Missouri GIS Advisory Committee
2003-2004 Work plan

This report covers the status of action items listed in the 2003-2004 Missouri GIS Advisory Committee (MGISAC) work plan. The work plan was developed from the MGISAC Strategic Plan and covers the July 1, 2003 – June 30, 2004 time period.

Vision

Improving Missouri with Geographic Information Systems

Mission

Foster cooperation among state, local, and federal agencies, educational institutions, private industry, and others in the field of Geographic Information Systems (GIS); provide guidance for the Missouri Spatial Data Information Service (MSDIS) in fulfilling the objectives of the Missouri GIS Strategic Management Plan (SMP); develop GIS standards for the state; provide an arena for discussions of relevant GIS issues; provide expert advice to the chief information officer (CIO) and the GIS community on GIS related issues; facilitate resolution of GIS issues impacting the state; coordinate and facilitate statewide training as needed; and work together with other states on standards and other GIS issues.

Theme Area 1: Outreach/Education/Training

Target Outcome: Increase visibility and understanding of the work of the MGISAC so the committee's purpose, mission, and work is understood more fully by state and local government agencies, the Missouri General Assembly, private enterprise, and others.

Objectives

♦ **Expand visibility and understanding of MGISAC's work within Missouri.**

- *Strategy: Increase the utility of the Web site for MGISAC by posting information such as meeting dates, meeting agendas, meeting minutes, and the like, in a timely manner.*
  MEASURE: The Communications subcommittee will track contributions to and activity on MGISAC Web pages.

  Post regular updates of committee and subcommittee meeting announcements, agendas and minutes to the website (Communications subcommittee, MGISAC webmaster).

Status: The MGISAC web site meeting announcements have been kept up to date and meeting minutes have been revamped into a more maintainable format. Subcommittee meeting announcements have been posted as they have been received, although some Subcommittee areas remained underdeveloped. Communication efforts are ongoing so similar work will continue in FY05. Due to the dynamic nature of this item, it is an on-going item.

- *Strategy: Use written communication through the Office of Information Technology to provide annual updates to ITAB. Develop articles and participate in different media venues.*
  MEASURE: Completion and submission of updates to OIT. Track number, size, and type of conferences attended. Monitor posting of white papers, standards, I-Team plans, and the like, on MGISAC Web site and in appropriate media outlets.

Represent MGISAC at monthly ITAB meetings (MGISAC ITAB Liaison).

Status: MGISAC ITAB liaison designated as MGISAC Chair; position is now an Ex-officio member of ITAB. On-going.

Participate in ITAB strategic planning session (MGISAC Chair, other MGISAC members).

Status: Tony Spicci, Ryan Lanclos, Tim Haithcoat participated. Complete.

Provide Annual Report to ITAB in June and provide updates (as necessary) at ITAB monthly meeting (MGISAC Chair, MGISAC ITAB Liaison).

Status: Will request time on July ITAB Agenda (June meeting canceled); participated in all ITAB meetings since being designated as ITAB ex-officio.

Post annual State's Activities and State Summary to National States Geographic Information Council (NSGIC) website (MGISAC Chair, Communications Subcommittee).

NSGIC is currently formatting the State Summary document for this year. Anticipate completion in July 2004.

Update State GIT Profile (Communications Subcommittee).

Status: Incomplete.

Publish MGISAC outcomes work plan tasking elements to website and distribute to appropriate constituencies via e-mail (Various committees).

Status: This item will be completed upon completion of this report.

- *Strategy: Create separate MGISAC Web site that is supported through MSDIS*
  MEASURE: Ensure the MGISAC has a distinct uniform resource locator (URL) and Web site.

No activities are planned, strategy complete.

Status: Complete.

Host and attend conferences in state and region.

- *Strategy: Organize and host the state GIS conference with associated educational workshops in odd years to promote MGISAC activities and the development of professional networks and user groups. Actively participate in and support the Mid America GIS symposium with associated educational workshops in even years to allow for regional interaction of GIS professionals and the sharing of knowledge, processes, and protocols. Identify conferences and events for MGISAC and/or MSDIS to participate in. Utilize the MGISAC exhibit booth to increase presence at conferences and events.*
  MEASURE: Odd years – State conference held and attendance and participation reported. Even years – Mid America GIS Consortium (MAGIC) symposium held and attendance and participation of Missourians reported. Log conferences attended by membership as representatives of the MGISAC.

Co-host the 2004 Mid America GIS Consortium (MAGIC) symposium with MAGIC. (E&O Subcommittee).

Status: Complete.

Host a display booth in the MAGIC symposium exhibit hall and provide appropriate materials to conference attendees (E&O Subcommittee).

Status: Complete.

Participate in the MAUG Conference (E&O Subcommittee).

Status: Did have participation at the 2003 Conference (David Drum - MORENet, Jeff Schloss – MoDNR).

Host a display booth, participate in and/or sponsor the following state conferences/meeting: Missouri Mappers' Association (MMA), Missouri

Society of Professional Surveyors (MSPS), Missouri Assessors, or others as appropriate (E&O Subcommittee).

MMA – Hosted booth at 2003 MMA Meeting
MSPS – Did not participate in 2003 due to schedule conflicts; will participate in next conference, September 23-25, 2004
Missouri Assessors – Sent members to conference

Participate / send member attendees to the following national conferences/meetings: NSGIC, FGDC, NASCIO or others as appropriate (E&O Subcommittee).

NSGIC Annual – Tim Haithcoat - MSDIS, Tony Spicci - MDC
NSGIC Midyear – Tim Haithcoat - MSDIS
FGDC – Tony Spicci - MDC
NASCIO – Gerry Wethington - OIT
MMA – Jeff Falter – SEMA, Kevin Kuhlmann - City of Innsbrook, Tony Spicci - MDC
Digital Government – Jeff Falter – SEMA, Tony Spicci – MDC

Form a 2005 Missouri Conference Committee to begin planning the 2005 Conference (E&O Subcommittee).

Status: Complete, committee has been formed.

Record the participation of MGISAC members at conference/meetings (Communications Subcommittee).

Status: On-going. MGISAC members directed to respond to David Drum

- **Expand GIS Day participation**

  - *Strategy: Participate in, encourage, and support annual GIS day events.*
    MEASURE: Create a separate MGISAC Web page that contains available resources (presentations, vendor provided, organizations, events calendar) along with a feedback interface that GIS Day participants and sponsors can use to share their events/stories.
    MEASURE: Post to the MGISAC web site a summary of activities and create a white paper that can be provided to MGISAC members and their affiliated organizations for use in articles/press releases.
    MEASURE: GIS Day activities will occur or be sponsored in each of the represented entities of the MGISAC and be included in the annual report.

    Create a link to the GIS Day web pages (E&O Communications Subcommittees).

Status: Incomplete; event planned for November 2004.

Reference (on the MGISAC web page) MGISAC GIS Day activities (E&O, Communications Subcommittees).

Status: Incomplete; event planned for November 2004.

Begin planning for 2004 GIS Day (E&O Subcommittee).

Status: Incomplete; event planned for November 2004.

Create a summary of Missouri GIS Day activities and submit for annual report (E&O Subcommittee).

Status: Incomplete; event planned for November 2004.

- **Educate and inform citizenry about GIS issues.**
  - *Strategy*: *Develop introductory GIS materials for exhibit booth as well as informational materials for managers, legislators, the public, and so on.*
    MEASURE: Ensure that printed copies are available for participant use at conferences and that information is available via the MGISAC Web site.

    Organize a GIS awareness event at the Capitol for legislators and staff (O&E Subcommittee).

    Status: GIS Day held April 27, 2004. Complete.

    Review and update (on an annual basis) the MGISAC brochure (O&E Subcommittee).

    Status: Incomplete; review needs to be done. (Committee held off on redesign until after GIS Day / MAGIC; will be addressed in fall 2004).

    Coordinate GIS training events. (O&E Subcommittee).

    Status: on-going

  - *Strategy*: *Participate in national organizations and initiatives and inform citizenry about these issues and opportunities.*
    MEASURE: Utilize the MGISAC Web site and monthly MGISAC meetings to provide information through regular updates and reports.

    Maintain an active membership in NSGIC and designate a member to represent Missouri (MGISAC Chair and NSGIC liaison).

Status: Complete. Currently 'Institutional Member' and MGISAC Chair, Tony Spicci serves as NSGIC representative.

Develop and foster a liaison group of local government participants to coordinate state GIT activities with local activities (Local Government subcommittee).

Status: Initiated the development of a Local Government subcommittee. The subcommittee is evolving and will likely formalize in the fall of 2004. A meeting is being planned, to begin information gathering directly from local government GIT users. The meeting may be one central meeting, or several meetings spread across the state.

A survey has been developed and released through the MSDIS website. The survey is still open, and will continue in the near future. The initial purpose of the survey and meetings is to develop a mission and list of objectives for the group.

The group intends to develop a name that will allow it to function as both a sub-committee of the MGISAC and an independent caucus of Local Government GIT users.

Capture participation in minutes and post to website (Secretary, Communications subcommittee).

Status: Complete and on-going.

Develop a delivery mechanism for pertinent GIT/MGISAC information to citizenry in a manner that is appropriate and understandable (Communications subcommittee).

Status: Incomplete; will be addressed in next work plan.

♦ **Expand knowledge and awareness of Geographic Information Technology (GIT) training opportunities.**

- *Strategy: Identify and post inventory of training opportunities on Web site and update quarterly.*
  MEASURE: Verify that information is available and that quarterly updates are made.

Identify and post inventory of training opportunities on the web site and update quarterly (E&O sub).

Status: This is being published through the MSDIS website; on-going.

Theme Area 2: Data Layers/Data Standards

Target Outcome: To promote accessibility of all GIS data within Missouri.

Objectives

♦ **Establish and publish an inventory of data holdings available at the MSDIS.**

- *Strategy: Inventory the data holdings available at the MSDIS, grouping them thematically and posting this information in a searchable format.*
  MEASURE: Completion and maintenance of this inventory activity on MSDIS Web pages.

  Referenced in MSDIS Work plan.

♦ **Facilitate metadata development for inventory databases.**

- *Strategy: Increase utility of data holdings by working with data producers to aid in the development of Federal Geographic Data Committee (FGDC)-compliant metadata for their data contributions to the MSDIS Web site.*
  MEASURE: Percent of data holdings with FGDC-compliant metadata within MSDIS archive.

  Referenced in MSDIS Work plan.

♦ **Identify gaps in the data inventory.**

- *Strategy: Conduct data survey and needs assessment across the state and cross-reference them to the data holdings at MSDIS, identifying incomplete or unavailable data that are needed by the widest audiences and are of the greatest utility to data consumers.*
  MEASURE: Completion of survey and needs assessment, and presentation to the MGISAC.

  Referenced in MSDIS Work plan.

♦ **Develop a comprehensive searchable, graphical interface.**

- *Strategy: Increase utility of MSDIS Web site for data discovery and query by thematically grouping data holdings and by developing a more comprehensive graphic user interface for interaction with the metadata elements compiled for these data.*
  MEASURE: Redesign of MSDIS Web site and development of a schedule to establish and track milestones. This schedule will be developed jointly by MSDIS and MGISAC.

Referenced in MSDIS Work plan.

<u>Target Outcome:</u> To facilitate the development of GIS information in Missouri.

<u>Objectives</u>

♦ **Establish a data development subcommittee (formerly the Implementation team) and develop an implementation plan for each thematic layer identified by the MGISAC.**

- *<u>Strategy</u>: Identify data stewards and develop data specific implementation plans for data layers. Publish plans on Web site for review, comment, and revision. Publish final draft of implementation plan on MGISAC Web site.* <u>MEASURE:</u> *Completion of data development plans for identified thematic layers based on milestones set by MGISAC.*

   Prioritize data development planning efforts (DDS and MGISAC).

   Status: Implementation team renamed Data Development Subcommittee, Ray Fox and Jeff Schloss co-chairs. No data development plans developed during the year, although activities are getting ramped up.

   Develop milestones for prioritized data layers (DDS and MGISAC).

   Status: No progress made to date. Data Development Subcommittee hosting meeting July 8 bringing together interested state, local, and federal agencies involved in data collection. Meeting participants are being asked to discuss their agencies current efforts and plans. Expected outcome is discovering areas of overlap to encourage cooperative efforts.

   Publish data development plans for review, comment and subsequent revision. (DDS subcommittee).

   Status: Incomplete, see above.

   Develop and submit a proposal to create a web based - statewide addressing geodatabase. (DDS subcommittee).

   Status: Incomplete, see above.

♦ **Increase the amount of data development funded by alternative sources.**

   <u>Strategy</u>: Identify federal and private grant opportunities (research or

operational) in line with the objectives and direction of the agency database development activities that could be pursued. Compile these projects and provide a summary of these external monies.

MEASURE: A report summarizing those database development activities undertaken that were jointly or wholly funded from external (i.e., other than state revenue) funding sources to be submitted by MGISAC to the OIT and Office of Administration-Budget and Planning.

Assemble a listing of grant opportunities and publish to GIS community annually (DDS).

Status: Incomplete, see above.

Report activities in which outside funds (federal, other) were leveraged against state assets to develop data (DDS).

Status: Incomplete, see above.

Demonstrate how certain activities would benefit numerous agencies through the centralization of standards and development projects (DDS).

Status: Incomplete, see above.

Theme Area 3: Missouri Adaptive Enterprise Architecture

Target Outcome: Integrate GIT into the Missouri Adaptive Enterprise Architecture Plan (MAEA) – providing guidance for the development and enhancement of the State Information Technology infrastructure.

Objectives

♦ **Ensure GIT representation at appropriate state architecture domain meetings as development of the MAEA Plan progresses.**

- *Strategy: Working with the OIT, appoint appropriate GIT representatives for the domain areas and committees generated by the MAEA to make recommendations for implementation of architectural elements relevant to GIT. Identify within these discussions those federal, state, and local initiatives that the MAEA would impact.*
  MEASURE*: Active attendance and participation of the MGISAC designees in the activities of the MAEA domains.*

Establish an Architecture Subcommittee to staff the Information Domain / GIT Discipline to assist with the development of the MAEA (Architecture subcommittee).

Status: Working with the OIT and its architecture representatives a team was appointed from the MGISAC and other sources. These GIT representatives formed the initial Information Domain team and now represent just the GIT discipline area

Disseminate geospatial standards for active review process with constituencies coordinated through the Local Government Review group. (Architecture, Local Government subcommittees).

Status: see below

♦ **Coordinate the development of an enterprise architecture plan for GIT integration into the Missouri Adaptive Enterprise Architecture Plan.**

- *Strategy: Synthesize and summarize findings as a template for integration and adoption of GIT within the architecture plans of state and other governance sectors.*
  MEASURE: Coordination of GIT template development.

  Disseminate the work of the subcommittee to the broader GIS Community for review (Architecture subcommittee).

  Status: see below

  Identify and aid in the assessment of GIT product level information for integration into the MAEA (Architecture subcommittee).

  Status: The GIT Discipline within the MAEA has been described and documented within the architecture framework. The GIT Discipline covers all technologies and standards pertaining to the development of the geospatial infrastructure, its data and metadata. The interaction with other domains has also been identified. Current work is focused on completing the documentation related to the following Technology Areas.

- **Geographic Information Systems (GIS) – all completed**
- **Global Positioning System (GPS) - underway**
- **Internet Mapping Service (IMS) - underway**
- **Geospatial Metadata – most completed – product evaluation underway**
- **Geospatial Data Development Standards – underway – some completed**
- **Remote Sensing / Image Processing - starting**

- **Spatial Indexing**
- **Computer Assisted Design (CAD) – <u>MoDOT started</u>**
- **Cartography**
- **Analog-to-digital Data Capture Systems**

These Technology Areas will be synthesized and summarized at product and compliance levels to create templates for integration and adoption of GIT within the architecture plans of state and other governance sectors.

<u>**Target Outcome:**</u> To promote interoperability and standardization among core data layers being developed by the state and local government agencies and organizations.

Objectives

♦ **Development and endorsement of geospatial standards for database development and attribution.**

- *<u>Strategy</u>: Review existing state, federal, and international geospatial standards. Create or add new components, modify components, or adopt reviewed standards. Publish through MSDIS and MGISAC Web sites for peer review and comment. Revise as appropriate and incorporate final standards within MAEA Framework.*
<u>MEASURE</u>: Review and adoption of two (2) geospatial standards per year by the MGISAC. Incorporation of the standards as compliance components and standards within the MAEA Framework.

Develop for review and integration into the MAEA the geospatial transportation standards (Architecture subcommittee).

Status: see below

Incorporate the geospatial metadata standard into the MAEA (Architecture subcommittee).

Status: see below

Finalize the digital orthophotography quadrangle (DOQ) standard and publish to MAEA and MGISAC and web site (Architecture subcommittee).

There have been three (3) MAEA standards created and processed through the MAEA framework to date. These include the Geospatial Metadata Standard, the Digital Orthophotography Standard, and the Addressing Standard. Current work is focused on the Centerline

Theme Area 4: Policy and Legislation

Target Outcome: Coordinate, monitor, and support policy and legislation that impacts geographic information within the state.

Objectives

♦ **Coordinate and support policy and legislation that affects statewide GIT activities.**

- *Strategy*: *Working with the OIT, research, review, track, and report on policy and legislation before the state legislature.*
  MEASURE: Provide monthly updates to MGISAC members.

  Designate a legislative liaison to monitor legislation and opportunities and report back to ITAB, MGISAC and OIT (MGISAC Chair).

  Status: Appointed a liaison in Spring of 2003, however, that person did not contribute to MGISAC. Will recommend a new appointment for 2004/2005.

♦ **Identify, develop, and coordinate funding opportunities to support GIT activities in the state.**

- *Strategy*: *Identify funding opportunities and build the necessary coalitions to obtain funding for initiatives that align with the mission of the MGISAC.*
  MEASURE: Research and report monthly on funding opportunities and assist in the development of partnerships and coalitions to obtain funding for relevant initiatives.

  Assemble a listing of grant opportunities and publish to GIS community annually (Legislative Liaison).

  Status: Incomplete. Legislative Liaison did not participate.

  Report instances in which outside funds (federal, other) were leveraged against state assets to support GIS activities (Legislative Liaison).

  Status: Incomplete. Legislative Liaison did not participate.

Demonstrate how certain activities would benefit numerous agencies through the centralization of standards and development projects (Legislative Liaison).

Status: Incomplete. Legislative Liaison did not participate.

Theme Area 5: Statewide Coordinator

Target Outcome: Establishment of a state GIS Coordinator position.

Objectives

♦ **To establish a position to coordinate and facilitate geospatial technology activities for Missouri.**

- *Strategy: Define the duties, roles, and responsibilities for the position. These are to include, but are not limited to, facilitating organizational cooperation, championing GIT in state government, coordinating funding, developing legislative action items, and acting as liaison to federal, regional, and local organizations. Create a justification package for the position based on this information. Investigate and establish funding mechanism and define the placement and authority of the position in state government.*
  MEASURE: Delivery of justification package and funding scenario for the coordinator position to the OIT.

  Define the duties, roles, and responsibilities and create a justification package for the creation and hiring of a State GIS Coordinator. (MGISAC Chair, OIT).

  Status: A justification has been made and the Office of Information Technology (OIT) has agreed to support the position. MGISAC and OIT are currently looking for funding. As the position develops, duties and responsibilities will be defined.

Theme Area 6: Homeland Security \ Emergency Management

Target Outcome: Integrate GIT into Homeland Security and Emergency Management \ Response activities.

Objectives

♦ **Develop and maintain a Homeland Security GIS Action Plan (MERGIS).**

- *Strategy*: Create a MGISAC Homeland Security subcommittee to identify action items that will best infuse GIS into Missouri's Homeland Security. Action items will be identified through experience and expert knowledge as well as review of other state homeland security activities available through NSGIC and other organizations. Coordination and leadership of these action items will be dispersed to the appropriate stewards. Each action item will then be developed with activities, policy implications, milestones and timelines, outreach, education, budgets, and data-specific implementation plans.
  MEASURE: Completion of MERGIS Plan and submittal to OIT and Homeland Security Officer.

  Review and develop a vitality process for the MERGIS Plan (HS Sub).

  Status: Incomplete. MERGIS is being moved to the Missouri National Guard, and the process will be reviewed when relocation is completed and needed support is identified.   MGISAC has been asked to participate and help support MERGIS.

- **Promote and coordinate use of GIT in federal \ state \ regional \ local emergency management \ response.**

  - *Strategy*: Identify Homeland Security liaison from MGISAC Homeland Security Subcommittee to participate in federal, state, regional, and local meetings where GIS and its application in public safety can be promoted and coordinated.
    MEASURE: Logged, active participation by MGISAC liaison in meetings with monthly reports to the MGISAC.

    Develop and foster a liaison group of local government participants to coordinate state GIT activities with local activities (Local Government subcommittee).

    Status: The Local Government group was formed this year and is beginning to formalize its activities.

    Help facilitate training local emergency responders in the use of the MERGIS tool and provide MERGIS support for local/state/federal response drills (HS subcommittee).

    Status: Submitted a grant to fund training that was not funded. MERGIS is being moved to the National Guard and they have expressed an interest in coordinating with MGISAC on this activity.

- **Develop and maintain the data and infrastructure necessary to support Homeland Security Emergency Response.**

- *Strategy*: Coordinate with OIT, Office of Homeland Security, and MSDIS on the development of the communication infrastructure necessary to support Homeland Security efforts. Evaluate for Missouri the Homeland Infrastructure Foundation Level Database (HIFLD) and Homeland Security Infrastructure Program (HSIP) documents and the data needs listed as to their status and level of availability. Develop an action plan for the development of the databases and geospatial layers necessary to support homeland security planning, mitigation, risk assessment, and other operations.
  MEASURE: Completion of data development plans for identified data layers based on priorities set jointly by MGISAC, Office of Homeland Security, and OIT. Completion of secure access and password/firewall protected portal to homeland security data and related geospatial layers.

  Develop (with the assistance of appropriate personnel) a GIS data security policy for inclusion in the Missouri Adaptive Enterprise Architecture. (HS subcommittee)

  Status: Task assigned to the newly created GIS Data Access Policy Subcommittee. Work continues.

♦ **Actively support efforts to implement Homeland Security GIS Action Plan in key organizations for a GIS infrastructure.**

  - *Strategy*: Identify operational stewards for Homeland Security activities and develop specific staffing, training, funding, and implementation plans for these agencies.
    MEASURE: Completion of implementation plans for identified agencies submitted to Office of Homeland Security and OIT.

    Promote the development of QA/QC for infrastructure development items (HS subcommittee).

    Status: This effort has been initiated with support from the State's Homeland Security Office. A new subcommittee, GIS Data Access Policy will lead the effort.

    Support and promote state and local agency data stewardship and assist in the development of plans for staffing, funding, training, etc (HS subcommittee).

    Status: Although not receiving the 2004 HS grant impeded this effort, the effort is now getting underway without funding. The Local Government group, MSDIS and the HS Subcommittee will continue to work on this.

Theme Area 7: Management and Oversight

Target Outcome: Coordination and oversight of GIS related activities in Missouri.

Objectives

- **Review MSDIS operations and budget and provide recommendations.**

  - *Strategy*: Review quarterly MSDIS' operational status and financial reports relating to MGISAC activities, and ensure that activities align with the MGISAC Strategic Plan where appropriate.
    MEASURE: Quarterly reports generated and presented to the MGISAC for review. MGISAC will review the MSDIS work plan annually.

    Review and approve quarterly reports as presented (MGISAC).

    Status: On-going; MSDIS has presented their reports in an orderly manner.

- **Develop a review process to aid coordination and oversight of local/state/federal GIS related activities in Missouri.**

  - **Strategy**: *Provide review for GIS related contracts, procurements and grants across the state. Inventory and identify existing projects to report on successes and lessons learned.*
    MEASURE: Develop a review protocol. Provide recommendations on GIS project and program related matters.

    Jointly develop and implement with OIT/ITAB a plan or policy to trigger a review process on all major database development activities to ensure a GIT component if appropriate (DDS).

    Status: Incomplete. Planned activity for next work cycle.

    Develop and implement an intergovernmental plan to coordinate and leverage local government geospatial activities in concert with state plans (DDS).

    Status: Incomplete. Planned activity for next work cycle.

- **Maintain proactive planning and review process for activities of the MGISAC and the MSDIS.**

- **Strategy:** *Ensure that the various MGISAC subcommittees meet regularly so that coordination and development of work plans, tasking, and tracking metrics for outcomes are reviewed and revised as needed. Specifically, the strategic planning activity needs review and revision biennially.*
  MEASURE: Creation and review of annual work plan for MGISAC and MSDIS. Biennial update of Strategic Plan.

Review and approve MSDIS annual work plan (MGISAC).

Status: The MGISAC continues to review MSDIS activities and approved its most recent work plan.

Attachment 1: the MSDIS Workplan

Missouri Spatial Data Information Service
2003-2004 Annual Work Plan

Build or implement a survey to identify gaps in the statewide data inventory.

Strategy*: Watch the development of the NSGIC initiative to build a national data survey / needs assessment. Once developed, implement within the Missouri Clearinghouse.*
MEASURE: Completion of NSGIC survey tool and implementation on the MSDIS. MSDIS with MGISAC participation. Participation of personnel from MSDIS. Possible NSGIC national model development.

Current *Status*: Pending
The NSGIC initiative to build a national data survey / needs assessment is pending and will be implemented as soon as it is received.

Continue to develop an Internet mapping interface for MSDIS holdings.

Strategy*: Increase utility of MSDIS Web site by continuing to developing the internet mapping user interface for interaction with the data elements compiled in MSDIS. This includes the development of new maps, evolution of mapping interface, maintenance, update, and upgrades to the mapper.*
MEASURE: Continued evolution of the design and map services available on MSDIS-maps and MCDC-maps web site. MSDIS with MGISAC participation in review
Participation of personnel from MSDIS.

Current *Status*: Ongoing

- Updated School District Boundary Map Service with newest version of school districts dated January 2004.
- Updated mapper to ArcIMS 4.0.1
- Continuing work with Missouri State Highway Patrol on the Uniform Crime Report Mapping System.
- Used old MSDIS-Maps to fill in when MCDC-Maps had a system failure. Down time of less than 2 hours.

Develop and deploy a search interface for MSDIS holdings.

Strategy*: Increase utility of MSDIS Web site for data discovery and query by thematically grouping data holdings.*
MEASURE: Redesign of MSDIS Web site and development of milestones. This schedule will be developed jointly by MSDIS and MGISAC. MSDIS with MGISAC participation in review
Participation of personnel from MSDIS.

Current *Status*: Completed
Full working version is available as a link from new MSDIS website at
http://msdisweb.missouri.edu/datasearch/.
The data theme list is located at:
http://msdisweb.missouri.edu/datasearch/ThemeList.jsp

Work accomplished includes:
- Building an MS Access Database from FGDC I-site SGML format metadata.
- Manual editing of the database to add extra fields with relevant data like file sizes, theme key word information etc.,
- Design and implementation of interface with informative result output and Shopping Cart features.
- Completed – FGDC is in the process of harvesting the data.

A MSDIS satisfaction survey has been developed (Completed February 2004. Results compiled and posted on MSDIS website May 2004). Following from the MSDIS satisfaction survey, a brief MSDIS feedback form was created in February 2004 and is currently live.

A second Local Government GIS needs survey was developed and made available on the MGISAC website in April 2004.

♦ **Convert metadata interface for MSDIS holdings from ISITE to Metadata Server.**
Strategy: Increase utility of MSDIS Web site by converting our metadata records to a more stable and predictable format.
MEASURE: Redesign of MSDIS metadata holdings.
Participation of personnel from MSDIS.

Current *Status*: **Incomplete – pending funding.**
Preliminary investigations have been made to solution out the compatible data formats, modifications required for metadata content, hardware and software requirements. All the metadata has been converted to Metadata Server compatible Extensible Markup Language (XML) format, metadata incompatibilities have been resolved, XML file content has been updated to contain additional information (like keywords) required. A pilot has been built and running on the MSDIS intranet server Emerson, using Spatial Database Engine (SDE) and IBM's DB2 v7.2. Full implementation of this project, and it's availability on the WWW to serve the community is heavily contingent upon availability of funds to MSDIS to obtain software licenses and hardware resources.

Although the Metadata server pilot was successfully implemented using DB2 and SDE the limitations of hardware and software cost have proved problematic – MSDIS is currently examining other solutions to accomplish these database tasks and others.

♦ **Duplicate HTML metadata for MSDIS holdings as XML.**

Strategy: Increase utility of MSDIS metadata records by converting our metadata records to a format that imports into Arc Catalog more easily.
MEASURE: Reformatting of MSDIS metadata holdings.
Participation of personnel from MSDIS.

Current *Status*: Ongoing.
XML format metadata creation went through several iterations; To the metadata content additional information like File sizes, download times were added; to make XML files Metadata Server compatible, ESRI specific keywords were also added to XML metadata tags. The XML files can be readily loaded in to arcGIS and Metadata Server.

XML's are created as required for the data search tool, the files are updated with additional content, removing any inconsistencies, and used as a "backend" database in support of the MSDIS custom data search, providing style sheet information.

Currently 8400 XML files are available from MSDIS' public ftp. These XML's are tied to the search interface.

♦ **Duplicate existing coverage files as geodatabases for all MSDIS holdings.**

Strategy: Migrating the entire MSDIS Clearinghouse to the geodatabase format and host both for a period of time. MSDIS will proactively evolve with changes in the software arena and make the site more usable to new start-ups

MEASURE: Reformatting of MSDIS coverage holdings as zipped geodatabases.
Participation of personnel from MSDIS.

Current *Status*: **Revised.**
Preliminary investigation was done for an estimate of hardware, software resources requirement and Man hour estimate for this project. It was presented to the MGISAC that the benefits to be gained from implementing this solution currently do not outweigh the expected cost and utilization of personnel resources.

♦ **Develop and deploy a searchable clearinghouse component for MSDIS imagery / raster holdings.**

Strategy: Increase utility of MSDIS imagery holdings by providing descriptive information and a searchable database of imagery records thus making them known and available to the state.
MEASURE: Integrating the searchable imagery clearinghouse function within the MSDIS clearinghouse.
Participation of personnel from MSDIS.

Current *Status*: Completed.
Databases and interfaces have been developed. Some of the work in progress includes updating the Database with the new data obtained, adding shopping cart features, acquisition of individual sensor information, sample images and providing them from the Image Clearinghouse search results interface, building sample image browsers.
The WWW interface will be available by the end of Q3.
The vector and raster search are integrated with an online shopping system. It's available both from ICREST and MSDIS websites. The database is continuously updated with the relevant information of any new data that MSDIS receives.

State Architecture

• **Develop and maintain the data and infrastructure necessary to support Homeland Security Emergency Response.**

Strategy: Coordinate with OIT, Office of Homeland Security, and MSDIS on the development of the communication infrastructure necessary to support Homeland Security efforts. Develop an action plan for the development of the databases and geospatial layers necessary to support homeland security planning, mitigation, risk assessment, and other operations.
MEASURE: Completion of data development plans for identified data layers based on priorities set jointly by MGISAC, Office of Homeland Security, and OIT. Completion of secure access and password/firewall protected portal to homeland security data and related geospatial layers. Homeland Security; Participation of personnel from MSDIS on data development and QA/QC.

Current *Status*: Ongoing
Password protected ArcIMS map services have been successfully implemented and tested. A secure Web server (Apache+mod_ssl, https) installed for encrypted transmission of the data across the internet.