A technical discussion on portals
September 2003

WebSphere. software

Guide to WebSphere Portal 5.0

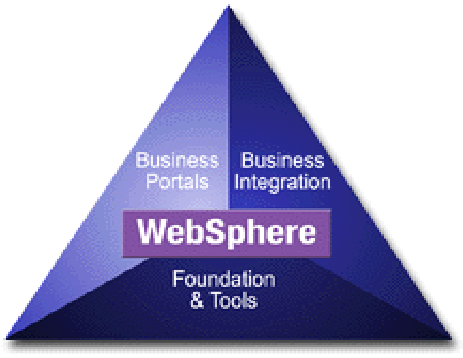
The Portal Vision

Portals serve as a simple, unified access point to web applications. Portals also do much more: they provide valuable functions like security, search, collaboration, and workflow. A portal delivers integrated content and applications, plus a unified, collaborative workplace. Indeed, portals are the next-generation desktop, delivering e-business applications over the web to all kinds of client devices.

A complete portal solution should provide users with convenient access to everything they need to get their tasks done anytime, anywhere, in a secure manner. IBM's vision is that portals are the key to providing a personalized, relevant web experience, enabling users to readily find what they need in a highly interactive and personal way. That is, portals provide the tools and user interface to access information and applications, and to manage the selection and personalization of content.

The WebSphere Platform

IBM WebSphere Portal is part of the WebSphere software platform. The platform is organized into three areas of functionality:



Foundation and tools for building, running, and deploying applications. WebSphere Application Server, host integration technologies, and state-of-the-art development tools form a solid base for the platform. The foundation and tools provide the Internet expertise you need, enable you to build and use Web Services, and link you to a greater technical community of developers and other WebSphere users.

Business integration for integrating internal business processes, including processes that involve business partners. WebSphere offerings such as WebSphere Business Integrator make it easy for your company to implement applications and business processes, including supply chain management and the integration of existing processes with the Web.

Business Portals for personalizing Web-based content and making it accessible to any device. These WebSphere products fine-tune your users' experience and provide broad access for your customers, employees, business and trading partners and remote branch offices.

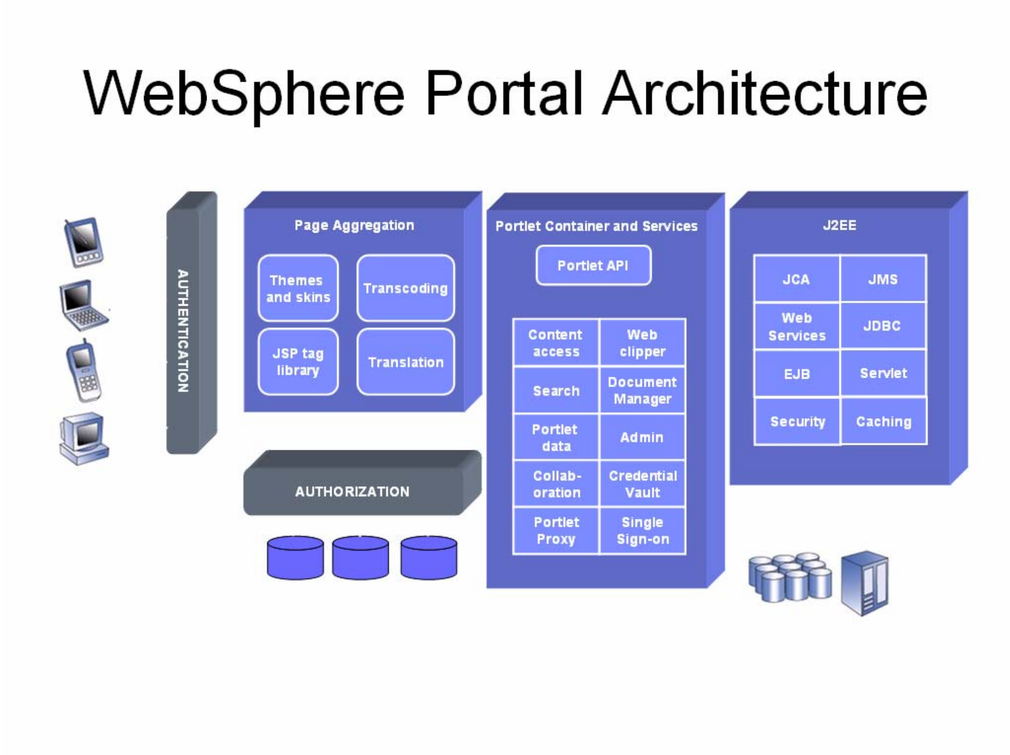
WebSphere Portal leads the Business Portals part of the WebSphere Platform. It provides an extensible framework for interacting with enterprise applications, content, people, and processes. Self-service features allow end users to personalize and organize their own view of the portal, to manage their own profiles and to publish and share documents with their colleagues.

WebSphere Portal provides additional services such as single sign-on, security, document management, web content publishing, search, personalization, collaboration services, enterprise application integration, support for mobile devices, and site analytics.

WebSphere Portal Architecture

WebSphere Portal is the industry's most comprehensive portal solution, and represents the de-facto standard e-business architecture. WebSphere

Portal integrates both IBM and business partner technologies to realize this architecture. IBM is also extending its portal offering to create additional products that deliver highly personalized and context-sensitive applications, accessible from any device, anytime.



Websphere Portal Architecture

As e-business applications enter the on-demand era, WebSphere Portal leads the way with its concepts of delegated administration, cascading page layouts, portal federation through web services, advanced portlet application concepts, business process integration, knowledge management, document management with integrated productivity components, and advanced personalization. In complementary offerings, additional pervasive computing functions are enabled, such as intelligent notification, offline browsing, and data synchronization.

WebSphere Portal is available in several editions, each designed to provide the infrastructure you need to build and deploy highly scalable portals. All offerings share a common framework (the portal server) plus additional products and services. The portal server provides common services such as application connectivity, integration, administration, and presentation that are required across portal environments.

Visit **http://www-3.ibm.com/software/genservers/portal/**

for the latest details on supported platforms, system requirements, and version numbers.

WebSphere Portal Enable	
Portal Server	Provides presentation, user management, security, and other services for constructing the portal site.
Personalization	Provides advanced personalization technologies for targeting Web content to meet user needs and preferences.
Content Publisher	Provides tools for contributing content and documents to the portal.
Portal Document Manager	Centralized document storage, organization and version management services.
Productivity Components	In-line view and edit capabilities for rich text, spreadsheet and presentation content.
IBM Directory Server	Lightweight Directory Access Protocol (LDAP) Server
WebSphere Translation Server	Translation services enabling web content, e-mail and chat content conversions across languages
WebSphere Studio Site Developer	Professional developer tools for creating, testing, debugging, and deploying portlets, servlets, and other assets related to portals and web applications.
Collaborative Components	Java APIs that provide the building blocks for integrating the functionality of Domino, Lotus Instant Messaging (Sametime), Lotus Team Workplaces (QuickPlace), and Lotus Discovery Server into portals and portlets.

WebSphere Portal Extend	
All products in Enable	Same portal server and personalization functions.
Collaboration Center	A set of three fully integrated pre-configured, ready-to-use collaborative "portlets" that can use right out of the box providing instant value from e-workplace computing. These include online directory services, instant messaging and access to team rooms.

Lotus Extended Search	Provides parallel, distributed, heterogeneous searching capability across Lotus Notes databases, legacy data stores, Web search sites, and other sources.
Tivoli Web Site Analyzer	Analyzes web site usage logs to reveal information that can be used to improve the portal for better user experience.
Sametime	Instant messaging, presence awareness and web conferencing services.
QuickPlace	Web-based solution for creating team workspaces for collaboration. Features include discussions,document collaborations, coordinate plans, tasks and resources.
WebSphere Portal Express	
Portal Server	Provides presentation, user management, security and other services for constructing the portal site.
WebSphere Studio Site Developer	Professional developer tools for creating, testing, debugging and deploying portlets, servlets, and other assets related to portals and web applications.
Portal Document Manager	Centralized document storage, organization and version management services.
Collaborative Components	Java APIs that provide the building blocks for integrating the functionality of Domino, Lotus Instant Messaging (Sametime), Lotus Team Workplaces (QuickPlace), and Lotus Discovery Server into portals and portlets
Productivity Components	In-line view and edit capabilities for rich text, spreadsheet and presentation content.
IBM Directory Server	Lightweight Directory Access Protocol Server
Websphere Portal Express Plus	
All products in WebSphere Portal Express	Same portal server, document management and collaborative services
Collaboration Center	A set of three fully integrated pre-configured, ready-to-use collaborative "portlets" that can use right out of the box providing instant value from e-workplace computing. These include online directory services, instant messaging and access to team rooms.
Sametime	Instant messaging, presence awareness and web conferencing services.
QuickPlace	Web-based solution for creating team workspaces for collaboration. Features include discussions, document collaborations, coordinate plans, tasks and resources.

WebSphere Portal product editions

Customers choosing one of the WebSphere Portal offerings can realize tangible business and technical benefits:

- Revenue benefits, as a result of tighter relationships with customers or partners, work force productivity, innovation and reduced cycle times
- Operational cost reduction, as a result of operational efficiency, better information flow and knowledge, and consistent infrastructure
- Increased employee productivity and improved decision making because of access to more relevant information, and a single access point to applications and collaboration tools
- Better security and single sign-on, resulting in fewer passwords to administer and better user experience
- Reduced training costs, resulting from common presentation and a consistent user interface
- Unification of applications, giving them a longer useful life, with new ways of accessing them through desktop and pervasive devices.

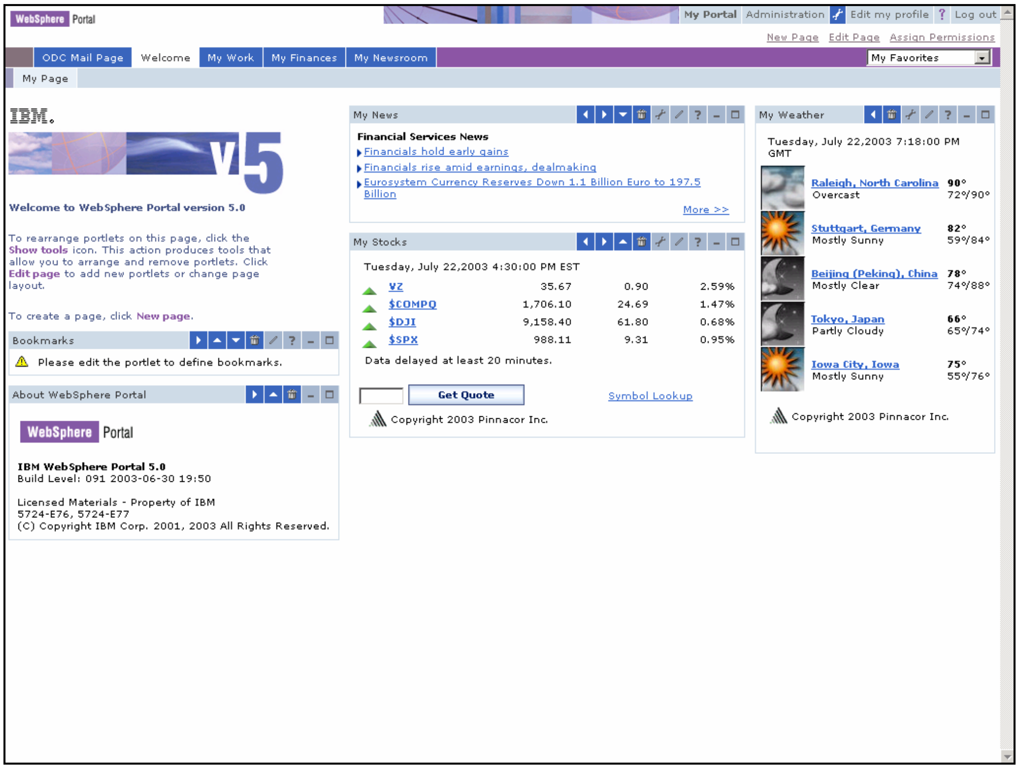
The WebSphere Portal offerings allow an e-business to quickly capitalize on their digital and human assets while presenting a first-class Web experience to their employees, partners, and customers.

This document is intended to help customers, independent software vendors and application architects plan their use of WebSphere Portal. It explains portal applications, content, security, user management, administration, document management, search, personalization, collaboration, and more.

Portlets

Portlets are the heart of a portal. The term “portlet” refers to a small portal application, usually depicted as a small box in the web page. Portlets are reusable components that provide access to applications, web-based content, and other resources. Web pages, web services, applications, and syndicated content feeds can be accessed through portlets. Companies can create their own portlets or select from a catalog of portlets created by IBM and by IBM business partners.

Any particular portlet is developed, deployed, managed, and displayed independent of other portlets. Administrators and end users create personalized portal pages by choosing and arranging portlets, resulting in web pages that present content tailored for individuals, teams, divisions, and organizations.



Welcome to WebSphere Portal version 5.0

To rearrange portlets on this page, click the **Show tools** icon. This action produces tools that allow you to arrange and remove portlets. Click **Edit page** to add new portlets or change page layout.

To create a page, click **New page**.

⚠ Please edit the portlet to define bookmarks.

IBM WebSphere Portal 5.0
Build Level: 091 2003-06-30 19:50

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Financial Services News

- Financials hold early gains
- Financials rise amid earnings, dealmaking
- Eurosystem Currency Reserves Down 1.1 Billion Euro to 197.5 Billion

Tuesday, July 22,2003 4:30:00 PM EST

▲	VZ	35.67	0.90	2.59%
▲	$COMPQ	1,706.10	24.69	1.47%
▲	$DJI	9,158.40	61.80	0.68%
▲	$SPX	988.11	9.31	0.95%

Data delayed at least 20 minutes.

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Tuesday, July 22,2003 7:18:00 PM GMT

Raleigh, North Carolina	90°	
Overcast	72°/90°	
Stuttgart, Germany	82°	
Mostly Sunny	59°/84°	
Beijing (Peking), China	78°	
Mostly Clear	74°/88°	
Tokyo, Japan	66°	
Partly Cloudy	65°/74°	
Iowa City, Iowa	75°	
Mostly Sunny	55°/76°	

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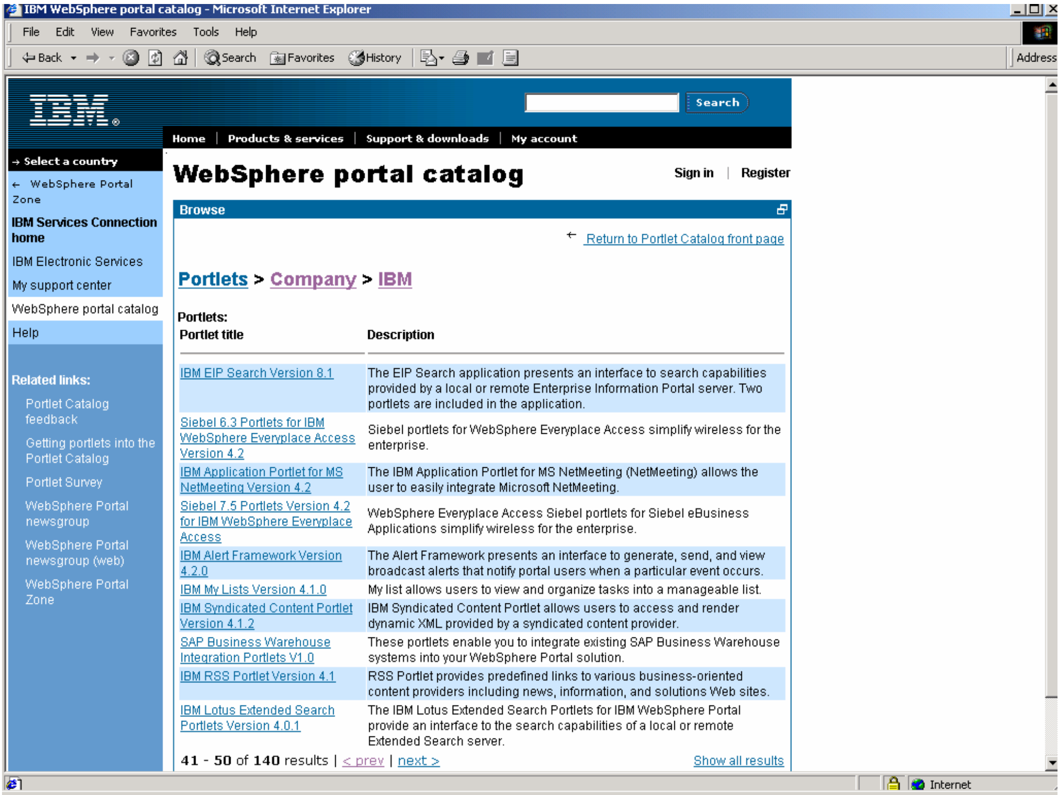
A typical portal page

The portal server already includes a rich set of standard portlets for storing and sharing documents, displaying syndicated content, performing XML transformation, accessing existing web pages, Lotus Notes and Microsoft Exchange productivity applications, Sametime instant messaging and Lotus QuickPlace team rooms. The following figure shows just a few of the portlets that are available from IBM.



IBM WebSphere portal catalog - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites History
Address
IBM
Search
Home | Products & services | Support & downloads | My account
Select a country
WebSphere Portal Zone
IBM Services Connection home
IBM Electronic Services
My support center
WebSphere portal catalog
Help
Related links:
Portlet Catalog feedback
Getting portlets into the Portlet Catalog
Portlet Survey
WebSphere Portal newsgroup
WebSphere Portal newsgroup (web)
WebSphere Portal Zone
Sign in | Register
Browse
Internet

WebSphere portal catalog

← Return to Portlet Catalog front page

Portlets > Company > IBM

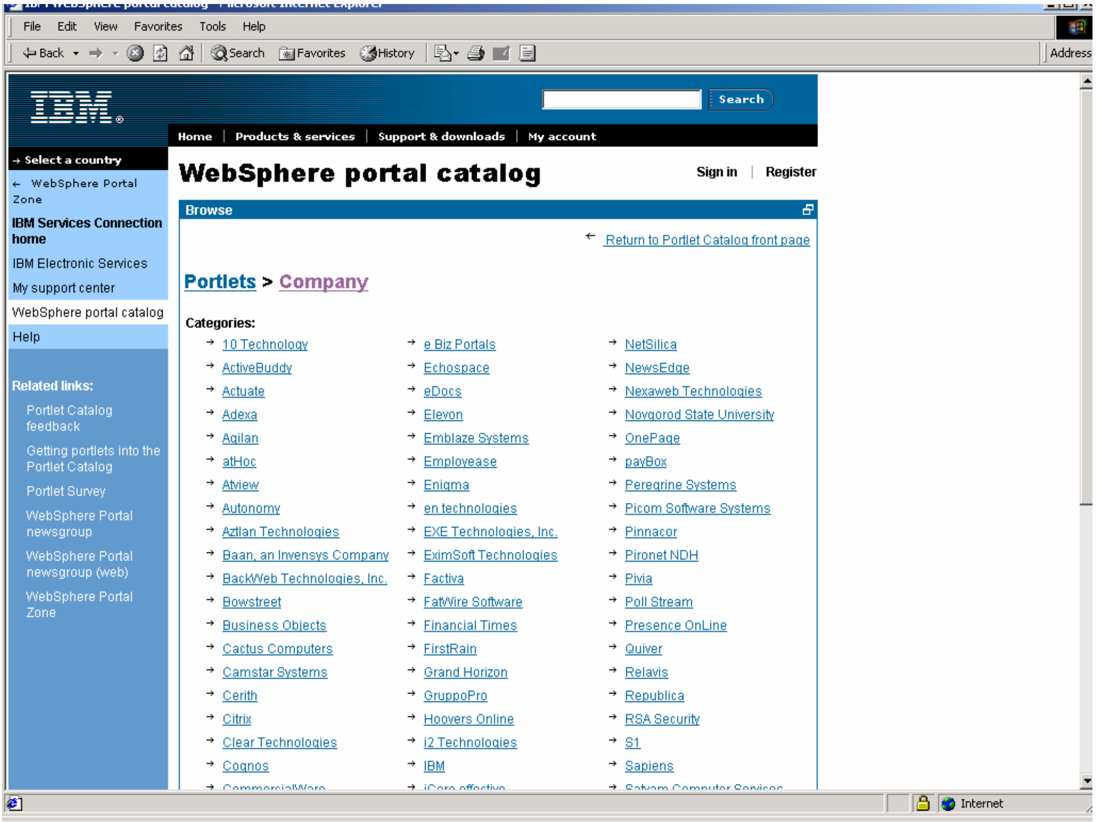
Portlets:

Portlet title	Description
IBM EIP Search Version 8.1	The EIP Search application presents an interface to search capabilities provided by a local or remote Enterprise Information Portal server. Two portlets are included in the application.
Siebel 6.3 Portlets for IBM WebSphere Everyplace Access Version 4.2	Siebel portlets for WebSphere Everyplace Access simplify wireless for the enterprise.
IBM Application Portlet for MS NetMeeting Version 4.2	The IBM Application Portlet for MS NetMeeting (NetMeeting) allows the user to easily integrate Microsoft NetMeeting.
Siebel 7.5 Portlets Version 4.2 for IBM WebSphere Everyplace Access	WebSphere Everyplace Access Siebel portlets for Siebel eBusiness Applications simplify wireless for the enterprise.
IBM Alert Framework Version 4.2.0	The Alert Framework presents an interface to generate, send, and view broadcast alerts that notify portal users when a particular event occurs.
IBM My Lists Version 4.1.0	My list allows users to view and organize tasks into a manageable list.
IBM Syndicated Content Portlet Version 4.1.2	IBM Syndicated Content Portlet allows users to access and render dynamic XML provided by a syndicated content provider.
SAP Business Warehouse Integration Portlets V1.0	These portlets enable you to integrate existing SAP Business Warehouse systems into your WebSphere Portal solution.
IBM RSS Portlet Version 4.1	RSS Portlet provides predefined links to various business-oriented content providers including news, information, and solutions Web sites.
IBM Lotus Extended Search Portlets Version 4.0.1	The IBM Lotus Extended Search Portlets for IBM WebSphere Portal provide an interface to the search capabilities of a local or remote Extended Search server.

41 - 50 of 140 results | < prev | next > Show all results

IBM Portal Catalog

An extensive third party partner program makes many more portlets available from the portal catalog download site at http**://www.ibm.com/software/genservers/portal/portlet/catalog**



WebSphere portal catalog

Browse

← Return to Portlet Catalog front page

Portlets > Company

Categories:

- 10 Technology
- ActiveBuddy
- Actuate
- Adexa
- Agilan
- atHoc
- Atview
- Autonomy
- Aztlan Technologies
- Baan, an Invensys Company
- BackWeb Technologies, Inc.
- Bowstreet
- Business Objects
- Cactus Computers
- Camstar Systems
- Cerith
- Citrix
- Clear Technologies
- Cognos
- CommercialWare
- e Biz Portals
- Echospace
- eDocs
- Elevon
- Emblaze Systems
- Employease
- Enigma
- en technologies
- EXE Technologies, Inc.
- EximSoft Technologies
- Factiva
- FatWire Software
- Financial Times
- FirstRain
- Grand Horizon
- GruppoPro
- Hoovers Online
- i2 Technologies
- IBM
- iCore effective
- NetSilica
- NewsEdge
- Nexaweb Technologies
- Novgorod State University
- OnePage
- payBox
- Peregrine Systems
- Picom Software Systems
- Pinnacor
- Pironet NDH
- Pivia
- Poll Stream
- Presence OnLine
- Quiver
- Relavis
- Republica
- RSA Security
- S1
- Sapiens
- Satyam Computer Services

Searching the catalog by business partners

Portlet Applications

Portlets are more than simple views of existing web content. A portlet is a complete application, following a standard model-view-controller design. Portlets have multiple states and view modes, plus event and messaging capabilities.

Portlets run inside the portlet container of a portal server, similar to a servlet running on an application server. The portlet container provides a runtime environment in which portlets are instantiated, used, and finally destroyed. Portlets rely on the portal infrastructure to access user profile information, participate in window and action events, communicate with other portlets, access remote content, lookup credentials, and to store persistent data.

Generally, portlets are administered more dynamically than servlets. For example, portlet applications consisting of several portlets can be installed or removed while the server is running. Administrators can change the settings and access rights of a portlet while the portal is running, even in a production environment.

Portlet Modes

Portlet modes allow a portlet to display a different user interface, depending on the task required of the portlet. A portlet has several modes of display, which can be invoked by icons on the portlet title bar: view, help, edit and configure.

A portlet is initially displayed in its view mode. As the user interacts with the portlet, it may display a sequence of view states, such as forms and responses, error messages, and other application-specific states.

Help mode is used to provide user assistance about the portlet. Edit mode provides a page for users to change the portlet settings. For example, a weather portlet might provide an edit page for users to specify their location. Users must be logged into the portal to access edit mode. If Configure mode is supported by a portlet, it provides a page for portal administrators to configure portlet settings that are shared by instances of that portlet.

Each portlet mode can be displayed in normal, maximized or minimize states. When a portlet is maximized, it is displayed in the entire body of the portal page, replacing the view of other portlets. When a portlet is minimized, only the portlet title bar is displayed on the portal page.

Portlet API

Portlets are a special subclass of *HttpServlet*, with properties that allow them to easily plug into and run in the portal server. Portlets are assembled into a larger portal page, with multiple occurrences of the same portlet displaying different data for each user. Portlets rely on the portal infrastructure to access user profile information, participate in window and action events, communicate with other portlets, access remote content, lookup credentials, and to store persistent data. The portlet API provides standard interfaces for these functions.

The portlet API defines a common base class and interfaces for portlets, in order to cleanly separate the portlet from the portal infrastructure. In most respects, the portlet API is an extension of the servlet API, except that it restricts certain functions to a subset that makes sense for portlets running in the context of a portal. For example, unlike servlets, portlets may not send errors or redirects as a response. This may only be done by the portal itself, which controls the overall response page.

The markup fragments that portlets produce may contain links, actions and other content. The Portlet API defines URL rewriting methods that allow portlets to transparently create links, without needing to know how URLs are structured in the particular portal.

Portlet Performance

Since portlets are servlets, similar reentrancy and performance considerations apply to both. A single portlet instance (that is, a single instance of the portlet’s Java class) is shared among all requesters. There are a limited number of threads that process portlets and servlets, so it is important for each portlet to do its job as quickly as possible so that response time for the whole page is optimized.

Just as with servlet programming, you should consider optimizations such as limiting the use of the synchronized methods, limiting the use of expensive string operations, avoiding long running loops, and minimizing the number of objects that are created. Another optimization is to use Java

Server Pages for rendering the portlet’s views; in general, views created with Java Server Pages are faster than views created with XSL.

Usually, many portlets are invoked in the course of handling a single request, each one appending its content into the overall page. Some portlets can be rendered in parallel, so that the portal server assembles all the markup fragments when all the portlets finish or time out. This improves the performance of portlets that access remote data by HTTP or SOAP requests. However, not all portlets are thread-safe; for example, portlets that access protected resources may not be run in parallel. The portlet deployment descriptor indicates whether the portlet is considered thread-safe; portlets that are not thread-safe will be rendered sequentially.

Portlet output can also be cached. The caching policies are configured in the portlet deployment descriptor, including an expiration time and whether or not the portlet markup can be shared among users or is user-specific.

Standards

As portals continue to evolve into the new desktop and integration standard, IBM is leading efforts to standardize the application programming interfaces between portals and other applications. In particular, the Java Community Process (JCP) and the Organization for the Advancement of Structured Information Standards (OASIS) are working cooperatively to standardize the Java and XML technology needed to link portals to disparate applications.

JSR 168 is co-led by IBM and Sun, and seeks to achieve interoperability between local portlets and portal servers. IBM initiated the Portlet API, and will be responsible for providing an open source reference implementation at the Apache Jakarta project. Sun will edit the specification and will provide the freely accessible Compliance Test Kit. IBM will ship a JSR

168 compliant portlet container to support operation of JSR 168 portlet applications with Websphere Portal Version 5 soon after that JSR specification is finalized.

OASIS' Web Services for Remote Portals (WSRP) Technical Committee.,chaired by IBM, has created an XML and Web services standard that will allow the interoperability of visual, user-facing services with portals or other web applications. IBM will incorporate support for WSRP 1.0 applications with Websphere Portal Version 5 soon after the WSRP 1.0 specification is finalized.

Struts

Struts is a Jakarta open source project that provides a framework based on the Model-View-Controller (MVC) pattern. It allows developers to efficiently separate the application's business logic from its presentation. Struts enforces sequence of pages and actions and provides form validation functions.

This release of WebSphere Portal provides support for using the Struts 1.1 framework to build portlets. In order to work in portlets, specific technical details must be observed when using Struts. For example, when used in portlets, a Struts action should not write to the response object, and should not create header elements like HEAD and BODY tags. The Struts application must be packaged with several replacement jar files that make URLs, forward actions, and include actions work properly in a portal environment.

Portlet Cooperation

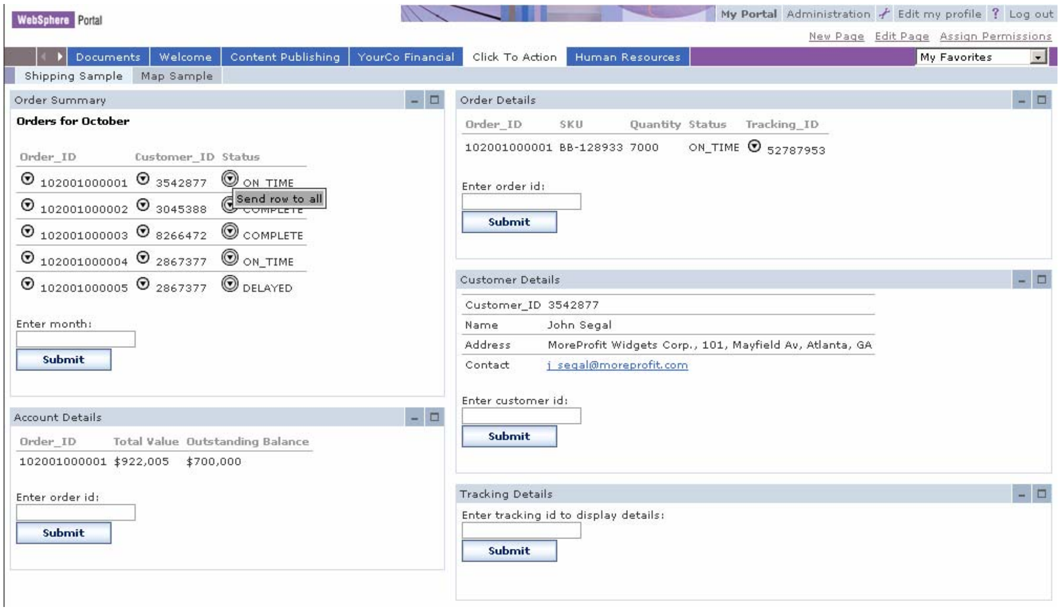
The portal server provides a mechanism for portlets to communicate with each other, exchanging data or other messages. In a production portal, portlet communication could be used to copy common data between portlets. This saves redundant typing by the user and makes the portal easier to use. For example, one portlet might display information about accounts while a second portlet displays information about transactions that have occurred for one of the accounts over the last 30 days. To do this, the transactions portlet needs to obtain the corresponding account information when it displays the transaction details.

This is accomplished by communication between the two portlets, using portlet actions and portlet messages. In this example, the account portlet creates a portlet action and encodes it into the URL that is rendered for displaying transactions. When the link is clicked, the action listener is called, which then sends a portlet message to send the necessary data.

Programmatic messaging helps unify portlet applications that access different backend applications. However, this is relatively static, and requires planning and design work in advance. The portlets exchanging messages must already know about each other in order to make the interchange work. Next we'll discuss more flexible means of portlet cooperation.

Brokered Cooperation

Brokered cooperation allows independently developed portlets to exchange information. Portlets register their intent to co-operate with a broker, which facilitates the exchanges at runtime. The broker works by matching data types between the sources in one portlet with the actions of another portlet. When the types match, a transfer is possible, and the broker allows the user to trigger the transfer through a pop-up menu. The term "Click-to-Action" is used for such menu-driven, brokered data exchange.



Order Summary

Orders for October

Order_ID	Customer_ID	Status
102001000001	3542877	ON_TIME
102001000002	3045388	COMPLETE
102001000003	8266472	COMPLETE
102001000004	2867377	ON_TIME
102001000005	2867377	DELAYED

Enter month:

Submit

Account Details

Order_ID	Total Value	Outstanding Balance
102001000001	$922,005	$700,000

Enter order id:

Submit

Order Details

Order_ID	SKU	Quantity	Status	Tracking_ID
102001000001	BB-128933	7000	ON_TIME	52787953

Enter order id:

Submit

Customer Details

Customer_ID	3542877
Name	John Segal
Address	MoreProfit Widgets Corp., 101, Mayfield Av, Atlanta, GA
Contact	j_segal@moreprofit.com

Enter customer id:

Submit

Tracking Details

Enter tracking id to display details:

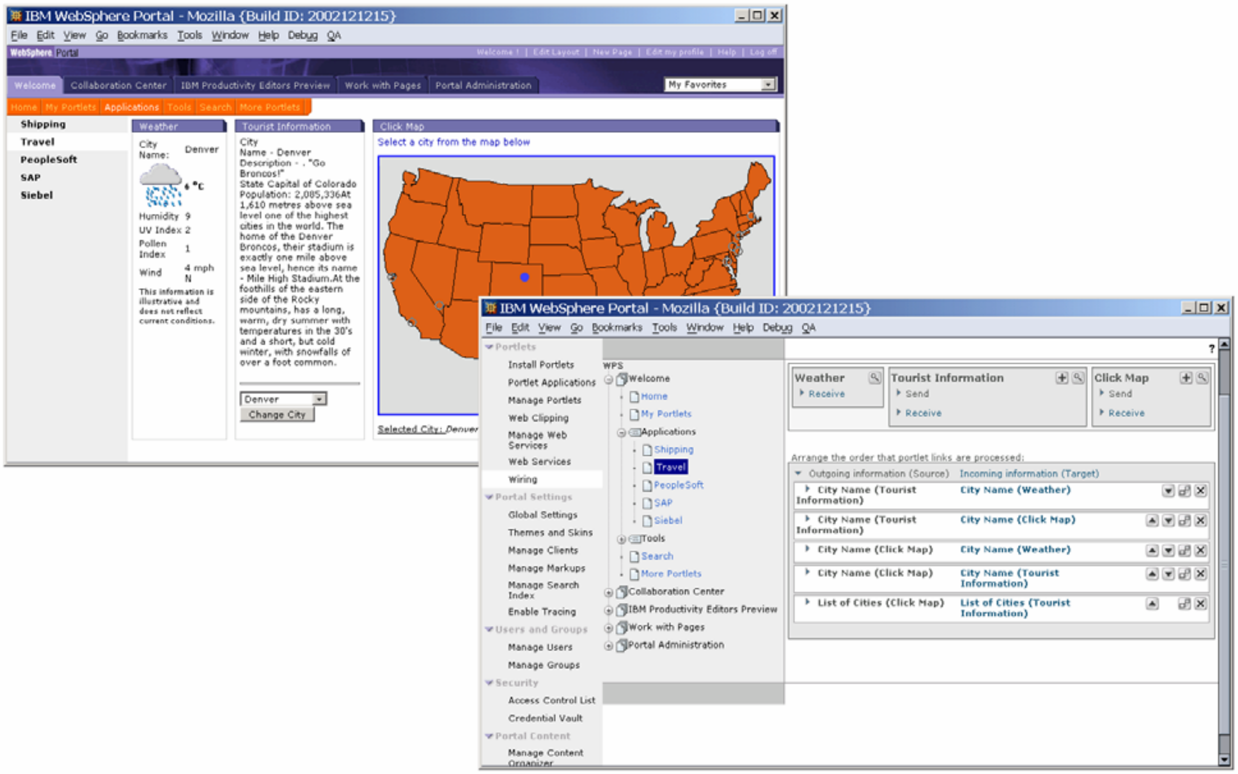
Submit

Click-to-Action

The objective of the click-to-action portlets is to increase the productivity of portal users working with multiple portlets by easily enabling them to send information from one portlet to another. For example, users can click on information that is displayed in one portlet and transfer that information to another portlet. The portlet receiving the information processes it and updates its display.

Click-to-Action automatically matches the portlet information sources and possible actions based on their data type compatibility. Click-to-action does not rely on drag and drop or other non-standard browser features. A unique advantage of click-to-action is that is it designed to work in different browsers, making it more accessible to users.

An extension of this idea, cooperative portlets, is available with Websphere Portal Version 5. Using cooperative portlet capabilities, portlets can be pre-wired by administrators, so that they exchange data automatically. Data transfer along the wires is achieved using the same broker as Click-to-Action. In addition to saving the extra step of having the user click on the data source to select a target, because portlets are explicitly wired together, greater flexibility is possible in terms of matching brokered values.



City Name: Denver

6 °C

Humidity 9

UV Index 2

Pollen Index 1

Wind 4 mph N

This information is illustrative and does not reflect current conditions.

City Name - Denver
Description - . "Go Broncos!"
State Capital of Colorado
Population: 2,085,336At 1,610 metres above sea level one of the highest cities in the world. The home of the Denver Broncos, their stadium is exactly one mile above sea level, hence its name - Mile High Stadium.At the foothills of the eastern side of the Rocky mountains, has a long, warm, dry summer with temperatures in the 30's and a short, but cold winter, with snowfalls of over a foot common.

Denver

Selected City: Denver

Arrange the order that portlet links are processed:

Outgoing information (Source)	Incoming information (Target)
City Name (Tourist Information)	City Name (Weather)
City Name (Tourist Information)	City Name (Click Map)
City Name (Click Map)	City Name (Weather)
City Name (Click Map)	City Name (Tourist Information)
List of Cities (Click Map)	List of Cities (Tourist Information)

Pre-wired Cooperating Portlets

Discoverable Services

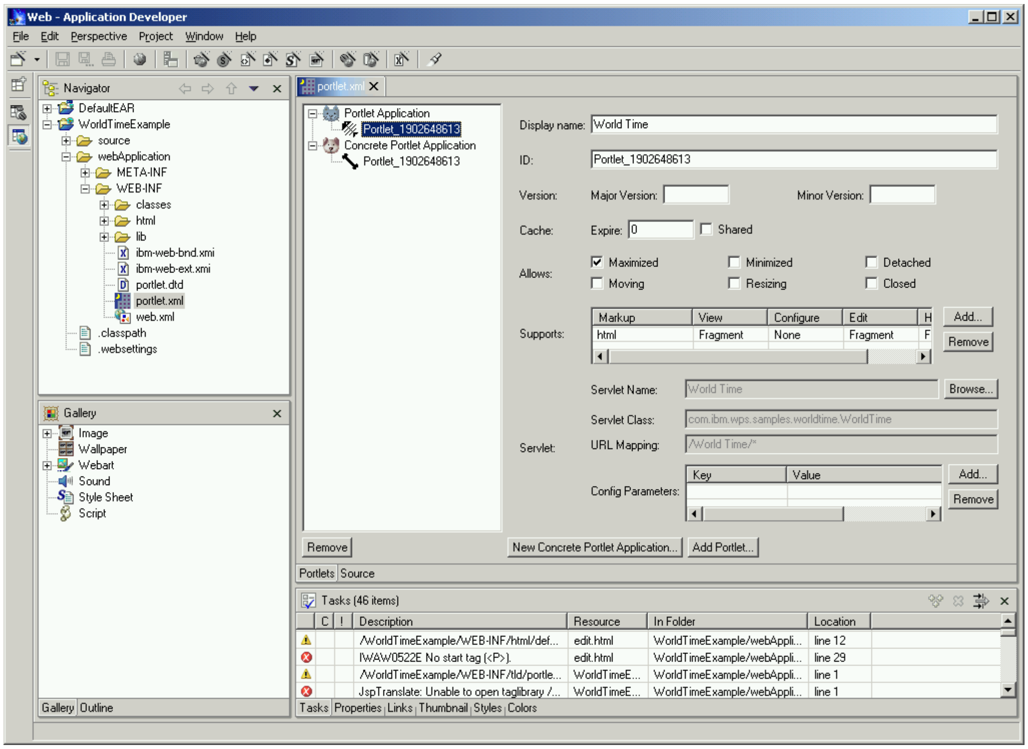
The portlet API provides an interface to enable dynamic discovery of available services. Each service is registered in a portal configuration file, and is accessed from the PortletContext.getService() method, which looks up the factory for the service, creates the service, and returns it to the portlet. This makes services available to all portlets without having to package the service code with the portlet. The implementation of such a service can be exchanged or enhanced transparently, without affecting the portlet.

The portal server provides discoverable services for its credential vault, for managing persistent TCP/IP connections, and for managing the portal's content repository. New services may be implemented by portal developers, such as location, notification, content access, or mail services.

Tools

Portlets can be grouped together in a portlet application. Portlet applications are distributed and deployed using web archive files (WAR). There are portlet-specific extensions to the standard web application deployment descriptor.

WebSphere Studio Site Developer provides an excellent development, test, and debug environment for portlet applications. You can implement the Java classes for portlet classes, and also test and debug the Java code. Studio also provides tools for creating Java Server Pages, HTML pages, images, and other related portal resources. The portal toolkit provides plugins to help build the portlet deployment descriptor and package it into a WAR file, and then easily deploy it to the runtime portal server.



Display name: World Time

ID: Portlet_1902648613

Version: Major Version: Minor Version:

Cache: Expire: 0 □ Shared

Allows: ☑ Maximized □ Minimized □ Detached □ Moving □ Resizing □ Closed

Supports:

Markup	View	Configure	Edit	H
html	Fragment	None	Fragment	F

Add... Remove

Servlet:

Servlet Name: World Time Browse...

Servlet Class: com.ibm.wps.samples.worldtime.WorldTime

URL Mapping: /World Time/*

Config Parameters:

Key	Value

Add... Remove

Tasks (46 items)

	C	!	Description	Resource	In Folder	Location
⚠			/WorldTimeExample/WEB-INF/html/def...	edit.html	WorldTimeExample/webAppli...	line 12
⊗			IWAW0522E No start tag (<P>).	edit.html	WorldTimeExample/webAppli...	line 29
⚠			/WorldTimeExample/WEB-INF/tld/portle...	WorldTimeE...	WorldTimeExample/webAppli...	line 1
⊗			JspTranslate: Unable to open taglibrary /...	WorldTimeE...	WorldTimeExample/webAppli...	line 1

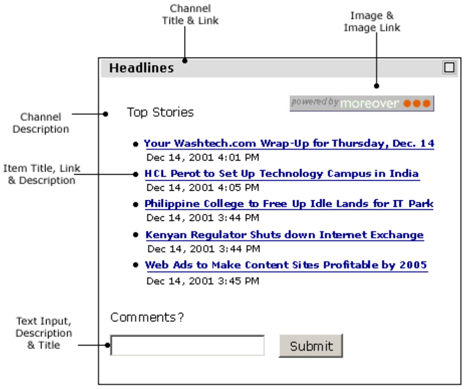
WebSphere Studio and the portlet developer's toolkit

Content and Search

When companies deploy portals, they want to view, organize, share, and find information from various sources and find information from various sources and in various formats. WebSphere Portal has the most complete content story of any portal; providing support for syndicated content, document management, web content management, and integration with the leading web content management systems, advanced personalization, and search portlets that include categorization and summarization capabilities.

Syndicated Content

A key concept related to portal technology is syndication, which is about delivering fresh, personalized, and filtered content and services from multiple sources to subscribers. Typically, the content is related to news, finance, and entertainment. Portal partners include popular content providers, such as Pinnacor, Financial Times, Moreover, YellowBrix, Hoovers, Factiva, NewsEdge, MediaApps, DataMonitor, and others.



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- HCL Perot to Set Up Technology Campus in India
  Dec 14, 2001 4:05 PM
- Philippine College to Free Up Idle Lands for IT Park
  Dec 14, 2001 3:44 PM
- Kenyan Regulator Shuts down Internet Exchange
  Dec 14, 2001 3:44 PM
- Web Ads to Make Content Sites Profitable by 2005
  Dec 14, 2001 3:45 PM

Comments?

Companies are embracing syndication concepts and standards to automate the publishing of electronic catalogs and other internal information, and to make this information available to workers through enterprise portals. A popular and useful format for syndicated news and entertainment content is Rich Site Summary (RSS). Content can be published directly from the content management system into Rich Site Summary and Open Content Syndication (OCS) channels, where it can easily be displayed by the portal server's built-in RSS portlet. This self-syndication concept defines a procedure for editing, managing, and publishing your own sources of content.

Web Content Management

Web content management deals with creating, approving and publishing Web content from content creators to Web servers. The steps of this process include defining content types, roles, publication options, destination specifications and workflow processes. There are many content management vendors in the marketplace today, including Lotus Workplace Content Development (formerly Aptrix), Interwoven, Vignette, Documentum, FatWire, Stellent, and others.

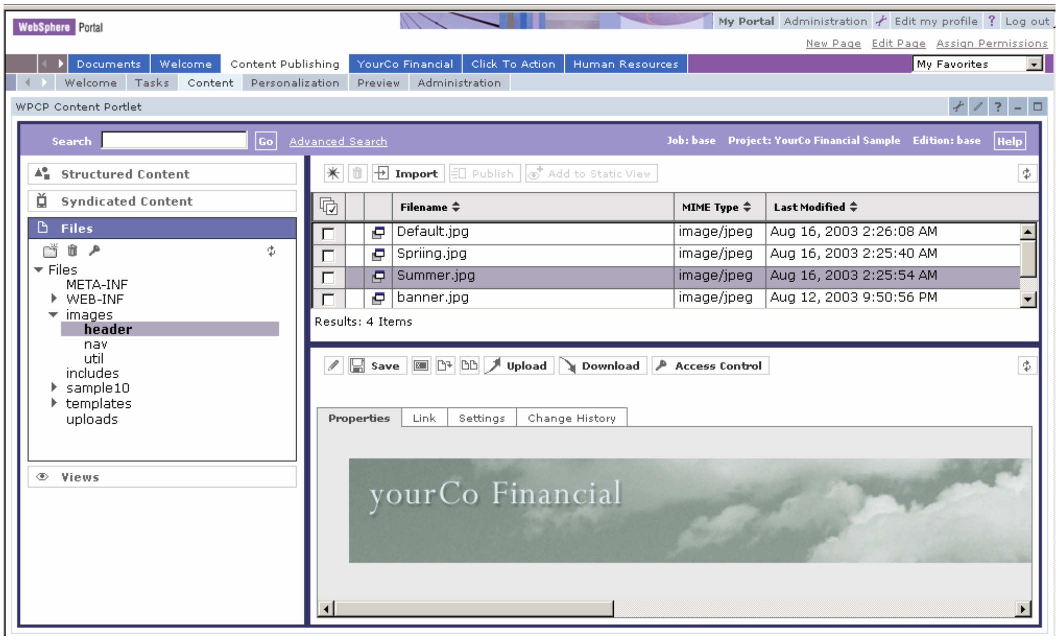
Although each of these products works differently, generally, they are designed to create, maintain and publish collections of structured and unstructured content that can be made available to users via the portal.

To illustrate how this done, WebSphere Portal includes integration kits that illustrate specific steps of how to publish RSS content from several of the web content management products. They are available through the portlet catalog. Content contribution and approval operations of the web content management system can also be accessed through portlets that are provided by their respective companies. These portlets provide a user interface into various aspects of the content management process, such as content submission, workflow management, content approval, and even staging or publishing.

WebSphere Portal Content Publishing

The WebSphere Portal Content Publishing (WPCP) tool is intended for users that need to contribute content to a web site on a regular or occasional basis. This includes business users creating template-driven content such as press releases or product information, and graphic artists creating and editing artwork using their favorite tools. Content Publishing supports content contribution via templates or forms, as well the contribution of files such as images, HTML or JSPs which are created and edited using popular tools such as HomePage Builder, Dreamweaver, FrontPage, PhotoShop or Word.

WPCP provides a web browser interface that enables users to contribute content to a web site in an easy to use, quick, and controlled manner. This allows large teams to work together, jointly where necessary, but with enough isolation that they aren't constantly tripping over each other's changes.



Job: base Project: YourCo Financial Sample Edition: base

Filename	MIME Type	Last Modified
Default.jpg	image/jpeg	Aug 16, 2003 2:26:08 AM
Spriing.jpg	image/jpeg	Aug 16, 2003 2:25:40 AM
Summer.jpg	image/jpeg	Aug 16, 2003 2:25:54 AM
banner.jpg	image/jpeg	Aug 12, 2003 9:50:56 PM

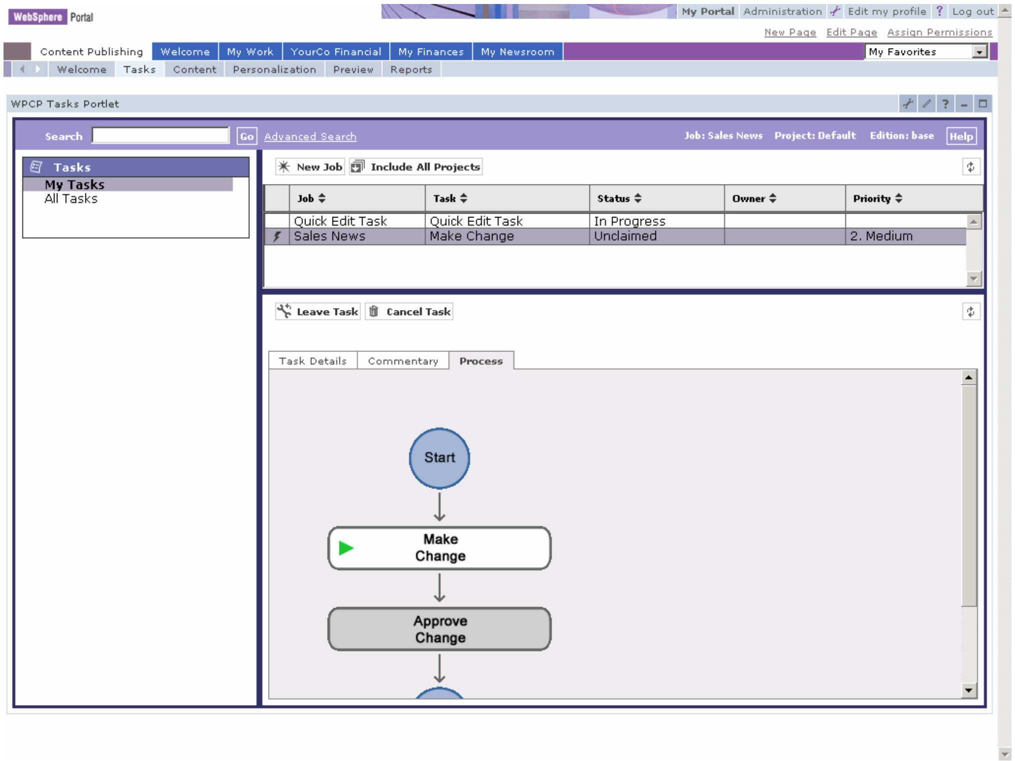
Results: 4 Items

Content publishing tools

You can use the content publishing tools to manage content that is served through portlets within the portal server. WPCP can also be used to author personalization rules and campaigns in order to target content to specific groups or users and to report on the content usage within your portal.

Workflow

WPCP manages the task lists of each user, maintains access control over what content each user can see or change, and coordinates the approval and publishing process when the content is ready.



Job: Sales News Project: Default Edition: base

Job	Task	Status	Owner	Priority
Quick Edit Task	Quick Edit Task	In Progress		
Sales News	Make Change	Unclaimed		2. Medium

Content publishing workflow

WPCP supports a lightweight workflow option for prototyping and testing, and includes an embedded engine, WebSphere Process Choreographer, to manage production workflow operations. To define a workflow process, use the workflow process design tool of the corresponding workflow engine. Each step in the process is assigned to a specific user role, such as an editor or an approver. When the process starts, a work item is put on the work queue of each person in the specified role. As users claim activities and complete the steps, the work is put on the next queue defined by the workflow process.

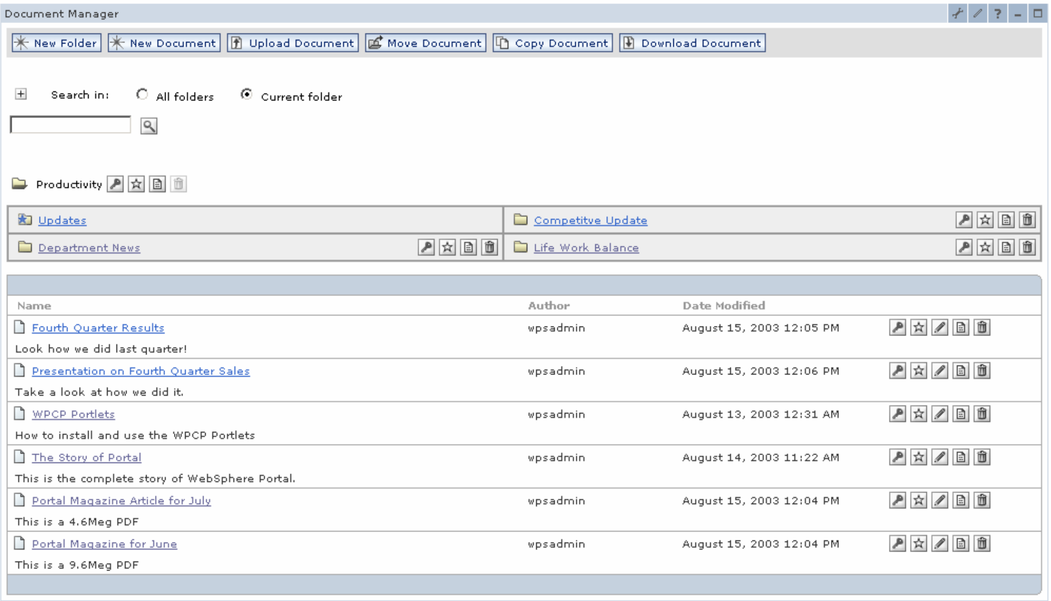
Enterprise Content Management

For managing and searching large collections of content created and used by a variety of applications, you need an enterprise content management solution such as IBM Content Manager. Websphere Portal includes many functions that exploit IBM Content Manager including WPCP.

Additional search portlets from leading search vendors (Verity, Inktomi, Autonomy) are also available and can be found on the portal catalog.

Document Management

Websphere Portal provides a document management capability. Portal Document Manager (PDM) allows authorized users to view, add, edit and delete documents within a user defined folder hierarchy as shown in the following figure:



Name	Author	Date Modified
Fourth Quarter Results Look how we did last quarter!	wpsadmin	August 15, 2003 12:05 PM
Presentation on Fourth Quarter Sales Take a look at how we did it.	wpsadmin	August 15, 2003 12:06 PM
WPCP Portlets How to install and use the WPCP Portlets	wpsadmin	August 13, 2003 12:31 AM
The Story of Portal This is the complete story of WebSphere Portal.	wpsadmin	August 14, 2003 11:22 AM
Portal Magazine Article for July This is a 4.6Meg PDF	wpsadmin	August 15, 2003 12:04 PM
Portal Magazine for June This is a 9.6Meg PDF	wpsadmin	August 15, 2003 12:04 PM

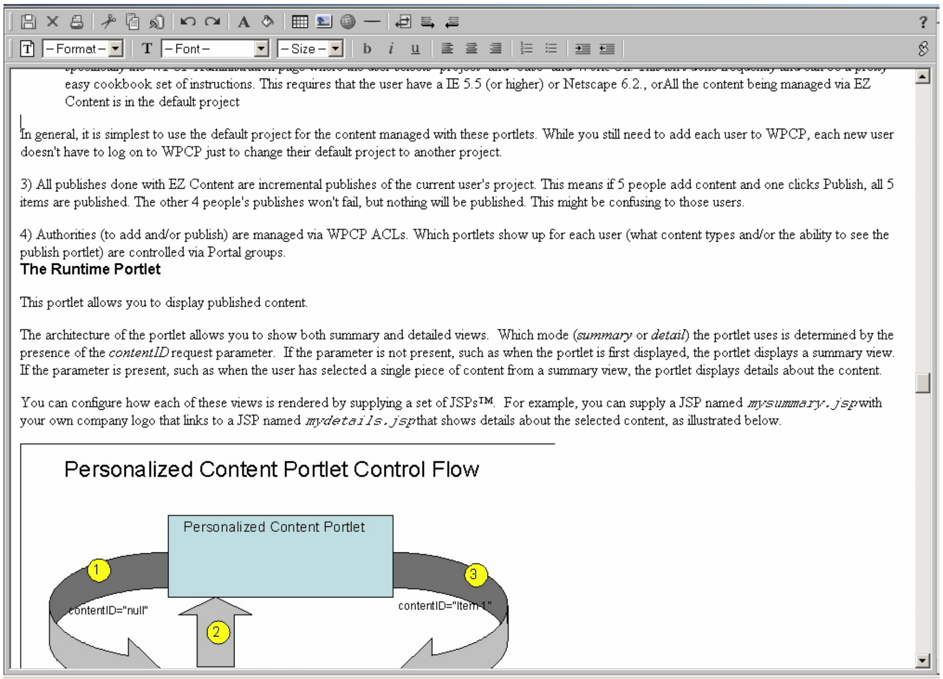
Document management

New and changed documents can be made available immediately or can go through an approval process. PDM integrates with the same workflow engines as WPCP for document approval. In fact, PDM uses much of the same infrastructure as WPCP to support capabilities such as document versioning.

PDM uses Portal's access control capabilities to control which users can view or edit specific documents. Privileges can be set on a project, folder, subfolder or individual document. Privileges set on a folder are inherited by all the documents and subfolders contained in that document, unless specifically blocked. This makes it easy to efficiently manage access rights on a large collection of documents.

PDM integrates with Portal search to allow users to search on document content, title or description. Documents can be text documents such as HTML, or application specific documents such as Microsoft Word. Word and many other file formats can be viewed using their corresponding viewers or optionally converted to HTML for users that don't have the necessary editors.

In addition, Portal Server includes Productivity Components, which may be accessed from PDM. Productivity Components function as embedded editors for rich text, spreadsheets and presentations. These editors allow users to create and edit these document types from within their browser as shown below.


– Format –
– Font –
– Size –
b
i
u
?
Personalized Content Portlet Control Flow
Personalized Content Portlet
1
2
3
contentID="null"
contentID="Item 1"

easy cookbook set of instructions. This requires that the user have a IE 5.5 (or higher) or Netscape 6.2., orAll the content being managed via EZ Content is in the default project

In general, it is simplest to use the default project for the content managed with these portlets. While you still need to add each user to WPCP, each new user doesn't have to log on to WPCP just to change their default project to another project.

3) All publishes done with EZ Content are incremental publishes of the current user's project. This means if 5 people add content and one clicks Publish, all 5 items are published. The other 4 people's publishes won't fail, but nothing will be published. This might be confusing to those users.

4) Authorities (to add and/or publish) are managed via WPCP ACLs. Which portlets show up for each user (what content types and/or the ability to see the publish portlet) are controlled via Portal groups.

The Runtime Portlet

This portlet allows you to display published content.

The architecture of the portlet allows you to show both summary and detailed views. Which mode (*summary* or *detail*) the portlet uses is determined by the presence of the *contentID* request parameter. If the parameter is not present, such as when the portlet is first displayed, the portlet displays a summary view. If the parameter is present, such as when the user has selected a single piece of content from a summary view, the portlet displays details about the content.

You can configure how each of these views is rendered by supplying a set of JSPs™. For example, you can supply a JSP named *mysummary.jsp*with your own company logo that links to a JSP named *mydetails.jsp*that shows details about the selected content, as illustrated below.

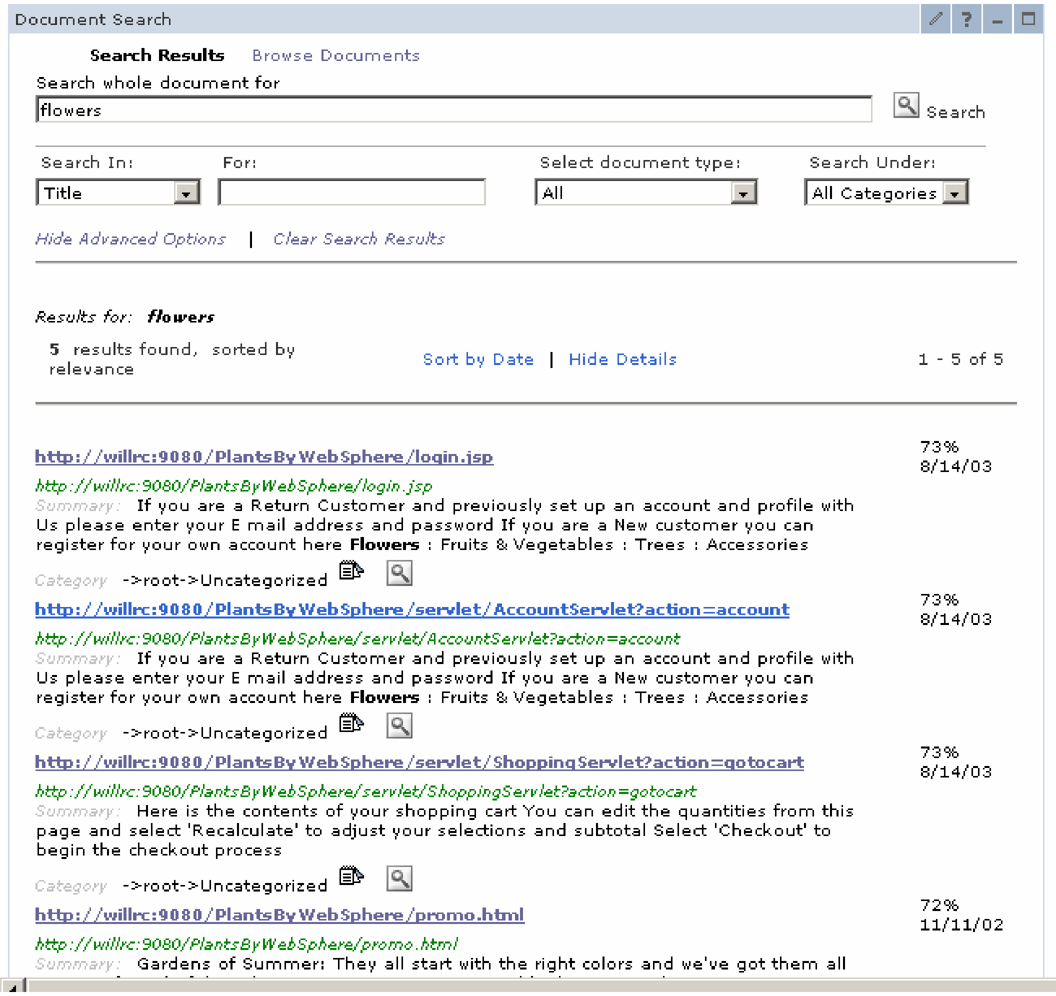
Content view, edit and create components

PDM also supports a simple subscription capability. Users can specify folders or individual documents that they have an interest in. Whenever a document that a user is subscribed to changes, it is visible in the user's Update folder for specifiable period of time (1, 3, 7 or 14 days).

Search

WebSphere Portal provides integrated web content search capabilities, including a search portlet, a crawler, a document indexer and content categorization options. The search service can search local documents as well as Internet content. Portal search can index plain text documents as well as over 200 other file formats using built in document filters.
The portal server's built-in search engine is optimized for full-text searching of small and medium-sized collections where precision is essential. It efficiently applies state-of-the-art search algorithms producing high quality search results.

The search engine supports free-text queries, with query assistance and query word completion, and also supports wildcard and fielded search options. Search queries may also use advanced query operators (+ or -) to indicate keywords that must be in the document or keywords that must not be in the document. The search engine can search documents in any language, and also supports synonyms and stop word lists. Search results include document summarization, categorization and search results clustering.



Document Search

Search Results Browse Documents

Search whole document for

flowers

Search

Search In:	For:	Select document type:	Search Under:
Title		All	All Categories

Hide Advanced Options | *Clear Search Results*

Results for: ***flowers***

5 results found, sorted by relevance — Sort by Date | Hide Details — 1 - 5 of 5

http://willrc:9080/PlantsByWebSphere/login.jsp — 73% 8/14/03

http://willrc:9080/PlantsByWebSphere/login.jsp

Summary: If you are a Return Customer and previously set up an account and profile with Us please enter your E mail address and password If you are a New customer you can register for your own account here **Flowers** : Fruits & Vegetables : Trees : Accessories

Category ->root->Uncategorized

http://willrc:9080/PlantsByWebSphere/servlet/AccountServlet?action=account — 73% 8/14/03

http://willrc:9080/PlantsByWebSphere/servlet/AccountServlet?action=account

Summary: If you are a Return Customer and previously set up an account and profile with Us please enter your E mail address and password If you are a New customer you can register for your own account here **Flowers** : Fruits & Vegetables : Trees : Accessories

Category ->root->Uncategorized

http://willrc:9080/PlantsByWebSphere/servlet/ShoppingServlet?action=gotocart — 73% 8/14/03

http://willrc:9080/PlantsByWebSphere/servlet/ShoppingServlet?action=gotocart

Summary: Here is the contents of your shopping cart You can edit the quantities from this page and select 'Recalculate' to adjust your selections and subtotal Select 'Checkout' to begin the checkout process

Category ->root->Uncategorized

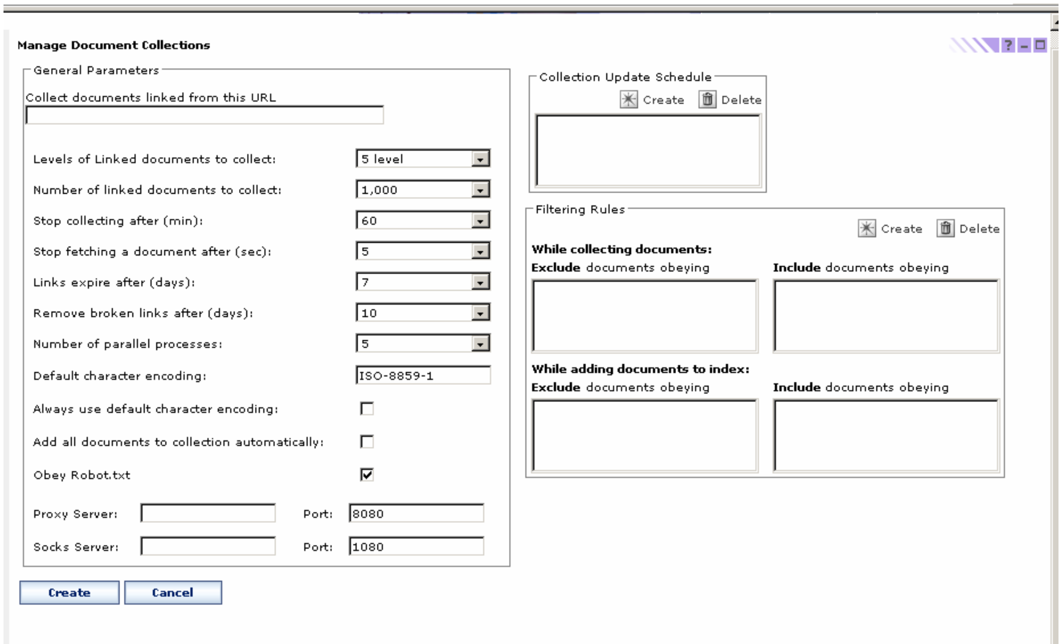
http://willrc:9080/PlantsByWebSphere/promo.html — 72% 11/11/02

http://willrc:9080/PlantsByWebSphere/promo.html

Summary: Gardens of Summer: They all start with the right colors and we've got them all

Search Portlet

To prepare for searching, the search engine builds a full text index in order to search documents that are stored in the local file system. The indexer supports multi-word indexing for disambiguation and high precision. The index can be compressed, and the size can be controlled for situations where the size of the index needs to be limited. Administration portlets are provided for creating, updating, and managing the index parameters and optional categorization options. Content categorization options include classification to pre-established categories, or a rules-based method to define content categorization filters to apply to indexed content.



Manage Document Collections

General Parameters

Collect documents linked from this URL

Levels of Linked documents to collect:	5 level
Number of linked documents to collect:	1,000
Stop collecting after (min):	60
Stop fetching a document after (sec):	5
Links expire after (days):	7
Remove broken links after (days):	10
Number of parallel processes:	5
Default character encoding:	ISO-8859-1
Always use default character encoding:	□
Add all documents to collection automatically:	□
Obey Robot.txt	☑
Proxy Server:	Port: 8080
Socks Server:	Port: 1080

Collection Update Schedule

Filtering Rules

While collecting documents:
Exclude documents obeying
Include documents obeying

While adding documents to index:
Exclude documents obeying
Include documents obeying

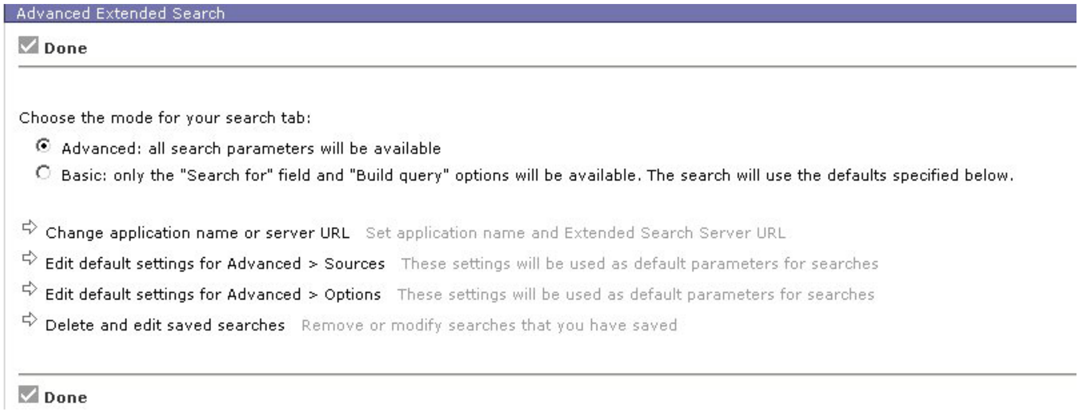
Configuring the search index

Federated Search

WebSphere Portal also integrates several other search technologies. Portlets using IBM Lotus Extended Search and DB2 Information Integrator can access and aggregate other search engines and indexes in a distributed fashion. Customers seeking support for large document collections or support for searching a wide range of document types and data sources should consider using Lotus Extended Search (included with the WebSphere Portal Extend offering) or IBM's Content Manager.

Extended Search

Lotus Extended Search (ES) provides distributed, heterogeneous searching across Domino servers, databases, and the Internet, without the user having to know the details of these various systems. The result is single-point of access to a variety of data sources without requiring a new, central index. ES can search and retrieve documents from repositories that include Lotus Notes 5.X and 6.x, Domino.doc, and Domino Server Domain Index.



Advanced Extended Search

☑ Done

Choose the mode for your search tab:

- ● Advanced: all search parameters will be available
- ○ Basic: only the "Search for" field and "Build query" options will be available. The search will use the defaults specified below.

⇨ Change application name or server URL Set application name and Extended Search Server URL
⇨ Edit default settings for Advanced > Sources These settings will be used as default parameters for searches
⇨ Edit default settings for Advanced > Options These settings will be used as default parameters for searches
⇨ Delete and edit saved searches Remove or modify searches that you have saved

☑ Done

Configuring the Extended Search portlet

ES also searches external sources such as Microsoft Index Server and Site Server, Microsoft SharePoint, Websphere Portal Search Engine Indexes, LDAP-compliant directories, 18 popular Web search sites and News sites, commercial content providers, and relational databases such as IBM DB2, Oracle, Sybase, MS SQL-Server, and other ODBC compliant databases. Results can be ranked by relevancy over multiple data stores.

Advanced Search and Document Processing

IBM Content Manager can manage data access across multiple sources such as content management repositories, email systems, relational databases, file systems, web sites (both intranet and Internet), and more. The developer's interface for working with IBM Content Manager is called DB2 Information Integrator for Content. It integrates data sources across the enterprise through a unified set of APIs to simplify programming and speed development and deployment, while providing an interface layer that isolates portal applications from changes to underlying data repositories.

Documents can be full-text indexed/searched using the Information Integrator's crawler and text search features. Many different document formats are supported, in addition to standard markup text such as HTML and XML. Documents can be categorized into taxonomies, enabling search by category. APIs are provided for capturing and storing other metadata about documents.

Information Integrator has connectors for a variety of repositories, provided by IBM, Lotus, and other vendors such as Documentum and Filenet. Federated searches can be applied across multiple such repositories, and can exercise searching based on metadata, full text, and other specialized search properties such as Query by Image Content (QBIC) - depending on the search services enabled for each repository.

The Text Analysis features support creating full-text indices, and subsequent searching across all the text portions of the content sources configured for use in the portal. Sources can be accessed for indexing via the web crawler, or via a metadata search. Portlets for accessing Information Integrator's advanced and federated search functions are available from the portal catalog.

Security

With the explosive growth of business-to-business and business-to-consumer Web applications, e-businesses need to protect critical information assets from intruders and hackers. Service providers need similar protection when re-hosting e-business content and applications for their customers. Portal applications and resources are protected by

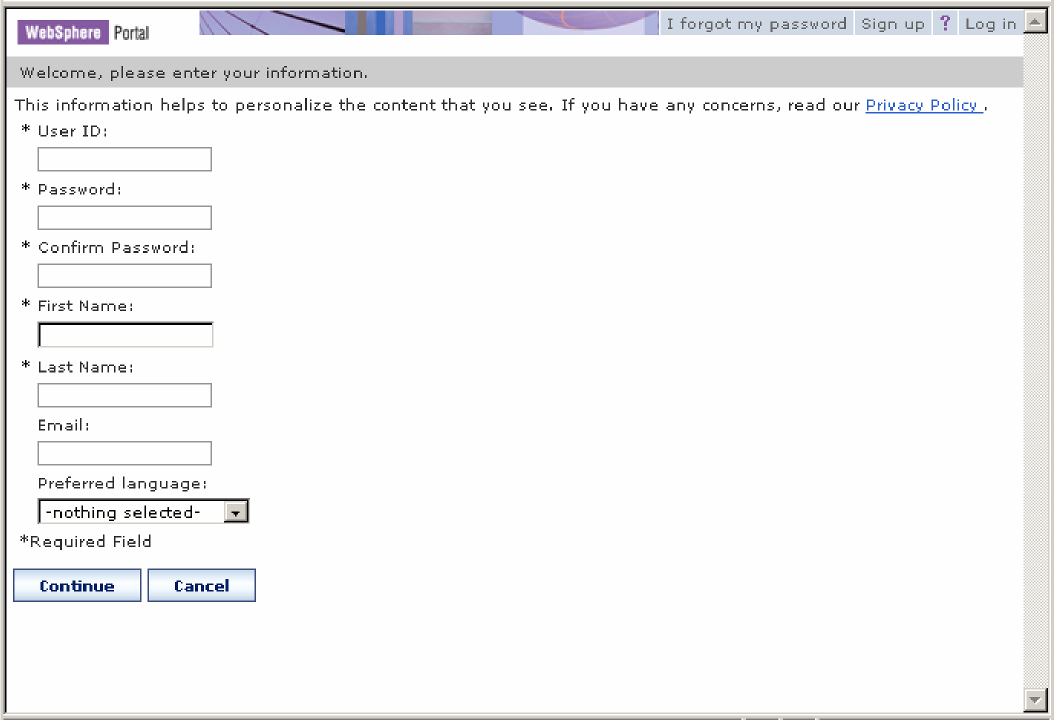
- Managing user profiles (member services)
- Verifying user identity (authentication)
- Managing access to backend applications (single sign-on)
- Enforcing access policies (authorization)

This chapter highlights some of the security features that applications and portal administrators can exploit, to better protect the portal's valuable information assets.

Member Services

Centralized administration of user identities, credentials and permissions is desirable in many environments. The portal server includes facilities for defining portal users and managing user access rights.

The user and group subsystem includes Web pages where users can register and manage their own account information, administration portlets for managing user accounts and group information, plus a repository that stores all the information about portal users. It provides services to create, read, update, and delete users or groups in the repository. User profile information includes general information such as a user's name and user id, plus preference information such as news topics of interest, preferred language, etc. A user may be a member of one or more groups, and groups can contain other groups.



Welcome, please enter your information.

This information helps to personalize the content that you see. If you have any concerns, read our Privacy Policy .

* User ID:

* Password:

* Confirm Password:

* First Name:

* Last Name:

Email:

Preferred language:

-nothing selected-

*Required Field

Self-enrollment page

The default set of user profile attributes is based on the inetOrgPerson schema, which is supported by most LDAP directories. The user repository may consist of multiple data sources. By default, the repository consists of two data sources: it is a combination of a database and a directory server. The database may be any of the databases supported by WebSphere Portal. Any one of several LDAP directory products are supported, including the Netscape (iPlanet) Directory Server, Microsoft Active Directory, Novell eDirectory, Lotus Domino, and IBM Directory Server.

The mapping of user profile attributes to LDAP object classes is defined using in the file wms.xml. This file specifies the names of the various data repositories and how they are navigated to retrieve user and group information. These settings are configured differently for each supported LDAP directory; if you want to try using a directory that is not supported, these values would need to be set appropriately for that directory server.

```
<MemberServiceProperties>
  <Database ... DatasourceName="@DATA_SOURCE@" />
  ...
  <Directory userRDNname="uid"
     userMemberSubsystemAttributeName="logonId"
     userObjectClass="top;inetOrgPerson"
     …
     orgRDNname="dc"
     orgMemberSubsystemAttributeName="orgEntityName"
     orgObjectClass="top;domain"
     …
     orgUnitRDNname="cn"
     orgUnitMemberSubsystemAttributeName="orgEntityName"
     orgUnitObjectClass="top;container"
     …
     grpRDNname="cn"
     grpMemberSubsystemAttributeName="memberGroupName"
     grpObjectClass="top;groupOfUniqueNames"
     grpMembershipAttributeName="uniqueMember"
     …
</MemberServiceProperties>
```

The file attributeMap.xml specifies the details of how each attribute is mapped to the LDAP directory or database. This mapping file also includes metadata about each attribute such as its data type, whether it is required, whether it can have multiple values, etc.

Administration

Administration of users and groups can be performed by users themselves (“self care”) or by portal administrators. The portal server includes forms for registering new users as well as administration portlets for updating user and group information.

The registration and self-care forms are easily modified to accommodate new attributes. You can simply add new data entry fields to the form, matching the field identifiers with the new attributes names. The enrollment servlet will automatically store the new data in the corresponding user attributes. The WebSphere Portal InfoCenter includes more information about customizing the implementation of the user repository, registration and self-care pages, and data validation classes.

Authentication

Authentication is the process of establishing a user’s identity. Usually, the portal server uses the authentication services provided by WebSphere Application Server. Another option is to use a third-party authentication server (such as Tivoli Access Manager WebSeal or Netegrity SiteMinder) that has a trusted association with the application server.

Identifying the User

Portal server uses form-based authentication. Form-based authentication means that a user is prompted through an HTML form for the user ID and password for authentication when trying to access the portal. The portal server requests the application server to validate the authentication information against a Lightweight Directory Access Protocol (LDAP) user registry.

WebSphere Application Server uses Lightweight Third Party Authentication (LTPA) as the authentication mechanism. A Common Object Request Broker Architecture (CORBA) Credential is used to represent authenticated users and their group memberships. When a user tries to access a protected resource, the application server intercepts the request and redirects the request to the login form. This form posts the user ID and password to the portal which requests the application server to authenticate the user. If the user can be authenticated, a valid CORBA credential is created and an LTPA cookie is stored on the user's machine.

Third Party Authentication Servers

If your system uses another third-party authentication server, trust needs to be established between that proxy and WebSphere Application Server. This is done using a Trust Association Interceptor (TAI) module, which converts security information specific to the authentication proxy into a format that can be handled by the application server. The supported authentication mechanism depends on the capabilities of the third-party product.

When a user tries to access the portal, the third-party authentication proxy intercepts the request and challenges the user to authenticate. After a successful login, the original user request, along with additional security information in the request header, is passed to the application server. The format and content of this information is vendor specific. WebSphere Application Server uses the TAI module (that is specific to the third-party product) to extract the necessary security information from the request header.

TAI modules for IBM Tivoli Access Manager and Netegrity SiteMinder are packaged with the portal server (all editions). The WebSphere Application Server InfoCenter includes information about creating custom TAI modules for other third-party reverse proxy servers.

Single Sign-On

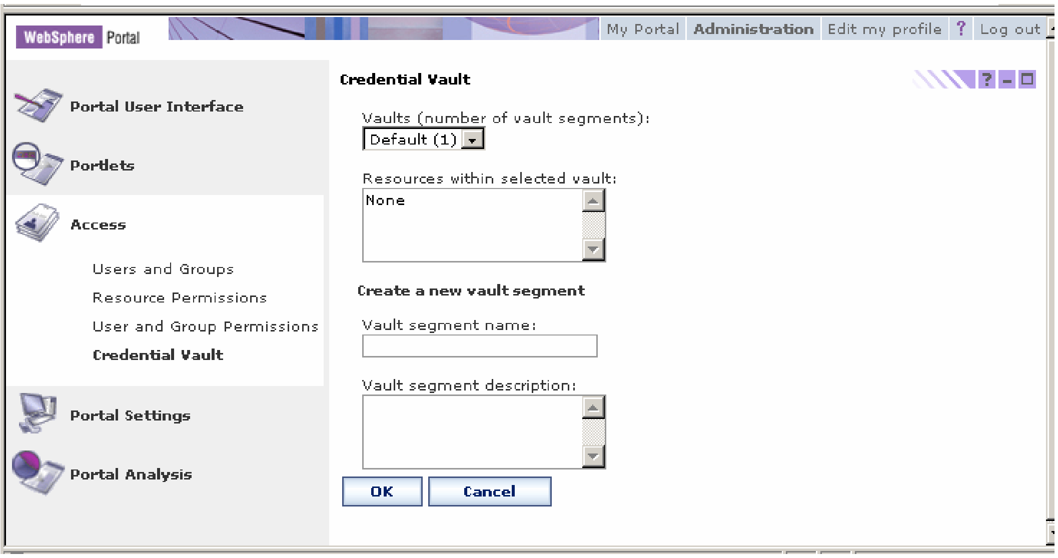
The portal server provides comprehensive single sign-on (SSO) support. Users want to be able to log on only once, and be known to the different parts of the portal server with the same consistent user credentials. Users should not be asked to do multiple logons simply because they access different portal applications.

The portal server supports single sign-on realms using WebSphere Application Server as well as authentication proxies. This means that the user needs to log on only once to gain access to all enterprise applications that are installed within the single sign-on realm.

The WebSphere Application Server uses Lightweight Third Party Authentication (LTPA) tokens to provide single sign-on. When a user is authenticated, the portal server creates an LTPA single sign-on cookie containing the authenticated user credential. This encrypted cookie conforms to the format used by WebSphere Application Server and can be decrypted by all application servers in the shared domain, provided they all have the same cipher key. This cookie enables all servers in the cluster to access the user’s credentials without additional prompting, resulting in a seamless single sign-on experience for the user. To benefit from the LTPA method of single sign-on, the user’s browser must support cookies and have its support for session cookies enabled.

Credential Vault

Many portlets need to access remote applications that require some form of user authentication. For accessing applications outside the portal’s realm, portal server provides a credential vault service that portlets can use to store user ID and password (or other credentials) for a user login to an application. Portlets can use these on behalf of the user to access remote systems. The credential vault supports either local database storage or IBM Tivoli’s Access Manager for secure storage and retrieval of credentials.



Credential Vault

Vaults (number of vault segments): Default (1)

Resources within selected vault: None

Create a new vault segment

Vault segment name:

Vault segment description:

Setting up the credential vault

Portlets obtain credentials by obtaining a *CredentialVaultPortletService* object and calling its *getCredential* method. With the returned credential, there are two options:

1. Use passwords or keys from a passive credential, passing them in application-specific calls. Portlets that use passive credentials need to extract the secret out of the credential and do all the authentication communication with the backend application.
2. Call the authenticate method of an active credential. Active credential objects hide the credential's secret from the portlet, with no way to extract it out of the credential. Active credentials provide additional methods to perform the authentication.

The latter case allows portlets to trigger authentication to remote servers using basic authorization, SSL client authentication, digest authentication, or LTPA without knowing the credential values. Using active credentials means that the portal authenticates on behalf of the portlet, and the portlet can simply use the open connection. While this may not be possible for all cases, it is the preferred technique.

For secure transmission of data, portlets can request a secure session (HTTPS) for accessing web applications.

Persistent Connections

Portlets that depend on remote connections require some way of maintaining that connection as users navigate through the portal. The portal provides a persistent backend connection service that maintains TCP/IP connections across page changes.

Some remote applications use forms-based logins and store cookies during the login form processing. The *HttpFormBasedCredential* can be used for handling these form-based logins and will store all the cookies that are returned as a result. For subsequent calls, the portlet can then ask the credential for an authenticated connection. This gives an HTTP connection with these cookies already set in the header. This way, portlets can maintain persistent, secure back-end connections.

Java Security

The portal server implements the Java Authentication and Authorization Service (JAAS) architecture. JAAS provides a means for authenticating subjects and for providing fine-grained access control. JAAS is part of the standard Java security model; it gives applications independence from the underlying authentication and authorization mechanisms being used.

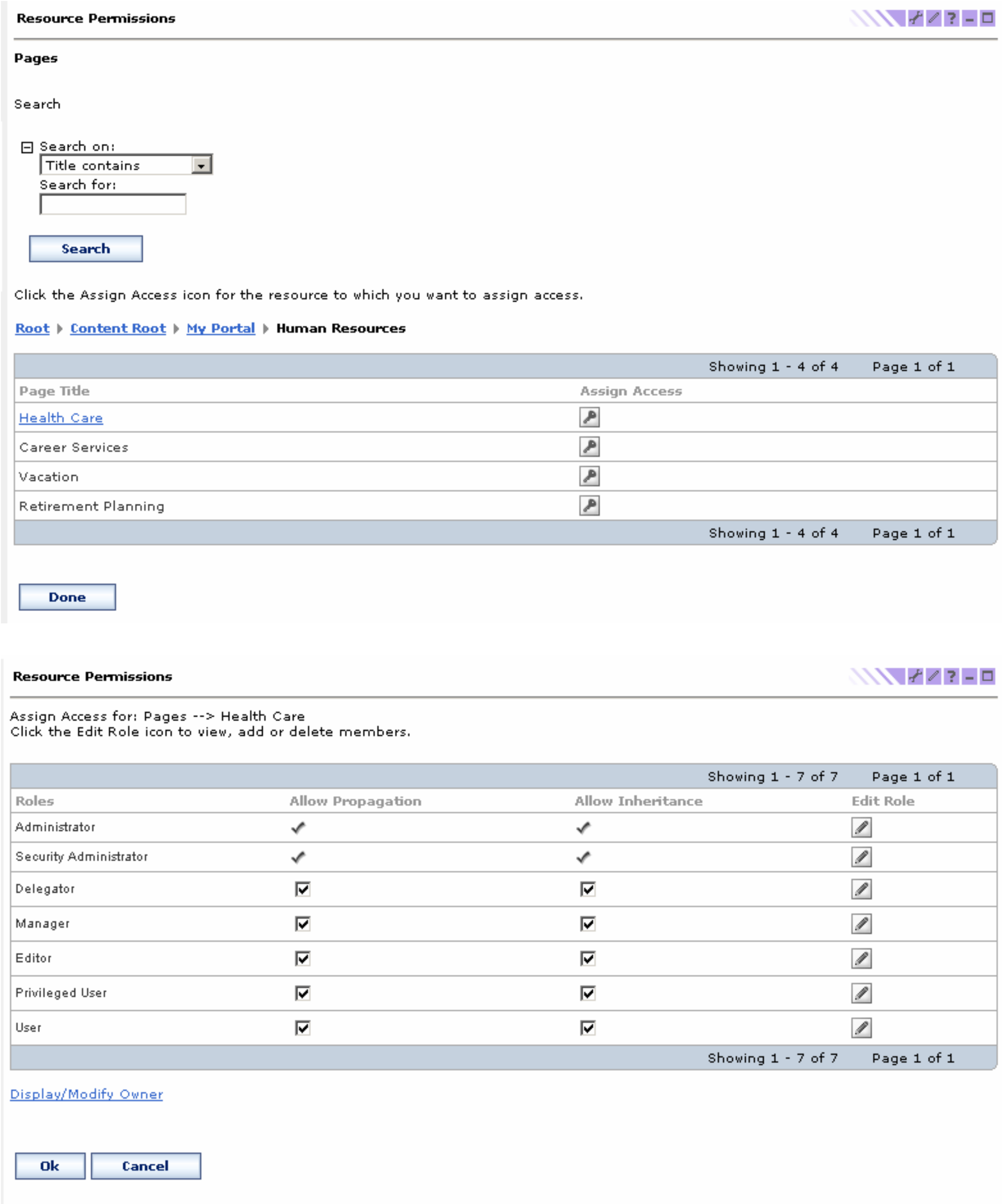
JAAS performs login and logout operations using a modular service provider interface. Credentials that are established through the portal server's JAAS login modules include CORBA credentials, user and group distinguished names, user id and password, and LTPA tokens. In a distributed J2EE environment, portlets can use the JAAS API to access JAAS-enabled backend applications.

Authorization

After determining the user's identity, the portal server consults locally cached access control lists to determine which pages and portlets a user has permission to access.

The portal server enforces access control to portal assets, including portlets, pages, and user groups. The access control lists are stored in the portal's administration database. It is also possible to manage access control for specific resources in an external security manager, such IBM Tivoli Access Manager or Netegrity SiteMinder.

Access permissions are maintained using the Access Control administration portlet. Use this portlet to assign roles to individual users or to groups of users for specific portlets, pages, or documents. Roles are permission sets, such as the ability to view and update the corresponding item. Users may also delegate the permissions they hold to other users. When a role is assigned to a user or a group on a container (such as a page that contains portlets or other pages, or a folder that contains other folders or documents), that role is inherited downward through the hierarchy unless it is specifically blocked. This makes managing access within a document library or an area of the portal easy.



Resource Permissions

Pages

Search

⊟ Search on:
Title contains
Search for:

Search

Click the Assign Access icon for the resource to which you want to assign access.

Root ▸ Content Root ▸ My Portal ▸ Human Resources

Showing 1 - 4 of 4 Page 1 of 1

Page Title	Assign Access
Health Care	🔑
Career Services	🔑
Vacation	🔑
Retirement Planning	🔑

Showing 1 - 4 of 4 Page 1 of 1

Done

Resource Permissions

Assign Access for: Pages --> Health Care
Click the Edit Role icon to view, add or delete members.

Showing 1 - 7 of 7 Page 1 of 1

Roles	Allow Propagation	Allow Inheritance	Edit Role
Administrator	✓	✓	✎
Security Administrator	✓	✓	✎
Delegator	☑	☑	✎
Manager	☑	☑	✎
Editor	☑	☑	✎
Privileged User	☑	☑	✎
User	☑	☑	✎

Showing 1 - 7 of 7 Page 1 of 1

Display/Modify Owner

Ok Cancel

Managing access rights in the portal

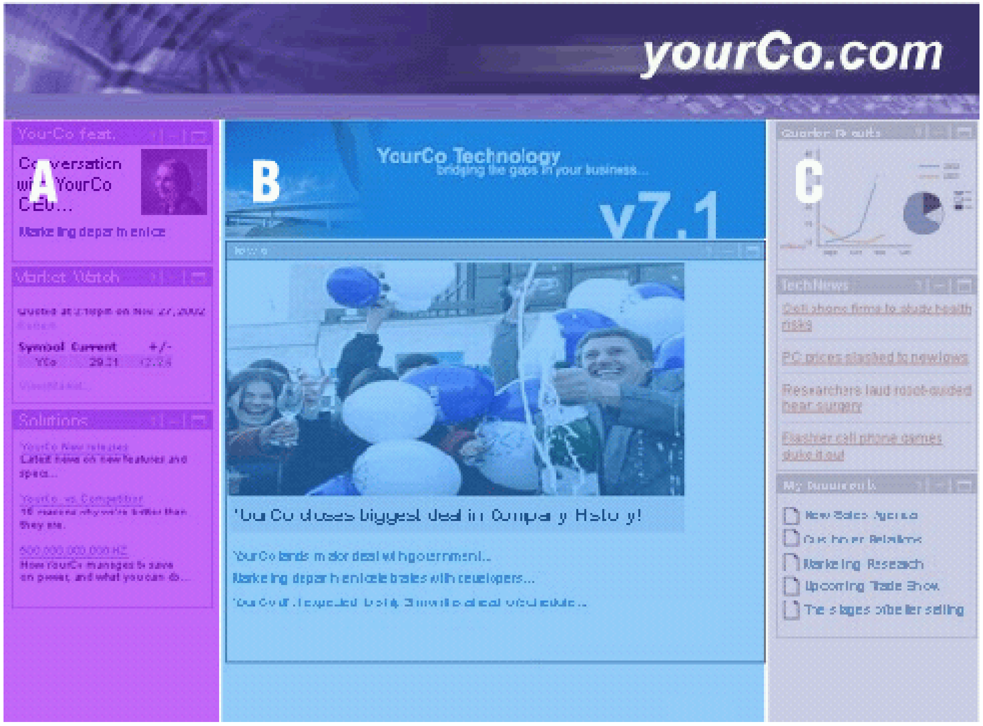
Granting view access to a page or place means that other users will see pages and places when they log in. Granting view access to a portlet means that users can add it to their pages when they customize their portal experience. Granting edit access means that a user can set the portlet settings or change the contents of a page. Manage access means that a user can perform view and edit operations, and can delete the portlet or page.

Delegated Administration

Granting view access to administration portlets is an effective way of delegating certain administrative tasks to other portal users. Those users can simply add the administration portlets to their personal pages, and then can perform whatever task the portlet is designed to do. This way, the user doesn’t have to be given all administrative privileges or added to the portal administrator’s group. Their administrative abilities are limited to only those tasks covered by the authorized portlets.

Personalizing the Portal

Optimizing each user’s experience in the portal is one of the goals of WebSphere Portal. To this end, the portal server provides end-user and administrative interfaces for customizing the content of portal pages, as well as the look and layout of the pages. With these tools, users can customize their own pages by selecting portlets and customizing the settings of each one. Users can also change the page layout and the color scheme (if the administrator has decided to allow this).



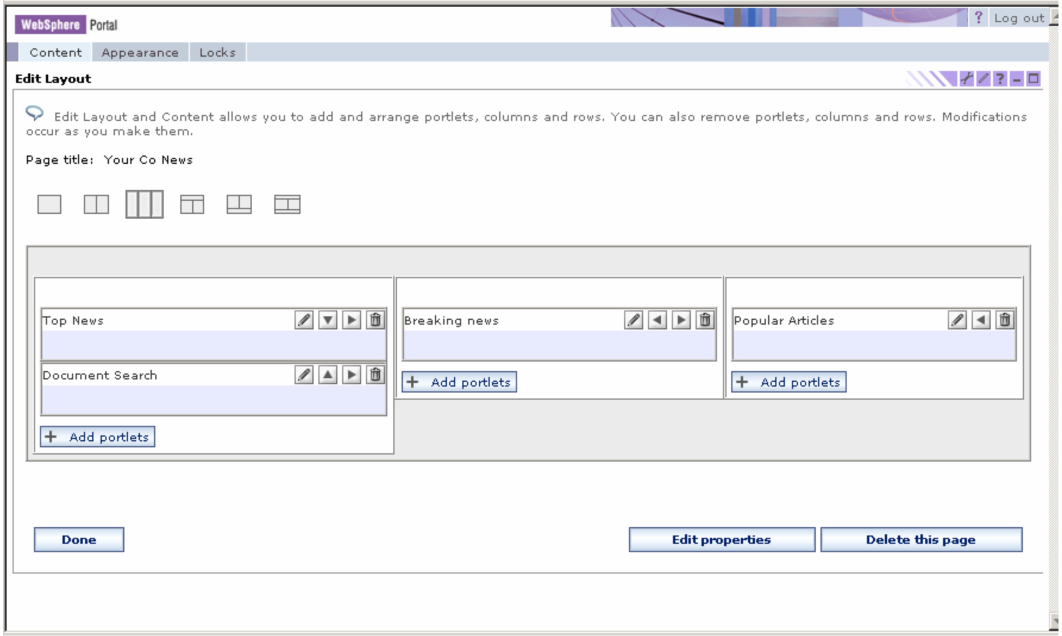
Portal page elements

Customizing Pages

Users can have one or more personalized pages, navigating to each one from the home page. Pages are arranged in a hierarchical manner with any level of depth. Each page can have its own choice of color themes, skins and page layouts. Themes are used to define the fonts, colors, spacing, and other visual elements; themes consist of cascading style sheets, JSP files, and images. Skins are decorations and controls placed around portlets, such as title bars, borders, shadows, etc. At each level of the page hierarchy, the lower pages can inherit the themes and skins from the page above them or can override one or both. Since the look and feel of each section can be completely different, sections of the site can be used to create the appearance of different sites running on one portal server.

Each personalized page can have a different set of portlets. The portlets on page can be selected by end users or by administrators, depending on their access rights for the page. Administrators can specify that certain portlets are required, so that end users cannot remove them or rearrange them. Pages can also be re-arranged to get a different navigation order for each user or group of users, when permitted by the administrator.

For end users, the portal provides a quick customizer interface for adding and re-arranging portlets. It is accessed by simply clicking on the Edit Layout link at the top of the page you want to customize. Then it's just a matter of clicking the Add content button to add new portlets.

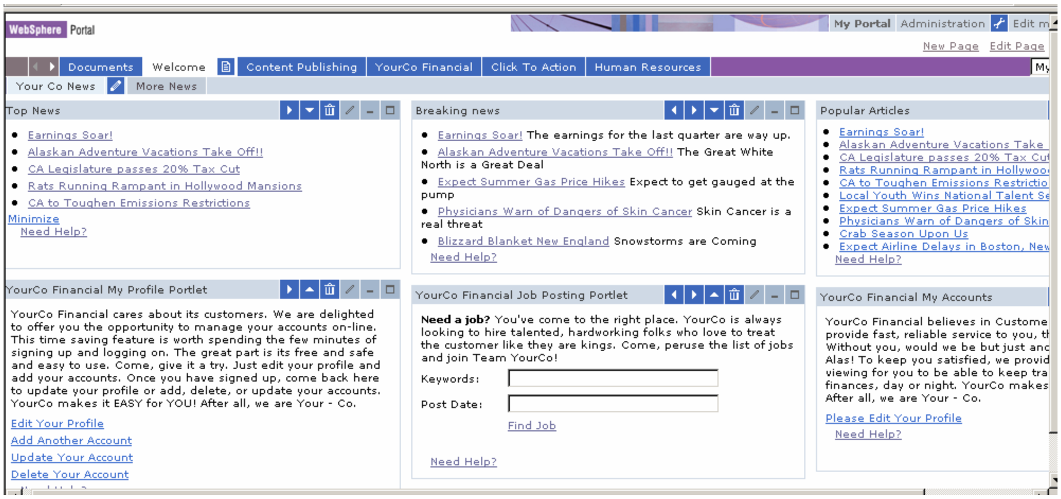


Edit Layout and Content allows you to add and arrange portlets, columns and rows. You can also remove portlets, columns and rows. Modifications occur as you make them.

Page title: Your Co News

Quick Customizer

If you want to rearrange portlets on the page or delete portlets, you do that ‘inline’ by toggling the page editing tools on and off and selecting the direction icons or delete icon associated with each portlet.



Top News

- Earnings Soar!
- Alaskan Adventure Vacations Take Off!!
- CA Legislature passes 20% Tax Cut
- Rats Running Rampant in Hollywood Mansions
- CA to Toughen Emissions Restrictions

Minimize
Need Help?

Breaking news

- Earnings Soar! The earnings for the last quarter are way up.
- Alaskan Adventure Vacations Take Off!! The Great White North is a Great Deal
- Expect Summer Gas Price Hikes Expect to get gauged at the pump
- Physicians Warn of Dangers of Skin Cancer Skin Cancer is a real threat
- Blizzard Blanket New England Snowstorms are Coming

Need Help?

Popular Articles

- Earnings Soar!
- Alaskan Adventure Vacations Take
- CA Legislature passes 20% Tax Cut
- Rats Running Rampant in Hollywoo
- CA to Toughen Emissions Restrictio
- Local Youth Wins National Talent Se
- Expect Summer Gas Price Hikes
- Physicians Warn of Dangers of Skin
- Crab Season Upon Us
- Expect Airline Delays in Boston, New

Need Help?

YourCo Financial My Profile Portlet

YourCo Financial cares about its customers. We are delighted to offer you the opportunity to manage your accounts on-line. This time saving feature is worth spending the few minutes of signing up and logging on. The great part is its free and safe and easy to use. Come, give it a try. Just edit your profile and add your accounts. Once you have signed up, come back here to update your profile or add, delete, or update your accounts. YourCo makes it EASY for YOU! After all, we are Your - Co.

Edit Your Profile
Add Another Account
Update Your Account
Delete Your Account

YourCo Financial Job Posting Portlet

Need a job? You've come to the right place. YourCo is always looking to hire talented, hardworking folks who love to treat the customer like they are kings. Come, peruse the list of jobs and join Team YourCo!

Keywords:
Post Date:
Find Job

Need Help?

YourCo Financial My Accounts

YourCo Financial believes in Custome
provide fast, reliable service to you, th
Without you, would we be but just anc
Alas! To keep you satisfied, we provid
viewing for you to be able to keep tra
finances, day or night. YourCo makes
After all, we are Your - Co.

Please Edit Your Profile
Need Help?

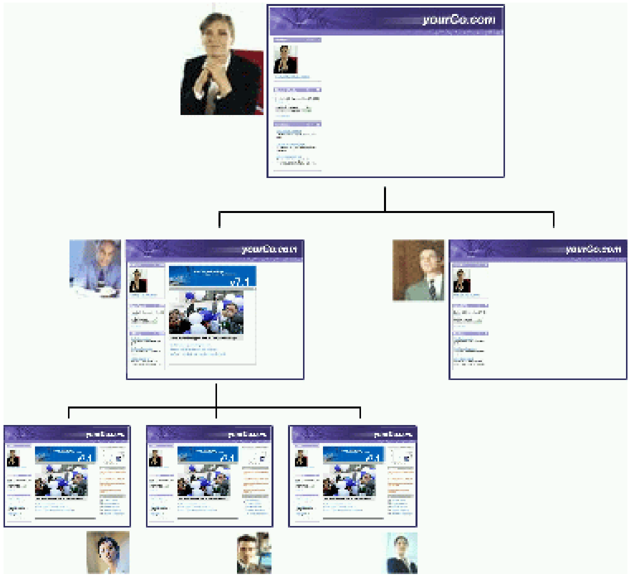
Portlet display customization

For administrators, there is also a more advanced page customizer. In the advanced customizer, the basic structure of a page is defined. Page layouts are fully dynamic, with the possibility of creating any arrangement of rows and columns. Columns and rows can be split to create new rows and columns. Columns can have a fixed size, specified in pixels or in a percentage of the overall page size, specified by using the width controls. To place portlets on the page, click the Add Content button and search for a portlet you wish to add to the page, and utilize page layout controls to customize placement of portlets to pages.

Cascading Portals

Many companies need to build portals that accommodate the needs of both a central organization as well as regional and local communities of users. For example, a company might want to have top-level design decisions made centrally, such as the visual elements and basic page layouts that reflect the corporate image and brand identity. Divisions or other organizational units might need the ability to add their own pages and content, or perhaps even sub-divide areas of the common pages. WebSphere Portal supports the needs of companies who want to cascade portal definitions across the organization using the concept of derived pages.

Base pages are defined by top-level administrators who then permit subordinate administrators to further refine the page layouts and content to meet their individual needs. The refinement process can continue for any number of levels, until it finally reaches end users. If permitted, end users may customize their own pages by selecting and placing portlets and by changing portlet settings. In order to compute the page that a user finally sees, the portal server merges the page fragments defined by each successive refinement.



Administrators at different levels of the organization can lock the layout or content of any area of the page. For example, locking the placement of portlets means that users cannot move them or remove them from their pages. This way, a higher-level administrator can set up the basic structure of the page, and can fix certain portions or leave others open to modification by other administrators or by end users. Lower levels may not override any restrictions imposed by higher levels.

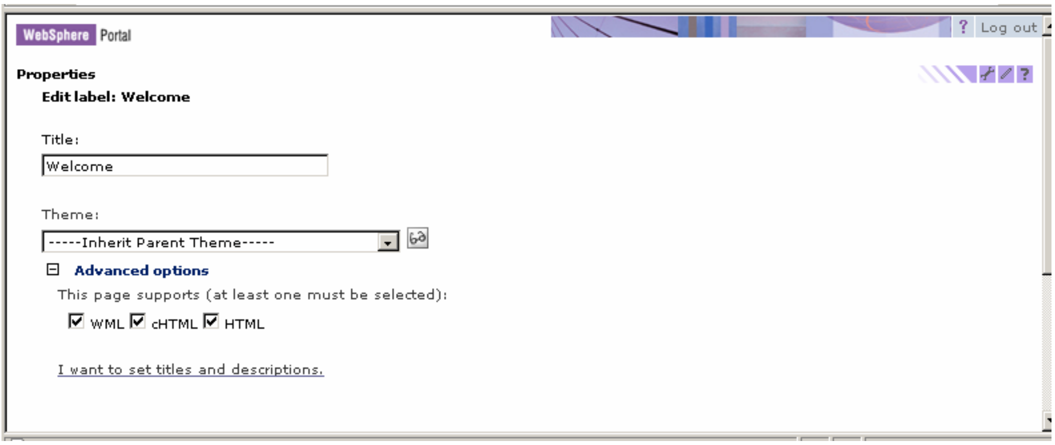
This means that a company can achieve both horizontal administration (across the company, business segments, locations, and users) and vertical administration, where administrators provide content that is dedicated for a specific page. Using page locks together with the portal's access control features, administrators can determine which content is

- **Mandatory** - users cannot delete the content from their pages;
- **Recommended** - the content is placed on the page initially, but users can delete it;
- **Optional** - the content is not placed on the page, but is available for end users to add it; or
- **Forbidden** - users cannot see this content at all.

Skins and Themes

The portal server uses a system of Java Server Pages templates, cascading style sheets, and images to define the look of the portal pages. You can modify these to control any of the visual aspects of the portal, perhaps to add company-specific brand elements, or to achieve a different color scheme and visual style.

The system for defining color themes and portal skins has been enhanced to support multiple skins per theme, additional branding elements, navigation styles, and dynamic, browser-independent cascading style sheets.



Properties

Edit label: Welcome

Title:
Welcome

Theme:
-----Inherit Parent Theme-----

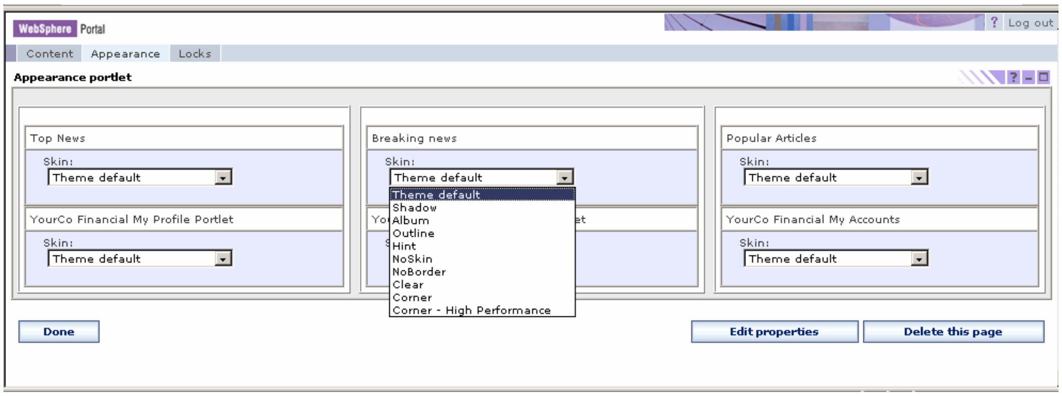
⊟ **Advanced options**

This page supports (at least one must be selected):
☑ WML ☑ cHTML ☑ HTML

I want to set titles and descriptions.

Setting themes and skins

Skins and themes can now be applied to each page rather than being restricted to having only one for the overall portal. Different skins can be applied individually to portlets, so that the portal look can be fine-tuned to meet any needs.



Appearance portlet

Top News
Skin: Theme default

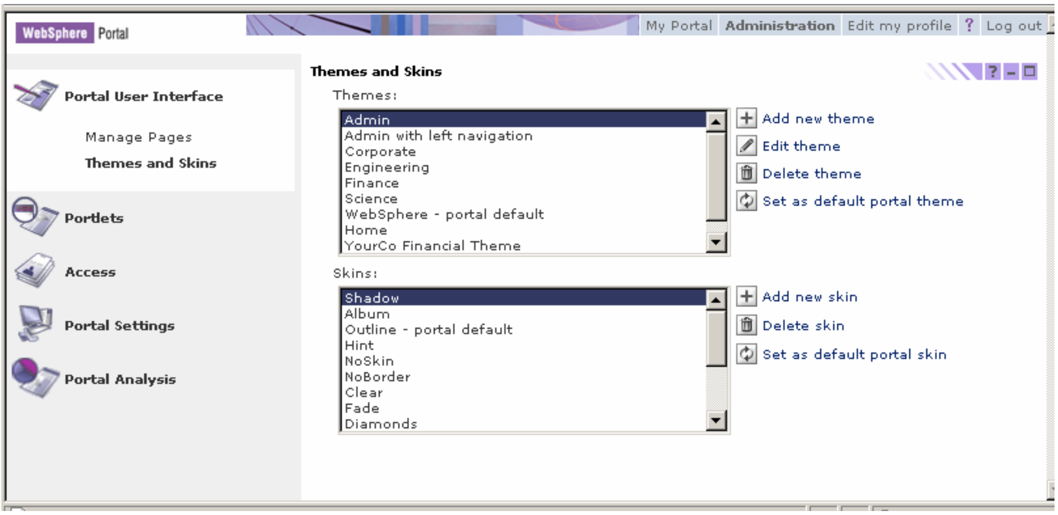
YourCo Financial My Profile Portlet
Skin: Theme default

Breaking news
Skin: Theme default

Theme default
Shadow
Album
Outline
Hint
NoSkin
NoBorder
Clear
Corner
Corner - High Performance

Popular Articles
Skin: Theme default

YourCo Financial My Accounts
Skin: Theme default



Themes and Skins

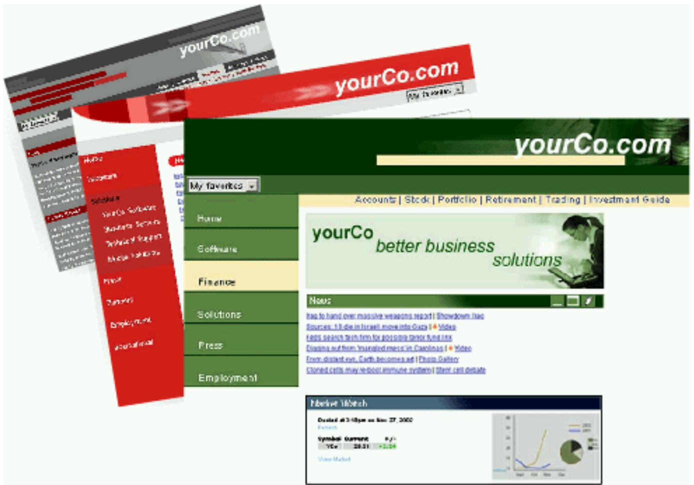
Themes:

Admin
Admin with left navigation
Corporate
Engineering
Finance
Science
WebSphere - portal default
Home
YourCo Financial Theme

Skins:

Shadow
Album
Outline - portal default
Hint
NoSkin
NoBorder
Clear
Fade
Diamonds

Managing Themes and Skins


yourCo.com
yourCo.com
yourCo.com
My favorites
Home
Software
Finance
Solutions
Press
Employment
Accounts | Stock | Portfolio | Retirement | Trading | Investment Guide
yourCo better business solutions
News

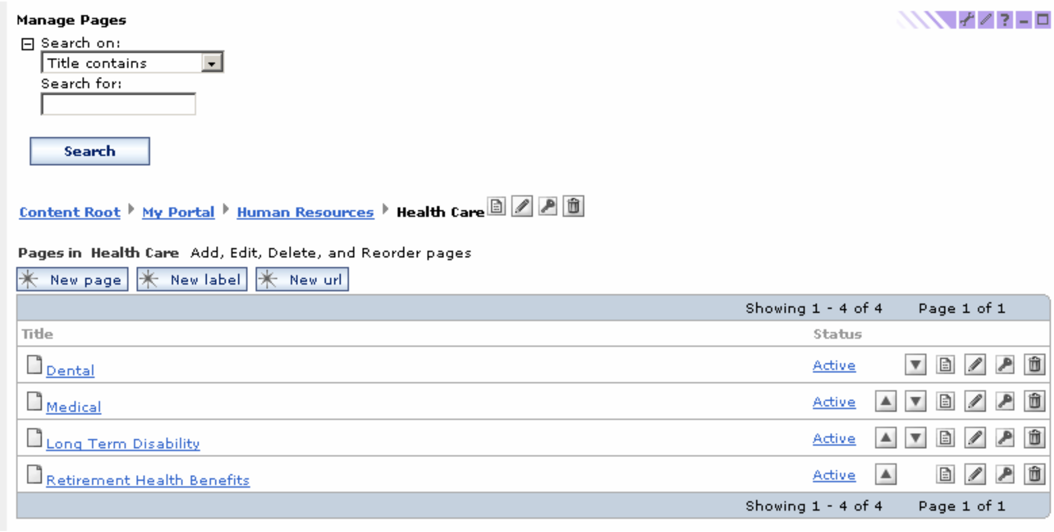
Brand Elements

All of the visual elements of the portal, including the masthead, the navigation areas, graphics, portlet title areas, and stylesheets can be changed to give the portal a custom look. Standard file formats, such as JPEG, GIF, CSS, and JSP files are used for defining the look and the layout of the portal.

If you examine the structure of the portal server's installation folder, you will notice folders named skins and themes, with folders html, wml, and chtml beneath them. These folders contain most of the files used for defining the basic structure of the portal's home page, its color schemes, and portlet decorations. You can make copies of these folders and modify the contents to achieve the visual image that your company needs. The theme administration portlet registers the new files.

Navigation

The portal's navigation capabilities have been improved significantly. Now, instead of a simple page list for each place, it is possible to create very complex navigation trees, with both page links and links to external URLs shown in the navigation area. You can create labels that logically group certain navigation elements, so with more links indented beneath these labels.



Manage Pages

⊟ Search on: Title contains

Search for:

Content Root ▸ My Portal ▸ Human Resources ▸ Health Care

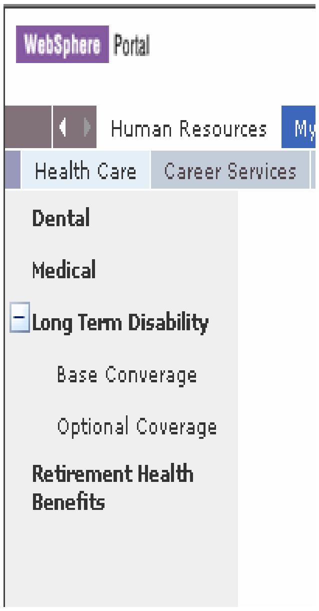
Pages in Health Care Add, Edit, Delete, and Reorder pages

Showing 1 - 4 of 4 Page 1 of 1

Title	Status
Dental	Active
Medical	Active
Long Term Disability	Active
Retirement Health Benefits	Active

Showing 1 - 4 of 4 Page 1 of 1

Page Navigation Administration



Page Navigation View

Virtual Portals

Using different themes for each place, a single installation of the portal server can give the appearance of supporting many "virtual" portals. For example, a company might want to have a different portal for each division, or it might want to have special branding of its business-to-business portal for each business partner. Each virtual portal can be designed using one or more places, each with its own theme, skins, page layouts, and access permissions. Administration of the associated portal resources can be delegated to a different administrator.

Universal Access

Earlier, we hinted at the portal's support for international use. The entire system of page templates, themes, skins, and portlet rendering is fully enabled for internationalization (including double byte and bi-directional languages) and for accessibility to people with disabilities. The portal server generates markup that complies with the American Disability Act (ADA) as defined in Section 508 Web Accessibility Standards and meets the guidelines of the W3C Web Accessibility Initiative.

For globally accessible portals, the portal server will search for and select the proper JSP pages based on the target browser, and target browser's settings for language and country. To enable a portlet for language selection, its JSP files are packaged using the following directory structure:

WAR / markup_type / language / country / variant /jspname.jsp

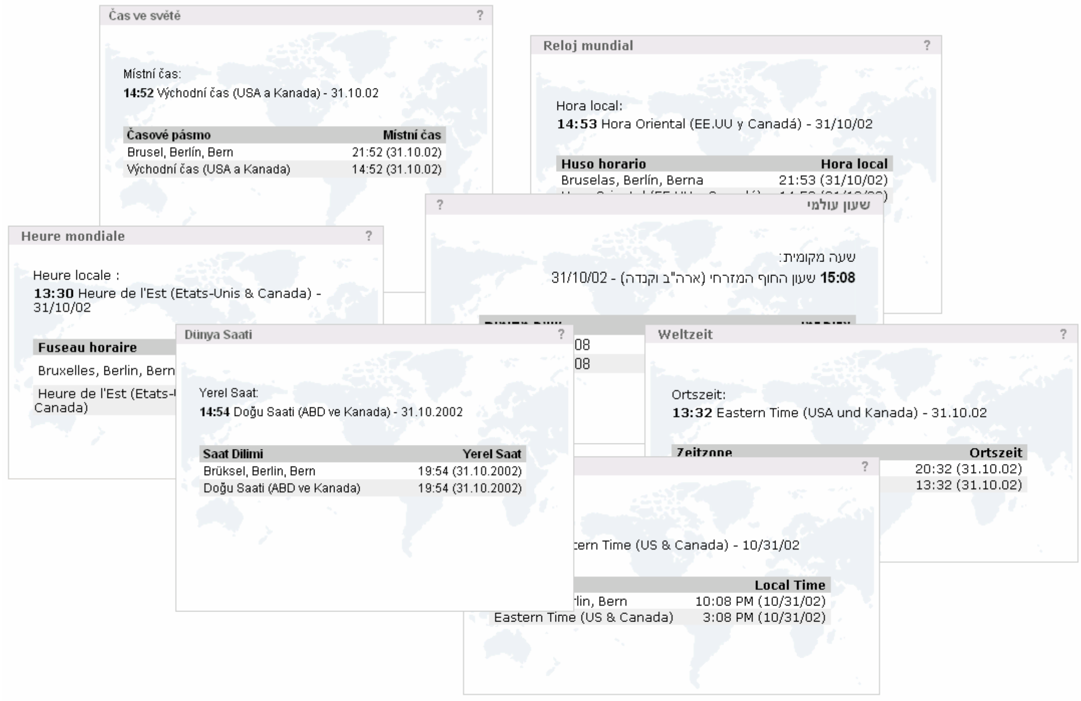
The portal server searches for the JSP for a portal from the most specific to the least specific, as in the following example.

1. /html/en/US/IE/portletJSP.jsp
2. /html/en/US/portletJSP.jsp
3. /html/en/portletJSP.jsp
4. /html/portletJSP.jsp
5. /en/US/IE/portletJSP.jsp
6. /en/US/portletJSP.jsp
7. /en/portletJSP.jsp
8. /portletJSP.jsp

Another good technique for handling translation issues is to use the portal server’s JSP tag library. It includes a tag for identifying and separating translatable text, so that you don’t have to create and maintain separate JSP files for each language. Using this technique, you could create one JSP view, tagged like this:

```
<H2><wps:text key="heading.hello" bundle="mystrings"/></H2>
```

When this page is processed, the strings are substituted using standard Java resource bundles.



Místní čas:
14:52 Východní čas (USA a Kanada) - 31.10.02

Časové pásmo	Místní čas
Brusel, Berlín, Bern	21:52 (31.10.02)
Východní čas (USA a Kanada)	14:52 (31.10.02)

Hora local:
14:53 Hora Oriental (EE.UU y Canadá) - 31/10/02

Huso horario	Hora local
Bruselas, Berlín, Berna	21:53 (31/10/02)

שעה מקומית:
31/10/02 - (ארה"ב וקנדה) שעון החוף המזרחי **15:08**

08
08

Heure locale :
13:30 Heure de l'Est (Etats-Unis & Canada) - 31/10/02

Fuseau horaire
Bruxelles, Berlin, Bern
Heure de l'Est (Etats-Canada)

Yerel Saat:
14:54 Doğu Saati (ABD ve Kanada) - 31.10.2002

Saat Dilimi	Yerel Saat
Brüksel, Berlin, Bern	19:54 (31.10.2002)
Doğu Saati (ABD ve Kanada)	19:54 (31.10.2002)

Ortszeit:
13:32 Eastern Time (USA und Kanada) - 31.10.02

Zeitzone	Ortszeit
	20:32 (31.10.02)
	13:32 (31.10.02)

tern Time (US & Canada) - 10/31/02

	Local Time
rlin, Bern	10:08 PM (10/31/02)
Eastern Time (US & Canada)	3:08 PM (10/31/02)

Portlets in many languages

For portals that need to support many languages or for portals that include rapidly changing portal content, WebSphere Translation Server offers automatic translation technology. This technology is useful for either real-time or offline translation of human languages.

WebSphere Translation Server provides quick, inexpensive, convenient "gist" text translations whenever a professional translation is not feasible because of availability, time, or cost. The dictionaries can be tuned so that idiomatic expressions and specialized terminology are interpreted correctly. It supports bi-directional translation of content for English to and from French, Italian, German, Spanish, Japanese, and Chinese (simplified and traditional). Unidirectional translation of content from English to Korean and Brazilian Portuguese is also supported.

Personalization

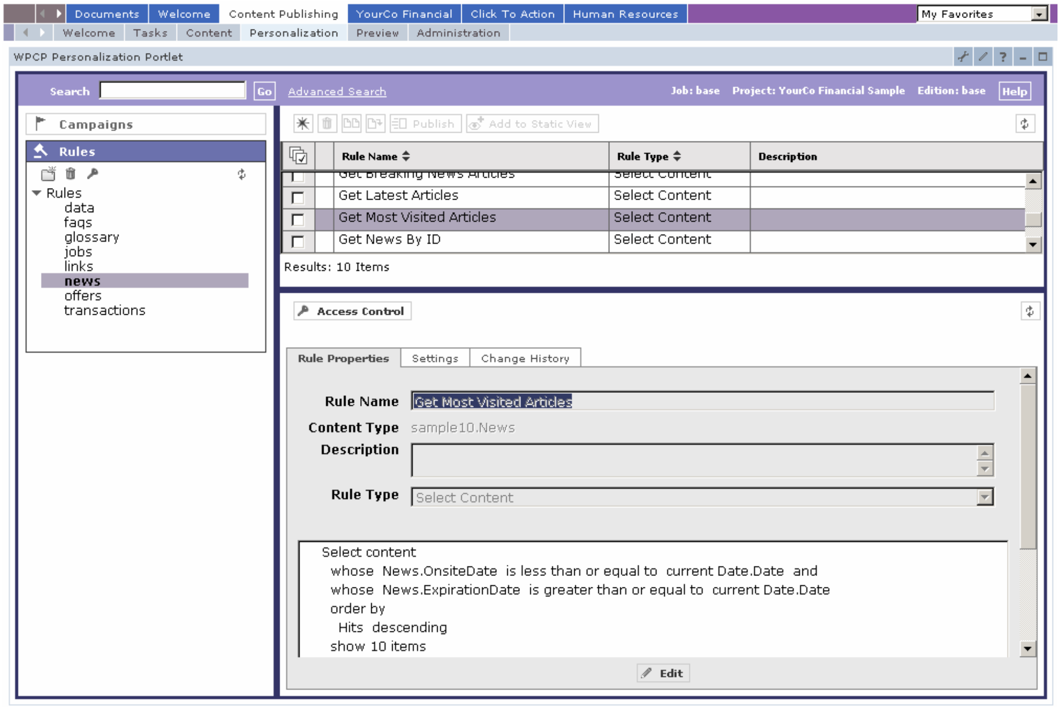
The WebSphere Portal offerings include the WebSphere Personalization server. The purpose of the personalization server is to allow you to target content to specific users in support of your portal's business goals. WebSphere Personalization provides facilities that allow subject matter experts to select content suited to the unique needs and interests of each site visitor. The web-based tools help companies quickly and easily leverage content created by line of business and subject matter experts.

A personalization solution involves three basic components:

1. User Profile: information about users of the site, including attributes about the users
2. Content Model: defines attributes about the content, such as product descriptions, articles, and other information
3. Matching Technology: engines that match users to the right content; includes filtering, rules, recommendation engines or combinations of all three.

The WebSphere Personalization server and WebSphere Portal server share a common user profile and a common content model. The model is based on the WebSphere resource framework interfaces classes. This means that personalization rules can easily be added to portlets to select portal content and target it to the portal's registered users.

The basic steps involved in personalization involve classifying site visitors into segments, and then targeting relevant content to each segment. Business experts create the rules for classifying users and selecting content, using web-based tools.



	Rule Name	Rule Type	Description
□	Get Breaking News Articles	Select Content	
□	Get Latest Articles	Select Content	
□	Get Most Visited Articles	Select Content	
□	Get News By ID	Select Content	

Results: 10 Items

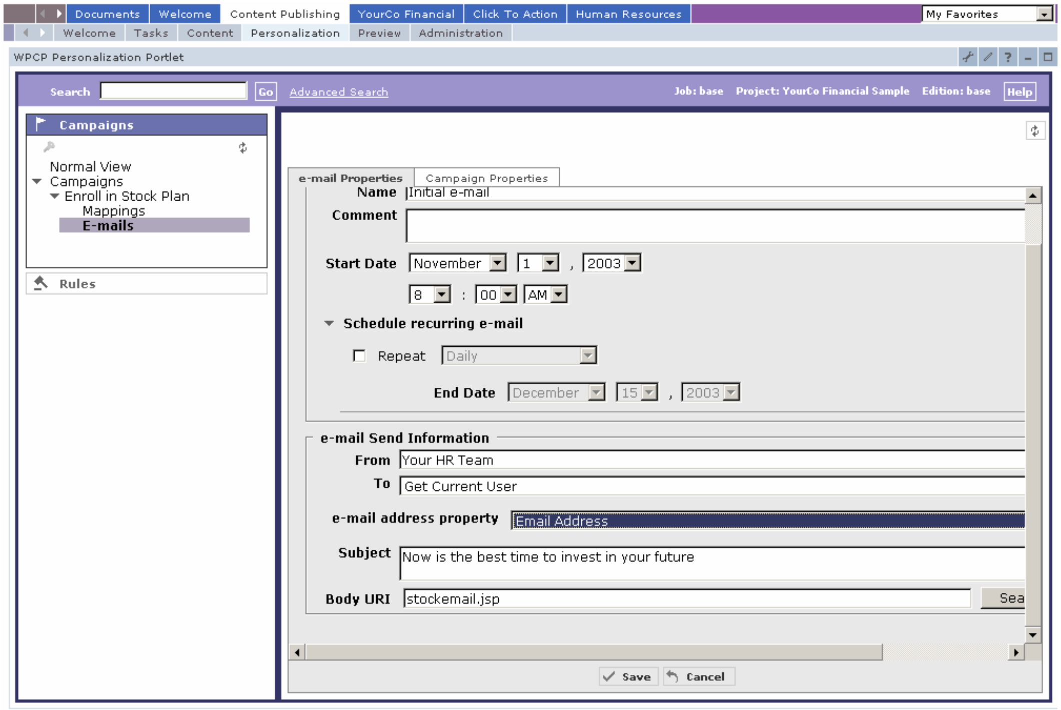
Rule Name: Get Most Visited Articles
Content Type: sample10.News
Description:
Rule Type: Select Content

```
Select content
  whose  News.OnsiteDate  is less than or equal to  current Date.Date  and
  whose  News.ExpirationDate  is greater than or equal to  current Date.Date
  order by
    Hits  descending
  show 10 items
```

Creating business rules for personalization

WebSphere Personalization also includes a recommendation engine, which provides collaborative filtering capabilities. Collaborative filtering uses statistical techniques to identify groups of users with similar interests or behaviors. Inferences can be made about what a particular user might be interested in, based on the interests of the other members of the group.

Also included with WebSphere Personalization are new campaign management tools. Campaigns are sets of business rules that work together to accomplish a business objective. For example, an HR manager may want to run a campaign to encourage employees to enroll in a stock purchase plan. The HR manager would define a set of rules as shown to accomplish this business objective. Campaigns have start and stop dates and times and can be e-mail and web page based. Several campaigns can run simultaneously and they can be prioritized.



Name: Initial e-mail

Comment:

Start Date: November 1 , 2003

8 : 00 AM

Schedule recurring e-mail

☐ Repeat Daily

End Date: December 15 , 2003

e-mail Send Information

From: Your HR Team

To: Get Current User

e-mail address property: Email Address

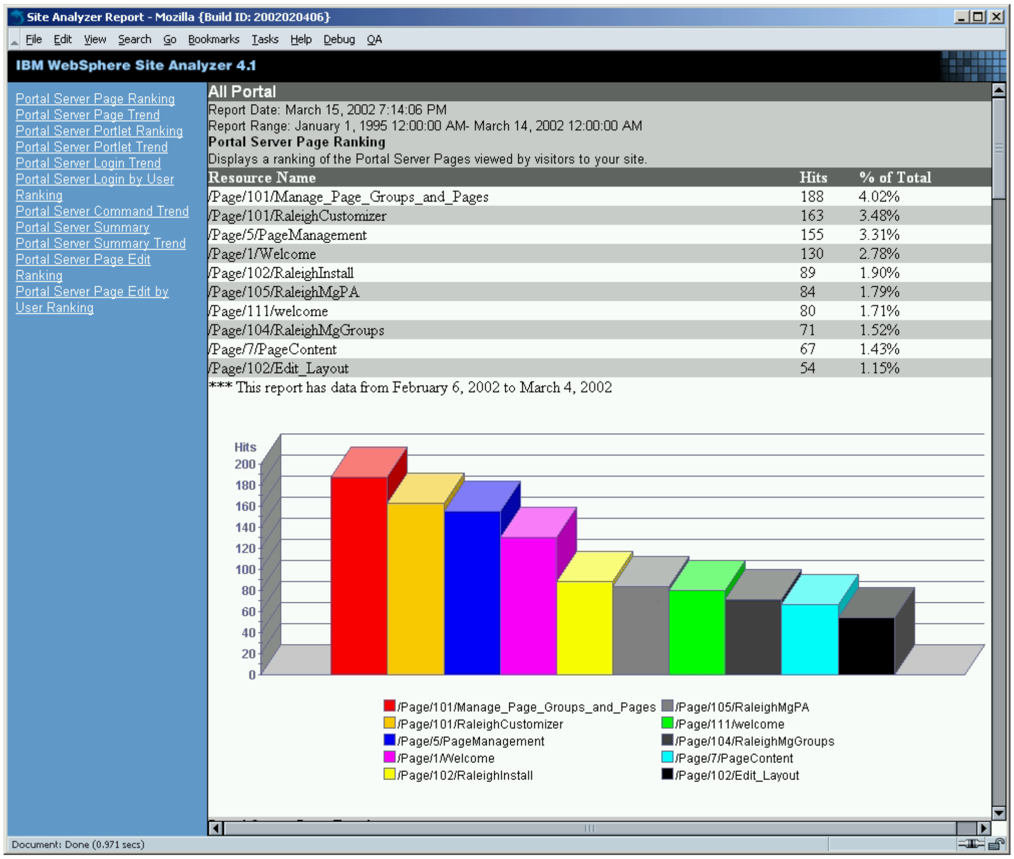
Subject: Now is the best time to invest in your future

Body URI: stockemail.jsp

Setting up campaign parameters

Implicit profiling services can collect real time information about site visitor actions and then construct personalization business rules using this data. Implicit profiling tracks the areas of a site where a user is most active in order to determine the user's interests. For example, if a user clicks on articles about football, it is possible to determine that he is interested in sports, even if the he did not explicitly indicate this interest when registering at the portal.

To analyze the effectiveness of the site and its personalization strategies, the server provides logs that can be analyzed by IBM Tivoli Web Site Analyzer or WPCP's Reporting capabilities. Web Site Analyzer can then create reports for the portal's business owner. This helps the company measure the effectiveness of the business rules and campaigns in achieving their objectives.



Site Analyzer Report - Mozilla {Build ID: 2002020406}
File Edit View Search Go Bookmarks Tasks Help Debug QA
IBM WebSphere Site Analyzer 4.1
Portal Server Page Ranking
Portal Server Page Trend
Portal Server Portlet Ranking
Portal Server Portlet Trend
Portal Server Login Trend
Portal Server Login by User Ranking
Portal Server Command Trend
Portal Server Summary
Portal Server Summary Trend
Portal Server Page Edit Ranking
Portal Server Page Edit by User Ranking
Document: Done (0.971 secs)

All Portal

Report Date: March 15, 2002 7:14:06 PM

Report Range: January 1, 1995 12:00:00 AM- March 14, 2002 12:00:00 AM

Portal Server Page Ranking

Displays a ranking of the Portal Server Pages viewed by visitors to your site.

Resource Name	Hits	% of Total
/Page/101/Manage_Page_Groups_and_Pages	188	4.02%
/Page/101/RaleighCustomizer	163	3.48%
/Page/5/PageManagement	155	3.31%
/Page/1/Welcome	130	2.78%
/Page/102/RaleighInstall	89	1.90%
/Page/105/RaleighMgPA	84	1.79%
/Page/111/welcome	80	1.71%
/Page/104/RaleighMgGroups	71	1.52%
/Page/7/PageContent	67	1.43%
/Page/102/Edit_Layout	54	1.15%

*** This report has data from February 6, 2002 to March 4, 2002

A portal usage report from Web Site Analyzer

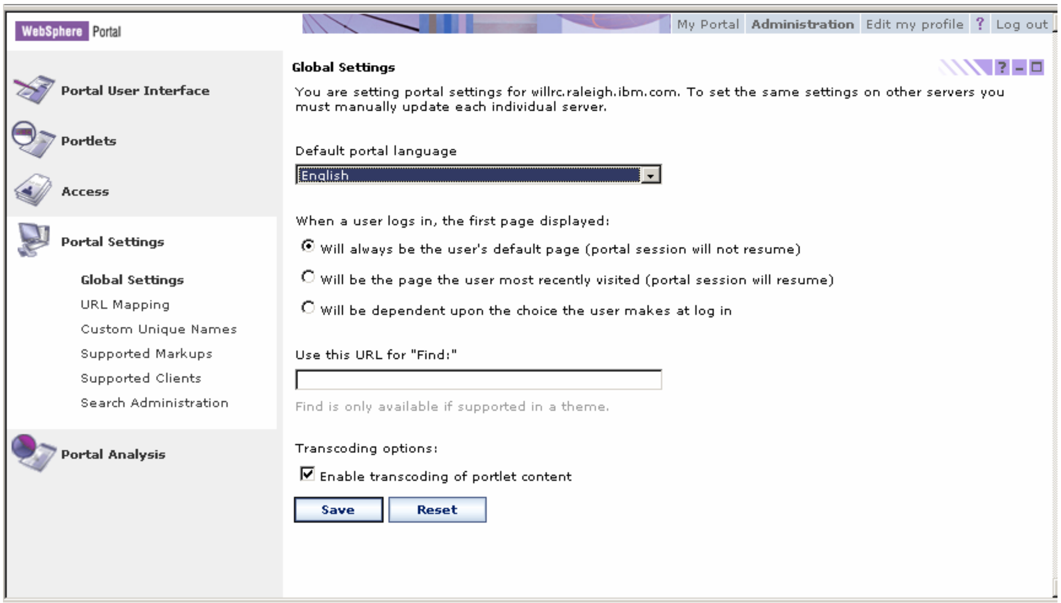
Administration

Administration of the portal is done through the portal itself, either in a centralized or delegated fashion. Administrators can deliver a new service to users simply by adding new portlets to the pages of the portal. Since these are portlets, just like bookmarks or reminders or news or any other portlets, administrators can control access to them, place them on portal pages, and perform any of the usual steps.

Administrative portlets are provided for adding portlets to the portal's registry, managing users, groups, and access control lists, clipping web pages, publishing web services, setting portal-wide settings, managing logs, and other common tasks. In this chapter, we'll describe some of the administration portlets and describe what they do for you. You've already seen some of these in previous chapters, so we'll just focus on the ones that have not been covered already.

Portal Settings

In the global settings portlet, administrators can change portlet settings such as the default language, the cache timeout values, etc. In addition, there are settings that control how new user sessions are handled, and what to do when a user tries to access a portlet without authorization. Unauthorized access can be ignored (in other words, the portlet is not displayed), or the portlet can be replaced by an informative message so that the user can take the necessary actions to correct the situation. Returning users may wish to pick up where they previously left off, so there is a setting to retain the state of the last visit and return to that page next time.



Global Settings

You are setting portal settings for willrc.raleigh.ibm.com. To set the same settings on other servers you must manually update each individual server.

Default portal language

English

When a user logs in, the first page displayed:

● Will always be the user's default page (portal session will not resume)

○ Will be the page the user most recently visited (portal session will resume)

○ Will be dependent upon the choice the user makes at log in

Use this URL for "Find:"

Find is only available if supported in a theme.

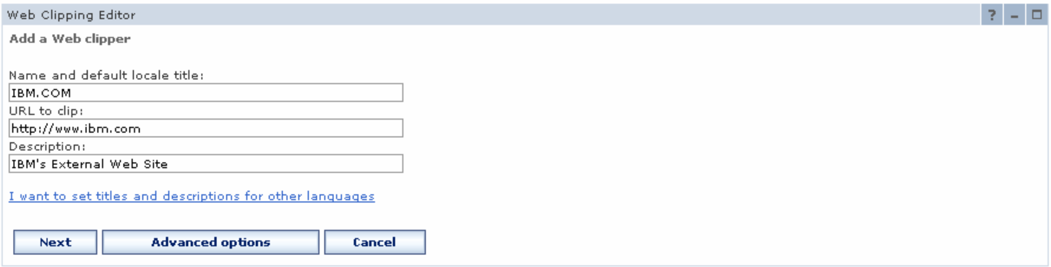
Transcoding options:

☑ Enable transcoding of portlet content

Global Portal Settings

Web Clipping Portlet

One of the most important portlets is the Web clipping portlet. This portlet is used to display sections of existing web pages. You can visually select portions of the page or clip all the text between specific tags. This way, you can precisely control what markup is extracted. The portlet can optionally rewrite the links inside the clipped page, which is useful for displaying existing pages without leaving the portal's navigation structure. Each time you clip a web page, a new portlet is created in the portal's registry. Whenever the new portlet is displayed, it retrieves the current version of the web page and extracts the clipped portion to display.



Add a Web clipper

Name and default locale title:
IBM.COM

URL to clip:
http://www.ibm.com

Description:
IBM's External Web Site

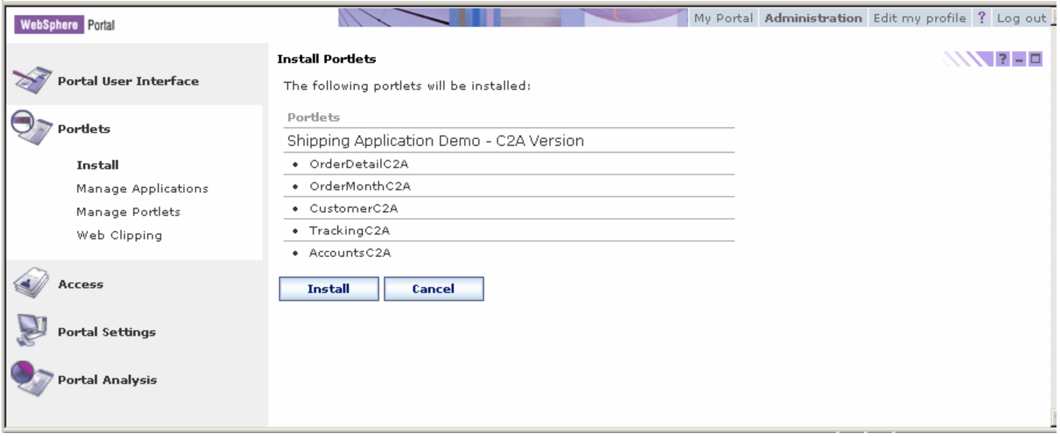
I want to set titles and descriptions for other languages

Clipping web pages

Some sites that you clip might require authentication. The clipping portlet provides options for no security, basic authentication, or form-based authentication. The credentials can be provided by the user, or filled in by the administrator.

Managing Portlets

When installing new portlets, you can use web archive files (WAR) from your local file system, or you can install portlets that have been previously published in a UDDI directory.



Install Portlets

The following portlets will be installed:

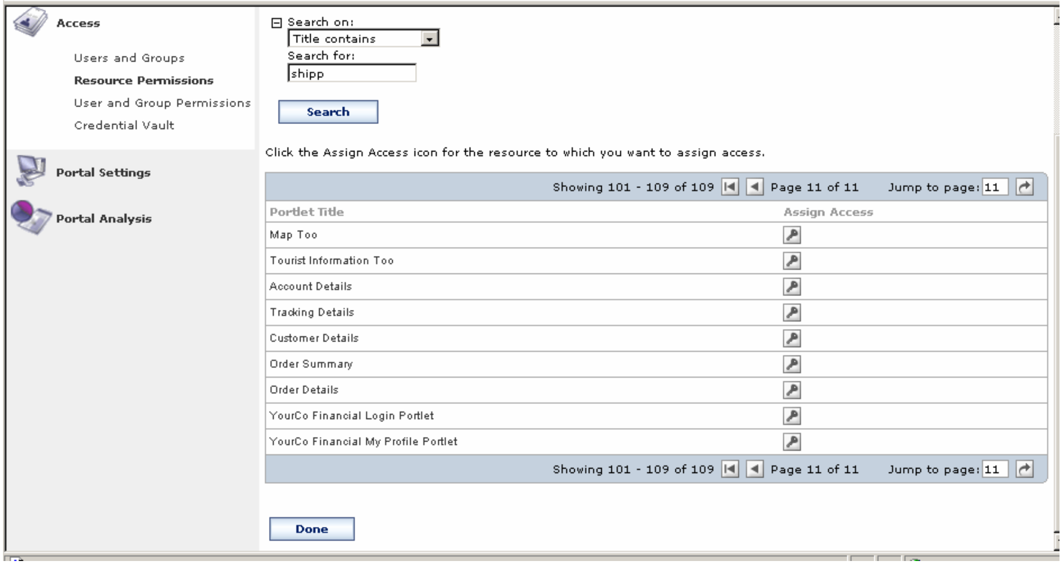
Portlets

Shipping Application Demo - C2A Version

- OrderDetailC2A
- OrderMonthC2A
- CustomerC2A
- TrackingC2A
- AccountsC2A

Installing new portlets

The new portlet is automatically activated, but with no special permissions. Access control for the new portlet is inherited from the default portlet settings, but can be set explicitly by the administrator.



⊟ Search on: Title contains
Search for: shipp

Click the Assign Access icon for the resource to which you want to assign access.

Showing 101 - 109 of 109 | Page 11 of 11 | Jump to page: 11

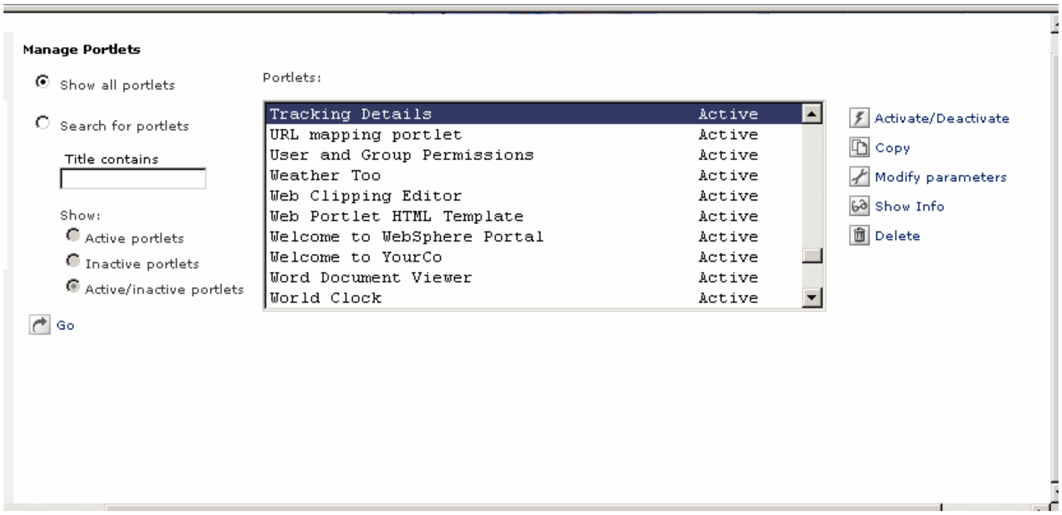
Portlet Title	Assign Access
Map Too	🔑
Tourist Information Too	🔑
Account Details	🔑
Tracking Details	🔑
Customer Details	🔑
Order Summary	🔑
Order Details	🔑
YourCo Financial Login Portlet	🔑
YourCo Financial My Profile Portlet	🔑

Showing 101 - 109 of 109 | Page 11 of 11 | Jump to page: 11

Administrative Access Controls

Managing the portlet catalog

Once the portlet is installed, you can copy it, set its configuration parameters, activate or deactivate it, or uninstall the portlet.



● Show all portlets

○ Search for portlets

Title contains

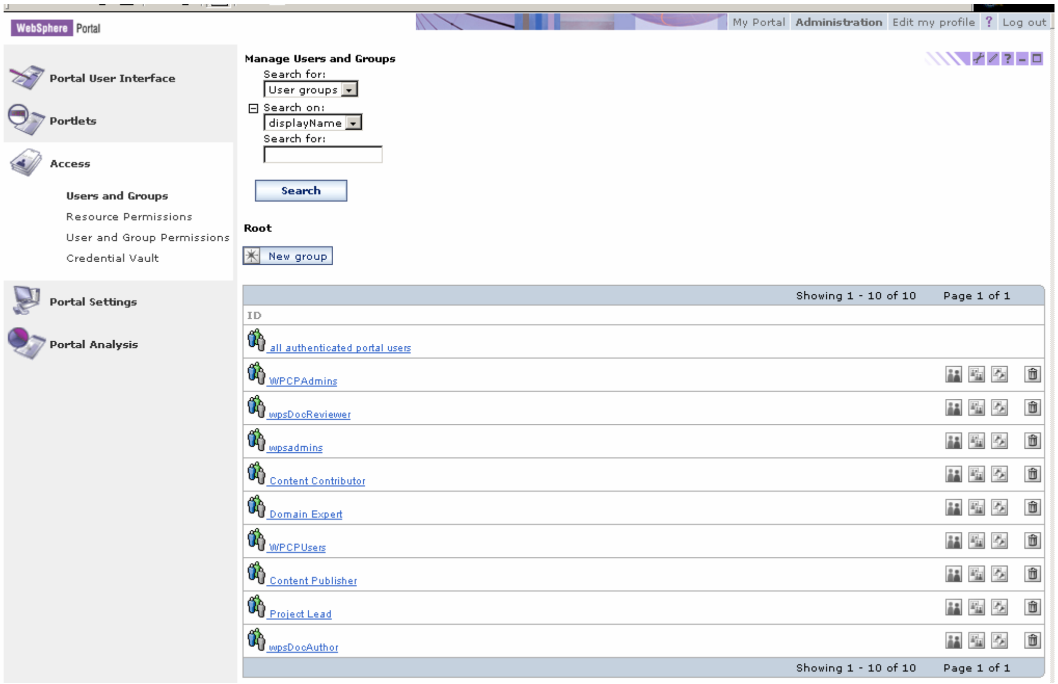
Show:
○ Active portlets
○ Inactive portlets
● Active/inactive portlets

Portlets:

Tracking Details	Active
URL mapping portlet	Active
User and Group Permissions	Active
Weather Too	Active
Web Clipping Editor	Active
Web Portlet HTML Template	Active
Welcome to WebSphere Portal	Active
Welcome to YourCo	Active
Word Document Viewer	Active
World Clock	Active

Users and Groups

In previous versions of WebSphere Portal, it was necessary to use your LDAP directory’s administration tools to manage user and group information. Now, you can use the portlets provided manage user and group information without leaving the portal. You can also manage a user’s group memberships. These portlets provide search capabilities and pagination to allow the administrator's interface to scale and manage a large number of users and groups.



Manage Users and Groups

Search for: User groups

Search on: displayName

Search for:

Root

Showing 1 - 10 of 10 Page 1 of 1

ID

all authenticated portal users

WPCPAdmins

wpsDocReviewer

wpsadmins

Content Contributor

Domain Expert

WPCPUsers

Content Publisher

Project Lead

wpsDocAuthor

Showing 1 - 10 of 10 Page 1 of 1

Managing users and group memberships

The portal server uses group membership information to determine what pages, portlets, and documents a user is authorized to view and edit. Users can be members of one or more groups, and groups may contain other groups. Users will be allowed access to portal resources when access is granted to any group that the user belongs to. Access rights can also be granted to specific individuals, but most companies find that it is easier to manage the access rights of groups instead.

Web Services

A web service is an interface that describes a collection of network accessible operations. The interface is described using a standard XML description language called Web Service Description Language (WSDL), so that the service can be invoked without prior knowledge of the platform, language, or implementation design of the web service. Web Services are

located using the standard Universal Description and Discovery Interface (UDDI), which may be a private or public registry of web services. WebSphere Portal provides extensive support for web services. Portal administrators can publish and bind remote portlets as web services, making the remote portlets available in the portal's registry dynamically. When a remote portlet is used, its services are invoked using Simple Object Access Protocol (SOAP) or other transport protocols.
Note: in WebSphere Portal Version 4.2, this was done using a proprietary remote portlet protocol. Since that time IBM has lead a standardization effort that lead to the definition of WSRP. The V4.2 protocol was not shipped in WebSphere Portal Version 5 and will incorporate support in WebSphere Portal Version 5 platform for the WSRP standard version soon after the standard is finalized.

Portal Analysis and Logging

Administrators can control the tracing and logging activity and monitor user activity through the Portal Analysis administrative options and portlets that Enable Tracing and track Frequent Users information, and also by modifying the configuration properties files of the logging subsystem

The portal server also records user activity in logs that can be processed by Tivoli Web Site Analyzer. Overall usage statistics such as logins and logouts are tracked, along with portlet and page usage statistics.

Portal Usage reports from Tivoli Web Site Analyzer

Project Summary	Displays summary statistics about the analysis, such as the total number of hits, sessions, visitors, and page views.
User Agent Ranking	Displays a ranking of user agents used by visitors to your site.
Browser Ranking	Displays a ranking of browsers used by visitors to your site.
Platform Ranking	Displays a ranking of users to your site by frequency of visits.

User Ranking	Displays a ranking of users to your site by frequency of visits.
Page Ranking	Displays a ranking of the pages viewed or editing by visitors to your site.
Portlet Ranking	Displays a ranking of the portlets viewed by visitors to your site.
Commands Ranking	Displays a ranking of the commands executed by visitors to your site, such as editing pages, creating new pages, creating or deleting users and groups.
Logins	Displays the number of logins/logouts into the portal.
Resource Ranking	Displays a ranking of the resources viewed by visitors to your site.

Collaboration

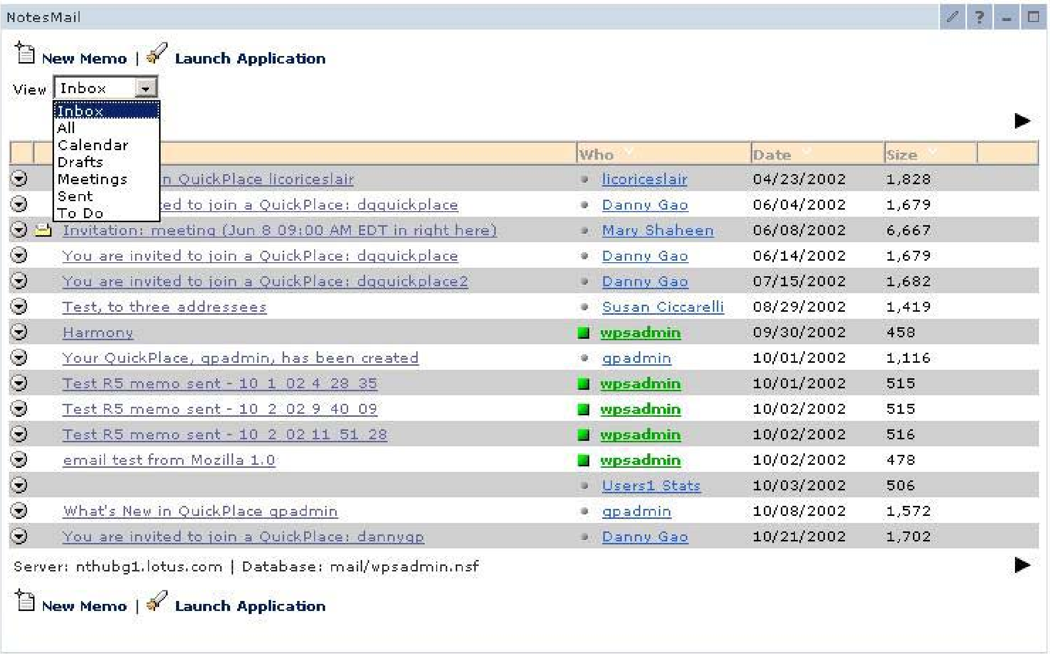
Corporate portals connect people to the applications, content, and resources they need. Portals also connect people to each other, through community pages, shared bookmarks, contact lists, and personal productivity portlets.

Collaboration is really about people working efficiently and effectively in teams to solve business problems. The portal server includes portlets and services designed to support the team and its activities, with messaging, document libraries, user profiles, inboxes and calendars, online directory services, team workplaces and electronic meetings. Users can access these collaborative services in the context of what they are currently doing, instead of having to leave the portal to open another application.

For example, while working in the portal, users can easily see who else is online and then send an instant message, send an email or add a person to their contact list. Collaborative portlets have advanced built-in features that allow portal users to take actions on documents or user names that appear in a portlet. Directly from the portlet, a portal user can see if other users are online, and select from a menu of options to interact with another user

Collaborative Portlets

The collaborative portlets provide access to a variety of collaborative applications that use Lotus Notes databases hosted on Domino servers: the Notes and Domino portlet offers Mail, Calendar, To Do, Notes View, TeamRoom, and Discussion, while the Domino Web Access (iNotes) portlet offers Mail, Calendar, To Do, Contacts, and Notebook environment.



	Who	Date	Size
n QuickPlace licoriceslair	licoriceslair	04/23/2002	1,828
ed to join a QuickPlace: dgquickplace	Danny Gao	06/04/2002	1,679
Invitation: meeting (Jun 8 09:00 AM EDT in right here)	Mary Shaheen	06/08/2002	6,667
You are invited to join a QuickPlace: dgquickplace	Danny Gao	06/14/2002	1,679
You are invited to join a QuickPlace: dgquickplace2	Danny Gao	07/15/2002	1,682
Test, to three addressees	Susan Ciccarelli	08/29/2002	1,419
Harmony	🟩 wpsadmin	09/30/2002	458
Your QuickPlace, qpadmin, has been created	qpadmin	10/01/2002	1,116
Test R5 memo sent - 10 1 02 4 28 35	🟩 wpsadmin	10/01/2002	515
Test R5 memo sent - 10 2 02 9 40 09	🟩 wpsadmin	10/02/2002	515
Test R5 memo sent - 10 2 02 11 51 28	🟩 wpsadmin	10/02/2002	516
email test from Mozilla 1.0	🟩 wpsadmin	10/02/2002	478
	Users1 Stats	10/03/2002	506
What's New in QuickPlace qpadmin	qpadmin	10/08/2002	1,572
You are invited to join a QuickPlace: dannygp	Danny Gao	10/21/2002	1,702

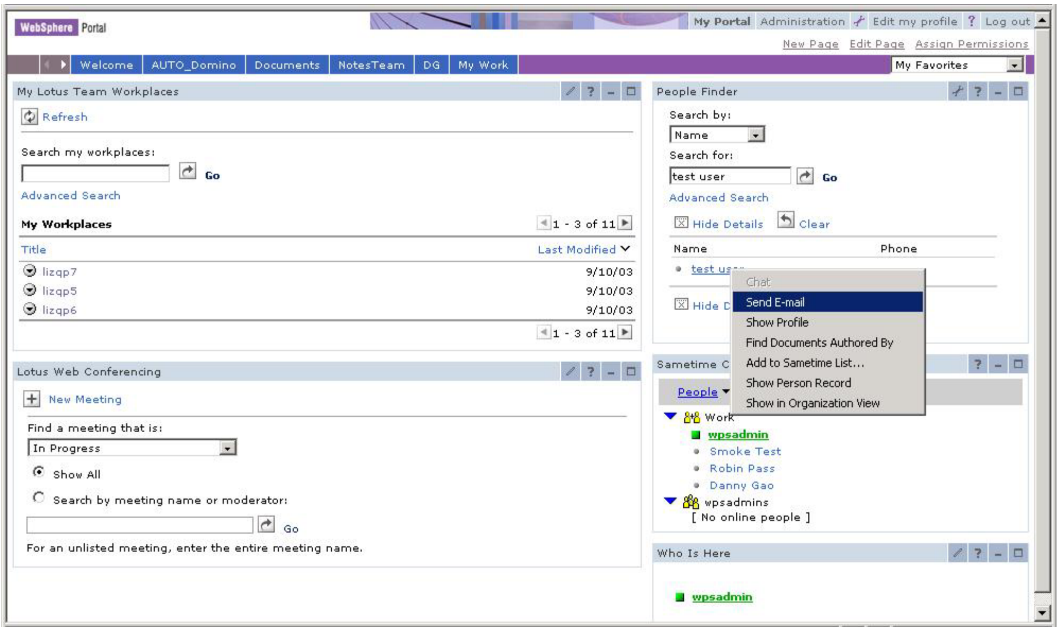
Server: nthubg1.lotus.com | Database: mail/wpsadmin.nsf

Notes Mail Portlet

There are also portlets for Domino.doc, Discovery Server, Lotus Team Workplaces (QuickPlace), and Lotus Instant Messaging and Web Conferencing (Sametime).

Collaboration Center

Collaboration Center offers an integrated framework of e-workplace components for finding, connecting, and working with people. These include the People Finder, the Web Conference center, Team Workspaces, and Sametime portlets. Using these components, users have immediate access to a searchable directory of people that is integrated with their workplaces and their e-meetings within the collaborative portal. Users can find people in the directory, see their online status, and interact with them using instant messaging and other actions provided by people links. In addition to search features, the People Finder portlet provides views of each person's directory record and his or her place in the organizational context.



Collaboration Center: Web Conferencing, Team Workplaces, PeopleFinder and Sametime Portlets

The following table summarizes the collaborative portlets.

Collaborative Portlets	
Domino Web Access (iNotes)	Provides access to a Lotus iNotes server, Mail, Calendar, To Do List, Contacts, Notebook functions.
Lotus Notes and Domino	Mail, Calendar, To Do, Notes View, TeamRoom, and Discussion,
Domino.Doc	Displays a Domino.Doc library inside the portlet.
Lotus Team Workplaces (QuickPlace)	Displays a Lotus QuickPlace component inside the portlet.
Lotus Instant Messaging (Sametime Chat)	Launches a Sametime Java connect client from within the portal.

Web Page	The Web Page portlet will show the contents of an internet or intranet web page in a scrollable portlet.
Discovery Server	Searches knowledge map categories and content or displays a knowledge map.
People Finder - a component of Collaboration Center	Locates a person by name or profile characteristcs.
My Team Workplace - a component of Collaboration Center	Show, Search, and Create QuickPlaces.
Web Conferencing - a component of Collaboration Center	Schedule, find and attend e-meetings.
Sametime Who Is Here	Display list of names for chat, modify groups for display and status message.
Sametime Contact List	Displays a list of people who are online and available for chat, either in the current page, or a named virtual page.

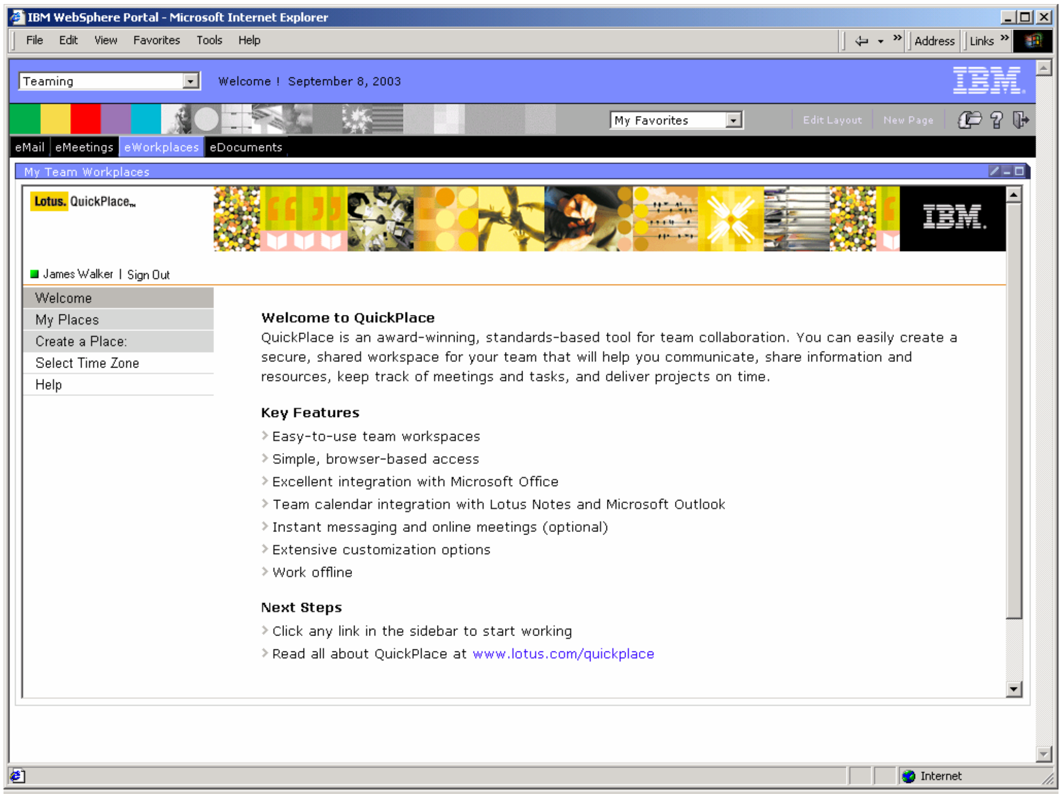
Related Products

WebSphere Portal Extend integrates tightly with Lotus' world-class collaboration and knowledge management products, including Lotus Team Workplaces (QuickPlace), Lotus Instant Messaging and Web Conferencing (Sametime), and Lotus Discovery Server by providing portlets and services to access these products seamlessly from the portal.

Lotus Team Workplaces (QuickPlace)

Lotus QuickPlace provides workspaces for sharing and organizing ideas, content and tasks. It includes tools to manage team projects and schedules, organize discussion threads, and share documents.

The Lotus QuickPlace user interface is shown inside a portlet. The integration between the portal and the QuickPlace includes single sign-on, so that users who access the portal can access the Lotus QuickPlace seamlessly, without requiring an additional login.



Welcome to QuickPlace

QuickPlace is an award-winning, standards-based tool for team collaboration. You can easily create a secure, shared workspace for your team that will help you communicate, share information and resources, keep track of meetings and tasks, and deliver projects on time.

Key Features

- Easy-to-use team workspaces
- Simple, browser-based access
- Excellent integration with Microsoft Office
- Team calendar integration with Lotus Notes and Microsoft Outlook
- Instant messaging and online meetings (optional)
- Extensive customization options
- Work offline

Next Steps

- Click any link in the sidebar to start working
- Read all about QuickPlace at www.lotus.com/quickplace

The Lotus Team Workplaces (QuickPlace) portlet

Lotus Instant Messaging and Web Conferencing (Sametime)

Lotus Sametime provides instant messaging, shared white boards, and application sharing for electronic meetings. Sametime functionality is integrated into the portal for access to chat sessions and buddy lists, as well as people and place awareness. Awareness is the ability to tell who the place members are and to find out whether they are online, offline, or not available.

Sametime provides other services that can also be integrated through portlets: application sharing, white boarding, and online meetings.

Lotus Discovery Server

Lotus Discovery Server is a separately purchased product that creates expertise and knowledge maps by analyzing and categorizing documents.

It creates profiles of users based on their document activity, including their topics of interest and their area of expertise.

Discovery Server also examines user activity such as reading documents, responding to documents, timeliness of interactions, or links to specific documents. This way, Discovery Server can determine the relative proficiency of individuals to content categories. These proficiency indicators are called affinities, and they indicate the relative expertise of individuals to particular business areas of the organization.

The Discovery Server continually assesses the strength of affinities using metrics, ensuring that individuals with recent and high quality expertise ratings are found and presented to users seeking expertise when browsing the Discovery Server Knowledge Map interface.

Lotus Discovery Server is purchased separately from WebSphere Portal.

Collaborative Services

Lotus Collaborative Components are building blocks (APIs and JSP tag libraries) for integrating the functionality of Lotus Domino, Lotus Sametime, Lotus QuickPlace, and Lotus Discovery Server into the portal. Developers can leverage the features of Lotus Domino, Lotus QuickPlace, Lotus Sametime, and Lotus Discovery Server, by using these components to add user interface extensions to their portlets and portal pages.

The collaborative services hide the configuration details of the Lotus products installed within an enterprise. Instead of working with more complex product API's, Lotus collaborative components provide developers with an easier method of integrating core collaborative features into any portal or portlet.

The benefit of using Collaborative Components is that they provide standardized access to Lotus applications, with easier APIs that are optimized for the portal. Security context is handled automatically, and upgrades of the backend systems are transparent to the portlets. The Collaborative Components work across versions of Domino 4.67 and above.

Collaborative Services	
People Service	Provide online awareness capability so that portlets can determine who is online and what their status is, also incorporate menus for chat, e-mail and search options.
Domino Data Service	Provides access to Domino data, including views, documents, and directory-related information. Use the services to locate Domino servers, create and edit documents, and work with views.
Discovery Services	Provides methods to find people, documents, knowledge maps, and profiles.
QuickPlace Service	Provide methods for creating a new Lotus QuickPlace
Sametime Service	Provides methods for standardized access to the Sametime server configured to work with WebSphere Portal.

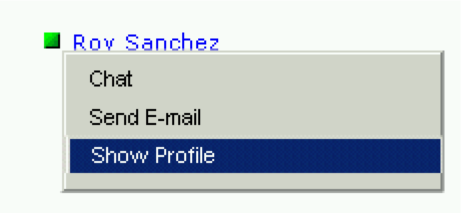
Lotus Collaborative Components

The People Service provides an awareness function that is available through a custom Java Server Pages tag. Adding this custom tag creates an online status indicator and a popup menu of action choices that access various collaborative services. For example, you could start with a portlet that produces markup like this:

```
<%@page language="java" import="com.lotus.cs.*, java.util.*" %>
<%@taglib uri="/WEB-INF/tld/people.tld" prefix="peopleservice" %>
<%@taglib uri="/WEB-INF/tld/portlet.tld" prefix="portletAPI" %>
<portletAPI:init/>
<h1>People Awareness Example</h1>
<%
CSEnvironment environ = CSEnvironment.getEnvironment(request);
```

```
CSCredentials cred = environ.getCredentials(request);
%>
<H2>
<peopleservice:person>
<%=cred.getUserLoginName()%>
</peopleservice:person>
</H2>
```

The lines hightlighted in blue are the special tags needed to make the online presence indicator work. The portal user might see something similar to this:



People awareness

A great way to apply this idea is by adding the people awareness tags to a portlet that accesses an enterprise application, such as a PeopleSoft or Siebel function.

The exact menu items depend on details about the specific place, the permission level of the current user, and what collaborative products and services are installed in the portal environment. All of the collaborative services except for the PeopleService tags can be used in both desktop and mobile portlets.

Application Integration

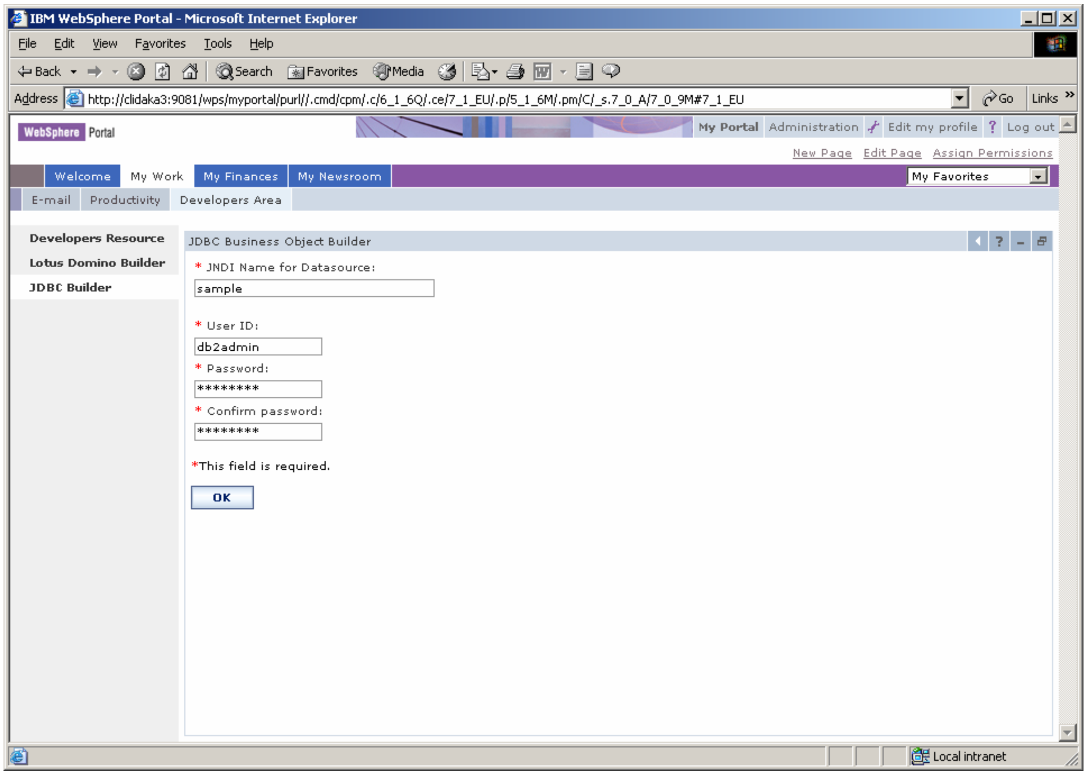
By definition, a portal provides access to content, data and services located throughout the enterprise. These include not only predefined connectors and portlets, but also additional connectors and portlets created by various tools.

Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems are excellent candidates for portlets because efficient, personalized access to these functions provides measurable return on your portal investment. WebSphere Portal includes portlets that help you access a variety of ERP and CRM systems.

Enterprise Portlets

The WebSphere Portal Application Integrator (WPAI) is a business tool that provides a fast way to build new portlets that access various kinds of Enterprise Application systems, including SAP, PeopleSoft, Siebel, WebSphere Portal Content Publisher, and Domino applications. It also works for relational databases, such as DB2, Oracle, Informix, SQL Server, and others.

The goals of the integrator framework were to provide a simple way for portlet administrators to build new portlets. Simply put, each tool is a portlet that builds new portlets for a specific backend system using a set of predefined interaction models. Operating the builder tool is simple and easy for administrators or business users. It works by querying the backend system for meta-data that describes the business object that the new portlet will work against.


IBM WebSphere Portal - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address http://clidaka3:9081/wps/myportal/purl/!.cmd/cpm/.c/6_1_6Q/.ce/7_1_EU/.p/5_1_6M/.pm/C/_s.7_0_A/7_0_9M#7_1_EU
Go Links
WebSphere Portal
My Portal Administration Edit my profile ? Log out
New Page Edit Page Assign Permissions
Welcome My Work My Finances My Newsroom
My Favorites
E-mail Productivity Developers Area
Developers Resource
Lotus Domino Builder
JDBC Builder
Local intranet

JDBC Business Object Builder

* JNDI Name for Datasource: sample

* User ID: db2admin

* Password: ********

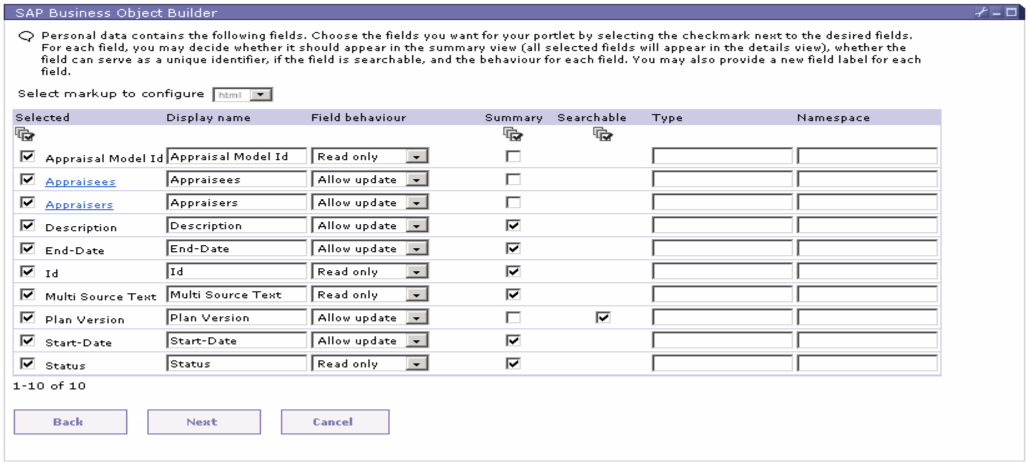
* Confirm password: ********

*This field is required.

OK

Creating an Enterprise Portlet with WebSphere Portal Application Integrator

Once the business object is selected, the person building the portlet selects which fields and operations they want to enable in the portlet. The operations include searching, updating, deleting, and creating new records.



SAP Business Object Builder

Personal data contains the following fields. Choose the fields you want for your portlet by selecting the checkmark next to the desired fields. For each field, you may decide whether it should appear in the summary view (all selected fields will appear in the details view), whether the field can serve as a unique identifier, if the field is searchable, and the behaviour for each field. You may also provide a new field label for each field.

Select markup to configure html

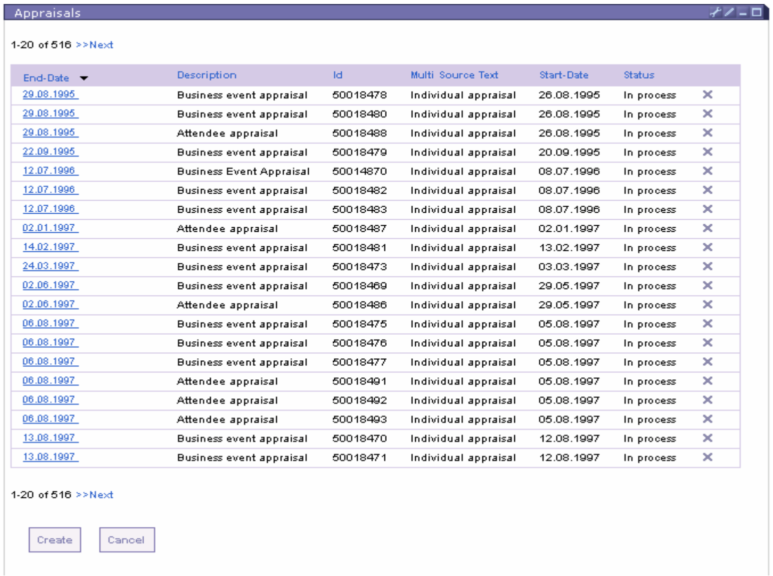
Selected		Display name	Field behaviour	Summary	Searchable	Type	Namespace
☑	Appraisal Model Id	Appraisal Model Id	Read only	☐			
☑	Appraisees	Appraisees	Allow update	☐			
☑	Appraisers	Appraisers	Allow update	☐			
☑	Description	Description	Allow update	☑			
☑	End-Date	End-Date	Allow update	☑			
☑	Id	Id	Read only	☑			
☑	Multi Source Text	Multi Source Text	Read only	☑			
☑	Plan Version	Plan Version	Allow update	☐	☑		
☑	Start-Date	Start-Date	Allow update	☑			
☑	Status	Status	Read only	☑			

1-10 of 10

The SAP portlet builder

Once the selections are made, the portal server stored the configuration information needed to run the portlet. There is no new Java code or service that needs to be deployed, just the configuration information for each portlet.

Using this approach, anyone who understands the usage pattern of the enterprise application system can build a portlet in just a few minutes. In the future, it may be possible to build additional connectors for other applications such as Oracle Applications, Ariba, Documentum, and others.



1-20 of 516 >>Next

End-Date ▼	Description	Id	Multi Source Text	Start-Date	Status	
29.08.1995	Business event appraisal	50018478	Individual appraisal	26.08.1995	In process	✕
29.08.1995	Business event appraisal	50018480	Individual appraisal	26.08.1995	In process	✕
29.08.1995	Attendee appraisal	50018488	Individual appraisal	26.08.1995	In process	✕
22.09.1995	Business event appraisal	50018479	Individual appraisal	20.09.1995	In process	✕
12.07.1996	Business Event Appraisal	50014870	Individual appraisal	08.07.1996	In process	✕
12.07.1996	Business event appraisal	50018482	Individual appraisal	08.07.1996	In process	✕
12.07.1996	Business event appraisal	50018483	Individual appraisal	08.07.1996	In process	✕
02.01.1997	Attendee appraisal	50018487	Individual appraisal	02.01.1997	In process	✕
14.02.1997	Business event appraisal	50018481	Individual appraisal	13.02.1997	In process	✕
24.03.1997	Business event appraisal	50018473	Individual appraisal	03.03.1997	In process	✕
02.06.1997	Business event appraisal	50018469	Individual appraisal	29.05.1997	In process	✕
02.06.1997	Attendee appraisal	50018486	Individual appraisal	29.05.1997	In process	✕
06.08.1997	Business event appraisal	50018475	Individual appraisal	05.08.1997	In process	✕
06.08.1997	Business event appraisal	50018476	Individual appraisal	05.08.1997	In process	✕
06.08.1997	Business event appraisal	50018477	Individual appraisal	05.08.1997	In process	✕
06.08.1997	Attendee appraisal	50018491	Individual appraisal	05.08.1997	In process	✕
06.08.1997	Attendee appraisal	50018492	Individual appraisal	05.08.1997	In process	✕
06.08.1997	Attendee appraisal	50018493	Individual appraisal	05.08.1997	In process	✕
13.08.1997	Business event appraisal	50018470	Individual appraisal	12.08.1997	In process	✕
13.08.1997	Business event appraisal	50018471	Individual appraisal	12.08.1997	In process	✕

1-20 of 516 >>Next

SAP Portlet Example

Commerce

Many portals need to include access to commerce functions, such as portlets that access a catalog of products and services, or portlets that present a catalog of products and services, prices, discount, accept orders, process request for quotes (RFQ) or provide contract driven views into the catalog to give business customers personalized service.

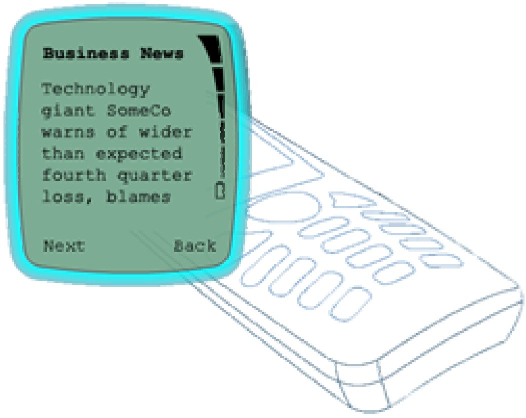
Portals may provide these functions to consumers or to business partners, for procurement or electronic exchange that links buyers and sellers of goods.

IBM WebSphere Commerce enables an extended enterprise; a network of employees, suppliers and partners collaborating to meet the full spectrum of customer needs by including configurable business processes to speed time to value for customer and partner facing projects. The WebSphere Commerce business context engine controls these business processes to present information and functionality to your constituents in a context sensitive manner. For example, partners will have access only to product information they are qualified to resell, with parts, inventory information, site language and currency specific to their geography.

WebSphere Commerce Portal combines WebSphere Portal V5 and WebSphere Commerce V5.5 software solutions in a single package to deliver the next generation e-business infrastructure. With portal as your single point of user interaction your constituents are now presented with a context sensitive and targeted collection of content, applications, resources and processes to create commerce-enabled portals that provide consolidated, personalized access to commerce functions via the Web or wireless devices. This capability is available through service offerings from IBM and business partners.

Mobile Portals

Next generation portals will be accessible through more than just traditional desktop browsers. Access through handheld or mobile devices is becoming increasingly important. The portal server currently supports mobile devices by generating portal pages in three markup languages: HTML for desktop computers and some personal digital assistants, WML for WAP devices, which are typically mobile phones, and cHTML for mobile devices in the NTT DoCoMo iMode network.



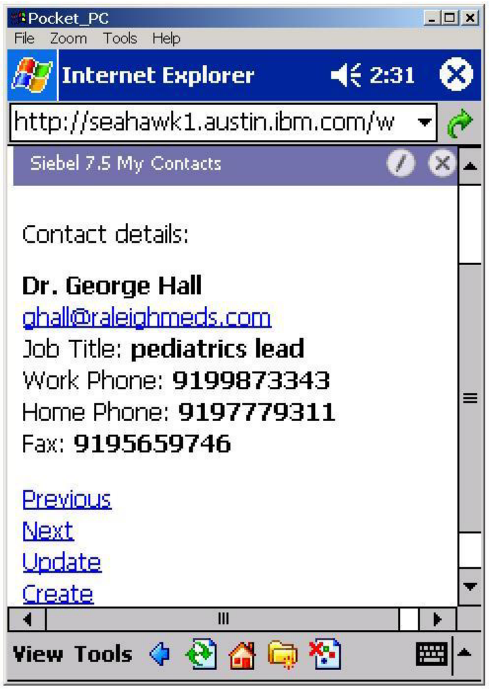
Business News

Technology giant SomeCo warns of wider than expected fourth quarter loss, blames

Users can customize a unique home page for each device, selecting the content and applications that are most useful on the device. When the home page is requested, the page is produced by first detecting the type of device that is making the request, and then assembling the portlets which each render their contents in the appropriate markup language.

When a user customizes the home page for a particular device, the portlet selection list only shows portlets that can actually produce markup appropriate for that device. Thus, the list of available portlets for each device depends on what the portlets can actually do.

Some portlets may be available for all the supported devices, while others may be available only on a single device. The user interface design of each portlet varies from device to device, so that the user's experience can be fine-tuned. Thus, the user's home page and each of the portlets might be very different on a mobile phone versus a desktop browser.



Contact details:

Dr. George Hall
ghall@raleighmeds.com
Job Title: **pediatrics lead**
Work Phone: **9199873343**
Home Phone: **9197779311**
Fax: **9195659746**

Siebel Application portlet settings optimized for mobile users

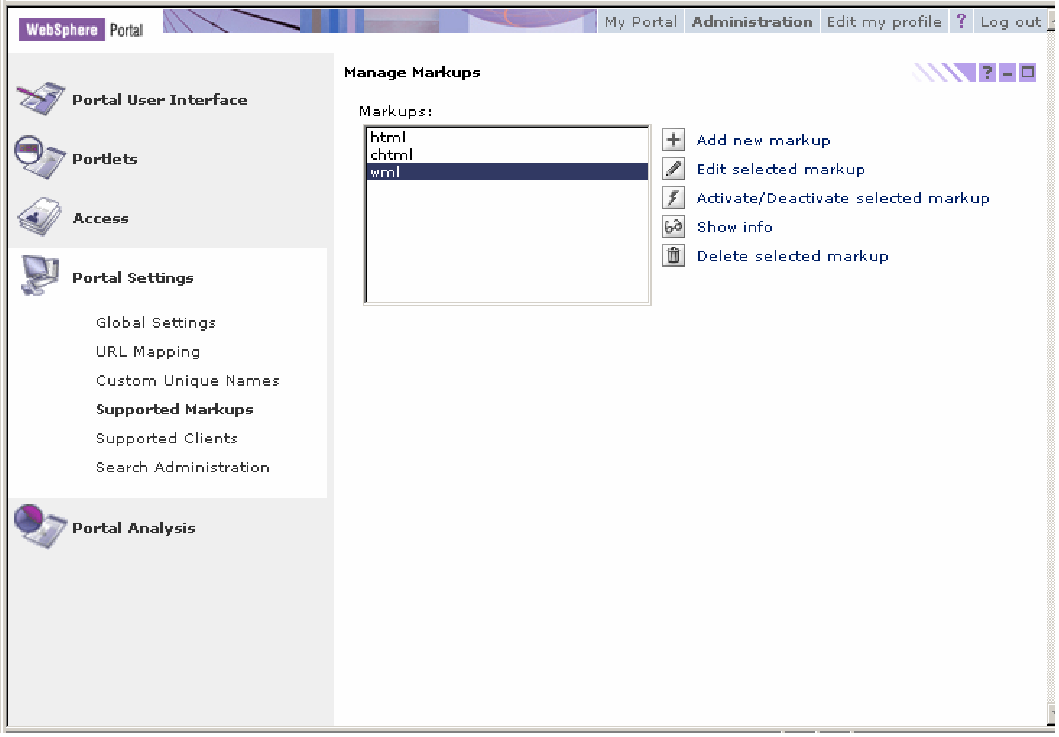
Supporting New Devices

The portal server supports several different markup languages so that portlets can render themselves for a variety of desktop and mobile browsers. Portlets that do not natively support the device markup can optionally be transformed using Transcoding technology. This means that portlets can easily and automatically support mobile devices, even if the portlet developer did not explicitly support that device.

Clients and Markups

The portal server's page aggregation subsystem supports several markup languages and recognizes certain browsers and mobile device user agent signatures, out of the box. The framework for supporting markup languages is open and extensible, so it is easy to support additional markups or new devices.

To support new browsers and devices, you add new markup and clients using the corresponding administration portlets. In the markups portlet, the markup name indicates the name of the folders that are used to store the page templates and the theme or skin files matching that markup language.



Manage Markups

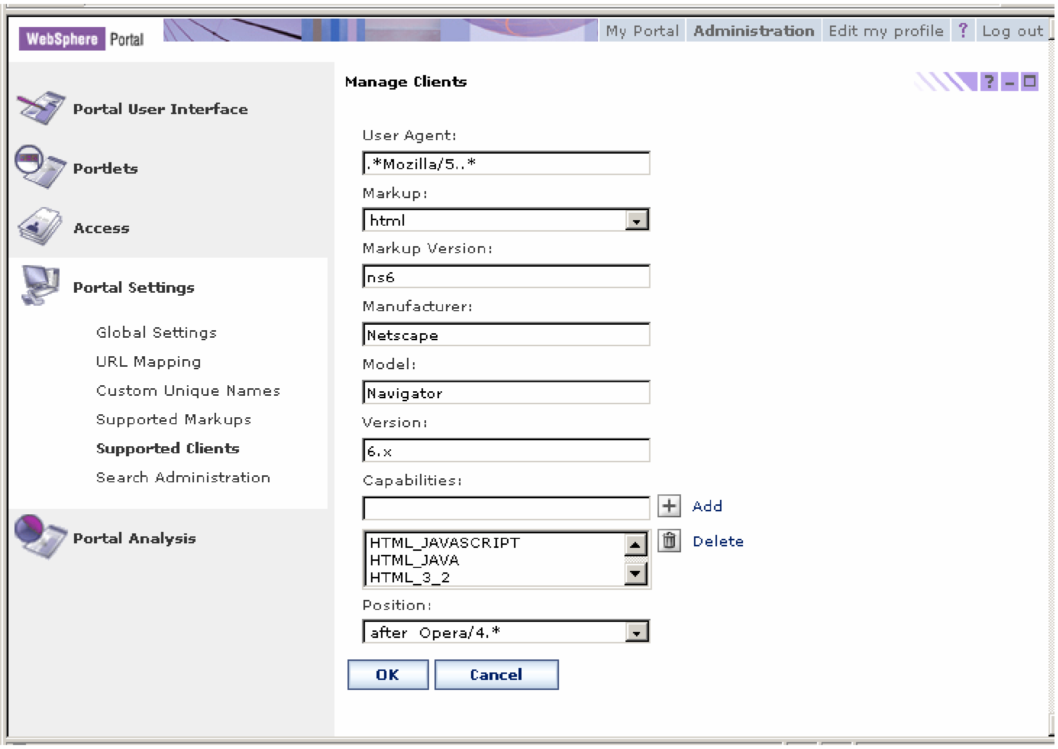
Markups:

html
chtml
wml

Enabling the portal for new markups

To add a markup, create a new entry specifying the MIME type and the character set associated with that markup. You also need to add all the JSP templates associated with supporting a markup, such as new layouts, screens, skins, and style sheets.

When the portal server receives an HTTP request, it matches the values in the user agent header against known patterns that identify common browsers for desktops, mobile phones, and other devices. Entries for common clients are already set up, but you can add new ones using the *Manage Clients* portlet.



Manage Clients

User Agent: .*Mozilla/5..*

Markup: html

Markup Version: ns6

Manufacturer: Netscape

Model: Navigator

Version: 6.x

Capabilities:

HTML_JAVASCRIPT
HTML_JAVA
HTML_3_2

Position: after Opera/4.*

Enabling the portal for new client browsers

The ordering of the client entries determines the order in which the patterns are applied against incoming HTTP requests. For further information, see the WebSphere Portal InfoCenter.

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