The development of GeoSciML as a transfer standard for geoscience

CIGI Interoperability Working Group Members.

The Interagency Committee on Standards for Geospatial Data, U.S. National Geospatial-Intelligence Agency, Washington, D.C., the Canadian Geomatics Council, Ottawa, Ontario, Canada, and the European Union (EU) have initiated a collaborative effort to create common semantic definitions for geoscience domains to facilitate interoperability. The GeoSciML framework is the result of this collaborative effort and provides a community agreed GeoSciML exchange language.

The Open Standards Development Approach

The development process for GeoSciML, as exemplified by the community's move from standards-based multi-layers of NVE and TinkerTop to GeoSciML, is documented in detail in the OGC GeoSciML specification. The model was developed by a collaborative process for a work group representing the standard community. GeoSciML has been through several versions, each delivered in an extensible manner. Extensibility is supported by the inclusion of the OpenGIS common data and feature types, as well as by the use of the ICS classification system. GeoSciML has been formed into a community accepted GeoSciML exchange language.

Web services to test the model and its schema

Web services enable the interoperability and reusability of shared and repurposed geospatial information. The GeoSciML community has used web services to test the interoperability of the GeoSciML model and its schema. This testing has been via the use of GeoSciML web service interfaces, as shown in the following diagram.