demo next time for the group before the actual unveiling.

B. Management Positions

Rob Surber, CGI, reported that because of the reorganization, CGI posted 3 management positions and will go through interview process. One is Enterprise Geo-Data Development, Internet Application Development, and Infrastructure. There was another management position, Agency Services, that was filled by a person who transferred into CGI from MDNR-RMAP.

Everett Root, CGI, commented that the 2000 Legislative Districts links on the web site will be there soon. It will be under the statewide area of the geographic data library.

Rob Surber, CGI, stated CGI has been working with Bill Enslin, MSU, and the Conservation Reserve Enhancement Program (CREP) program for the Department of Agriculture (DOA). There was a successful demonstration to a DOA region using framework and integrating local data in support of the CREP program.

IX. MSU Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU, reported that Eric Nischan, Michigan State Police (MSP) gave MSU new data for dams, fire stations, police stations, and hospitals to incorporate into viewer. There are some issues in the quality of the data. Also the Super-fund Amendment and Reauthorization Act (SARA) Title 3 data will be incorporated. Also working on statewide release that will be on multiple CDs or DVD. That raised issues on revisiting the code because some features are larger than objects. In that version there will be datasets that will not be distributed in the county version. They went back with the viewer and used Version 1 hydro layer because of inconsistency in river areas. They felt that it was more important for the Viewer to be more cartographic. They added a site reporting tool that the user can click the location on the map and it will define the layers, attributes, and distances searched out by themes. They have finished adding capabilities to go to large plots. They have gotten statewide county TIFs for the digital

raster graphics (DRG) in SDE. Bill displayed a digital ortho quad (DOQ) status map. They are using ER Mapper color balance and merge individual quads for a county and compress them. Twelve counties are completed; five counties are in process; and fifteen counties that they have quarter quads in-house. A lot of the process is copying them and getting them on a CD and getting them onto the system. They used the best quarter quad as a template to do the matching with. This works locally, but the Ingham County template doesn't work in the Upper Peninsula. The color is often off and they need to be handled separately from the rest of the mosaicing and merge them back together. They went with 10:1 compression for archival use. They also are creating 50:1 compression for the internet. Eventually these will be like the DRGs and will be mosaiced together. They will meet with Gary Taylor, Sherm Hollander, and Brett Nelson to go through quality control issues to review and how to move to other shops.

Rob Surber, CGI, commented that they are looking at Map MI compatibility to pull up an ortho efficiently.

Jeroen Wagendorp, Allegan County, suggested that they look at JPEG 2000.

Bill Enslin, MSU, stated that it is a changing game. They have ER Mapper web server up and running and it does a good job serving over the internet. There will be more than one use for the data sets. The completion time for the statewide DVD is within a couple of weeks. They are also adding digital elevation module (DEM) data to county files. The main area has been the Saginaw Bay watershed and that will be done by Christmas. The other ones will depend on how fast they can get DOQs. It is a dynamic situation – Sherm Hollander's map goes with what they have at the time. In some counties it will be both 1992 black and white and 1998 color infrared. As the new 1998 becomes available, they create another one but keep the black and white as a separate reference.

X. County / Local Projects and Activities

Jeroen Wagendorp, Allegan County, asked Scott Oppman if they are happy with the Image America products.

Scott Oppman, Oakland County GIS, responded that it met the needs they had and they realized the limitations going in. They had good ground control and good Digital Terrain Model (DTM). For photo update it was perfect. They delivered in 90 days as they had said they would and the users have been pleased. They got 6 inches for the whole county for \$100 per square mile.

Jeroen Wagendorp, Allegan County, stated that there was a conference in Baltimore and they came up with a nationwide list of metropolitan counties and selected Livingston and Allegan Counties as counties to experience incredible growth. Allegan County is talking about a reflight in a couple of years by Image America.

Scott Oppman, Oakland County GIS, commented that at the end of their project it was not done for this year flight. There are still some banding issues because they are doing digital collection over water and visible scenes. Image America assured Oakland County that they are working on that and there is new technology to accomplish and remove that.

Anita Campbell, Oakland County GIS, commented that the big thing is the mosaicing when seaming a constant feature. They are coming up with an automated process that will select and go around features closer to an automated process.

Scott Oppman, Oakland County GIS, added that Imagine America will run some of the county's data through the new algorithms because they want the county to do an update in a couple of years. Those were the only limitations they found, but it was cheap and it was done in 90 days.

Scott Oppman, Oakland County GIS, reported that they received money from Federal Emergency Management Agency (FEMA) to do the first phase of redelineation of all flood plain boundaries for Oakland County. They are do an inventory of all the engineering studies that were done by the Army Corps of Engineers and other agencies and catagorizing them and going through the process to redelineate the flood plain boundaries. The pilot will be new defirms for two geographic townships. They will also be preparing for funds from FEMA to do full delineation. At that point, the defirms will have local data with new boundaries identified on them.

XI. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that they are still attributing the Michigan Geographic Framework (MGF) with 2000 census block attributes. Programmer wrote a tool so they can just click on and it automatically puts in the block attributes. They have all of Wayne County left to do. They are migrating truck routes to Version 2, which are on pre-Version 1 now. They are also working with the bridge data. The data base their transportation department got from MDOT doesn't match framework.

Joyce Newell, MDOT, commented that some of the problems were with pedestrian bridges. They tied bridges to point id, there is no point id where most pedestrian bridges are. MDOT plans to work on this after Act 51.

Ann VanSlembrouck, SEMCOG, reported that the next Regional GIS Coordination Meeting next week. Jim Bennett, Info Geographics, will speak about software he created to link Equalizer to GIS data. They are moving forward with effort to have one flight for 2005 digital orthos. The next meeting they will go over a concept plan. Internally they put census data into Oracle and are doing training on how to pull data from Oracle and map it in ArcMap.

Bill Enslin, MSU, heard that they took Equalizer apart and built actual link

Abbigail Mueller, West Michigan Regional Planning Council (WMRPC), reported that Ottawa County shoreline waiting for communities to respond. They are trying to meet with all the communities and have only met with three so far. The hazardous mitigation started with account numbers and have been collecting data on the fire, police, and schools. They need flood plain maps and data. Still has to contact Osceola County and Ionia County.

Jeroen Wagendorp, Allegan County, stated that the data is free online from the FEMA product store.

Rob Surber, CGI, added that it is on the CGI site to get their site information.

XII. Federal Projects and Activities

Gordon Rector, U.S. Census Bureau, nothing to report.

XIII. Other Issues

None

XIV. Next Meeting Date

January 9, 2003, 10 a.m. until 12 p.m., Michigan Center for Geographic Information, George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48913