

**Meeting Summary**  
**DataFinder Cafe Upgrade Workgroup**  
**August 12, 2005**  
**(9:00 A.M. to Noon)**

**Attending:** Robert Maki (DNR), David Brandt (Washington County), Ron Wencil (USGS), Chris Cialek (LMIC), Rick Gelbmann (Metropolitan Council), David Bitner (MAC), Brian Huberty (USFWS), Steve Lorbach (St. Paul).

**Absent:** Joella Givens (MnDOT)

**Staff Support Team:** Alison Slaats and Mark Kotz (Metropolitan Council – Co-Managers of DataFinder)

**Observer:** Randall Johnson (MetroGIS Staff Coordinator)

**INTRODUCTIONS AND AGENDA**

After each person present introduced themselves, Kotz and Slaats presented a proposed agenda for the meeting, which included discussion about: Café's current functions, performance problems as a result of Café's aging code, reaching agreement on desired functional priorities and establishing a framework for an action plan. No changes were offered.

The slides used to facilitate discussion can be viewed at  
[http://www.metrogis.org/teams/workgroups/cafe\\_upgrade/0812slides.pdf](http://www.metrogis.org/teams/workgroups/cafe_upgrade/0812slides.pdf).

**WHAT IS THE CAFÉ AND WHAT IS THE PROBLEM?**

Slaats summarized several problems that are currently being experienced:

- No support system for adding to or changing functionality of Cafe (Syncline bankrupt & no staff knowledge of Java)
- Latest version of Cafe not on distribution disks (Important because the server is aging. It is unknown how difficult it would be to transfer Cafe to new server, or if it is even possible.)
- Cafe runs using an old version of ArcIMS (3.1). We are worried about upgrading ArcIMS because we don't know how it will affect the Café. There is a good chance the Café will break.
- Data format conversion portion of Cafe is not working.
- WMS server output is not standards compliant.
- New users (using latest Java) cannot access secure datasets.
- A couple of users have never been able to get Cafe running at all (MnDOT).

Maki commented that problems like those currently being experienced with Café are normal for an application that is three years old and running on the same code that was initially utilized.

**SCOPE AND PURPOSE OF THE WORKGROUP**

Kotz shared the following general statement of purpose provided by the Coordinating Committee when it created this workgroup at its June 29<sup>th</sup> meeting.

*"clarify design needs, document costs for design options, and offer a suggested plan of action for the Coordinating Committee's consideration."*

The group refined its purpose statement to the following:

*"To recommend an implementation strategy for data distribution functionality for MetroGIS, including design needs, costs and an action plan."*

The group concurred that “data distribution” strategy means not only distribution of source data but also distribution via map services, and in particular Open Geographic Consortium (OGC)-compliant web services (e.g., WMS, WFS, WCS, etc.)

The workgroup then deferred to its four members who are also members of the Coordinating Committee to clarify the following direction received from the Committee at its June 29<sup>th</sup> meeting: ....”The Committee also concurred that the matter of deciding how to best go about integrating data delivery functionality (DataFinder) with desired mapping and querying functionality (specifically the Regional GIS Project proposal from the County Data Producers Workgroup) should not be permitted to bog down efforts to upgrade the more important DataFinder Café functionality. It was agreed that the DataFinder Upgrade Workgroup should be charged with recommending a plan for how to best go about meeting both needs through an expandable design, including a phased implementation plan, as more funding may be needed than is available in 2005...”

Discussion of the application development project proposed by County Data Producers Workgroup resulted in the consensus that the two projects (DataFinder and parcel query and mapping application) are different enough in focus that they should be kept separate to simplify tasks, but the group also agreed that monitoring for potential overlaps should be established. Slaats and Brandt agreed to serve as liaisons to accomplish the desired monitoring function with a goal to share common work and not duplicate effort.

In response to questions from the group about available funding, Johnson commented that \$15,500 in funding in the 2005 budget that can be used for DataFinder related projects and an additional \$15,000 in federal (NSDI) grant funds are available, provided the solution involves OGC-compliant web services.

#### **DATA DISTRIBUTION FUNCTIONALITY NEEDS AND PRIORITIES**

Kotz and Slaats summarized the results of three surveys that were conducted from May to July 2005 concerning perceptions on the value of the Café’s functionality.

a) Browsing: Kotz reported that browse-related functions (view spatial data, attributes, metadata, and zooming) are all rated highly. All agreed that it is encouraging to see the user community seeking out metadata.

b) Downloading: Slaats reported that 20% of DataFinder downloads are from the Café and 80% from FTP. The bundling component supported by Café’s data extraction function received a high rating. Maki commented that DNR’s experience with their Data Deli is that they have not had much success to date getting their users to utilize the bundling function but that once they are aware they do seem to use it more often. The group spent a good deal of time talking about the finding that relatively few licensed users were using the clipping function to download licensed data. The combination of clipping and security functions do not seem to be available in off-the-shelf products. The group spent some time talking about options to minimize costs with the next design without eliminating this functionality.

Brandt noted that maintaining the current clipping function would be valuable to Washington County’s support relationship with its cities. Johnson commented that the needs of the school district routing community which utilize Versatrans and Edulog software were a major consideration in the design that is currently in place. These applications utilize geospatial data in Shapefile format but most of the districts do not have GIS software in house to clip their jurisdictions from the regional datasets distributed via Data Finder. Kotz noted that no school districts appear to be using this functionality.

The group generally agreed that based upon the survey results the clipping function does not qualify for a higher priority for the next-generation design but that the new design also needs to be extendable if the demand for this functionality grows. Johnson commented that the strategy for a next-generation product should be presented to the Versatrans and Edulog communities for comment. If they believe the priority should be higher, maybe a partnership opportunity should be explored, possibly for a simpler tool to address the need.

c) Format: Slaats reported that over the three years that Café has been in existence, only 458 downloads have been recorded in a format other than ESRI's Shapefile format from a total download universe in excess of 16,000. More significantly, only 4 such format changes had been made by logged-in users (required for parcel or centerline data). All agreed that each of the conversion formats that had been requested is associated with applications that can read ESRI Shapefiles. As such, all agreed that the next-generation design should not include the currently supported FME software, concurring that this little amount use does not justify the an annual expense of \$2,800 (in 2005 dollars) in software maintenance fees.

d) Data Sources: Although the community did not rate very high their opportunity to use DataFinder as a distribution tool, all agreed that the current policy (2003-2005 Business Plan) of fostering broader use of DataFinder by more organizations as a distribution tool should be continued. Johnson raised the topic of Geospatial One-Stop and its expectations for nodes such as DataFinder. Wencl commented that there is no clear policy in this regard to his knowledge other than the USGS would prefer to work directly with the 50 states. He recognized that this preference is troublesome in Minnesota and that it does not work well with the regional nodes such as DataFinder. There was no other discussion of options or design implications.

e) Security: All agreed that the next-generation design must provide for secure access, at minimum, for parcel data. All agreed that security functionality involves a good deal of complexity and cost to the design in combination with other functions that require customized programming. Kotz offered an option of supporting distribution of parcel data only via FTP as a possible consideration to reduce costs. The topic of providing view-only (browse) access to secure data without the need for licensure via web service technology also was raised. Johnson confirmed that the Emergency Preparedness and County Data Producer Workgroups have identified a need to implement such a policy. Staff knows of no one who is opposed to providing the source data for viewing, as long as the raw data cannot be accessed.

f) WMS Server: Although the user community rated low the ability for DataFinder to distribute web map services, the group concurred that this functionality should maintain a high priority for the next generation design, given the trends in the industry. The group also discussed whether web map services should be part of DataFinder's capabilities and accepted the notion to separate WMS server pieces from the data distribution application. Though, regardless of where the services are hosted, it was agreed that it will be important that the user interface provide an intuitive path to access both source data and web services, with the main issue of discussion being how to best handle secure data.

g) Performance Measures: It was agreed that the next-generation design needs to incorporate metrics from which to evaluate progress towards achieving strategic objectives. Cialek noted that the combined download and access to web server activity via the GeoGateway, DNR Data Deli and DataFinder is up 20 percent over that in 2004.

Kotz and Slaats then shared the recommended importance ranking for continuing to support DataFinder's various functional components (Attachment A). The group accepted this recommendation, but changed the format conversion priority to "Low".

#### **IDEAS FOR THE NEXT GENERATION SOLUTION**

Kotz then led a brainstorming exercise to elicit possible solutions to problems currently being experienced with DataFinder. The broad concepts for solutions that were mentioned are as follows. The two highlighted solutions were selected as important options to investigate before the next meeting.

- Hire someone to fix Café or parts of the Café and/or get the open source Fulcrum (from Traverse) and hire someone to recreate Café with it.
- Adopt the Data Deli.

- Beef up collaborative development project (Knippel group) and have tools we need developed as part of that.
- Start over.
- Do only FTP, bag the Café.
- Use existing ArcIMS-based clipping applications.
- Pool money with LMIC (they have GeoIntegrator \$ left) and work on project together (two possible courses – 1) make a “one-off” solution and 2) make it part of larger services architecture vision)
- Use GOS model
- Separate Café pieces into components – viewer only, FTP and WMS and deal with each separately.

Bitner stressed the value of separating the various main functional pieces (viewer, FTP, extraction, WMS server) for development purposes but linking them where appropriate from the user interface. Considerable discussion occurred on this topic, with the group generally agreeing it is a good idea. The group also agreed that the final solution should take into consideration the State GIS Enterprise Architecture proposal of the Governor’s Council on Geographic Information.

#### **ACTION PLAN**

The group agreed to the following action plan.

- Staff: Investigate core Café technology [Fulcrum?] from MassGIS/Traverse and how easy this would be to use. This should include coordination with LMIC.
- Staff: Check costs where practical
- Staff: Prepare list of viable options with cost/risk/benefits for next meeting
- Staff: Redefine functional requirements based on first meeting
- Staff: Create recommendations for review by workgroup at next meeting
- Workgroup: Put together draft proposals for Coordinating Committee
- Coordinating Committee Liaison: Present to coordinating committee in September

#### **ADJOURN AND NEXT MEETING**

The meeting adjourned at 12:15 p.m. The group agreed to meet again in early September.

Prepared by:  
Randall Johnson,  
Mark Kotz and  
Alison Slaats  
(MetroGIS Staff Support Team)

## Attachment A

(Agreed to by the DataFinder Workgroup: August 12, 2005)

### Data Distribution Functionality Priorities Staff Recommendations for Functionality beyond FTP

Question	Survey Response	Actual Use	Staff Recommendation	Comments
Browse (view) the geographic data	3.36		High	
Browse (view) the dataset metadata records	3.18		High	
Browse (view) the attribute data using the identify tool	3.09		Medium/High	
Zoom to a predefined geographic area such as a county	2.70	??	Medium	
Download several datasets in a single bundle	3.16	?	Medium	
Download "secure" datasets (TLG and/or Parcels)	2.94	Low	Medium/Low	Minimal usage
Download "non-secure" datasets (all others)	2.91	High	High	
Clip data to predefined polygon (city, county, etc)	2.46		Medium/Low	Complexity of programming and CPU intensive for complex poly on poly overlay ... ArcIMS can fail
Clip data to self-defined polygon (user draws)	2.36		Medium	Complexity of programming
Clip to viewable extent or bounding box	2.05		Medium/Low	
Select certain fields to download	2.40	?	Medium	
Download format other than shapefile	2.01	Low/medium	Medium/Low Low	High cost for almost no use for secure data, minimal use for other datasets
Access data via a map service	1.83		High	This is the future
The ability to distribute my organization's data on Café	1.71	Low	High	We want to encourage others to participate