Informix Data Director for Web

Version 2.0

Informix® Data Director™ for Web (DDW) is a powerful and visually intuitive development environment that enables developers to quickly prototype, build, manage, and deploy dynamic Web applications that are highly optimized for Informix Internet Foundation.2000™. Tightly integrated with the Informix Web DataBlade® module 4.x, DDW provides sophisticated project and content management capabilities that allow entire teams (whether local or remote) to collaborate on one or many development projects simultaneously.

DDW provides an easy-to-use interface for rapid application development. It gives developers the flexibility to use wizards to customize and optimize their Web applications. By integrating with industry leading tools and technologies, DDW ensures optimal integration in the enterprise, making it ideally suited for developing sophisticated Web applications that incorporate automated and dynamic Web publishing and mission-critical transaction processing. With DDW, organizations can truly begin managing the Web for business advantage.

DDW is specifically designed to support developers using Informix Dynamic Server.2000™ and the Web DataBlade module 4.x. This integration allows Web developers to take full advantage of Informix's Dynamic Scalable Architecture™ server technology to manage all their Web content and application logic together for increased manageability, security, and accuracy, while simultaneously creating applications that dynamically deliver customized information to the user.

Unlike other Web solutions that store Web applications as flat files and scripts in the file system, Informix-based Web application solutions store entire Web applications, including Web page templates and site content, in the Informix database. Informix Dynamic Server.2000 and the Web DataBlade module 4.x also enable organizations to manage and publish all the types of content that make the Web compelling: text, audio, images, video, spatial, time-series data, and more.

In an Informix-based Web content management system, content is delivered to the Web browser through the use of application pages—called "AppPages." These AppPages contain a set of HTML-compliant tags and attributes that are expanded at runtime into HTML documents. Using these tags to embed SQL expressions and statements directly into the AppPages, any database content can be dynamically incorporated into the HTML documents. You can also use programmatic capabilities such as variables and conditional statements to give even more run-time flexibility to your AppPages.
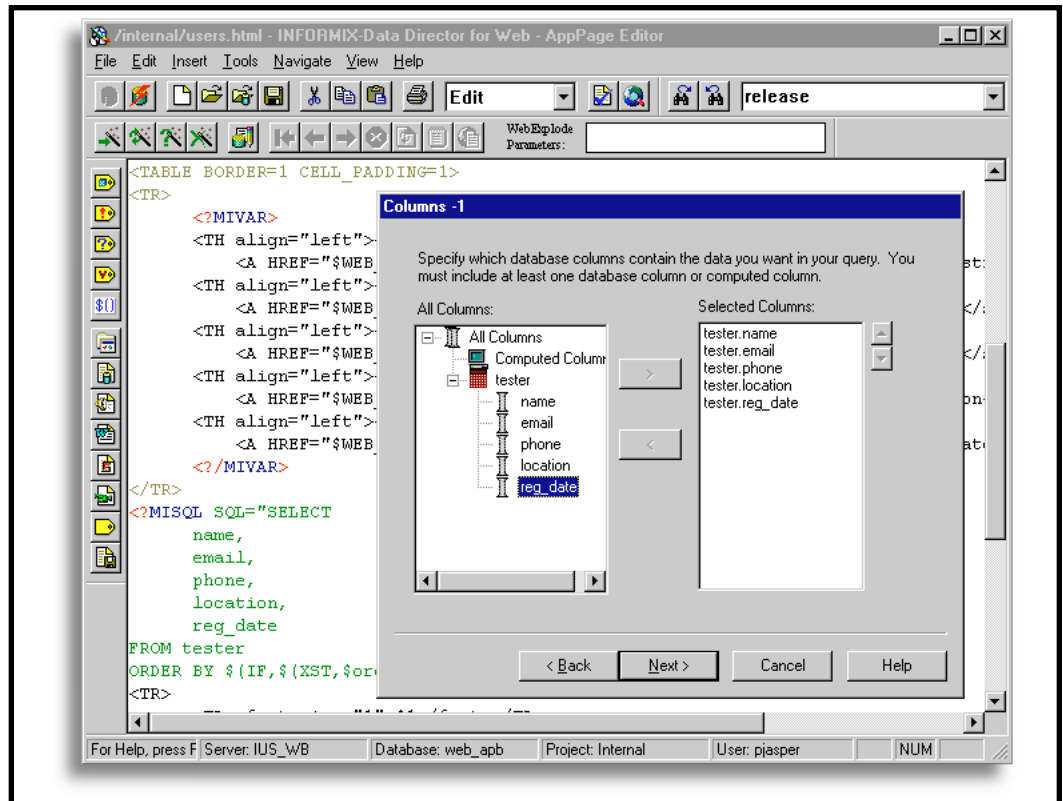
Figure 1: Screen Image, DDW (32Kb, GIF).

Sophisticated Content Management

DDW is the ideal development environment for building database-enhanced applications. It offers a number of advanced features and functionality for rapid application proto-typing and development of AppPages, and it provides a sophisticated Web site and content management system for creating and maintaining flexible, content-extensible Web applications.

DDW provides a powerful and sophisticated framework for creating and maintaining dynamic Web applications. A key component of DDW is Site Manager, used to manage and organize the Web-specific content stored within an Informix database, as well as handle extensible resources such as MIME multimedia types and user-defined tags.

Site Manager

Site Manager allows developers to import content from existing file system-based Web sites, group content by projects and content types, and deploy from development to production databases. Site Manager displays a Windows Explorer-style visual representation of your Web site, through which you navigate the Web content and apply operations to organize the site.

- **Views.** Within Site Manager, developers can organize and view their Web content either by project or file type. The project view provides a logical grouping of content, which can be deployed together, locked as a group, and/or worked on by a team. The file view provides a hierarchical organization compatible with the file system hierarchy of file system-based Web sites. From either the project or file view, the developer is also presented with the

resource list view that represents all available Web content resources—such as AppPages, images, objects, etc. Content resources can be easily moved among folders or projects simply by dragging and dropping, or cutting and pasting. You can also import content resources from external file sources, such as Windows Explorer.

- **Editing and Previewing Resources.** Simply by double clicking or dragging and dropping, developers can invoke a resource editor to customize or change content. The specific resource editor used is dependent on that content's MIME type, and can be configured by the user. For example, double clicking on an image resource can launch the user's preferred image editor. Editing an AppPage invokes the AppPage Editor. Site Manager also gives you the ability to preview content resources within the Web browser of your choice.

- **Concurrency.** Site Manager provides resource locking to enable multiple developers to simultaneously work on the same Web site. Both individual resources and complete projects can be locked, depending on developer requirements.

Rapid Application Prototyping and Development

DDW is a versatile product that enables developers to rapidly build and extend Web applications. A key component of DDW is AppPage Editor, which provides a simple, Windows-based, graphically enhanced interface for editing AppPages.

AppPage Editor

AppPage Editor makes the process of authoring and designing AppPages simple and efficient. It helps developers create and apply dynamic tags—reusable components that simplify the building of AppPages. It also provides a color-coded view of HTML source, dialogs for prompted editing of special tags, and several wizards to guide the user when generating queries and assembling forms linked to database content. With AppPage Editor, developers can edit and enhance Web pages developed using other industry leading Web page development tools like Microsoft Front Page, Netscape Composer, HotDog by Sausage, and Allaire Cold Fusion.

- **Wizards.** For more complex programming tasks, AppPage Editor provides wizard technology to guide the developer through the AppPage tag creation process. For example, the query wizard takes you through the steps to create an SQL query and choose how its results will be formatted. These queries are defined by a series of easy to use dialog boxes. The input form wizard and the update form wizard are used to create HTML forms for inserting and updating database content. Most importantly, rather than inserting complex SQL sequences of tags directly into the AppPages, the AppPage wizards construct user-defined tags that encapsulate queries and SQL statements into reusable components that can be used in multiple instances and contexts by developers, even those with no database programming experience.

- **Dialogs.** AppPage Editor provides a number of dialogs to assist the developer, speeding commonly performed tasks. For example, when the developer inserts the Web DataBlade module 4.x tags—handling such commands as queries, variables, subroutines, error handling, and more—a dialog prompts the developer for the attributes and, where appropriate, the body of the tag to be inserted. AppPage Editor also provides dialogs that assist the developer in constructing variable processing functions by displaying a list of all available functions and parameters. When a function is selected, it is inserted into the AppPage along with the matching parameters.

- **Drag-and-Drop Interface.** With DDW, all application resources can be inserted into your AppPages through a simple, easy-to-use drag-and-drop metaphor. In addition to the HTML source display, Site Manager enables you to drag and drop available project resources into the desired location on the AppPage in the AppPage Editor.

- **Color-Coded HTML.** AppPage Editor makes it easy to edit HTML code by color-coding it in order to distinguish the different elements. In particular, this highlights the Web DataBlade module 4.x's special tags, so you can easily identify and modify those tags. As changes are made, the color coding is dynamically updated.

- **Previewing Options.** AppPage Editor provides two options for previewing AppPages. One can preview the AppPage directly within the editor, simply by toggling to a preview window. Or you can choose to preview the AppPage from your external Web browser.

Extensibility to Support Web Innovation

DDW is designed to fully support application extensibility in a number of ways. It allows developers to integrate a broad range of datatypes to incorporate multimedia, geospatial analysis, text and document management, data mining, and other application capabilities. DDW for Web also allows developers to work with additional third-party tools, such as Haht's Haht Site, Microsoft InterDev, Microsoft FrontPage, Netscape Composer, Sausage's HotDog, and Allaire Cold Fusion.

Using the Site Manager, you can easily make edits to the list of available MIME types—allowing applications to be extended to handle additional types of content resources. By selecting how to edit each type of resource, you can also integrate other tools into your development environment.

Best Integration with the Enterprise

DDW is the ideal development environment for rapidly prototyping and building sophisticated Informix-based Web applications. And it allows you to work with leading third-party tools. The result? Now you can fully exploit the Web's potential by quickly and easily deploying commerce, content management, transaction processing, Web site management, and Web publishing applications with a minimal learning curve. With DDW, the Web DataBlade module 4.x, and Informix Dynamic Server.2000, you can truly manage the Web for business advantage.
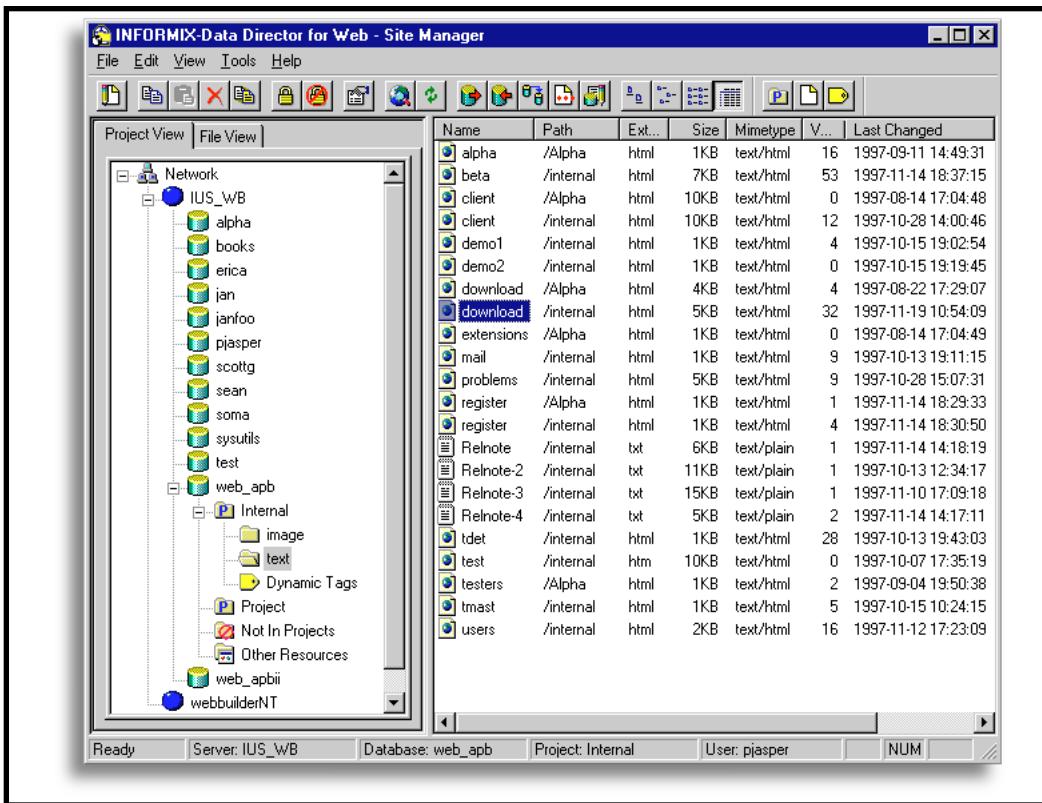
Figure 2: Screen Image, DDW (37Kb, GIF).

Features and Benefits

DDW addresses the key market needs of manageability, performance and scalability, usability, ease of development and deployment, persistence, and extensibility for rapid Web application development, testing and deployment. This section provides a brief overview of the rich feature set in this major release.

Performance and Scalability

Both AppPage Editor and Site Manager use a *Database Connection Pool Manager* providing performance enhancements and more efficient memory usage. Performance improvements and other scalability enhancements in the *Smart Blob* interface for Informix Dynamic Server.2000 offer significant benefits.

Manageability

Users can maintain and manage versions of their edited resources using DDW *Version Control* features. The following version control functionality is available:

- Check-In
- Check-Out
- Undo Check-Out
- Label
- Get Latest
- Show the version history of a resource
- Recall an old version making it currently active
- Undelete a resource
- Import resources into the DDW schema and optionally apply a version label
- Export a project to the file system based on a version label or latest version

5

Usability

Each document window within AppPage Editor in DDW has a tabbed pane called "Layout". This pane provides a *WYSIWYG* representation of the document and offers the following features:

Formatting Features

- Text and Paragraph formatting
- Table Support
- N-Level Undo and Redo (does not work between views)
- Representation of Glyphs

Selection Features

- UI Activation
- Selection
- Resizing Elements
- Drag-Move Operations
- Operations on Text
- Special Text Element Glyphs
- Selections That Contain both Directly Selectable Elements and
- Text

AppPage Editor is now a *Multiple Document Interface (MDI)* application allowing numerous documents to be opened in one session thereby reducing resource consumption, uncluttering the desktop and simplifying the user experience.

Improved Wizard Design also enhances usability of DDW

- Users can select fields as well as columns, thus gaining access to row type data.
- Users can construct queries from tables in different databases, where table names are referenced using dot notation.
- New WHERE, ORDER BY, and HAVING edit boxes are provided, where appropriate, to clear up ambiguity in earlier releases of DDW.

Ease of Development

Important *Web DataBlade module 4.x* tags and Variable Processing Functions are supported in the DDW AppPage Editor, facilitating rapid AppPage development.

The following Web DataBlade module 4.x tags and variable processing functions are supported in AppPage Editor:

Tags

- MIEXEC
- MIELSE
- MIDEFERRED
- MIFUNC

Variable Processing Functions
- EVAL
- EXIT
- MOD
- ROUND
- TRUNC
- UNHTML
- UNSETVAR
- VECSIZE
- VECAPPEND

Ease of Deployment

DDW users can *export* and deploy a DDW project based on the most recent version or a specific version label. This facilitates the distribution of staged builds. Imported resources may also be assigned a version label as a function of the *import* process.

Persistence

In order to facilitate testing of pages utilizing *session management*, DDW AppPage Editor allows a user access to recall sessions and interact with session information while in preview mode.

Extensibility

DDW users can expose *User Defined Routines (UDRs)* as if they were dynamic tags, thus facilitating easy reuse of resources

About Informix

Informix Software is the technology leader in software infrastructure solutions for the Internet—providing a fast, simple and complete way to bring businesses to the Web. Based in Menlo Park, Calif., Informix is the first and only company to integrate e-business and business intelligence on a true Internet infrastructure. The company's highly scalable Web engines, together with its personalized content management, real-time analytics and media asset management capabilities, offer customers a unique competitive advantage. For more information, contact the nearest sales office or visit the Web site at www.informix.com.

System Requirements

- Informix Dynamic Server.2000 , Version 9.20 or later recommended. Note: Version 9.14 or later versions work as well

- Informix Web DataBlade Module, Version 4.0 or later recommended. Note: Version 3.32 or later versions work as well

- Informix Connect , Version 2.10 or later

- Microsoft Internet Explorer, Version 5.0 or later

- Intel Pentium class or higher

- Windows 95 or Windows NT 4.0 SP3 and above

- 35-40 MB hard disk space

- 64 MB RAM

- VGA or higher resolution monitor (1024x768 recommended)

Informix®
SOFTWARE
way to web™

50 Washington Street
Westboro, MA 01581
Tel. 508.366.3888
www.informix.com

INFORMIX REGIONAL SALES OFFICES

Asia Pacific	65 298 1716	Japan	81 3 5562 4500
Canada (Toronto)	416 730 9009	Latin America	305 591 9592
Europe/Middle East/Africa	44 208 818 1000	North America	800 966 9875 press 2
Federal	703 847 2900		508 366 3888

Printed in U.S.A. 8/00
000-22193-77