

AntGIS04 Recommendations

The International GIS Workshop on East Antarctica (AntGIS04) was held at Wuhan University, Wuhan, China, May 27-29, 2004. This workshop was sponsored by the Geoscience Standing Scientific Group (GSSG) of the Scientific Committee on Antarctic Research (SCAR).

The workshop included presentations on GIS applications in Antarctica, new technologies, and standards that facilitate the presentation and distribution of GIS data on the Internet. The workshop was very productive and the organization by the Chinese hosts was excellent.

At the conclusion of the workshop, the participants developed five recommendations for sharing Antarctic geospatial information. These recommendations are addressed to the SCAR Geosciences Standing Scientific Group (GSSG).

With the development of web services and GIS technology, the delivery of Antarctic geospatial data through Open Web Service interfaces has become possible. We, therefore, recommend that:

1. The SCAR GSSG encourage all interested countries to become active members in the GIG's Spatial Data Model Project, to help promote the establishment of an Antarctic geospatial data sharing policy, specifications and implementation technology.
2. Antarctic GIS web services comply with the Open GIS Consortium (OGC) Web Service (OWS) specifications defined by OGC and ISO, which includes the Web Map Service (WMS) interface, Web Feature Service (WFS) interface, Web Coverage Service (WCS) interface and Geographic Markup Language (GML). We suggest that the above specifications be used for the Antarctic geospatial data sharing.

The State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS) of Wuhan University, a member of OGC, is

China's leading institution in developing geospatial data sharing technologies. Together with the Chinese Antarctic Center of Surveying and Mapping (CACSM), it will play an important role in improving the sharing ability of Antarctic GIS web services.

3. A web-based forum be established to discuss technological aspects of implementing the OGC specifications within the Antarctic community and to reference this forum on the GSSG website.
4. A free software package on the client side be developed to directly access the registered Antarctic WMSs, WFSs, and WCSs that can be implemented by any web GIS software (eg GeoSurf, TN-GeoWeb, ArcIMS). The client software is used to display, render and query the Antarctic geospatial data originating from different countries. Two possible implementations include pure Java and ActiveX control.
5. A Universal Description and Discovery Interface (UDDI) registry be created, which can be used to register and publish Antarctic GIS web services, where a user can find a particular service.