

CGMW Working Group on Standards for Digital Geological Data (“DIMAS”)

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The Working Group on Standards for Digital Geological Data (DIMAS) was instigated at the General Assembly of the Commission of the Geological Map of the World (CGMW) in Paris in 2002. The overall aim defined at that time was “to investigate and implement common CGMW standards for digital geological data structures and to review future mechanisms for digital data dissemination” (Resolution No. 65, in Commission of the Geological Map of the World, 2002).

In spring 2002, DIMAS met at the Federal Institute for Geosciences and Natural Resources (BGR), Hannover, Germany, for its kick-off meeting (Asch, 2003). The Terms of Reference (see table 1), the organisation of the working group, and its aims and objectives were then defined.

Table 1. DIMAS Terms of Reference

CGMW-DIMAS (Digital Map Standards Working Group) Terms of Reference

1. Propose, develop and promulgate geological and tectonic standards (including metadata standards) for CGMW maps, products and projects, and develop procedures for the management, maintenance, and upgrade of those standards.
 2. Focus work on straightforward international, not national, map standards (CGMW map scales from 1: 1.5 M to 1:25 M) and address data models, data structures, data formats, dictionaries/terms/abbreviations. (Presentation elements, such as colours and layout, and stratigraphic classification are not a responsibility of DIMAS at this time).
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The priority aims of the group are to:

- 1) establish the standard components of 1:5 million-scale maps
- 2) establish practicably applicable templates (“profiles”) for small-scale geological maps
- 3) set up a system to define and manage metadata for all CGMW maps.

1) Establish the standard components of 1:5 million-scale maps

DIMAS initially will focus only on geological maps published by the CGMW. These standard components will include a draft scheme for the tectonic elements of those maps, a metamorphic scheme in cooperation with the IUGS Metamorphic Subcommission, a sedimentary scheme perhaps based on that developed by the Bundesanstalt für Geowissenschaften und Rohstoffe (BGR) for the International Geological Map of Europe (“IGME5000”), and a draft scheme for miscellaneous map elements. These draft standard components will be tested on a 1:5 million-scale CGMW map and GIS (for more information about CGMW, see <http://ccgm.free.fr/>).

2) Establish practicably applicable templates (“profiles”) of small-scale geological maps

Substantial discussion took place on 1:5 million-scale map “profiles” (standard schemas for igneous, tectonic, metamorphic and sedimentary rocks, plus miscellaneous features). It was agreed that

DIMAS should be in a position to bring forward recommended profiles/schemas by the 2004 meeting of the International Geological Congress (IGC). In these profiles, DIMAS initially will focus on bedrock geology. It was agreed that the approach of the BGR IGME 5000 project to sedimentary, igneous and metamorphic rocks should be adopted and that the scheme for miscellaneous map elements (information about topography, bathymetry, georeferencing, etc.) was regarded as a possible template structure for the others.

3) Set up a system to define and manage metadata for all CGMW maps.

Significant progress had been made on this through the BGS work on a general ISO/TC211 19115-compliant metadata system (see <http://www.isotc211.org/>). It was agreed that once a more mature version of the BGS system was available, it should be adapted for CGMW use. DIMAS members Per Ryhaug (Norwegian Geological Survey, NGU) and Ian Jackson (British Geological Survey, BGS) will lead this activity. The aspiration is to have the system available and populated by the 2004 IGC meeting.

A DIMAS website has been set up as a means of communication for the group to exchange data and ideas (see www.geology.cz/host/dimas.htm).

Members of DIMAS come from a variety of geological surveys and organisations worldwide:

Kristine Asch(Chair), Federal Institute for Geosciences and Natural Resources, Germany
 Manie Byrnard, Council for Geoscience, South Africa
 Frank Brassil, Geoscience Australia, Australia
 John Broome, Earth Science Sector, Canada
 Ian Jackson, British Geological Survey, UK
 Dominique Janjou, Bureau de recherches géologiques et minières, France
 Manuel Pubellier, École Normale Supérieure, France
 Robert Tomas, Czech Geological Survey, Czech Republic
 Per Ryhaug, Norwegian Geological Survey, Norway
 David Soller, United States Geological Survey, USA
 Bruno Vrielynck, Université Pierre et Marie Curie, France
 Koji Wakita, Geological Survey of Japan, Japan
 A member from China may join the working group soon.
 Progress on DIMAS objectives will be presented to the CGMW General Assembly at the 32nd IGC in Florence in 2004.

REFERENCES

- Commission of the Geological Map of the World, 2002, CGMW General Assembly, Paris, January 31 – February 2002, Resolutions: Paris, CGMW Bulletin 51, p.19-27 (http://ccgm.free.fr/index_gb.html)
 Asch, K., 2003, CGMW Working Groups on Standards- DIMAS and GEOTERM: Paris, CGMW Bulletin 52, p. 25-27