



# WebObjects

*WebObjects—a flexible, scalable way to create dynamic World Wide Web applications based on your existing data and technology.*

## Key Features

- Open, flexible development platform
- Easy integration with existing applications and resources
- Efficient access to enterprise data
- Scalable to any level of web site traffic

WebObjects combines Apple's strengths in web content creation with industrial-strength performance, scalability, and connectivity capabilities to deliver an ideal platform for developing transactional content. This platform enables the seamless collaboration of application developers and web designers to create dynamic, content-rich end-user experiences for the World Wide Web.

Today, the growing popularity of the Web has turned it into an outstanding organizational resource. But making optimal use of the Web requires more than just technical knowledge and business savvy: It demands a strong, maintainable connection to existing systems—and the resources to handle growing traffic as your site becomes a success.

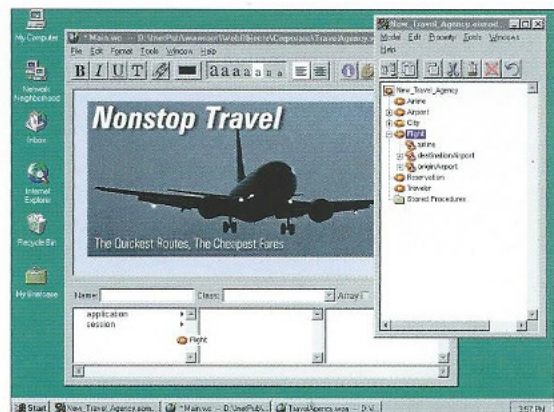
WebObjects meets these needs—and more. Featuring a highly flexible distributed architecture, it includes graphical development tools for building component-based applications; a set of prebuilt, reusable components; and an application server architecture that provides a robust, scalable, and easily maintainable environment in which to deploy your applications.

With WebObjects, creating web applications becomes a simple process. It supports drag-and-drop construction of user interfaces and direct connection to existing applications and data resources. WebObjects assists

you in getting applications running in minutes with features like Direct To Web. And because it's an open environment, you can develop in your choice of languages, including Java, C, and scripting languages.

What's unique about the WebObjects environment is the ability to support the needs of both web content designers and application developers. WebObjects lets you provide access through any ordinary web browser to any application you're currently running on a mainframe or Windows NT or UNIX server, and any data you have stored in a client/server database such as Oracle, Sybase, or Informix. It supports a range of security mechanisms, so you can conduct your business over the Web with confidence. And as your web site grows in popularity, WebObjects can easily scale to accommodate the growing traffic.

WebObjects: turning web sites into dynamic applications—and organizational assets.



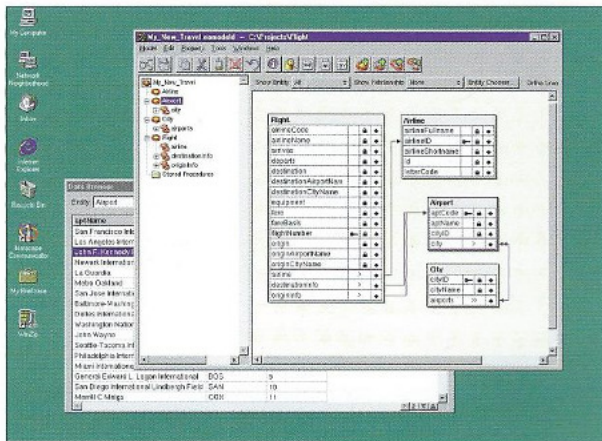
*The heart of the WebObjects application's streamlined development approach, the WebObjects Builder automatically handles every aspect of linking reusable components with enterprise resources—so with WebObjects, assembling applications takes on drag-and-drop ease.*



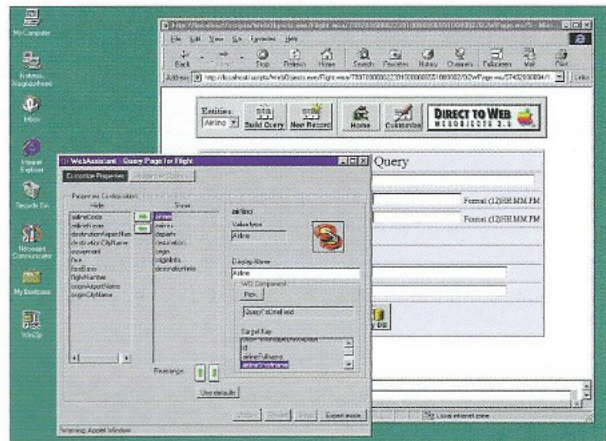
# The fastest, easiest way to make the World Wide Web work for you.

Feature	Benefits
<b>Fast, flexible development</b>	
Direct To Web technology	Provides a turnkey template application for developers incorporating sophisticated database functionality. Direct To Web includes the Web Assistant, an interactive guide for developers that allows them to create and modify applications running against real data sources and systems. It also provides a framework of extensible APIs for the creation of customized third-party templates and interactive guides.
Development tool suite	Includes three development tools: WebObjects Builder controls the visual layout of the application and binds the HTML forms or browser applets to prebuilt objects on the server for database access and business logic; the Enterprise Objects Modeler models the relationship between business objects in the application and data-source schema; and Project Builder is a development process management tool that helps you organize project elements including code editing, compiling, and debugging.
Versatile language support	Allows developers to choose the language or hybrid of languages best suited to the performance needs of their application, be it 100 percent pure Java or Java with a compiled language. WebObjects supports Sun's Java Developer Kit 1.1.3, as well as ANSI C, C++, and Objective-C.
Reusable components	Dramatically shortens the development process by letting you reuse elements such as log-in panels, report layouts, and other recurring functional elements—any code can be packaged and reused as a component across multiple web pages. You can develop your own reusable components or take advantage of components available from Apple and others.
Open architecture	Lets you integrate new scripting languages, page-rendering technology, APIs, and so forth into your existing solution as they become available, protecting your investment in the future.

Feature	Benefits
<b>Versatile deployment and access</b>	
Client-side technology independent	Supports Java, ActiveX, JavaScript, VBScript, RealAudio, Shockwave, and more. Developers can connect Java applets to objects in the WebObjects application server to provide fully interactive web applications.
HTTP server independent	Works with any HTTP server product available on the market that provides a CGI, ISAPI, or NSAPI interface, including servers from Netscape, Microsoft, and Apache. WebObjects interfaces with your HTTP server, on Windows NT, Solaris, HP-UX, and OPENSTEP Mach. WebObjects connects via adapters to any HTTP server, which can be located either on the same machine or on a different machine.
Browser independent	Works with any web browser, including browsers from Netscape, Spy, Microsoft, and NCSA. This flexible browser support frees you from all operating system dependencies, and enables you to make your applications accessible to anyone who has access to a browser—on an organizational intranet or on the Internet.



The Enterprise Objects Modeler helps developers to quickly create Entity-Relationship diagrams and object models for data sources in a point-and-click visual environment, and even to incorporate multiple data sources into a given data access object.



Direct To Web gives developers the simplicity of application development wizards in a fully interactive environment. The result: Developers can create full-featured web applications in a matter of minutes.



## Feature

## Benefits

### Outstanding integration, security, and scalability

Comprehensive database support

Allows you to develop web applications that can access popular databases such as Oracle, Sybase, and Informix, as well as any database that supports ODBC, without having to write any database-specific code. This not only frees you from the limitation of working with a particular database, it also allows your applications to display information from different databases on a single page. In addition, you can integrate legacy applications or distributed computing services such as DCE, CORBA, PDO, and OLE.

Stratified application architecture

Separates your application into three tiers: the web-based graphical presentation layer, the business logic layer, and the data access layer. This partitioning allows you to share a piece of application logic or data with your internal Windows-based client/server applications, so you can take advantage of the power of enterprisewide, dynamic web applications while continuing to make use of the existing business infrastructures.

## Feature

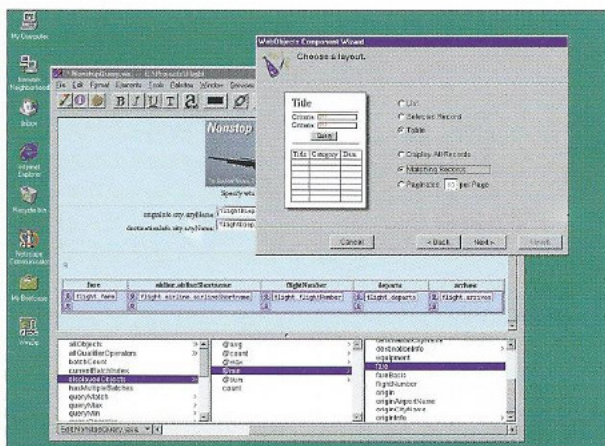
## Benefits

A range of security mechanisms

Supports any security systems included with popular HTTP servers, including security standards such as SSL and S-HTTP. WebObjects also includes built-in mechanisms to handle user authentication in the inherently multiuser environment of the Web. (Through a partnership with Security Dynamics, WebObjects delivers the patented SecureID system.) In addition, WebObjects can operate in environments that use firewalls to block all unauthorized requests to machines on the network.

Automatic load balancing

Enables a single WebObjects application to run as multiple processes on multiple machines, with the adapters on the HTTP server distributing the requests across the different processes. As the number of requests to be handled increases, extra machines can easily be added to balance the load and provide fault tolerance. This scalability protects your investment in WebObjects, by allowing it to accommodate increasing traffic on your web site. It also provides fail-over capabilities, insulating users from the effects of an application server crash by transparently transferring the request to another server.



The WebObjects database wizard assists developers in creating simple database applications, automatically handling such aspects as master-detail views, queries, and batch operations.



For highly specialized applications, Direct To Web applications can be easily customized using WebObjects Builder. The WYSIWYG editing tools make last-minute changes quick and easy.



# WebObjects

*WebObjects makes it easy to create dynamic web applications that build on existing resources to enhance your communications capabilities.*

## Product Features

### Development tools

- WebObjects Builder
  - Provides drag-and-drop control over visual layout and management of database access and business logic
  - Supports HTML
  - Edits WebScript and Java
  - Connects interface to function
  - Includes automated wizards for database applications
- Project Builder
  - Helps you to manage the edit, compile, and debug processes
  - Provides project indexing
  - Supports projectwide variable completion
  - Provides an interface to source code management systems (CVS, Intersolv PVCS)
  - Builds Java, Objective-C, C, C++, and ANSI C projects
  - Includes templates for common project types
- Enterprise Objects Modeler
  - Provides a graphical environment for development of business objects

### Supported platforms

Windows NT, Solaris, HP/UX, and OPENSTEP Mach

### Supported HTTP servers

Any HTTP server with a CGI, ISAPI, or NSAPI interface

### Supported databases

Oracle, Sybase, Informix, and ODBC (Mainframe host application and database support is available from third-party solution providers.)

## Contact Information

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