

The Road Ahead

The GIS community has a growing need for greater access to disparate geospatial information from international data portals, government agencies and private industry to support a multitude of projects and initiatives. This means a greater than ever need to adhere to established standards as the only way to maintain compatibility between different systems. Recognising some time ago the growing trend towards and reliance upon interoperability between GIS systems, ESRI redesigned its product architecture to meet the compatibility requirements of IT and GIS departments. ArcGIS is a portfolio of software products that incorporate a number of key interoperability and Web computing concepts in response to customer demands and industry trends.

Active Participation

ArcGIS 9.2 provides unprecedented adherence to established OGC/ISO standards. Some of the new features include expanded support for Oracle, easier use of Web Mapping Services (WMS) and Web Feature Service (WFS), and improved data interoperability. ArcGIS Explorer, new to the ArcGIS portfolio, will support interfacing to OGC standards supported in ArcIMS, ArcGIS Server and ArcWeb Services software. In addition, ArcGIS Explorer supports access to OGC standard-enabled services provided by non-ESRI servers. The goal is to support appropriate specifications as they become finalised and to participate in the development of GIS standards via active participation in OGC and ISO. A leadership role in many programmes and specification efforts of both the ISO TC211 committees and the OGC initiatives allows ESRI to contribute interoperability knowledge and ensure standards compliance in ESRI software products.

Service-oriented

The ESRI approach to interoperability encompasses OGC specifications and standards, as well as other IT specifications such as those established by the ISO, W3C, ANSI, CEN and other standards bodies. A new trend in interoperability is to integrate heterogeneous applications logic using services-based architectures developed originally for Web computing. This concept is referred to as Service-Oriented Architecture (SOA) and is used to integrate existing information systems in order to automate business practice, workflow and information flow both within and across organisations. SOA was developed to support the building of applications that integrate existing computing technologies into solutions-based systems. GIS will play a key part in these implementations.

Wider Vision

ESRI fully supports efforts promoting GIS standards and adheres to established industry standards and commonly adopted practices that meet the fundamental requirements for interoperability. Comprehensive support for interoperability includes standards-based design that can be integrated with information technologies widely used in both the public and private sectors. Continued and evolving response to significant developments in computing, such as internet growth and advances in DBMS technology, object-oriented programming and mobile computing, have led to the development of GIS as an information infrastructure that can be deployed anywhere. By addressing a wider vision of interoperability ESRI is helping GIS become an integral part of mainstream IT.