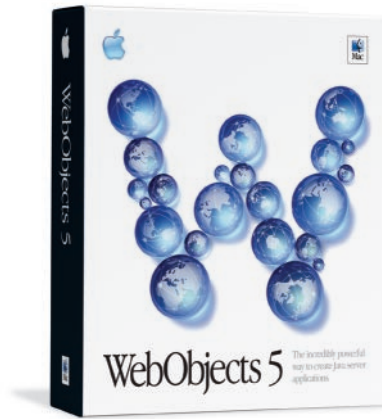




WebObjects 5

The incredibly powerful way to create Java server applications.



Features

Automated data access

- Manages data access and object persistence through the Enterprise Objects technology
- Generates Enterprise Objects directly from relational databases with no JDBC or SQL coding required
- Uses loosely coupled, reusable objects for database independence and maximum flexibility

Streamlined web-page generation

- Makes it easy to browse, search, and edit your database via any standard web browser
- Generates web pages using declarative templates, leveraging a rich library of reusable components
- Creates and tracks user sessions automatically without setting cookies

Integrated tool support

- Comprises an integrated suite of powerful, easy-to-use development and deployment tools
- Project Builder automatically coordinates every aspect of your project
- Direct to Web and Direct to Java Client let you create complete three-tier web and Java applications in seconds
- Enterprise Object Modeler helps you quickly create entity-relationship diagrams and object models
- WebObjects Builder simplifies the design of dynamic HTML interfaces for your web applications
- Interface Builder makes UI development fast and easy—including Aqua interfaces for Mac OS X
- Monitor lets you remotely view and manage WebObjects applications running across multiple servers

Straightforward pure-Java deployment

- Leverages a pure Java runtime environment to run on any system with Java 2 Platform, Standard Edition 1.3
- Gives you everything you need to deploy your WebObjects application at one low price
- Includes a high-performance, open source web server adapter

Comprehensive desktop application support

- Permits simple graphical layout of both the user interface and its connections to the object model
- Allows you to create three-tier Java applications quickly
- Supports two-tier Cocoa clients on Mac OS X

Now the world's easiest-to-use application server is written in the language of the Internet: Java.

WebObjects 5 provides a comprehensive suite of tools and object-oriented frameworks that allow you to quickly develop and deploy scalable, reusable web and Java applications. By leveraging state-of-the-art, integrated frameworks and tools, it delivers the most mature platform for creating modern browser and client/server applications. No wonder it's the environment of choice for leading corporations that need to create compelling Internet sites on time and on budget.

WebObjects is the original object-oriented application server. Unlike other application servers, it handles all the database access and session management for you, cleanly separating your business logic from the user interface and data model. This three-tiered approach makes it easy to develop flexible, maintainable applications while guaranteeing data integrity. It also greatly reduces the amount of application-specific code you need to write. In fact, the presentation and persistence layers of WebObjects are specified using configuration files, so you don't even need to maintain tool-generated Java or SQL code.

Because of its object-oriented design, WebObjects enables developers to leverage a broad range of reusable system and third-party components, as well as create their own corporate component library. For added functionality, you can take advantage of the ObjectWare frameworks and consulting services available from Apple iServices.

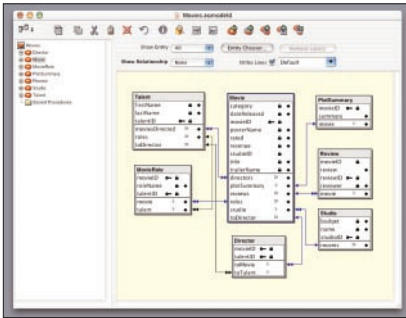
The database applications you build with WebObjects can have either HTML or Java interfaces, depending on your needs. Included are the code-free Direct to Web and Direct to Java Client technologies, which use assistants, preconfigured templates, and dynamically generated user interfaces to generate rich Java client interfaces as easily as HTML clients at the click of a button.

WebObjects: Fast. Easy. All Java. It's the platform of choice when your time to market means the difference between failure and success for your enterprise website.



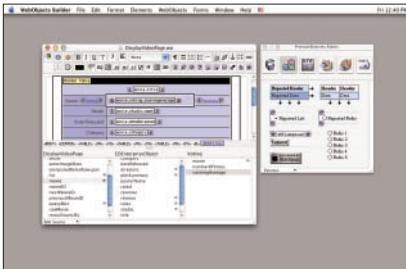
Specification Sheet

WebObjects 5



Access data automatically

Our patented Object-Relational Mapping engine lets you write all your business logic using objects. WebObjects will automatically fetch, cache, and update the data for you from any JDBC 2 database—you may never need to write another line of SQL.



Generate pages seamlessly

WebObjects efficiently generates HTML from reusable templates, which are mapped directly into the object model. By clearly separating the presentation layer from your logic and data, you never have to worry about corrupting your database. WebObjects will even handle all your session management needs, without using cookies.

Features

Automated data access

Object-relational mapping

Database independence

XML interchange

Benefits

- Eliminates the need to write JDBC or SQL code
- Manages one-to-one, one-to-many, many-to-many, and inter-database relationships
- Automatically handles object fetching, caching, and committing
- Provides automatic transaction management, including support for undo, redo, commit, and rollback
- Allows you to embed referential integrity constraints directly into the model rather than depending on programmer conformance

- Enables developers to replace the underlying database by simply updating the model, without changing any code
- Lets you customize the object model for a particular application without having to modify the database
- Supports the seamless incorporation of multiple databases into a single object model

- Allows your applications to easily consume and generate XML data streams
- Interoperates with other XML-based applications
- Lets you manage XML just like any other data source
- Generates dynamic SMIL for use in multimedia applications

Streamlined web-page generation

WebObjects template engine

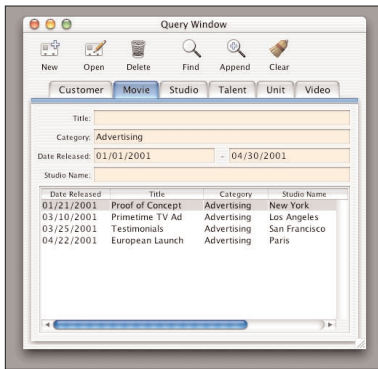
Reusable components

Built-in session management

- Allows the creation of virtually any form of markup: HTML, XML, SMIL, and others
- Hides the actual object model from the web designer, preventing scripting errors from corrupting the database
- Works with the bundled WebObjects Builder (which understands the object model), or with standard HTML authoring tools

- Integrates templates, mappings, and related code into a single reusable package
- Supports the updating of mappings independently of the web-page design
- Includes dozens of ready-to-use system components
- Allows you to easily create and reuse your own components

- Eliminates the need to write your own session management code
- Does not require cookies on the user's system
- Allows developers to manage sessions at the object level rather than the HTTP level



Create applications rapidly

WebObjects comes with a comprehensive suite of developer tools—one person can construct a prototype in seconds, or a team can manage a sophisticated e-commerce project. And when web pages aren't enough, WebObjects enables you to rapidly create full-featured three-tier Java desktop applications, running on their own or in a browser.

Features

Integrated tool support

Project Builder

Benefits

- Provides a broad array of prebuilt application templates for rapid startup
- Includes powerful assistants for creating Direct to Web and Direct to Java Client applications
- When run on Mac OS X, supports CVS and graphical debugging

Direct to Web/Direct to Java Client

- Enables quick creation of front ends for browsing, searching, and editing any database
- Derives relevant entities and fields heuristically, directly from the object model
- Scalable user interface dynamically adjusts to any number of entries
- Lets you use a Java applet to easily customize the layout and appearance
- Simplifies maintenance by making it possible to reuse framework code rather than generating application-specific code

Enterprise Object Modeler

- Allows you to extract and view a schema from any JDBC database, and to write new schemas
- Lets you graphically view and edit entity-relationship diagrams
- Cleanly integrates business logic with fine-grained data objects

WebObjects Builder

- Lets you freely view and edit HTML in either markup or preview mode
- Makes it easy to quickly assemble prebuilt or custom WebObjects components into a single dynamic page
- Enables you to graphically map components onto the underlying object model

Interface Builder

- Helps you rapidly generate and test Swing (Java) or Cocoa (Mac OS X) user interfaces
- Allows you to graphically create and edit connections between user interface widgets and the underlying database objects
- Ensures an Aqua-compliant look and feel on Mac OS X

WebObjects Monitor

- Makes it possible to remotely view and manage application server instances
- Generates statistics of server usage patterns

Record and Playback Manager

- Lets you record web sessions and store them for testing purposes
- Permits the scheduling of a single playback or groups of playbacks for testing across multiple clients
- Allows you to view graphical displays of results
- Supports access from any web browser



Specification Sheet

WebObjects 5



Deploy anywhere painlessly

The WebObjects runtime is written entirely in Java, allowing you to run on virtually any Java 2 platform. And with low-cost licensing and smart load-balancing, it's a snap to add more machines to scale your application as high as necessary.

Features

Benefits

Comprehensive desktop application support

Abstract interface management layer

- Automatically handles caching and synchronization of the user interface with the underlying frameworks
- Avoids database roundtrips for many operations by providing a local object store
- Supports both Swing (for Java 2) and Cocoa (for Mac OS X)
- Supports rich media types, including QuickTime movies and RTSP streams

Three-tier Java client support

- Delivers all data over the HTTP server for maximum reach and scalability
- Handles all session management, transport, and data access transparently with the underlying frameworks
- Gives you the optimal tradeoff between performance and security by letting you freely move business logic between a client and the application server
- Works with either browser-based applets or stand-alone Java applications

Two-tier Cocoa clients on Mac OS X

- Provides a fully native UI that's tightly integrated with Mac OS X technologies
- Includes sophisticated multilingual string manipulation using the Cocoa text engine
- Ensures that stand-alone applications access the database directly, without requiring a web server

Straightforward pure-Java deployment

Java 2 compatibility

- Runs on any Java 2, Standard Edition v1.3 virtual machine*
- Supports full access to all Java 2 APIs, including RMI/IIOP and JNDI
- Provides easy interoperability with other Java applications

Flexible, low-cost licensing

- Requires only one license per machine, regardless of platform, speed, or number of processors
- Includes no restrictions on the number of transactions, application instances, or threads
- Each license includes full database connectivity and integration support

Reliable, scalable deployment services

- Lets you easily add servers using a variety of prebuilt scheduling mechanisms
- Automatically restarts instances and connections as needed
- Allows you to run both WebObjects 4.5.1 and WebObjects 5 applications on the same system

* WebObjects 5 is officially qualified for use only on Mac OS X, Windows 2000 Pro, and Solaris 8 using Oracle 8i with JDBC 2 and the Java 2 Platform, Standard Edition 1.3.



Specification Sheet

WebObjects 5

Who Should Buy WebObjects?

- Web publishers creating rich, database-driven websites that are scalable, easy to maintain, and support multiple languages
- Creative professionals developing asset management solutions and multimedia workflows
- Educators deploying e-learning applications such as distance learning, on-line course catalogs and student records management
- Businesses needing to rapidly develop flexible and scalable e-commerce solutions

Support and Related Services

WebObjects 5 comes with onscreen help, an electronic user guide, online support, and 90 days of free telephone support. You can extend your basic installation, launch, and recovery support annually by purchasing AppleCare Professional SupportLine and Tools. For more information, visit www.apple.com/support/products or call 800-823-2775.

Apple iServices offers comprehensive training, installation and integration, planning and migration, application development and project consulting, and extended system administration and development support for WebObjects 5. For more information, visit www.apple.com/iservices or call 800-848-6398.

Worldwide Developer Technical Support (WWDTs) provides support for enrollees of Apple's developer programs, including answering questions on writing code. Developers must be enrolled in programs that include technical support or have purchased technical support incidents separately to be eligible.

For more information, visit developer.apple.com/products/techsupport.

System Requirements

Development platforms

- Mac OS X v10.0
- Windows 2000 Pro

Deployment platforms

WebObjects applications are designed to work with any Java 2 Platform, Standard Edition 1.3 runtime environment, using JDBC 2.0 for universal database connectivity. Following is the current list of fully qualified and supported platforms. For updates, please visit www.apple.com/webobjects.

- Mac OS X Server v10.0
- Windows 2000 Pro
- Solaris 8

Supported data sources

- Oracle 8i

Mac 911

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E ventes@mac911.com
W www.mac911.com

For More Information

For technical or sales information, call 800-879-6398 or visit www.apple.com/webobjects.
For developer information, please see developer.apple.com/webobjects.



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