

Spatial Integration Adapter for WebSphere Studio

Deliver the capabilities of ESRI ArcGIS Server—the leading geographic information system object library

Highlights

- ***Spatially enable your enterprise applications***
- ***Publish industry-standard geographic information system (GIS) Web services with ease***
- ***Empower non-GIS developers with spatially aware development tools***

The IBM Spatial Integration Adapter for WebSphere Studio is compatible with the IBM DB2 Spatial Extender and—with added functionality—through the ESRI ArcSDE gateway for DB2.

The Spatial Integration Adapter allows programmers working with the IBM WebSphere Studio environment to apply visual programming techniques, such as dragging and dropping spatial objects, when creating Web-based content.

The Spatial Integration Adapter for WebSphere Studio is designed to exclusively enable ESRI ArcGIS Server objects to be integrated into applications and Web services. Together, they deliver the following capabilities:

- *Browser-based access to GIS analysis functions*
- *Advanced GIS Web services*
- *Opportunities to develop custom applications using Java*
- *Integration of GIS with other IT technologies*
- *Centrally managed multi-user editing capabilities*
- *Focused spatial analysis operations on a server*

The IBM Spatial Integration Adapter helps application programmers:

- *Design new spatial projects*
- *Create Enterprise JavaBeans™ (EJB) and Java™ servlets with spatial components*
- *Work with design, source and quick-edit views in WebSphere Studio*
- *Drag and drop ESRI ArcGIS Server spatial objects*
- *Geocode*
- *Map documents:*
 - *Identify results*
 - *Add north arrow*
 - *Produce overview map*
 - *Set page layout*
 - *Include scale bar*
 - *Insert table of contents*
- *Integrate the ESRI spatial JavaServer Pages™ (JSP™) tag library*
- *Use ESRI design templates in a WebSphere environment*
- *Produce new spatial Web services*

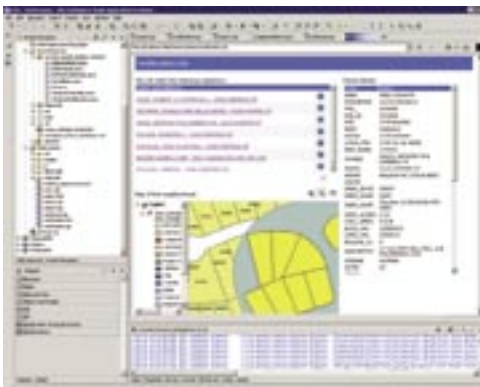


Figure 1: IBM WebSphere Studio showing spatial components

Development environment for enterprise GIS implementations

IBM WebSphere Studio provides:

- *Dynamic Web project wizards*
- *Integrated help*
- *Page Designer palette and visualization*
- *Drag-and-drop support*
- *Quick-edit view*
- *Attributes view*
- *GIS templates*
- *Web services support*

With IBM WebSphere Studio Application Developer you can:

- *Accelerate the development of Web services and Java 2 Platform, Enterprise Edition (J2EE™) applications with visual tools, templates and wizards*
- *Create and test portlets in a visual environment*
- *Increase development speed for dynamic Web, Java and Web services*
- *Visualize and graphically edit code through the UML Visual Editor for Java and Enterprise JavaBeans architectures*
- *Detect performance issues early with graphical performance profiling and trace tools*
- *Collaborate and share assets across a team using the included IBM Rational® ClearCase® LT version-control application*

- *Leverage existing skills and reduce the learning curve for Web development with drag-and-drop functionality, reusable components and point-and-click database connectivity*
- *Integrate business applications with interoperable Web services*
- *Customize the development environment to increase productivity and meet your specific needs*
- *Streamline application testing with a quick-loading unit test environment and visual debugger*
- *Adapt and extend the development environment with a wide range of IBM, IBM Business Partner and Eclipse-based plug-ins*
- *Build dynamic Web user interfaces with zero-coding using standards-based JavaServer Faces (JSF) components*
- *Visually design and develop rich user interfaces using drag-and-drop capabilities, reusable components and WebSphere Page Designer layout tool*
- *Build data-driven Web pages with zero-coding and point-and-click database connectivity*
- *Write business logic and build data-driven Web applications using 4GL skills and Enterprise Generation Language (EGL) procedural language*
- *Build rich client user interfaces with performance and maintenance characteristics of thin clients using JSF extensions*

- *Create and test portlets in a visual environment with no coding using visual portlet layout and design tools*
- *Leverage both Struts and JSF Model View Controller (MVC) frameworks*

DB2 Universal Database

With its innovative capabilities, IBM DB2 Universal Database™ (UDB) Version 8.2, the most recent release, minimizes the time-to-value for programmers, customers and business partners. DB2 UDB V8.2 delivers a broad array of autonomic enhancements that are designed to help reduce skills requirements and the time spent by database or system administrators on management, optimization and automation tasks. DB2 UDB speeds up application development by enabling deeper integration with Microsoft® Visual Studio® .NET, IBM WebSphere Studio EGL, 4GL rapid application development (RAD), IBM Rational XDE™ Developer for Java and open source Eclipse-based development environments. In addition, DB2 UDB supports the Linux® 2.6 Kernel and 64-bit IBM POWER™ processor-based Linux environment.

Developer requirements:

- *IBM Spatial Integration Adapter for WebSphere Studio (1.0)*
- *IBM WebSphere Studio Application Developer (5.1.2 or greater)*
- *ESRI ArcCatalog (9.0 or greater)*
- *ESRI ArcGIS Server (9.0 or greater)*

Optional requirements for enterprise deployment:

- *IBM WebSphere Application Server (5.0 or greater)*
- *IBM DB2 UDB Enterprise Server Edition (8.1 or greater)*
- *IBM DB2 Spatial Extender (8.1 or greater) installed feature*
- *ESRI ArcCatalog, part of ArcGIS Desktop (9.0 or greater)*
- *ESRI ArcSDE (9.0 or greater)*
- *ESRI ArcCatalog (9.0 or greater)*
- *ESRI ArcMap (9.0 or greater)*

IBM Spatial Server High-Level Architecture

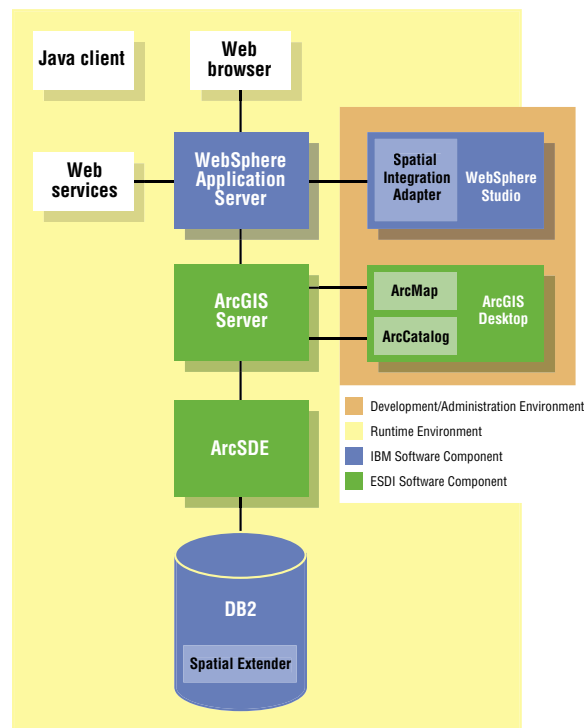


Figure 2: High-level architecture for IBM Spatial Server



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