

Data Model Design Team Charter

18 February 2000

EXECUTIVE STATEMENT

See the Data Model Steering Committee (DMSC) charter for an executive statement on technical teams.

Mandate -- The Data Model Design Team (DMDT) is charged with developing a logical design for a digital geologic map data model according to the requirements specified by the DMSC.

Charge -- The DMDT is charged with the following tasks:

1. Receive and evaluate DMSC requirements in terms of their technical feasibility.
2. Reach agreement with DMSC on:
 - a. the requirements for a digital geologic map data model, and
 - b. the milestones to be met.
3. Develop a logical design that meets the requirements that were agreed upon with DMSC. The design must be amenable to implementation within at least the following technologies, and any other deemed necessary by the group:
 - a. Relational data theory; and
 - b. Object-orientation.
4. Document the logical design:
 - a. For technical experts; and
 - b. For technically knowledgeable geologists; and
 - c. DMDT is NOT charged with providing end-user documentation.
5. In collaboration with other technical teams (most notably the Tool Development Technical Team), prototype the logical design for technical soundness and for its capacity to meet the specified requirements.
6. Report to the DMSC on the degree to which the data model design meets the requirements agreed to by DMDT and DMSC.

Considerations -- The DMDT is charged with the following considerations in executing the above tasks:

1. Maintaining awareness of, and familiarity with, related data model efforts in the geosciences. This includes, in part:
 - a. Geospatial data models such as Open GIS, ISO/TC 211, OGDI, and others.
 - b. Geological data models from:
 - i. Industry, such as POSC, PPDM and others; and,
 - ii. Government agencies, such as AGSO (Australia), BGS (Britain), and others; and,

- iii. Academia, such as the Paleontological data models from Berkley, Cornell and Kansas.
- c. Any others deemed relevant by the team or DMSC.
2. Determining the necessary level of compatibility with other data model efforts and ensuring this level of compatibility is attained with the team's work.
3. Ensuring the logical design is compatible, and can be readily implemented within, current and future geospatial and database technologies.
4. Coordinating with other working groups in a timely and informed manner.

Accountability -- The DMDT is accountable to DMSC. It receives its mandate and guidance from the DMSC and periodically apprises DMSC of its progress and of any relevant issues, through a representative that is mutually acceptable to the DMDT and DMSC.

Authority -- The DMDT has authority to:

- design a data model that meets DMSC requirements, operating within the mandate and guidelines specified by DMSC.
- Confer with, and possibly incorporate, technical experts and other resources as deemed necessary.

Execution of work -- The DMDT will:

- Convene an initial meeting to evaluate goals and to discuss issues, problems, and strategies; and
- Conduct the majority of its business via e-mail. The working group will convene as many face-to-face, and/or phone/video conference meetings as required to allocate responsibilities and to resolve issues and problems not easily resolvable via e-mail.

Lateral coordination -- The DMDT will regularly communicate strategies and proposed model revisions laterally to other Technical Teams in order to ensure that these groups reflect the evolving data model architecture.

Technical Review -- Draft data model revisions prepared by the DMDT will be presented to the DMSC for initial review and evaluation for compliance with the overall goals of the North American geologic-map data model. Following DMSC review and DMDT response, the proposed revisions will be widely distributed for technical review by the geoscience community (probably through a web-based venue).

Membership --

Size

The size of the DMDT will be commensurate with the availability of persons willing and able to participate, and ideally not too large-probably about 4-8 people with diverse backgrounds as described in Constituency below.

Constituency

Members of the DMDT will possess significant expertise in at least two of the following areas:

- Data modeling; or
- Database design; or
- GIS; or
- Geological mapping.

Members of DMDT shall be available to contribute throughout their membership period, and representative of a valued constituency.

Appointment

The DMDT members will be appointed by DMSC with the mutual consent of the appointee, DMSC and the DMDT, and DMSC is obliged to consider with care the membership recommendations of the DMDT.

Membership period

The membership period for any one DMDT member will be agreed upon prior to joining DMDT, and will not be less than the period required by DMDT to fulfill its milestones.

Milestones -- The DMDT receives guidance on milestones from DMSC, evaluates their feasibility, and reaches targets in conjunction with DMSC.

Lifespan -- The lifespan of the DMDT is at the discretion of the DMSC, and intact until at least the initial milestones are reached.