Actuate e.Reporting Suite 4

Administering the Report Encyclopedia

Release 4.1

Contains information proprietary to:

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Introduction

About Actuate e.Reporting Suite 4

e.Business customers use Actuate® e.Reporting Suite 4 to develop and deploy high resolution structured content to tens of thousands of users. Actuate takes web reporting to the next level by providing options for various needs as varied as seamless personalized web pages and traditional online and printed reports.

Customers building e.Business sites face challenges where Actuate e.Reporting Suite 4 offers the following solutions.

Challenge	Actuate solution
Developing custom content using HTML	DHTML provides a fast, no download option
Using plug-ins to view structured content	No need to distribute and install plug-ins for tens of thousands of users
Compromising information display due to lack of integrated tools	Provides template based design and display
Exploding use of web-based content delivery	Ability to support a million hits per day per CPU
Demand for personalized secure content	Page security for tens of thousands of users
Reuse of existing content	Open server provides access to content from other applications

Challenge	Actuate solution
Maintaining data integrity on hard copy	PDF provides high resolution printed copy
Portability of electronic data or content to other applications	XML output provides access to data across applications

Actuate tools and reports:

- Solve complex data access problems
- Solve formatting problems that go beyond the scope of other tools
- Scale to support thousands of users

The following summary describes the products in the Actuate e.Reporting Suite 4.

Product name	Use
Actuate Developer Workbench	An object-oriented application used by professional developers of structured content to design, build, and distribute report object designs and components throughout the enterprise. The Actuate Basic Language and Actuate Foundation Class Library support extensive customization capabilities.
Actuate e.Report Designer	An application that complements the Developer Workbench and is used by business users to design and distribute a variety of reports. These reports require no programming. This application supports both modification of complex reports and using sophisticated components from libraries.
Actuate End User Desktop	An application used by end users to request, generate, view, and print live report documents on networked client systems. The ReportQuery™ capabilities enable seamless transfer of data from an Actuate report to any productivity tool or analysis tool.
Actuate Viewer	Application for end users to find, view, and print report documents. The ReportQuery™ capabilities are also part of the Actuate Viewer.

Product name	Use
Actuate e.Reporting Server	A server application that generates Live Report Documents, manages them in the Report Encyclopedia®, and makes them available to users. This product includes with Actuate Administrator Desktop, an application for system and network administrators to manage and control one or more Actuate report servers. This product also includes Actuate ReportCast™ that transforms the Report Encyclopedia into a dynamic, secure web site. ReportCast provides the foundation for Channels and seamless integration with other web sites. This product includes Actuate Live Reports Extension (LRX) that works with both Microsoft Internet Explorer and Netscape Navigator to support report viewing and printing.
Actuate Advanced e.Reporting Server	An application that adds two capabilities to the basic e.Reporting Server, open server and page security. ■ Open server supports the use of third-party report generators with the Actuate e.Reporting Server. ■ Page security supports personalized viewing of parts of reports for different users

Product name	Use
Actuate Software Development Kit	Actuate ActiveX Controls embed Actuate reporting functionality into custom applications. Actuate Requester API accesses attributes and values of report parameters, changes the values of report parameters, controls how and when a report is generated, displays and prints reports, and configures report print setup. Access the Requester API using Actuate Basic, Visual Basic, C, or C++. Actuate search extension API supports developing search extensions to transfer data to any third-party productivity or analysis tool. Actuate report server API implements common Report Encyclopedia tasks, integrates report server features into existing corporate applications, automates routine or time-consuming tasks, and implements new feature groupings for custom business processes. Access the report server API using C++. Actuate Report Server Security Extension supports the use of third-party security tools. Actuate archive driver supports the use of third-party archiving software and hardware.

Actuate Viewer and Actuate Live Report Extension (LRX) are included with all products except Actuate Software Development Kit.

About *Administering the Report Encyclopedia*

Administering the Report Encyclopedia provides information about managing users, groups, roles, privileges, printers, process groups, and print requests.

Administering the Report Encyclopedia includes the following chapters.

- *Introduction*. This chapter provides an overview of this guide, the Actuate e.Reporting Suite, and the typographical conventions used.

- *Chapter 1. Understanding the Administrator Desktop.* This chapter contains information about starting the Administrator Desktop and logging on to a Report Encyclopedia.
- *Chapter 2. Managing Report Encyclopedia security.* This chapter contains information about setting up and managing access to a Report Encyclopedia.
- *Chapter 3. Managing printers and print requests.* This chapter contains information about configuring the list of printers available to users.
- *Chapter 4. Managing report server resources.* This chapter contains information about managing of groups of operations processes.
- *Chapter 5. Building and managing your first Report Encyclopedia.* This chapter takes the user through all the steps of setting up a sample Report Encyclopedia. Strategies for configuring processes are also discussed.
- *Chapter 6. Administering the Report Encyclopedia in the web environment.* This chapter contains information on administering the Report Encyclopedia when using the Actuate ReportCast product.

About Actuate e.Reporting Server product

Actuate e.Reporting Server documentation includes a printed manual, an installation card, online help, user documentation in PDF files and in HTML format, and release notes. Information about the product that could not be included before the book printing deadline is in the release notes.

The Actuate web site, http://www.actuate.com, contains late-breaking news about the product and its features, as well as product update information. To obtain the password necessary to access the portion of the web site available only to customers, telephone Actuate Customer Support. The engineers in Actuate Customer Support can also help you with technical questions about the product according to your service contract. The Customer Support telephone number, fax number, and e-mail information can be found among the printed materials in the product box.

The printed documentation includes the following manuals.

For information about	See the following
Installation	Installation card
Late-breaking information about the software and documentation	Release notes

For information about	See the following
Users, groups, privileges, and roles Printers and printing requests Process groups Building and managing your first Report Encyclopedia	*Administering the Report Encyclopedia*
Viewing, running, finding, and printing reports	*Using e.Reports*
Overview of the Actuate report server architecture Report server administration Database connections Report Encyclopedia utilities	*Actuate e.Reporting Server Guide*
Actuate ReportCast, its templates, URL directives, scripting language, security and user authentication facilities. Actuate Live Report Extension (LRX)	*Building an e.Reporting Web Site*

Online documentation

The information in the printed manuals is also available as online books in Adobe Acrobat PDF format and in the online help system for the Actuate products. For products without a Windows interface such as the Actuate e.Reporting Server and the Actuate ReportCast, we provide HTML help files.

Using online manuals

The online manuals do not install automatically with the product. On the product CD, you find those files in the Manuals directory. Open the introductory PDF file to get an overview of the manuals. Copy this file and the files for each book you want to be able to use online to your local drive. The items in the table of contents and the page numbers in the index both contain links to the appropriate topics in the text. In the index, you access the link by positioning your cursor over the page number, not the topic.

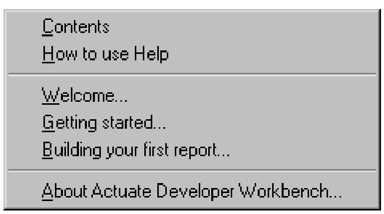
The HTML files install automatically with the product. These files can be viewed with standard browsers.

Online help

Actuate products provide both context-sensitive online help about the product and report-specific online help about the report you are viewing. The Actuate e.Reporting Suite makes it possible for developers to create customized report-specific online help. Report-specific online help is only available when you view a report using an Actuate desktop product, such as Actuate End User Desktop, Actuate Viewer, or one of the Actuate LRXs.

Using context-sensitive online help

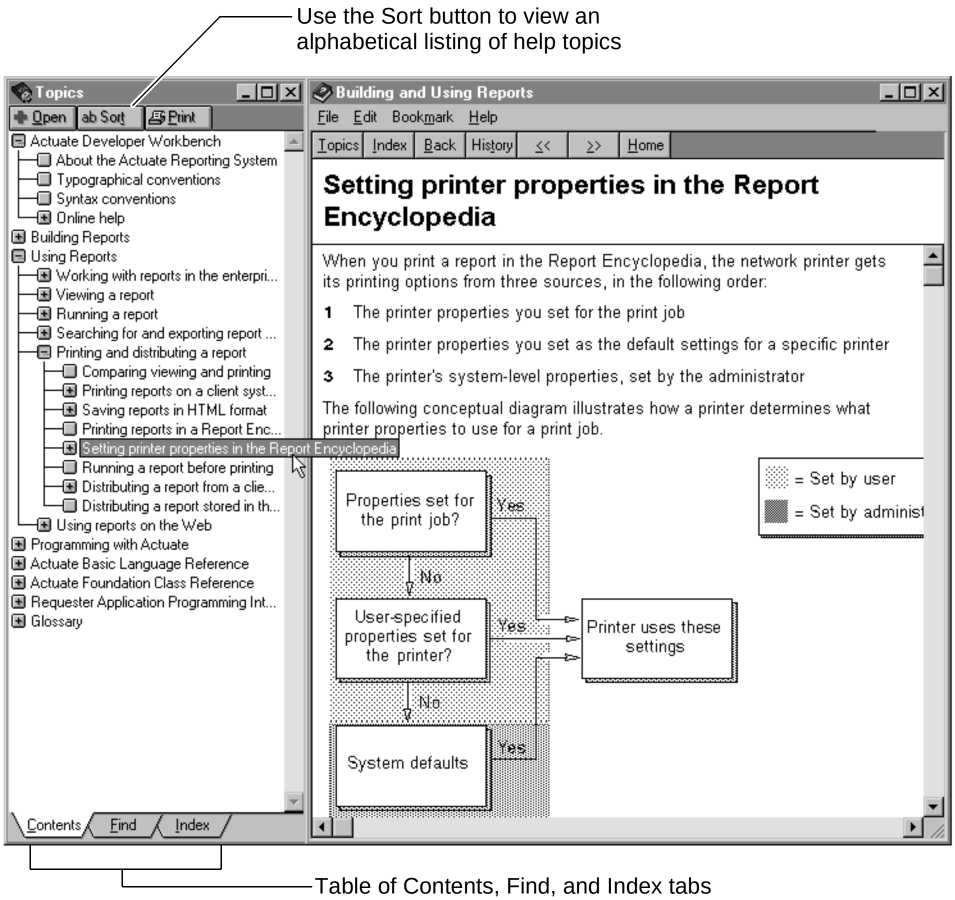
Sections from the printed manuals have been linked directly to the software interface to make relevant information available while you work. Dialog boxes that need additional explanation about how to use them have a help button. To access online help, use the Help menu in the menu bar.



An alternative method is to use the F1 key.

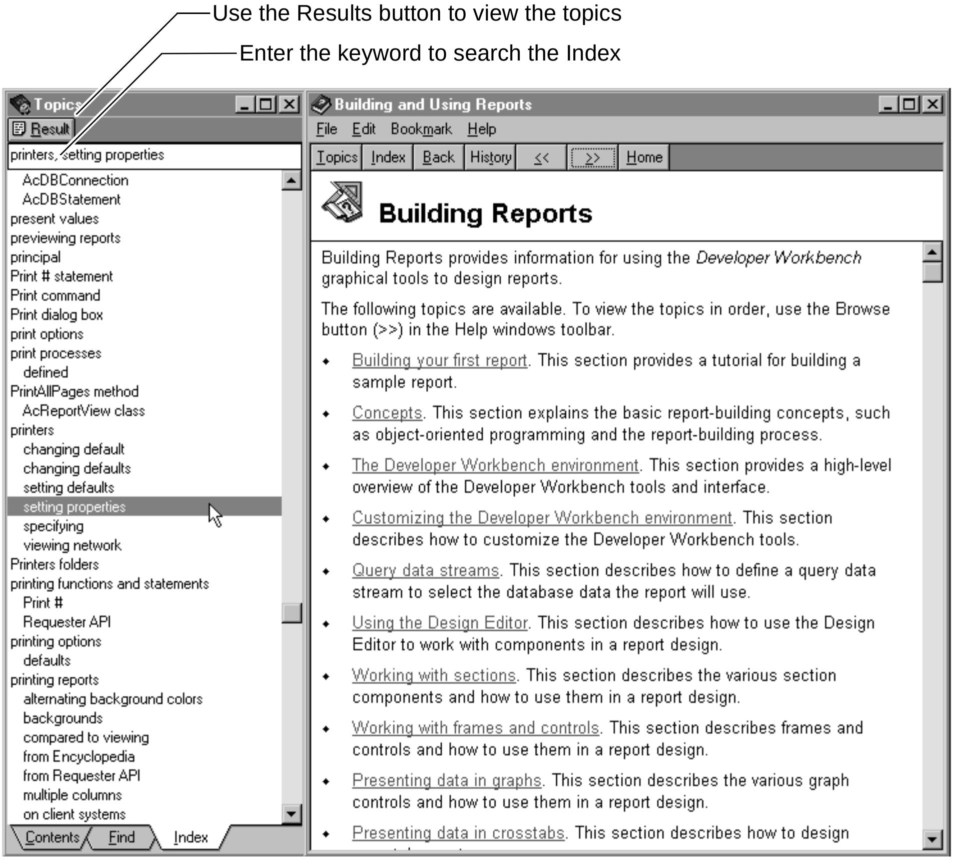
Using the Actuate online help system

Use two windows to access and view information in the e.Reporting Suite help system. The window on the right displays the contents of the online help topics. The window on the left displays the table of contents or the index of the online help system.

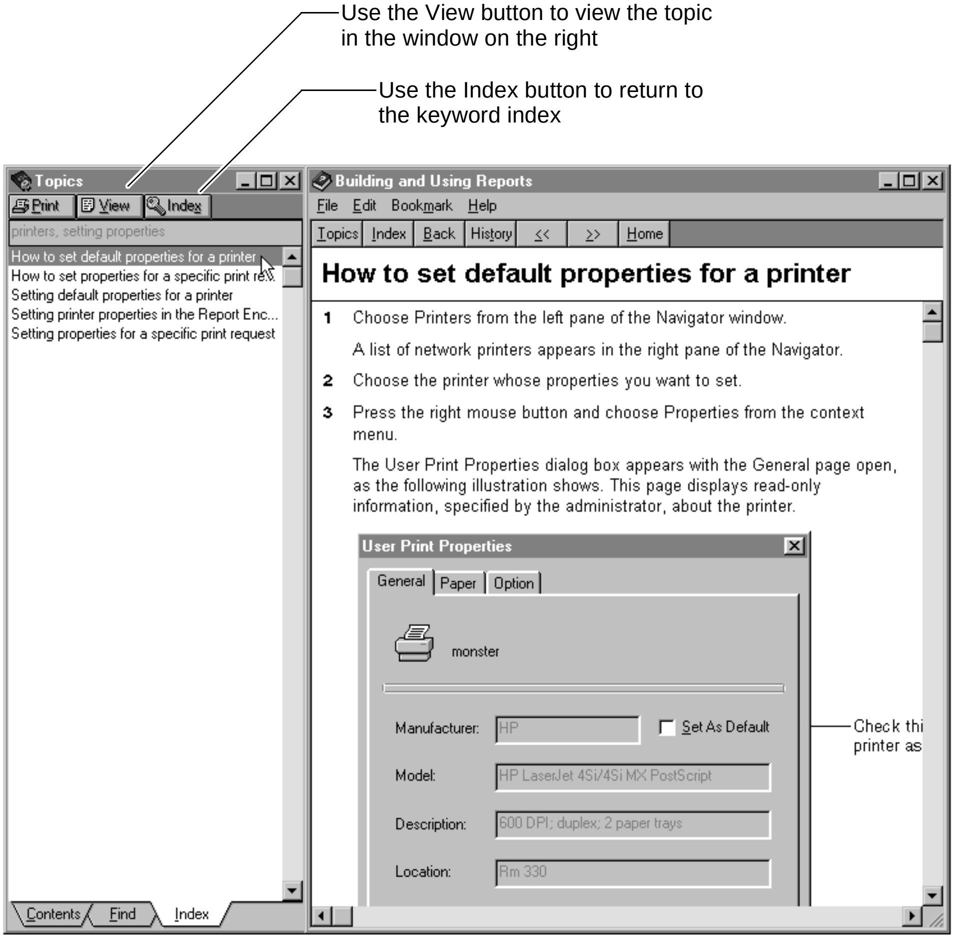


The tabs at the bottom of the left window access different views. Use these tabs to switch views among the Table of Contents, Find, and Index. The buttons at the top of the window change according to the tab you select at the bottom.

The following illustrations show an example of the Index and the result of an Index search.

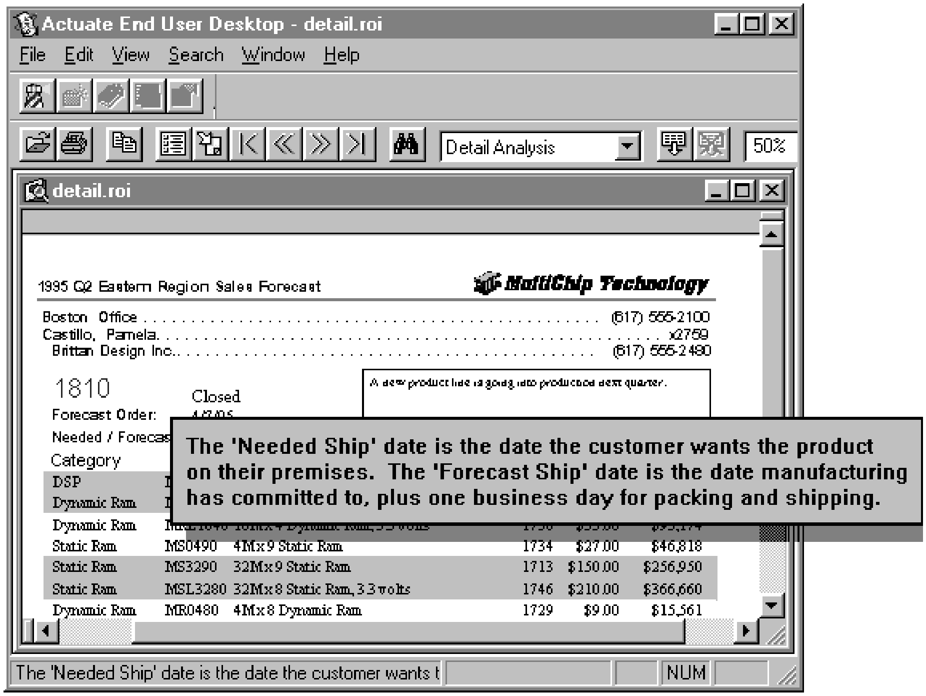


The following illustration shows the result of the search as it appears in the window on the left. To view the topic in the right window double-click the topic from the list. The topic displays in the window on the right.



Using report-specific online help

During the design phase, report developers have the option to include report-specific online help. For example, the report developer can add comments to give further detail about specific report objects or to explain how calculations were created.



For detailed information about report-specific online help see Chapter 3, "Viewing a report from the desktop Navigator," in *Using e.Reports*.

Typographical conventions

The following table describes the typographical conventions.

Item	Convention	Example
Code examples	Sans serif	Dim As String
File names	All uppercase letters	DETAIL.ROI
Key combination	A + sign between the keys means to press both keys at the same time	Ctr+Shift
Menu items	Capitalized. No bold	File

Item	Convention	Example
Submenu items	Separated from main menu item with small arrow	File→New
User input or user response	Enclosed in quotation marks	“M*16*”

Syntax conventions

The following table describes the symbols used to present the syntax of Actuate Basic language elements.

Symbol	Description	Example
[]	Optional item	[Alias<alias name>]
<>	Argument you must supply	<expression to format>
{}	Groups two or more mutually exclusive options or arguments	{While | Until}
|	Separates mutually exclusive options or arguments in a group	Exit {Do | For | Function | Sub}

Chapter

1

Understanding the Administrator Desktop

This chapter contains the following topics:

- Overview of administration tasks
- Starting the Administrator Desktop
- Connecting to the Report Encyclopedia
- Understanding the Administrator window

Overview of administration tasks

You can use the Administrator Desktop to manage Report Encyclopedias from any node on your network. Typical administration tasks include:

- Adding, modifying, and deleting Encyclopedia users
- Defining the operations that users, or groups of users, can perform on Encyclopedia items
- Creating and maintaining lists of users to be informed when specified events take place
- Configuring the printers available to the report server
- Configuring and maintaining auto-archive rules for Report Encyclopedia files
- Configuring and maintaining the optional Archive driver and archive software if it is installed
- Managing the processes that perform report server functions
- Managing Actuate ReportCast channels for users with web access

If you use the Advanced e.Reporting Server, other tasks might include:

- Maintaining open server reports, including:
  - Creating open server file types to run open server reports
  - Importing open server reports and assigning parameter values to the reports as needed
  - Maintaining the open server drivers and third party report generation software
- Configuring the Report Encyclopedia for Actuate reports that use page security, including:
  - Configuring the Report Encyclopedia ReportCast URL prefix setting
  - Giving roles and users secure read privilege on reports using page security
  - Installing and configuring the Report Server Security Extension (RSSE) application if needed

ReportCast channel administration is performed using a web browser. For more information about ReportCast channel administration, see Chapter 6, "Administering the Report Encyclopedia in the web environment."

Some administrative tasks must be performed in the UNIX or Windows environment on the report server host computer. For more information about these tasks, see the *Actuate e.Reporting Server Guide*.

You can create schedules within the range January 1, 1980 through December 31, 2036, inclusive.

Starting the Administrator Desktop

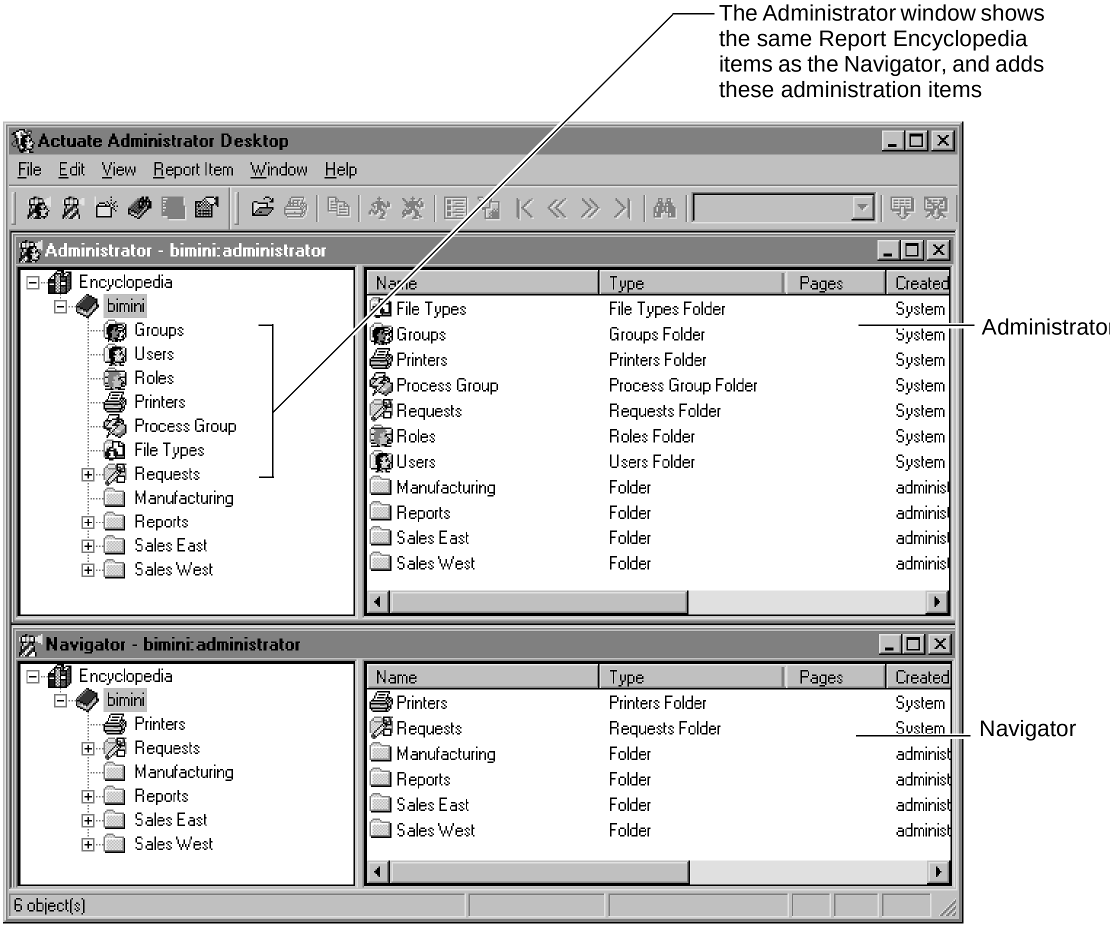
To start the Administrator Desktop, first ensure that your client system is connected to a server running the Actuate e.Reporting Server. Then, double-click the icon or select Actuate→Administrator Desktop from the Start menu.

Connecting to the Report Encyclopedia

To connect to and explore a Report Encyclopedia, you use the Navigator or the Administrator from the Administrator Desktop. You can also use a web browser if the Encyclopedia is accessible from a web server that uses the Actuate ReportCast. To perform most administration tasks, connect to the Report Encyclopedia with the Administrator and log on as administrator or as a user with the administrator role. For information about the administrator user and role, see “About the administrator user and role” in Chapter 2, “Managing Report Encyclopedia security.” To manage ReportCast channels, you must use a web browser to connect to the Report Encyclopedia. For more information about managing ReportCast channels, see Chapter 6, “Administering the Report Encyclopedia in the web environment.”

The Administrator includes all the functionality of the Navigator, and adds the administrative functions. The following illustration shows the same Report

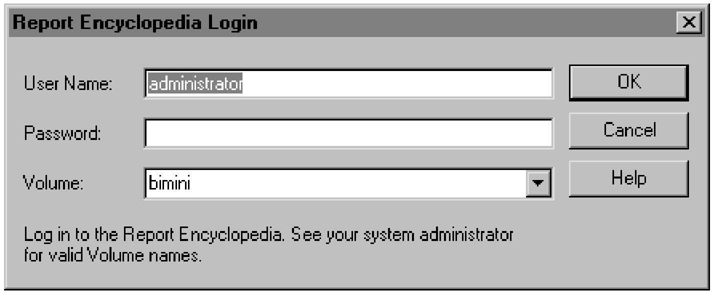
Encyclopedia as it appears in the Administrator window and the Navigator window.



How to connect to a Report Encyclopedia with the Administrator

1 Choose File→Administrator or the Administrator toolbar button.

The Report Encyclopedia Login dialog box appears.



2 For the user name, type:

administrator

3 If you are using the product for the first time, leave the password blank.

4 Type the volume name you assigned to the report server.

You can identify the Report Encyclopedia in any of the following ways:

- Type its name, the name of the machine running the report server.
- Choose its name from the list of recently accessed Encyclopedias.
- Type the IP address that was assigned to the Encyclopedia during installation.

If you do not enter a volume name, the Administrator Desktop uses the name of Administrator Desktop client machine as the volume.

With the Administrator, you can log on to only one volume at a time. To log on to multiple volumes, open multiple Administrator windows. Each Administrator window handles one connection to a Report Encyclopedia.

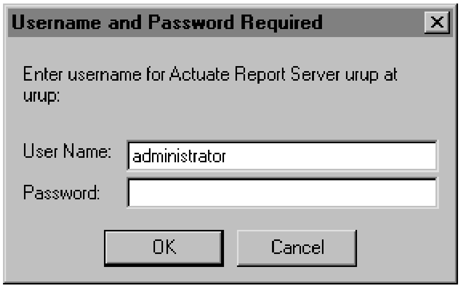
How to connect to a Report Encyclopedia with a web browser

1 Start your web browser and enter the URL for the web server and Encyclopedia.

For example, using the web server on Borneo to log on to the Encyclopedia on the machine Kauai enter:

http://borneo/acweb/kauai

2 The Report Encyclopedia Login dialog box appears.



If the Encyclopedia has an anonymous user, you do not see this dialog. To log on as another user, select an Encyclopedia item that has only visible privilege for the anonymous user. For more information about the visible privilege, see “Types of privileges” in Chapter 2, “Managing Report Encyclopedia security.”

3 For the user name, type:

administrator

4 Type the administrator password and choose OK. If you are using the product for the first time, leave the password blank.

With a web browser, you can log on to only one volume at a time. To log on to multiple volumes, open multiple web browser windows. Each web browser window handles one connection to a Report Encyclopedia.

Solving login problems as Administrator

When your login information is verified, the Administrator window appears. If you get the message “Log in Failed:”

1 Confirm that you are using the correct volume information. The volume is the name of the machine running the report server.

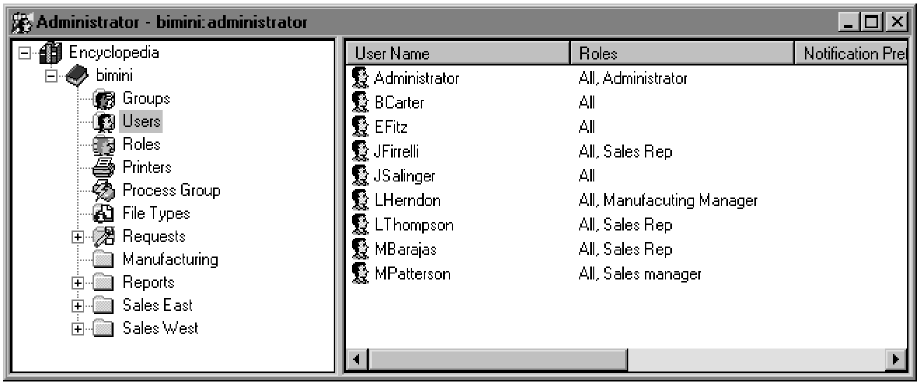
2 Confirm that the report server and the server on which it is installed are running. The server or software not running is the most frequent problem you will encounter.

3 Confirm that your computer has network access to the report server and the server on which it is installed.

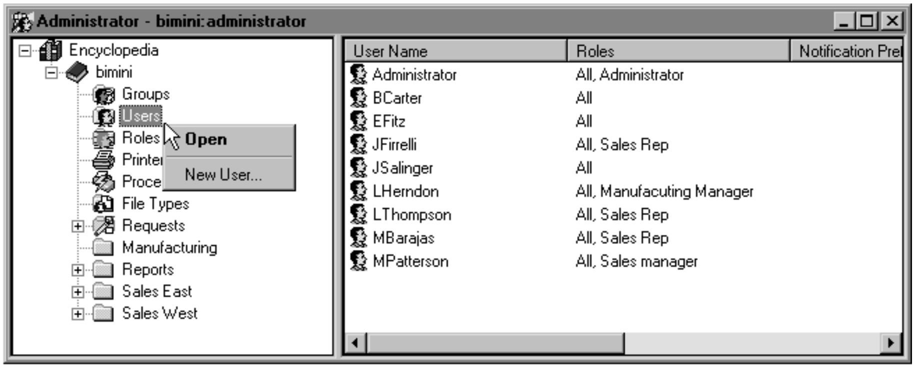
Understanding the Administrator window

When you log on as administrator using the Administrator window, the left pane shows a hierarchical representation of the Report Encyclopedia and its administration items, which are maintained in administration databases.

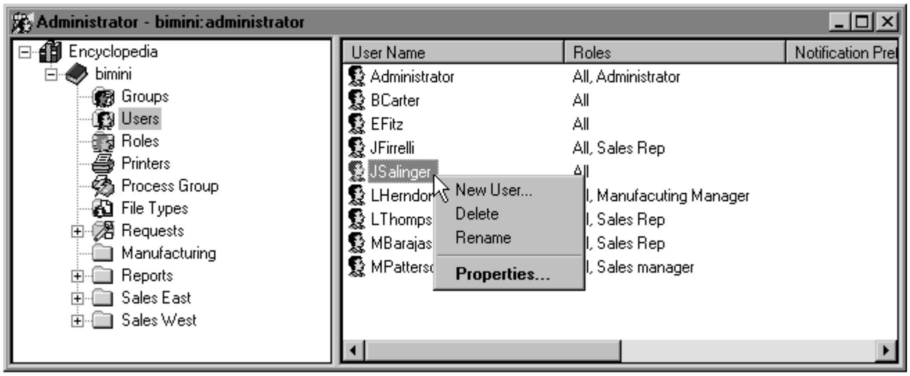
When you select an item in the left pane, details about that item appear in the right pane. For instance, when you click on the Users administration item in the left pane, a list of existing users appears in the right pane.



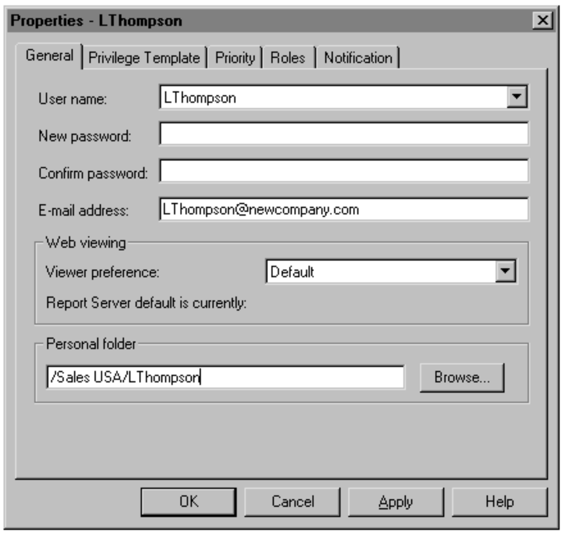
Use the right mouse button to access the context menu for each administration item. For example, the context menu for the administration item, Users, displays the administration task New User, which you choose to add new Report Encyclopedia users.



The context menu for individual users shows administration tasks associated with users such as Delete and Rename.



The Properties context menu provides information about specific users. For more information about adding users and properties, see "Managing users, privileges, and roles," in Chapter 2, "Managing Report Encyclopedia security."



Chapter

2

Managing Report Encyclopedia security

This chapter contains the following topics:

- About Report Encyclopedia security
- Managing users, privileges, and roles
- Creating notification groups

About Report Encyclopedia security

An administrator controls access to a Report Encyclopedia by creating users and assigning passwords. The security of the data in the Report Encyclopedia is based on the granting of privileges to users. Privileges indicate the operations that users can perform on folders and report items in the Encyclopedia.

If you have installed the Advanced e.Reporting Server, you have access to these two security features:

- Actuate report page security. With page security, report developers create a single Actuate report that contains restrictions on the viewable pages based on the user ID or role. For information about page security, see "About Actuate report page security," later in this chapter.
- Report Server Security Extension (RSSE). Using the RSSE, developers can create applications that enhance the existing report server security model. For information about the RSSE and about the example RSSE application that ships with the report encyclopedia, see Chapter 5, "Report Encyclopedia utilities," in the *Actuate e.Reporting Server Guide*.

About users and passwords

To gain access to an Encyclopedia, each user must provide a user name. Administrators can improve the security of the data in the Encyclopedia by requiring users to enter passwords. As an administrator, you can require a password from a user by setting a password when you create the user's account or by modifying the account and adding a password. Once you do so, that user must enter the password correctly at each login attempt; otherwise access to the Encyclopedia is denied. Users can change only their own password once they are logged in.

There are two special Report Encyclopedia user accounts:

- Administrator—the Encyclopedia administrator. For more information about this user, see "About the administrator user and role," later in this chapter.
- Anonymous—the Encyclopedia user that lets users with web browsers access the Encyclopedia without entering a password. For more information about this user, see "About the anonymous user," later in this chapter.

About privileges

A privilege is a relationship between a user and an Encyclopedia item that indicates whether the user can perform certain operations on the item. For instance, the read privilege indicates that the user can view or print the item, or see its contents if the item is a folder. Privileges are similar to the file and folder attributes that are used in operating systems such as Windows and UNIX. For example, in Windows, you can assign the Read-only attribute to a file or folder to allow users to view but not change a file or folder.

In the Report Encyclopedia, users without the appropriate privilege are not allowed to perform the associated actions on the item. For example, users who do not have write and delete privilege on a report document cannot delete it. Any attempt to delete it is denied, and a message appears indicating the missing privilege.

All users can read from the root directory, Report Encyclopedia home directory.

An Encyclopedia administrator has full privileges to all objects in the Encyclopedia. For more information, see “About the administrator user and role,” later in this chapter.

Types of privileges

The following table lists the privileges that can be applied to items in the Encyclopedia. Each row describes a single privilege and indicates what that privilege means for different item types.

Privilege	Item type	Meaning
Visible	Folders	Users can see a folder and its contents. Read or visible privilege is required for users to see a folder and its contents.
	All other types	Users can see the object and properties but they cannot view or print the object’s contents. If the object is a report, users cannot run a report. If a user is accessing the Report Encyclopedia with a web browser, any attempt at viewing contents brings up a web page.

Privilege	Item type	Meaning
Secure Read	Report document	Users can create requests to print from the report server. Users that also have read or secure read privilege on the associated report executable can: ■ only view and print the report document in DHTML format from a web browser ■ generate XML or PDF output from a report Users cannot copy the object from the Report Encyclopedia. With the Advanced e.Reporting Server, Actuate page security is enabled. With the standard e.Reporting Server, Actuate page security is disabled and reports using page security are not readable.
	Report executable, report parameter values	Users can only view the associated report document in DHTML format using a web browser, or generate XML or PDF output from the report if they also have read or secure read privilege on the report document. Users cannot copy the object from the Report Encyclopedia.
	All other types	Users cannot copy the object from the Report Encyclopedia. Users can examine the item's properties. If the item is a folder, users can see what it contains.

Privilege	Item type	Meaning
Read	Folder	Users can see a folder and its contents. Read or visible privilege is required for users to see a folder and its contents.
	Report document	Users can view and print the report document if they also have read privilege on the associated report executable.
	Report parameter values	Users can schedule a request for the associated report executable if they also have read and execute privilege on the report executable. See execute privilege on report executables for requirements when running reports.
	Report executable	Users can run the report executable if they also have execute privilege. See execute privilege on report executables for requirements when running reports. If a user has only read privilege on a report executable, the user cannot see it.
	All other types	Users can examine the item's properties and view or print the item's contents.
Write	Folder	Users can create new items in the folder, copy or move items into it, or rename it. Users must also have read privilege on the folder or it is not visible. Users can move the folder to a different containing folder if they have read and write privileges on the destination folder.
	All other types	Users can rename the item. Users must also have read privilege on the item or it is not visible. Users can move the item to a different folder if they have read and write privileges on the destination folder.
Delete	Folder	Users can delete the folder if they have write and delete privilege on all the items in the folder and the folder itself. Users must also have read or visible privilege on the folder or it is not visible.
	All other types	Users can delete the item if they have write and delete privileges. Users must also have read or visible privilege on the item or it is not visible.

Privilege	Item type	Meaning
Execute	Report executable	Users can schedule a new request for the report executable. Users must also have read privilege on the report executable. In addition, users must have read and write privileges on: ■ the folder where the generated report document is stored ■ an existing report document if the report is versioned or replaced by the new report document
	Report document	Users can schedule a request for the associated report executable they also have read and execute privilege on the report executable. See execute privilege for report executable for other requirements when running a report.
Grant	All types	Users can grant any privilege on the item, including the grant privilege, to other users and roles. Users must also have read or visible privilege on the item or it is not visible. Users with grant privilege on an object see all roles and users in the privilege tab of the object's Properties dialog box.

Secure read privilege and the e.Reporting Server

Secure read on an .ROI for a user means that the user can only view or print the .ROI in DHTML format or generate XML or PDF output from the report using a web browser and the Actuate ReportCast. The .ROI cannot be downloaded, bundled, or e-mailed, or be viewed in native format using the Actuate LRX, or other Actuate application such as the Viewer or End User Desktop. Viewing the report in the native format requires the downloading of the report to a cache on the users machine.

Setting secure read privilege on a report executable .ROX means that the report executable can only be used when viewing or printing an .ROI as a DHTML report from a web browser. The .ROX cannot be downloaded by a client program or used in viewing reports using the Actuate LRX, since the LRX downloads the .ROX when viewing an ROI. Users can create requests to print from the report server.

As administrator, you can also configure the ability of a user's browser to cache of Actuate Report DHTML pages on the user's local system. For information about Report Encyclopedia HTML caching options, see “Setting web browser page caching options” in Chapter 6, “Administering the Report Encyclopedia in the web environment.”

If a user has secure read privilege on a 3.x or earlier Actuate report document, .ROI, the user cannot view the report. The user must have read privilege to view a 3.x or earlier report. The report can be viewed only with an Actuate client program such as the Actuate Viewer or LRX. The report cannot be read as a DHTML report.

If the Actuate report uses page security, setting a user’s privilege to secure read on the report document enables the report’s page security features. Page security is available only with the Advanced e.Reporting Server. For information about report page security see “About Actuate report page security,” later in this chapter.

Setting secure read privilege on an object restricts users from copying the object from the Server. If a user has secure read privilege on an object in the Report Encyclopedia, the user cannot download that object from the Report Encyclopedia. Any of the user’s applications that require a download to view the object cannot view the object. For example, a user with secure read on HTML documents or text documents cannot view those documents using a web browser since a web browser downloads the files when viewing them.

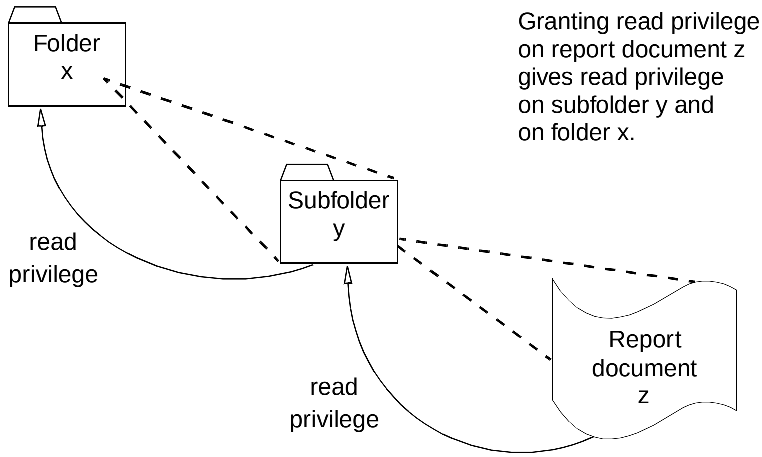
Propagation of privileges

Granting a privilege on an item automatically grants read privilege for any enclosing folders. For example, if you grant read privilege to a user for an item in subfolder y of folder x, you grant read privilege on folder x as well as subfolder y and the item itself, as shown in the following illustration. If this automatic granting of read privilege did not take place, granting a user read privilege on an item would not be sufficient to allow the user to read the item. You would have to grant read privileges for all levels of enclosing folders one at a time.

The previous description applies even if the user giving the read privilege doesn’t have appropriate privileges on some enclosing folders. The privileges on the enclosing folders will be changed even if the user does not have grant privilege on those folders.

When you revoke a user’s privilege on an item, however, the user’s read privileges on enclosing folders are not revoked automatically, because this would prevent the user from accessing any item in the folder hierarchy. Therefore, you should revoke privileges for containing folders manually if it is appropriate.

When a new version of an existing object is created, it inherits the owner and privileges of the previous version.



The system’s default privileges

When a user creates an item, some privileges are automatically applied to it. As the default privilege settings, the Administrator Desktop assigns the full set of privileges to the creator of the item and the administrator, and no privileges to other users. By modifying the user’s privilege template, administrators and users can change the default privileges assigned to objects created by a user. Users can modify only their own privilege template.

Personal folder privileges

When an administrator specifies a personal folder for an Encyclopedia user, the user is automatically granted all privileges for the folder. If the administrator or user changes the personal folder setting, the previous personal folder’s privilege settings do not change. For more information about specifying a personal folder, see “How to add a user,” later in this chapter.

Users can modify only their own personal folder setting. When users’ change their own personal folder setting to an existing folder, the permissions on the folder do not change. If users change their personal folder to a folder that does not exist, the report server tries to create the folder.

What is a privilege template?

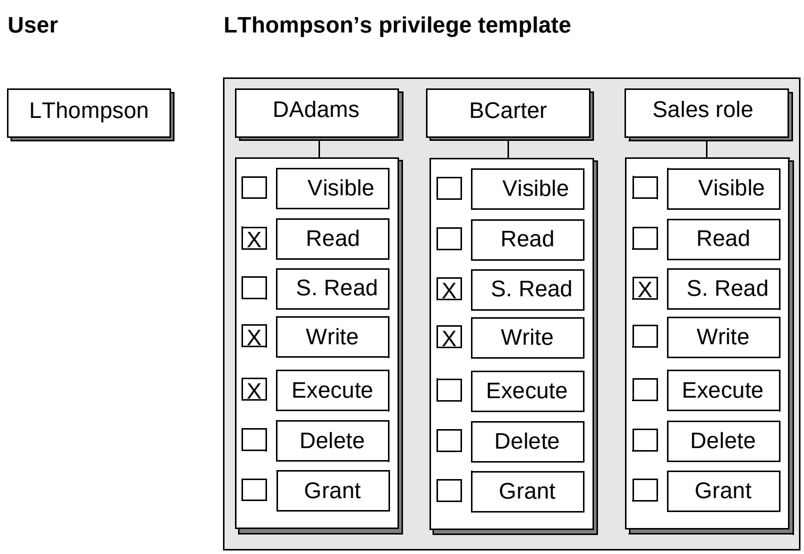
Every user has a privilege template that specifies the privileges that other users have to items he or she creates. Privilege templates are used to override the default privileges. Administrators can modify any user’s privilege template. Users can modify their own privilege template.

Administrators change a privilege template when they create or edit a user's account. For more information about how to set up a user account, see "Managing users, privileges, and roles," later in this chapter.

Why modify the privilege template?

Administrators typically modify the default privilege template to make it easy for users to create new items and automatically grant privileges on those items to other users. For example, if UserA wants UserB to always have read and write privileges to items created by UserA, change UserB's privileges to UserA's items accordingly. For more information about how to modify a user's privilege template, see "How to add a user," later in this chapter.

The following illustration shows an example of a privilege template for a user, LThompson. In the example, the privilege template assigns read, write, and execute privileges to user DAdams, secure read and write privileges to user BCarter, and the secure read privilege to users who are assigned to the Sales role. These privileges apply to all items created by LThompson. All other users have no privileges for items created by LThompson.



When LThompson creates a folder, adds an item to the Report Encyclopedia, or generates a report document, privileges are automatically assigned to DAdams, BCarter, and users assigned to the Sales role.

Privileges on system folders

The report server automatically creates these Encyclopedia system folders in the Encyclopedia home (root) folder:

- Groups
- Users
- Roles
- Printers
- Process groups
- Requests
- File Types

The following describe the privileges on the Report Encyclopedia's home folder:

- An administrator can add or remove only the write and grant privilege for users and roles on the home folder. Other privileges for users and roles on the Encyclopedia home folder cannot be changed.
- For objects such as reports, or other folders in the Encyclopedia home folder, users with grant privileges on the object can change the privilege on the object.
- For a user to create folders in the Report Encyclopedia home folder, the administrator must grant write privilege on the Report Encyclopedia home folder to the user, or a role that contains the user.

  As administrator, you can create a folder in the Report Encyclopedia home folder and assign grant privilege to specific users or roles on the newly created folder. This gives specific users the ability to create folders within the newly created folder, but not in the home folder.

By default, users have read privileges for Printers and Requests subfolders. Within the Requests subfolder, however, users can only see:

- Active and scheduled requests they submitted.
- Completed requests they submitted.
- Completed requests for which they are in an associated notification group.

In the Requests folder:

- Only the submitter of a request or an administrator can delete a request.
- Only an administrator and the submitter of a request can delete and get request information for other users. Also, the user can get or delete the request information that is associated with their user name.
- Only an administrator or submitter of a request can delete a request.
- Anyone can get or delete the request information that is associated with their user name.

- Only an administrator and the submitter of a request can delete and get request information for other users.
- Only an administrator and the owner of an object can look at the request information for the object.

In the Users folder:

- Only an administrator can add and delete users.
- Only an administrator can grant or revoke the role to or from other users and roles and delete the role.
- Only an administrator can change a specific user's password.
- Only an administrator can change a user's name.

In the Printers folder:

- Only an administrator can add, delete, or modify servers, printers, and global administration parameters.
- Only an administrator and the user that is affected can change a user's printer settings and user preferences.

In the File Types folder:

- Only an administrator can view the File Types folder.
- Only an administrator can define and remove open server file type definitions.
- Running and printing open server file using open server drivers is available only with the Advanced e.Reporting Server.

For information about open server functionality, see "About Actuate open server," in Chapter 4, "Managing report server resources."

About roles

A role is a name for a group of privilege levels. Roles simplify the task of ensuring that the same privileges are granted to a group of users. Roles also help you manage privilege sets as your environment changes. There is a special role, called the All role, that contains all the Report Encyclopedia users. For information about the All role, see "About the All role," later in this chapter.

Using roles to relate groups of privileges and groups of users reduces the complexity of administration tasks in two ways:

- Administrators can group privileges for many items into a single role and assign that role to all users who need those privileges. Modifying the privilege set associated with the role automatically modifies the privileges of all users who are assigned that role.

- Administrators can assign one or more parents to a role, causing the role to inherit all the privileges of its parents. Modifying the privilege set of the parent automatically modifies the privileges of all inheriting roles. The final set of privileges for a role is the union of all privileges assigned to its parents, plus the privileges assigned directly to it.

When an administrator removes a privilege from a role, it must be removed from the role where the privilege was granted. The privilege cannot be removed from a role that inherited the privilege.

Users can use the roles an administrator creates to assign privileges for folders or files they create. Users, however, cannot create or modify the definition of roles. They also cannot determine which users an administrator has included in the different roles. Administrators should therefore provide users with a list of roles and the users included in each role.

Strategies for defining roles

To make effective use of the flexibility of roles, administrators should decide on a strategy for employing them. Two general types of strategies exist:

- A flat strategy that simply allocates privileges in groups
- A hierarchical strategy that depends on inheritance from one role to another

The flat strategy is used when groups have distinct functions and require access to separate sets of reports. The hierarchical strategy is used when groups have functions that overlap and access to reports is based on a hierarchical scheme. See the next section for examples.

In theory it is possible to mix these two strategies, but in practice such mixtures are difficult to understand and maintain, and should be avoided.

Defining roles: an example

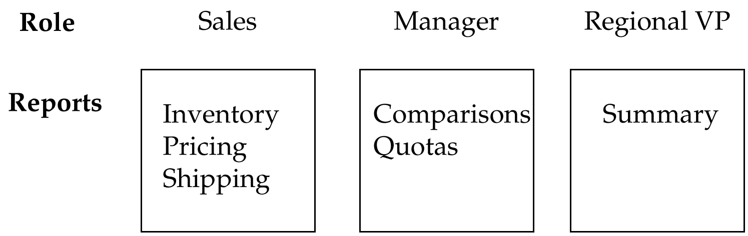
To compare these two strategies, suppose that your organization has sales offices in several cities. Each office has a number of sales representatives. These representatives report to managers, each of whom manages two or more offices. The executive in charge of the region is the Regional VP of Sales. Sales people need access to information about current inventory levels, prices, and shipping schedules. Managers need this information, plus access to comparisons among sales offices and measurements of sales against quotas. The Regional VP needs summary reports for the region.

The flat strategy

With the flat strategy, administrators create:

- One role that allows access to inventory, pricing, and shipping information

- One role that allows access to office comparisons and quota measurements
- One role that allows access to regional summary reports

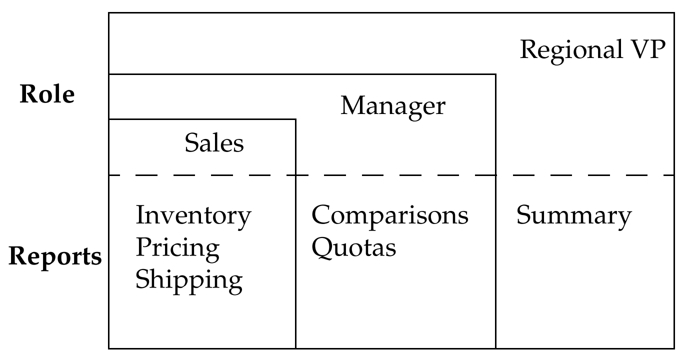


Sales people are assigned only the first of these roles; the first two roles are assigned to managers. All three roles are assigned to the Regional VP. The major advantage of this strategy is the simplicity of creating and tracking privilege sets. However, it often requires the assignment of multiple roles to individual users, as with the managers and Regional VP in this example.

The hierarchical strategy

With the hierarchical strategy, administrators create:

- One role that allows access to inventory, pricing, and shipping information
- One role in which the parent is the first role and also allows access to office comparisons and quota measurements
- one role in which the parent is the second role and also allows access to regional summary reports



Sales people are assigned the first role, as in the flat strategy, while managers are assigned the second, inheriting role, and the Regional VP is assigned to the third role. The major advantage of this strategy is its ability to propagate changes through role inheritance, with the result that only one role needs to be assigned to most individuals. However, determining the source of a user's privilege can be more involved because of the layers of inheritance.

About the administrator user and role

The administrator user and role is special in the following ways:

- Both exist as soon as you install the report server.
- Administrators cannot delete the user or role.
- Initially, the administrator is the only user or role that can add, modify, and delete administration items, including users. As administrator, you can create new roles in which the parent is the administrator role, and the new roles have the same capabilities as their parent.

A Report Encyclopedia administrator is either the administrator user or a user that is assigned the administrator role.

Only administrators can add and delete users and roles and perform other Report Encyclopedia administrative tasks.

The administrator user has the additional property of automatic ownership of any objects belonging to a user whose account is deleted.

About the All role

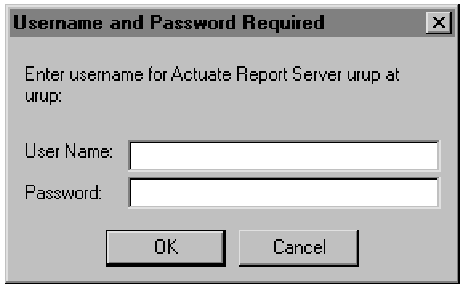
The All role is a system-created role that includes all the Report Encyclopedia users. The following describe the All role:

- It exists as soon as you install the report server.
- Administrators and users can use the All role to give all Report Encyclopedia users privileges to objects. This includes new users added after the privileges are granted on the objects.
- Administrators cannot delete the All role.
- All users are members of the All role. An administrator cannot remove a user from the All role.
- An administrator cannot use the All role as a child or parent of other roles.

About the anonymous user

As Administrator, if you create an Encyclopedia user with the name “anonymous” and leave this user’s password blank, end users with web browsers can access the Encyclopedia without entering a password.

If the Encyclopedia does not have an anonymous user, end users who try to access the Report Encyclopedia using a web browser must fill in this dialog before they can view the contents of the Encyclopedia.



If the Encyclopedia has the anonymous user and an end user tries to access the Report Encyclopedia using a web browser, the end user is automatically logged in as the anonymous user.

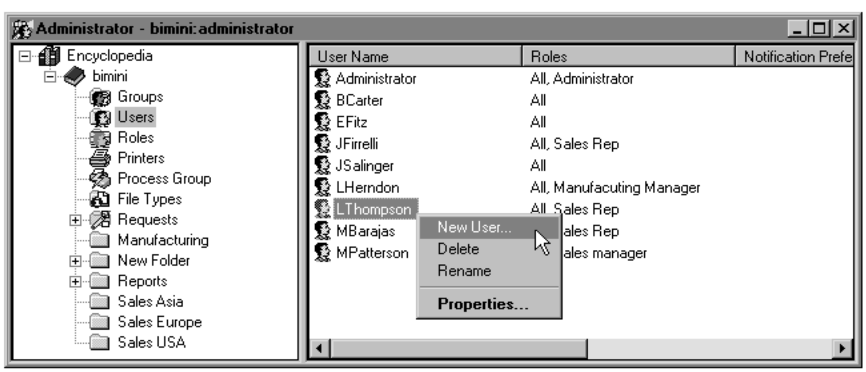
To log on as another user, select an Encyclopedia item that has only visible privilege for the anonymous user. For more information about the visible privilege, see “Types of privileges,” earlier in this chapter.

Managing users, privileges, and roles

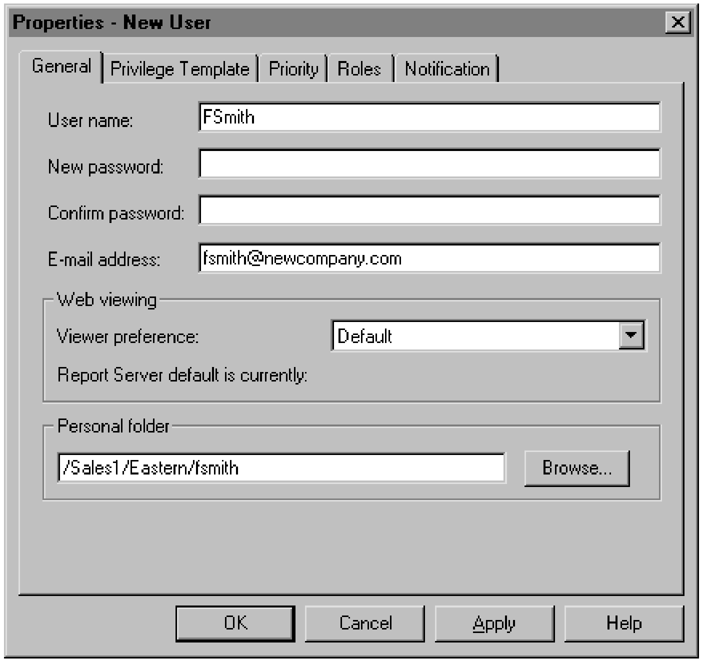
As Administrator, managing users, privileges, and roles involves planning what roles to create to meet your organizational needs and what users to assign to those roles. Once that plan is in place, assigning privileges is one means of providing security for that plan.

How to add a user

1 As Administrator, select the Users administration item in the left pane and choose New User from its context menu. You can also begin by choosing New User from the context menu of any user account in the right pane.



The Properties dialog box for a new user appears.



The Properties dialog consists of the following tabs:

- General specifies user log in information, web viewing preference, and personal folder.
- Privilege Template specifies a user's privileges.
- Priority specifies the user's maximum report request priority.
- Roles assigns the user to roles.
- Notification specifies how users are informed when requests are completed.

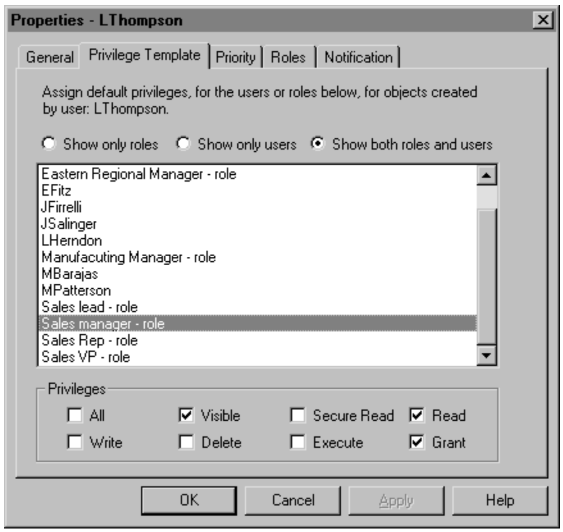
2 In the General tab, type a user name and password for this user:

- User names and passwords are strings of 0 to 256 characters. User names can include any ASCII character except the control characters; passwords cannot include control characters or spaces.
- The user name is not case sensitive. It is, however, stored in the user name database in mixed case and will always be displayed exactly as you type it during creation. If you enter the name of an existing user, the user's current settings are added to the dialog box.
- The password is not required. If you use passwords, security experts recommend passwords of at least eight characters, including mixed-case alphabetic as well as numeric characters. Passwords are case-sensitive.

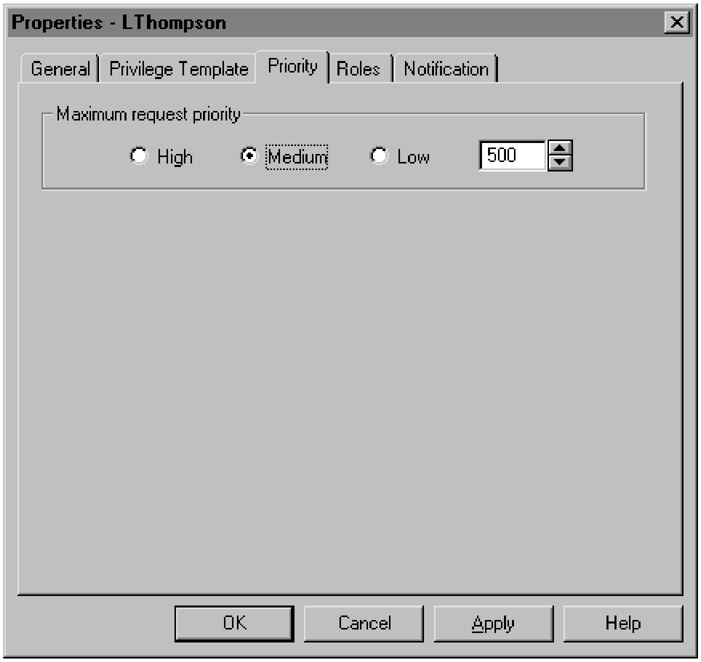
Administrators can change any user's password. Users can change their own password.

3 As administrator, you can specify a path and a folder name as a personal folder. If you specify a personal folder, the user is automatically granted all privileges for the folder.

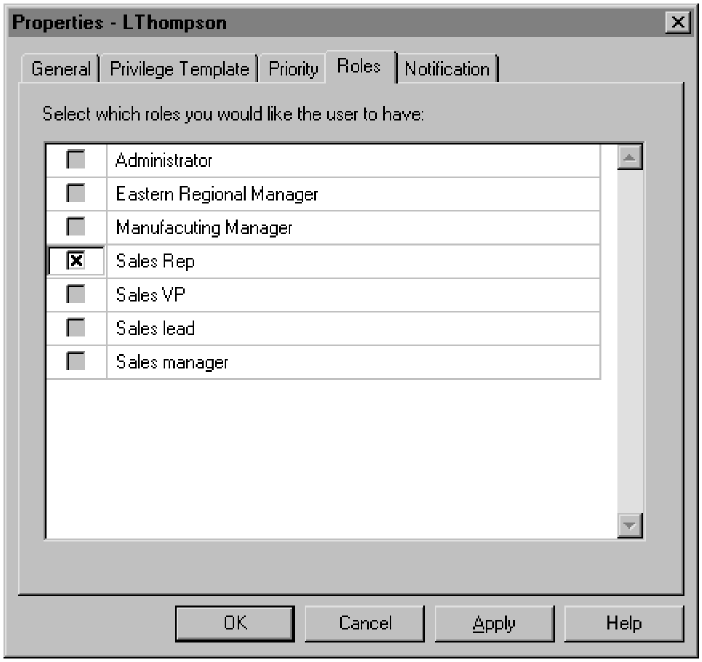
If you enter a path and folder name, the path and folder name must exist in the Report Encyclopedia before you can exit the General tab in the dialog box. If the folder does not exist, the Administrator Desktop asks if you want to create it. For more information about personal folders, see "Personal folder privileges."



4 If you want to change the user's privilege template and assign privileges to other users for objects this user creates, choose the Privilege Template tab. Set the privileges for the users. For more information about user's privilege, see "The system's default privileges," earlier in this chapter.

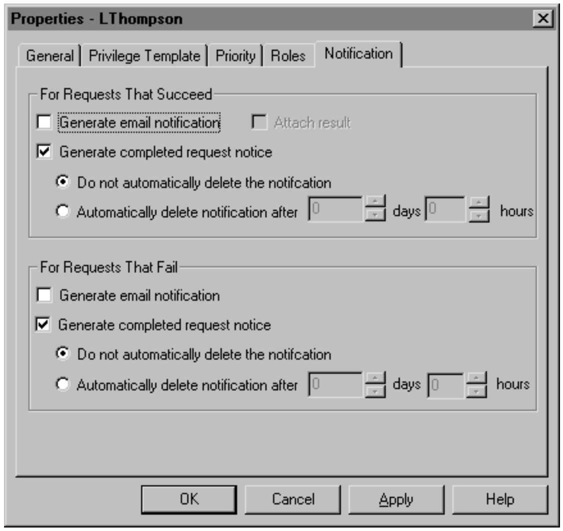


5 To set the maximum priority this user can specify for report requests, choose the Priority tab and set the user's priority level.



6 Choose the Roles tab and select the appropriate roles for this user. For more information about roles, see “About roles,” earlier in this chapter.

Choose the Notification tab and specify user’s report request notification properties. If a user can create a report request, these settings specify how the user is notified when the request is completed. The two sections in the dialog box page are for successful and unsuccessful requests.



If you select the Generate email notification option, make sure to type the appropriate e-mail address (in the General tab). You can also select Attach result to specify that the report be sent as an attachment with the e-mail. Notifications are mailed to the user when the request completes. If you select the Generate completed request notice option, users determine the completion of a report request by checking the Request/Completed folder, which holds completed request notices. You can select the notifications for successful or failed report requests and can specify when to delete completed request notices.

Selecting e-mail notification sends e-mail to the user's e-mail address. The e-mail notification contains the location of completed reports. If the user selects Attach result and has read privilege on the report, the report server attaches the report to the e-mail notification. If the user does not have read privilege, only the location of the report is included in the e-mail notice.

If the report server works with Actuate ReportCast, you can specify the location of the report in the form of a URL. For more information about specifying a URL e-mail notification, see "Setting the URL for the ReportCast web server," in Chapter 6, "Administering the Report Encyclopedia in the web environment."

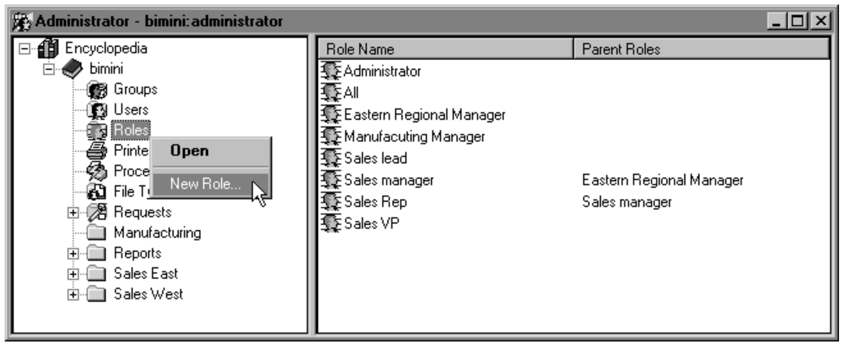
You can test notification addresses with the RSMAIL.EXE utility in the Server\Bin directory. For more information about using RSMAIL.EXE, see the *Actuate e.Reporting Server Guide*.

Users can change their own notification and e-mail address settings.

7 Choose OK to accept these settings.

How to create a role

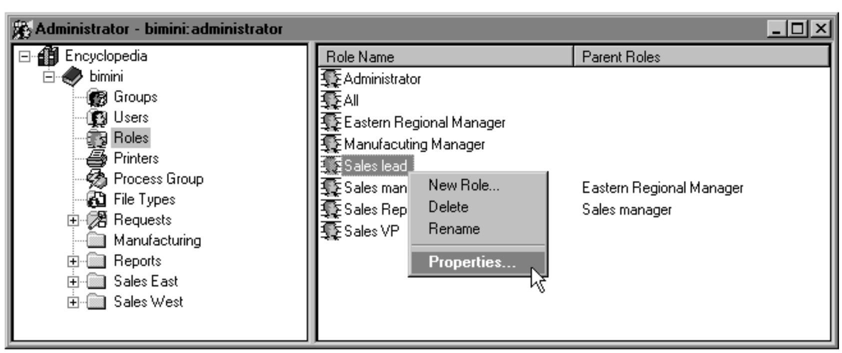
1 As administrator, select New Role from the Roles administration item's context menu in the left pane, or from the context menu of any role currently visible in the right pane.



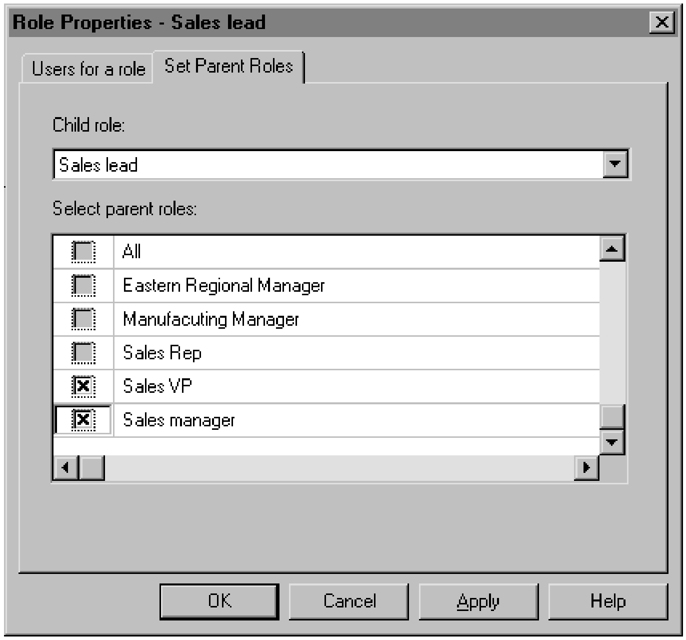
The Create a New Role dialog appears.

2 Type the name of the new role and choose OK to create the role.

The new role appears in the right pane of the Administrator window. From its context menu, continue to set up the role by setting its properties, setting a parent role if desired, and assigning the role to current users.



3 To assign a parent, select the Set Parent Roles tab. Select the target child role from the list of existing roles and select the checkbox to set its parent.



How administrators assign privileges on a report item

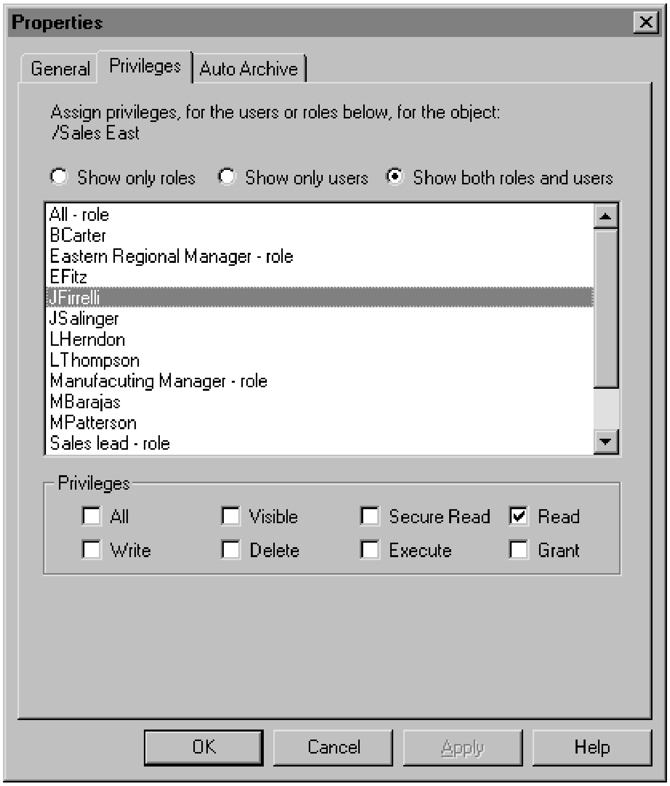
1. As administrator, select the report item in the left pane of the Administrator window.
2. Choose Properties from the context menu associated with the item.

3. In the Properties dialog box, select the Privileges tab.

Depending on the option you select, you see either roles or users, or both roles and users.

4 Select the appropriate option and assign privileges for the item to the appropriate users or roles. To set a privilege, select the associated checkbox. To assign the privilege to a user or a role, select the user or role from the list.

If a report or other non-system item is in the Encyclopedia home folder, an administrator can change the privileges on the items. Click on the Report Encyclopedia volume in the left pane to view the contents of the root folder.



5 When you have selected all the privileges you want to assign, choose OK to accept them.

How to use a role to assign privileges to users

1 For each object or folder, choose Properties from the context menu associated with the item. In the Properties dialog box select the Privileges tab and assign privileges to roles.

For instructions, see "How administrators assign privileges on a report item."

2 When you have set all the relevant privileges, assign the roles to the appropriate users. You must be an administrator to assign roles to a user.

For instructions, see "How to assign a role to a user," later in this section.

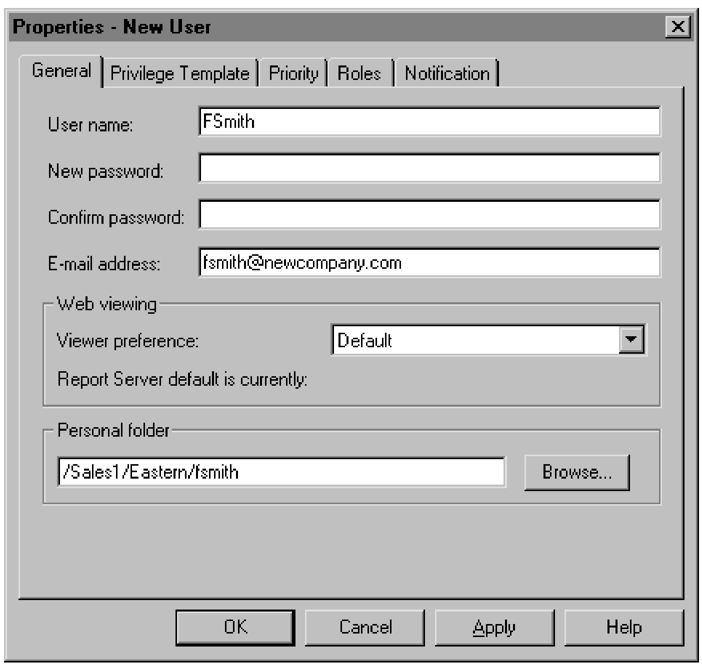
How to modify the properties of a user's account

1 As administrator, select the Users folder in the left pane of the Administrator window, select the user in the right pane, and choose Properties from the context menu.

2 In the Properties dialog box for users, select the appropriate tab and type or select the new value.

For example, to set the default privileges that apply to new items the user creates, choose the Privilege Template tab and set the privileges.

For more information about the tabs in the user's Properties dialog, see "How to add a user," earlier in this section.



3 When you have made all your modifications, choose OK to accept them.

How to delete a user's account

1 As administrator, select the user in the right pane and choose Delete from its context menu.

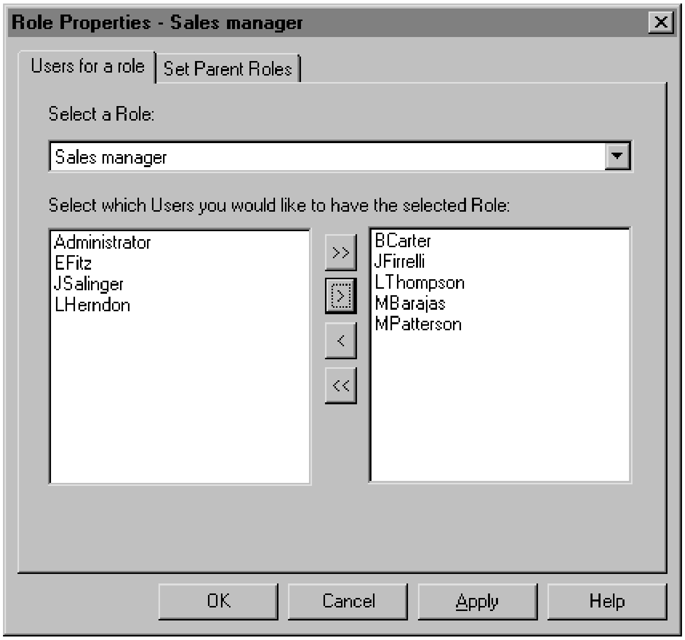
When you delete a user, the ownership of any folders or objects owned by the user is changed to administrator user.

2 Confirm the delete action when prompted.

How to assign a role to a user

1 As administrator, select the Roles folder, select the role in the right pane of the Administrator window, and choose Properties from its context menu.

In the resulting Role Properties dialog box, the list on the right shows users to whom the role is currently assigned. The list on the left shows everyone else.



2 Use the arrow buttons to move users into the appropriate list. The double arrows move all users from one list to the other; the single arrows move only the selected user.

3 Choose OK to complete the role assignment.

Creating notification groups

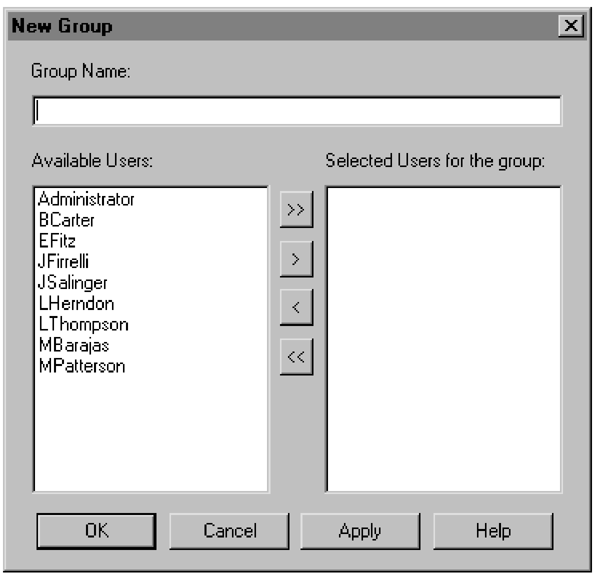
Notification groups provide a convenient way to inform sets of users that requests are completed and reports are available. When users schedule requests, they have the option of indicating a notification group. If a notification group is indicated, the report server notifies each member of the group when the request completes, using the notification method specified for each user's account.

Only administrators can create groups; users cannot create or modify groups.

How to add users to a notification group

1 As administrator, select the Groups folder and choose New Group from its context menu, or select the Report Encyclopedia volume in the left pane and choose Security→Groups.

The New Group dialog box appears.



2 Type the name of the group or choose an existing group name from the list.

3 Use the arrow buttons to add users to the group or remove them from it. The double arrows move all users from one list to the other; the single arrows move only the selected user.

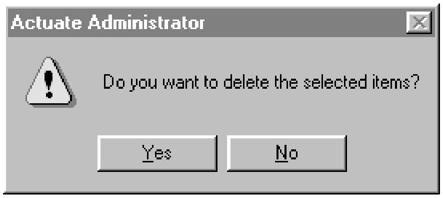
4 When your group is complete, choose OK.

How to rename or delete a notification group

- To rename a group as administrator, select Rename from its context menu and type the new name over the selected text, then press Enter or click anywhere outside the text box.

  When you change the name of a group, its membership remains the same. If there are outstanding reports for the old group name, they will be delivered.

- To delete a group, select Delete from its context menu in the right pane and confirm your intention to delete the group when prompted.



  Notifications for a deleted group name are not delivered.

About Actuate report page security

Actuate report page security is available with the Advanced e.Reporting Server. With report page security, Actuate report developers create a report document with security rules that determine which pages a user can view. Using the Actuate standard e.Reporting Server, the page security features of a report are disabled. With the standard e.Reporting Server, users are notified that the Advanced e.Reporting Server is required to read a report that uses page security.

Using report page security, the report developer creates a report that defines a list of users and roles associated with the report's groups and sections. In the report design, the list can be in the form of a static list or an expression that generates a list based on information in the report. This list is used to generate the Access Control List (ACL) for each report page. For more information about creating reports using page security, see Chapter 16, "Designing reports with page security," in *Developing Advanced e.Reports*.

When the report is in the Report Encyclopedia and is viewed, the View process retrieves information about the user from the Report Encyclopedia. This information is then compared against the ACL for each page in the report to determine which pages the user can view.

Using the Report Server Security Extension (RSSE) and page security, developers can create an RSSE application that associates security IDs in an ACL to one or more users or roles. For example, a report developer can create an Actuate report that contains Demo as a security ID in some of the report's ACLs. Using an RSSE application, Demo does not have to be a Report Encyclopedia user or role. The RSSE application can take the security ID Demo and map it to a set of Report Encyclopedia users. When a user associated with Demo views the report, that user can see the report pages where the page's ACL contains Demo.

Enabling report page security

To use page security in Actuate reports, administrators set the following privileges for a user or role:

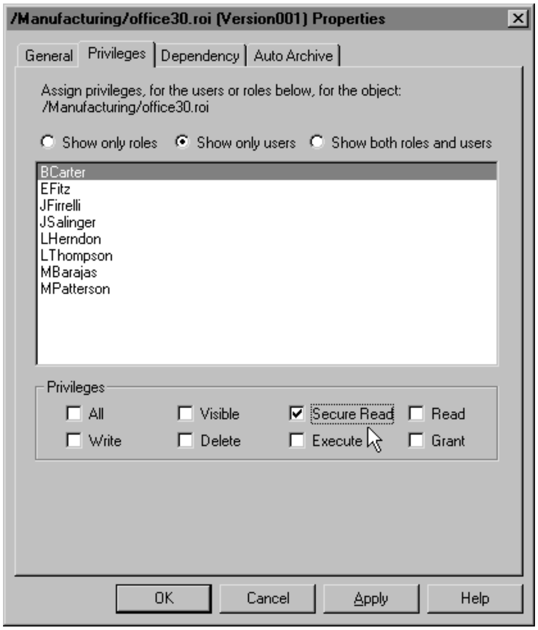
- The report executable .ROX requires read or secure read privileges. The .ROX does not need execute privileges.
- The report document .ROI requires secure read privilege.

  If the report document has read privilege, page security is disabled and users with read privilege on the report document can view the entire report.

For more information about the secure read privilege, see “Secure read privilege and the e.Reporting Server,” earlier in this chapter.

How to enable page security in the Report Encyclopedia

To enable page security on an Actuate report document, apply the secure read privilege on the report document. The user must also have read or secure read privilege on the report executable .ROX.



How to disable page security in the Report Encyclopedia

To disable page security on a report, apply the read privilege to a report.

Any user with read privilege can read the entire report, even if the report contains page security.

Chapter

3

Managing printers and print requests

This chapter contains the following topics:

- About report server printers
- About printer properties
- Setting up printers
- Managing print requests as administrator

About report server printers

The report server recognizes and supports network printers set up for your Windows or UNIX server. You do not have to install printers specifically for the report server. You do, however, customize printer settings for each printer available to the report server.

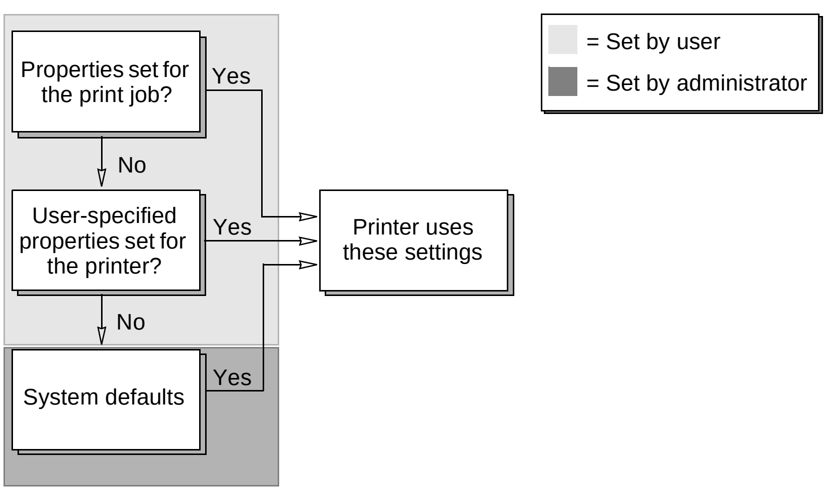
As an administrator, you need to prepare the network printers so that users can use them to print reports in the Report Encyclopedia. You typically perform this task only once, after the report server is installed. Preparing the network printers entails setting the system-level properties for each printer. Once these are set, users can either use the system-level properties, or change them when they submit a print request.

About printer properties

When a user prints a report, the network printer gets its printing options from three sources, in the following order:

1. The printer properties the user sets for the print job.
2. The printer properties the user sets as the default settings for a specific printer.
3. The printer's system-level properties that the administrator sets.

The following diagram illustrates how a printer determines what printer properties to use for a print job.



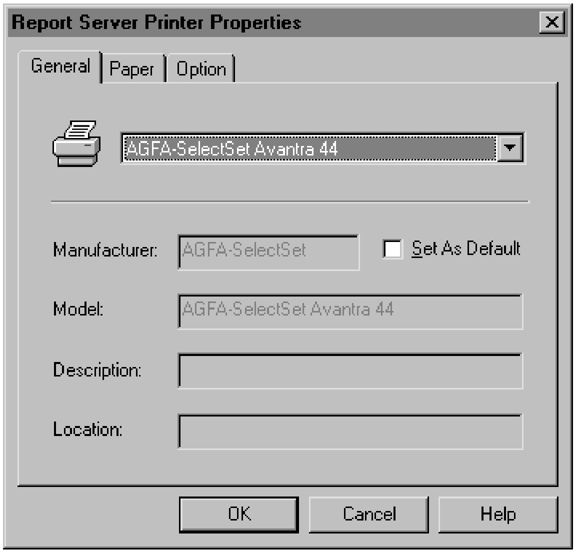
Setting up printers

As administrator, you need to set up the network printers before users can print to them. For each printer available to the report server, you specify default settings, such as paper size or number of copies to print. Users can then change or use these default settings. Some printer properties, such as duplexing and color, are available only if the printer supports them.

How to set system-level printer properties

1 Choose Report Server→Printers.

The Report Server Printer Properties dialog box appears with the General page open.



- If the report server runs on an Windows server, the information about the General page is read-only. To change the printer's general information, you run Windows' Printer Manager on the server, and change the information there.
- If the report server runs on a UNIX server, you need to specify the printer model.

2 Choose the Paper tab to set paper properties, such as size, orientation, paper tray, and duplex mode.

3 Choose the Option tab to set other properties, such as number of copies, image size, and print resolution.

For information about setting the properties in the Paper and Option pages, see Chapter 6, “Printing and distributing a report from the desktop,” in *Using e.Reports*.

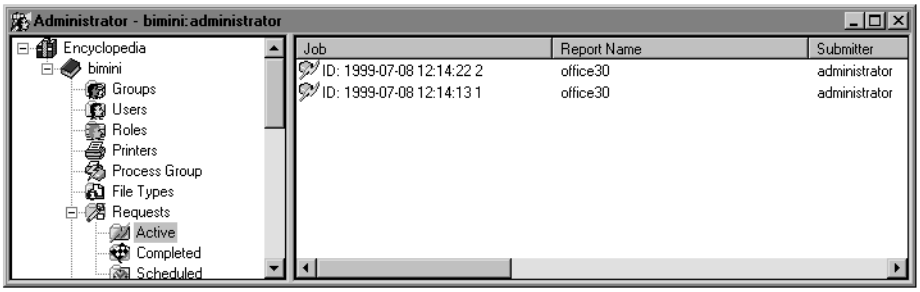
4 When you have finished setting the print properties for a printer, you can set properties for another network printer by selecting a different printer on the General page.

The print options on the Paper and Option pages are also available to non-administrator users and are described in detail in *Using e.Reports*.

Managing print requests as administrator

All scheduled, active, and completed print request items for the current server can be viewed in the Administrator Desktop when you log on as administrator. When you select a subfolder from the Requests folder, the corresponding request items appear in the right pane of the Administrator window. The request folders track both print and report-generation requests, providing information about who submitted a request, the date and time it was scheduled, the file size, the priority, and so on.

The following illustration shows one print request and two report-generation requests in the Active folder. Requests in the Active folder are ready to be processed or are currently being processed.



To delete a print request before it is processed, you can delete the request when it is in the Active or Scheduled folders.

Using the information in the Requests folders

Print requests are processed by the report server’s Print processes. As an administrator, you can configure the Print processes to best suit your environment. Monitoring the information in the Requests folders is a good way to track the flow and volume of print requests.

The information in the Scheduled folder, for example, tells you when requests are to be run, so you can configure and schedule the Print processes accordingly. The information in the Completed folder is useful for tracking the total volume of requests and the processing time for each request. With all this information, you can optimize the report server operations over time. For information about how to configure and manage report server processes, see Chapter 4, “Managing report server resources.”

Chapter

4

Managing report server resources

This chapter contains the following topics:

About Factory, Print, and View processes

Factory and print operations processes are the portion of a report server that do the work of processing requests for printing and generating reports. When a report server receives a request, it first validates the request, then executes the request or schedules it for execution. When the request is to be executed, the report server initiates one or more operations processes to perform the necessary tasks.

A View process lets a user view and search through an Actuate report in Dynamic HTML format when viewing the report using a web browser. The user is logged into a Report Encyclopedia through a web server and Actuate ReportCast. The report server starts a View process when the user selects an Actuate report.

Types of operations processes

Two types of operations processes are used to process requests: the factory and Print processes. Factory processes perform calculations and communicate with data sources. Print processes prepare reports for the operating system to queue and print. As an administrator, you can set schedules and priorities for groups of factory and Print processes because it is more convenient than setting them individually.

The View process is different than the factory and Print processes because it interacts with a user while the user is viewing an Actuate report. The View process converts Actuate report pages and other report data into DHTML on an as-needed basis. There is only one, system-created View process group and the group cannot be scheduled. Administrators can specify the maximum number of View processes that can be run concurrently as well as other properties. For information about configuring a View process, see "Administering the View process group," later in this chapter.

About requests

Administrators can generate report generation or print requests and can allow users to generate requests. An administrator can also control how the requests are handled by the report server processes by setting:

- A request's execution schedule
- A request's priority in combination with the report server's process groups' priority ranges and schedules

- A user’s maximum request priority in combination with the report server’s process groups’ priority ranges and schedules
- For scheduled requests, you can set a retry schedule for failed requests

For more information about scheduling requests, see *Using e.Reports*.

For information about process groups, see “Administering Factory and Print processes,” later in this chapter.

A user must have execute privilege on a report executable, .ROX, to run it and create report request to generate a report document, .ROI. If the user creates a report document using values from a parameters value file, .ROV, the user must also have read access to the parameter values file. Finally, the user must have write access to the object and the directory that report document is written to.

Only the submitter of a request and an administrator can delete a request.

Any user can get or delete the request information that is associated with their user name.

Only an administrator and the submitter of a request can delete and get the request information for other users.

Only an administrator and the owner of an object can look at the request information for the object.

About scheduled requests

To let users generate and print reports, the Actuate e.Reporting Server incorporates a flexible request scheduling model. The scheduled requests appear in the \requests\scheduled folder. For more information about scheduling requests, see Chapter 4, “Running a report from the desktop,” in *Using e.Reports*.

After a scheduled request is completed, the request remains in the scheduled requests folder for at least 24 hours. After 24 hours, the scheduled request remains in the folder until all the complete notices related to the scheduled request are removed from the completed requests folder. At this point the request is considered obsolete.

The environment variable (on UNIX) or registry entry (on Windows) AC_PURGE_EXPIRED_SCHEDULED_REQUEST_DELAY can be set to override the 24-hour default.

The following two environment variables (on UNIX) or registry entries (on Windows) are also used to manage the deletion of obsolete scheduled requests:

AC_DEAD_REQUEST_PURGE_TIMES
AC_PURGE_WINDOW

AC_DEAD_REQUEST_PURGE_TIMES specifies the times of the day obsolete requests are purged from the Encyclopedia. The default time is 00:15 a.m.

AC_PURGE_WINDOW can be used to stop deletion of valid temporary .ROV files not yet associated with a request. Temporary, hidden .ROV files are created by the report server to run report requests. Any .ROV file created less than the value of AC_PURGE_WINDOW seconds before the start of the purge will not be deleted, regardless of its status. The default time is 900 seconds or 15 minutes.

For more information about modifying these scheduled requests settings, see the *Actuate e.Reporting Server Guide*.

About request priorities

Actuate e.Reporting Server incorporates a flexible priority model that administrators can configure in a variety of ways to suit your installation. Each request has a priority, which is an integer between 0 and 1000. Higher numbers indicate higher priorities.

Displaying files during request generation

Zero-length files are created when the factory starts the generation of a report document .ROI and exists until the report generation is completed. The following environment variable (on UNIX) or registry entry (on Windows) can suppress the display of zero-length files:

AC_DISPLAY_ZERO_BYTE_FILES

If you are logged in as administrator, you see zero-length files regardless of the registry or environment setting.

To suppress display of zero-length files on Windows NT, as administrator create a string entry on the registry key HKEY_LOCAL_MACHINE\SOFTWARE\Actuate\Actuate Report Server\4.1 with a name AC_DISPLAY_ZERO_BYTE_FILES and set the value to FALSE.

To suppress display of zero-length files in the UNIX environment, set the AC_DISPLAY_ZERO_BYTE_FILES environment variable to FALSE.

About users' request priorities

As the administrator of the report server, you set the user's maximum priority level. For information about assigning a user's maximum priority level, see "How to set a user's maximum priority level." By controlling the priority level, you influence the scheduling of the request.

When a user submits a request to generate or print a report, the user assigns a priority level. The report server uses the request's priority value associated with the level and the Factory process group's schedule to schedule the generation of the report. For example, when a user submits a request to generate a report, the user can assign a High priority level to the request. If the user's High priority level has a value of 300, but the current process group's minimum priority is 500, the report server postpones the request until a scheduled process group has minimum priority of 300 or less.

Open server report requests

If you are using the Advanced e.Reporting Server, users can generate requests using open server reports. Requests for generating or printing open server reports are managed by the report server along with the other report generation and printing requests, including scheduling and handling the priority of the request. The report generation or printing is handled by the open server driver and uses non-report server resources.

For example, if your report server is configured to generate a Crystal reports report document, the report request schedule and priority are created and handled by the report server. However the report document is generated using the open server driver and the Seagate Crystal Reports reporting tool.

As administrator, you should make sure the open server report requests account for usage of the external reporting tool. For information about Actuate open server see "About Actuate open server," later in this chapter.

Administering Factory and Print processes

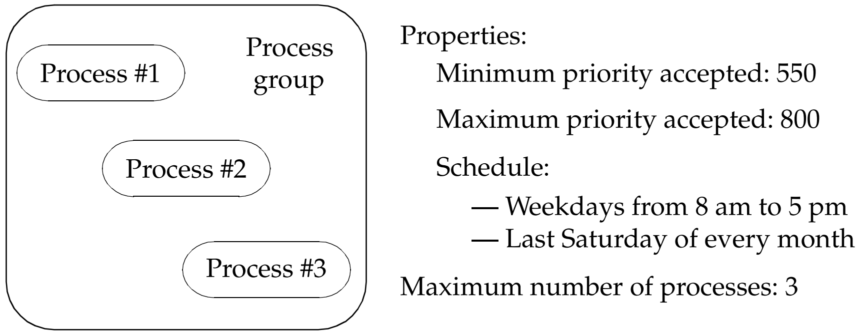
Administering factory and Print processes involves these tasks:

- Specifying the number of processes of each type to run
- Scheduling processes to run at certain times and on certain days
- Indicating the range of priorities processes should accept
- Assigning process priorities to users

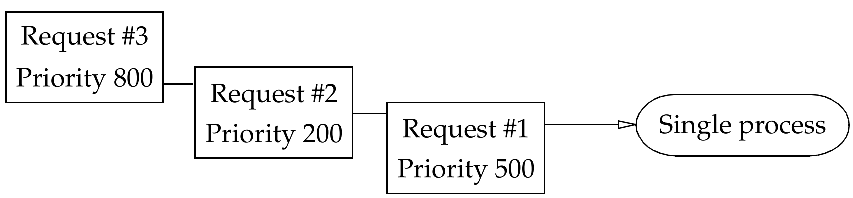
Only administrators can stop a process. This applies to all factory and Print processes.

About process groups

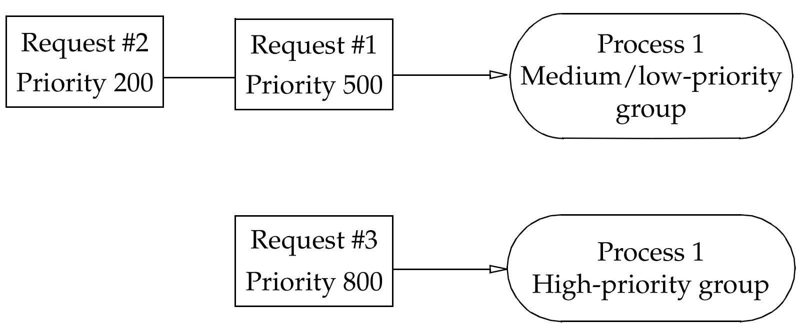
A process group is a group of operations processes of a single type with common schedules and priority ranges. One advantage of dealing with operations processes in groups is that you can set schedules and priority ranges for the group rather than for each individual process.



Process groups also provide flexibility in processing requests of varying priorities. In the simplest case, a single-process model can result in high-priority requests being blocked by low-priority ones, as shown in the following illustration. Adjusting the single-process model to ensure that the queue is ordered by priority so that the highest priority requests are at the front of the queue can shut out low-priority requests altogether.



Using groups of processes, you can improve system throughput and increase your control over resource allocation.



About the default Factory and Print process groups

The Default factory and Print process groups represent the minimal functioning configuration for printing and running reports. They accept and process requests without requiring administrators to modify their properties. Every Report Encyclopedia has one Factory process group and one Print process group named Default. You, as an administrator, can set the properties of these groups, but you cannot rename or delete them. Until an administrator modifies their properties, Default groups consist of a single unscheduled process that covers the entire priority range. Such unscheduled processes become active when a request is executed.

In most situations, an administrator can improve performance with a few modifications, such as increasing the number of factories allowed to two or three. If an administrator changes a Default group's priority range, the administrator must either create another process group to handle requests that fall outside the Default group's range, or allow requests in that range to remain in the queue until a process group starts that accepts priorities in the range.

About Factory and Print process group schedules

Scheduling factory and Print process groups lets an administrator change the number of available processes automatically at a specified date or time. An administrator can schedule process groups to run at daily, weekly, or monthly intervals. An administrator can also set the range of request priorities a process group accepts. These capabilities can be combined to suit a variety of usage patterns.

For instance, you, as administrator, could reserve most computing resources for Factory processes during the day and postpone all but the high-priority print requests until night. You could use such a schedule every day, or every Friday, or the first and fifteenth of every month. You can stop the process group at a certain time by setting the available processes to zero.

Deciding how many processes to run

Choosing an appropriate number and mix of process groups is an important part of allocating the available computing resources. The resources available at your installation and the needs and schedules of your users are the two major factors involved in the choice. As administrator, accumulated experience will probably convince you to modify details of the initial allocation. Nevertheless, there are some guidelines that apply in a wide variety of situations.

In general, the number of processes should be proportional to the number of CPUs available. Normally, you should not run more than two or three factories and one Print process on a single CPU. The appropriate number of process groups, on the other hand, should be proportional to the number of priority ranges you define. Typically, you should create one process group for each range.

For example, if client requests fall into one of two ranges, high and low, you should define one high-priority process group and one low-priority group. You can allocate more resources to high-priority requests by allowing more processes in that group.

Process count relates to CPU count

A Factory process can make use of all the computing cycles available from a single CPU. However, most processes spend some time waiting for events rather than computing. For example, a Factory process that does not run on the same computer as its data source will probably spend some time waiting for requested data to be returned. During this time the host computer is available to other processes. Thus it is often useful to run two or three factories for each CPU. Unless the host computer is a multiprocessor, you should probably not allow more than two or three factories on a single CPU.

Factory and Print processes compete for resources when running concurrently. Therefore, you should decide whether computation or printing is more important for the time period in question. This decision combines with the list of available resources to determine how many processes of each type to run and what priority ranges each group accepts.

Process group count relates to priority ranges

When you, as administrator, specify the range of priorities available to users, you also specify the range of priorities that must be handled by some process group. If you allow users to submit requests at, say, priority 200, but you do not set up a process group to accept requests of that priority, such requests will be scheduled but never executed. Therefore, it is important to coordinate the priorities available to users with those covered by process groups.

When specifying the priority range available to individual users, keep in mind that users with access to the highest priority levels effectively control access to the report server. When they issue high-priority requests, the operations processes created to service these requests preempt low-priority processes and can monopolize the available computing power.

Some sample configurations

When running the report server on a single-CPU computer in an interactive environment, an effective mix of process groups includes two Factory process groups and one Print process group. One of the factory groups might allow two Factory processes and handle requests of medium to high priority, while the other group allows only a single Factory process that deals with low-priority requests. A configuration like this one can consume the resources of the host computer given sufficient request traffic. Adding more processes or more groups will probably decrease rather than increase performance, so this configuration is the maximum recommended in such an environment.

If the report server is running on a computer with four CPUs, you, as administrator, can of course allow more processes to run concurrently. Suppose that half of the computer's resources are to be reserved for interactive reporting during certain hours of the day, with the remainder devoted to batch report requests. At night and on weekends, the entire computer is dedicated to handling batch requests. One approach to this situation uses fewer processes during the day to restrict the resources used by batch requests.

For example, you could allow only one Factory process on each CPU, and allow only half the CPUs to run a Print process during the day. At night and on weekends you could allow two or three factories on each CPU, with one or more Print processes on each CPU.

Adjusting Factory process timing

When processing report requests, the report server starts and stops Factory processes to generate reports. After a Factory process is started, the report server waits two seconds before trying to use the Factory process. After a Factory process is started, the report server waits one second between attempts to communicate with the process. If a report server machine is being used heavily by applications, these settings might not allow enough time for a Factory process to start or to reply after it has started. You can adjust the Factory process timing.

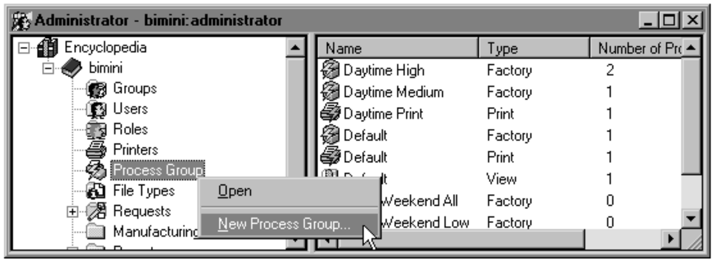
You can adjust these delay times by creating Registry entries on Windows report server machines or creating environment variables on UNIX report server machines. For information about how to adjust Factory process timing, see the *Actuate e.Reporting Server Guide*.

Creating, running, and deleting process groups

This section includes instructions for creating, deleting, starting, and stopping factory and Print process groups. For instructions about assigning priorities and schedules to them, see "Setting Factory or Print process group properties," later in this chapter.

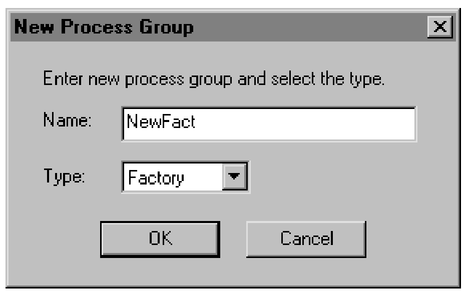
How to create a factory or Print process group

1 As administrator, choose New Process Group from the context menu associated with Process Group.



The New Process Group dialog appears.

2 Type the name of the group and choose its type from the list, then choose OK.



3 Set a schedule for running the group.

For instructions, see "How to set a Factory or Print process group schedule," later in this chapter.

4 Set the range of priorities the group accepts.

For instructions, see "How to set the priority range for a Factory or Print process group," later in this chapter.

How to delete a factory or Print process group

1 As administrator, select the process group you want to delete.

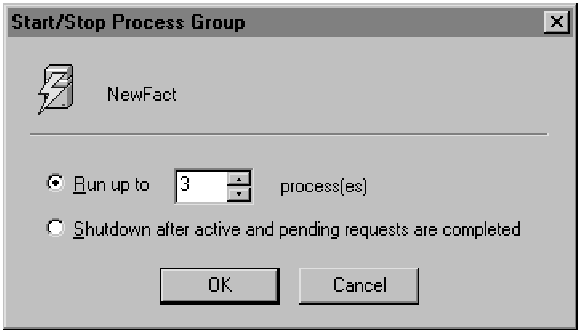
2 Choose Delete from the context menu.

How to start a factory or print a process group

1 As administrator, select the process group you want to start.

2 Choose Start/Stop from the context menu.

The Start/Stop Process Group dialog box appears.



3 Specify the maximum number of processes that can run concurrently.

Processes only run when needed to fill requests, so they do not consume resources when no requests are pending.

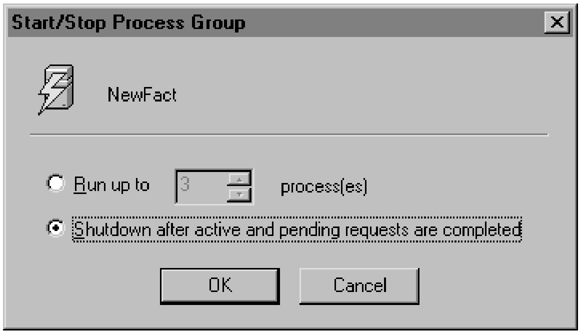
4 Choose OK.

How to stop a Factory or Print process group

1 As administrator, select the process group you want to stop.

2 Choose Start/Stop from the context menu.

The Start/Stop Process Group dialog box appears.



3 Select Shutdown after active and pending requests are complete.

4 Choose OK. When all active and pending requests are completed, the process group will stop running.

You can also schedule a process group to stop by creating a schedule that sets the number of processes to zero. For information about scheduling process groups, see "How to set a Factory or Print process group schedule," later in this chapter.

Setting Factory or Print process group properties

This section provides instructions for assigning priorities and schedules to Factory and Print process groups. For instructions about creating, deleting, starting, and stopping them, see "Creating, running, and deleting process groups," earlier in this chapter.

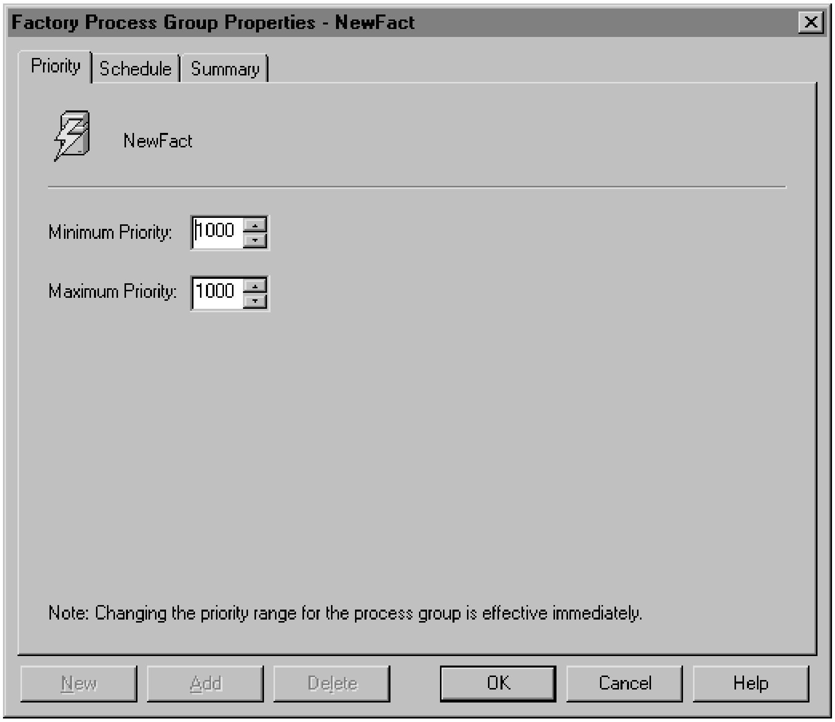
How to set the priority range for a Factory or Print process group

1 As administrator, select the process group with the priority range you want to set.

2 Choose Properties from the context menu.

The Properties dialog box for the selected process group appears.

3 Choose the Priority tab.



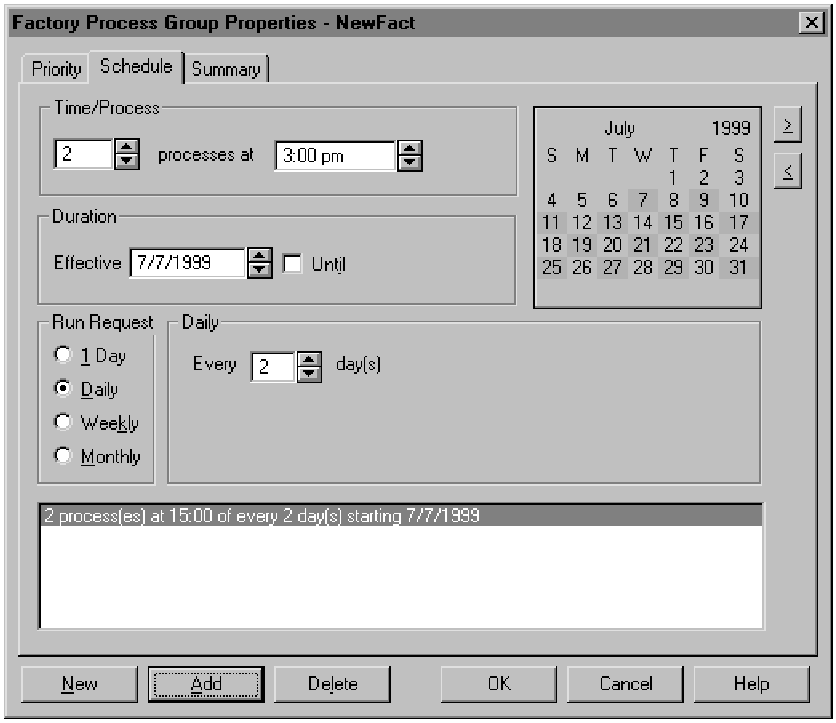
4 Select the minimum and maximum priorities this group should accept. The allowable range is 0 to 1000.

5 Choose OK to accept the values.

How to set a Factory or Print process group schedule

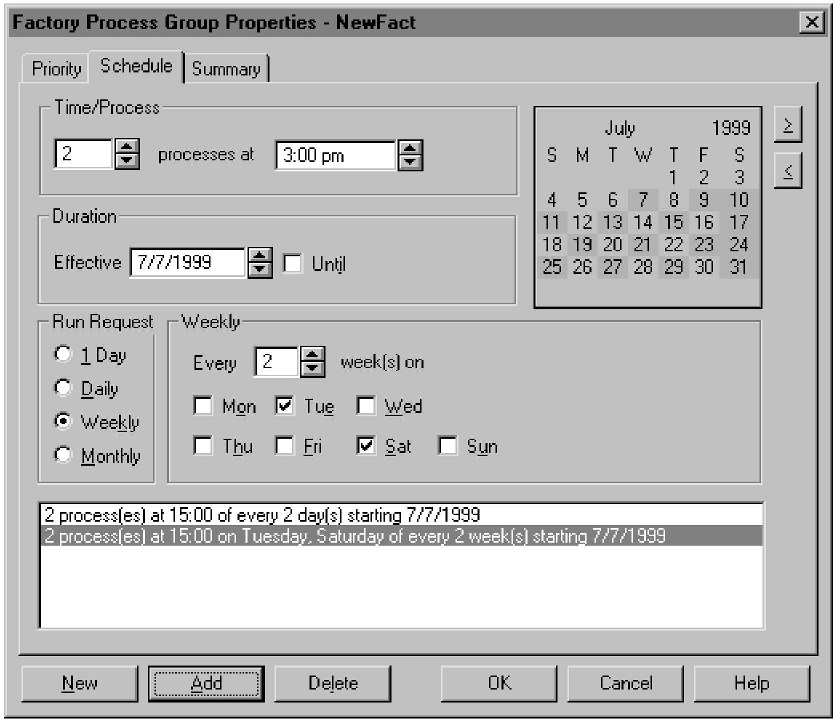
1. As administrator, select the process group with the schedule you want to set.
2. Choose Properties from the context menu.

   The Properties dialog box for the selected process group appears.
3. Choose the Schedule tab.



4. Specify when and how often the group should be available. To run two processes every other day at 3:00 pm, select Daily, Every 2 days, and set the start time to 3:00 pm.
5. Choose Add.

   You can also schedule a process group to stop by creating a schedule that sets the number of processes to zero. For an example of scheduling process groups, see “Configuring process groups” in Chapter 5, “Building and managing your first Report Encyclopedia.”



To run three processes every other Tuesday and Saturday, select Weekly, select Every 2 weeks, select the appropriate days of the week, then choose Add.

If you choose weekly or monthly schedules, ensure that starting and stopping times are set under Duration in the Effective and Until fields. If, for example, you schedule a group to run the first of every month but omit start and stop times, the group will not be started.

To clear the form and start a new schedule, choose New.

6 When you have specified the complete schedule for this group, choose OK.

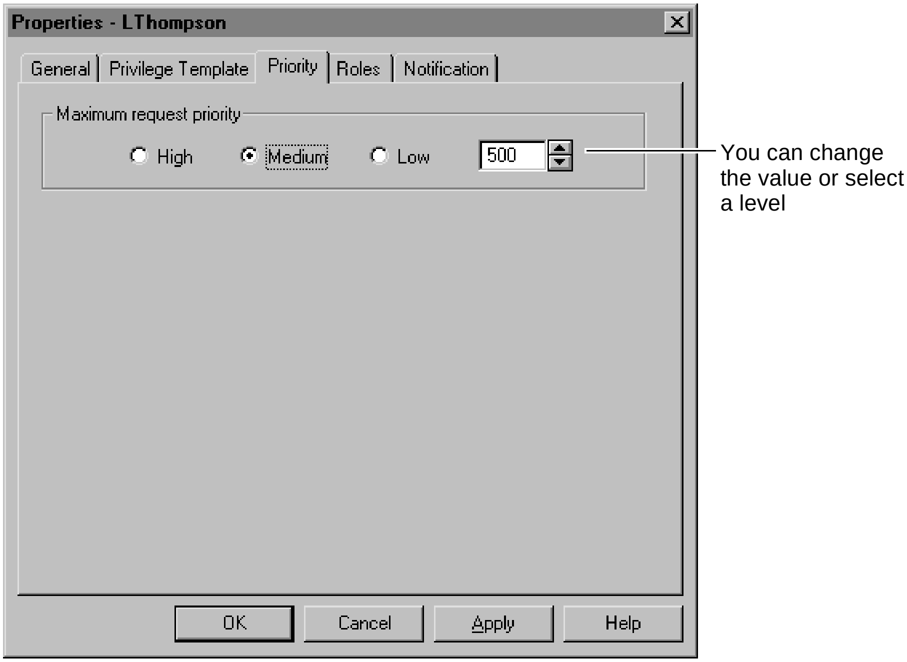
Setting a maximum process priority level

As the report server administrator, you control a user’s maximum priority level. The user chooses a priority level when he submits a request to generate or print a report.

How to set a user’s maximum priority level

1 As administrator, either create a new user, or select an existing user and bring up the user’s properties in the Properties dialog box.

In the Properties dialog box, select the Priority tab and set the user’s maximum priority level by selecting the level or changing the value.



Setting request retry options

As administrator, you can configure request retry options to automatically retry scheduled report generation or print requests that have failed:

- For the Report Encyclopedia, the Report Encyclopedia options are the default options for scheduled requests.
- For a scheduled report request, the scheduled report settings override the Report Encyclopedia settings. For information about setting scheduled request retry options, see Chapter 4, “Running a report from the desktop,” in *Using e.Reports*.

Setting Report Encyclopedia request retry options

As administrator, you can configure the Report Encyclopedia to automatically retry scheduled report generation or print requests that have failed. Users who can generate report requests can override the defaults on their scheduled report request.

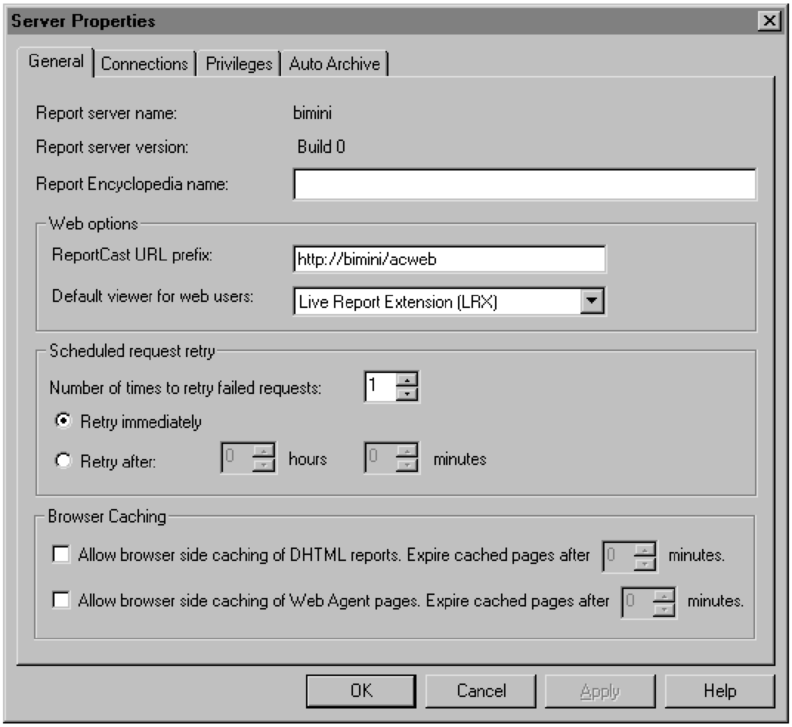
Users can view the request retry Report Encyclopedia settings, but only administrators can change the settings.

- Retry options do not apply to requests that are not scheduled. Reports are set to run using the Right Now option.
- Only the administrator can change the Server Properties scheduled request retry setting for the Encyclopedia.
- When the Retry attempts is not 0 and the Retry Interval is set to 0, the report server resubmits the request immediately after a failure.
- New instances of a scheduled request are canceled with an appropriate message if the previous instance is still retrying. The retry count for the existing instance is not incremented.

How to set Report Encyclopedia request retry settings

To display the Server Properties dialog box, select the Report Encyclopedia volume folder and choose File→Properties, or choose Properties from the Report Encyclopedia volume's context menu.

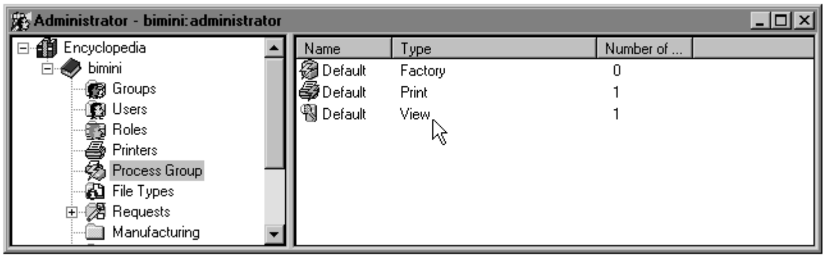
From the Server Properties dialog box, select the General tab. As administrator, set the request retry defaults for the Encyclopedia.



Administering the View process group

Administrators control and configure the View processes used by the report server. A View process dynamically converts an Actuate report to DHTML when a user views the report from a web browser without using the Actuate LRX. A View process is required for each user accessing a report in this manner.

The View process group is listed in the Process Groups system folder.



The View process group is different than Factory and Print process groups:

- There is only one View process group.
- You cannot rename or delete the process group.
- You cannot turn off the process group.

As administrator, you can set the maximum the number of View processes in the group and you can specify system resource maximums. You can also specify the minimum number of processes required to run.

The Actuate View process can accommodate browsers that use a different locale than the report server machine locale to display date and time information in locale-specific formats. On Windows Servers, the View process uses the system's locale information. On UNIX systems, Actuate creates and installs a locale map file that contains information about the locales available on the report server machine. For more information about the UNIX locale map file, see the *Actuate e.Reporting Server Guide*.

When to change View process group settings

If your users are waiting a long time for to access a report, you may want to increase the minimum number of processes.

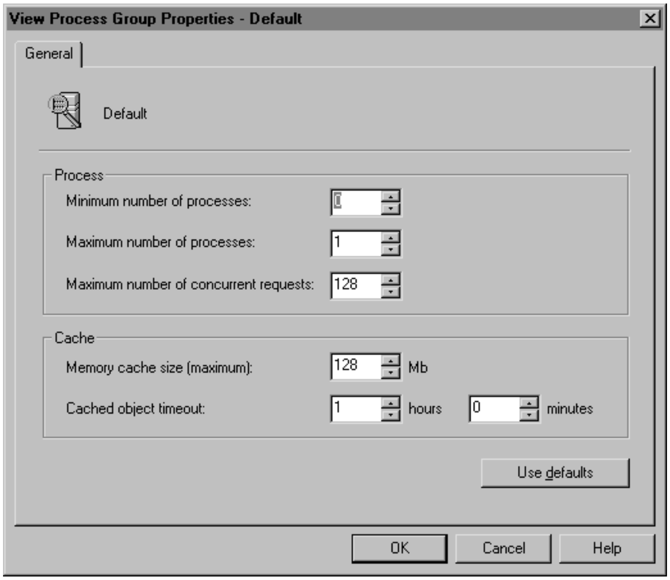
If users are having problems logging into the Report Encyclopedia, you may want to increase the maximum number of processes.

You can also change settings related to View processes using the environment variable (on UNIX) or registry entry (on Windows). For information about View process configuration, see the *Actuate e.Reporting Server Guide*.

For the View process group, concurrent requests refers to the requests and messages sent to a View process from a ReportCast that is handling a user's URL. The number of concurrent requests does not refer to the URL request itself, there could be many requests and messages generated by a single URL.

How to change View process group settings

1 From the Process Group folder, double-click the Default View process group to display the View Process Group Properties dialog box.



2 Enter the values for the number of processes, and other values.

If needed, choose Use Defaults to change the settings to the default values.

3 Choose OK to save the new settings.

Administering system processes

Actuate automatically stops and restarts the system processes periodically based on the number of requests to ensure optimal use of system memory. The system processes are the Request, Administration, and the Persistent Object processes. You can change the operation process restart settings using environment variables on UNIX or registry entries on Windows. For information about operation process restarts, see the *Actuate e.Reporting Server Guide*.

About auto-archive

Using the Report Encyclopedia auto-archive features, administrators and users specify parameters to automatically delete and archive files such as Actuate reports, open server reports, and other documents stored in the Report Encyclopedia.

- Administrators can set auto-archive rules for the entire Encyclopedia and on specific folders and files.
- Administrators can specify the archive driver used to archive Encyclopedia files. A single driver is specified for the Report Encyclopedia.
- Non-administrator users can set auto-archive rules on folders and files. A user must have delete permission on the folder and file to set auto-archive rules. When creating report requests, users can also set auto-archive rules. For information about setting auto-archive rules for folder and files, see Chapter 2, "Working with the desktop Navigator," in *Using e.Reports*. For information about setting auto-archive rules for report requests, see Chapter 4, "Running a report from the desktop," in *Using e.Reports*.

The following auto-archive rules can be set on folders or files:

- Do not automatically delete files based on an auto-archive rule.
- Delete files older than a specified age.
- Delete files after a specified date.
- Archive files before deleting if an archive driver is specified.

The following auto-archive rules can be set for requests:

- Do not automatically delete files based on an auto-archive rule.
- Delete files older than a specified age.
- Delete files after a specified date.
- Delete files based on the number of versions.
- Archive files before deleting if an archive interface driver is specified.

The following describes viewing Report Encyclopedia auto-archive rules:

- The Auto Archive tab in a folder's or files's Properties dialog box shows the auto-archive rule used and from where a folder or file inherits its auto-archive rule. If the rule is inherited, the Archive Policy items are disabled. If the rule is set at the current folder or file, the Archive Policy items are enabled.
- Users can see auto-archive information when browsing a Report Encyclopedia using a web browser. The auto-archive information is listed in the file or folder details page.

The following describes the scope of auto-archive rules:

- An auto-archive age or date rule set using a folder's Properties dialog box applies to all files contained in subfolders within the starting folder. Folders are never deleted, only their contents. An auto-archive rule on a file overrides any rule inherited from a folder that contains the file.

For example, if the Report Encyclopedia has an auto-archive rule of 30 days, but the folder /Annual Reports has an expiration age of 1 year, all files in or below the /Annual Reports folder expire in 1 year. All other files, the files not in or below the /Annual Reports folder, expire in 30 days.

- Dependent files are also aged.
- From a folder's Properties dialog box or the Report Encyclopedia dialog box, you can you specify a rule for a particular file type such as .ROI or .ROI.
- If an administrator specifies an archive driver in the Server Properties dialog box, the Archive before deletion option is enabled as the default whenever an age-based or date-based rule is specified.

  The Archive before deletion option is enabled even if the age-based or date-based rule is set before the archive utility is specified.
- If a user changes between the date-based rule and age-based rule, the Administrator Desktop initializes the value of the age or date control by calculating the time span up to the last date or age specified.

The following describes what the report server does during the auto-archive process:

- When performing auto-archive, the report server uses the most specific auto-archive rule. The report server uses auto-archive rules in the following order. First, the setting on the file itself, then the setting for the specific file type from the file's folder setting, then the folder's default setting, and finally the file type from the containing folder and continuing up through the folders containing the file. The last auto-archive settings checked are the Report Encyclopedia settings.
- By default, the report server performs aging once during the day. The administrator can specify when and how many times a day aging is performed.

  When the report server performs auto-archiving, it starts from the root directory. For each file that meets the age criteria, it deletes the file. If the Archive before deletion option is enabled, the report server calls the specified archive driver, and then deletes the file if the archive process is successful. If the archive process is not successful, the file is not deleted.

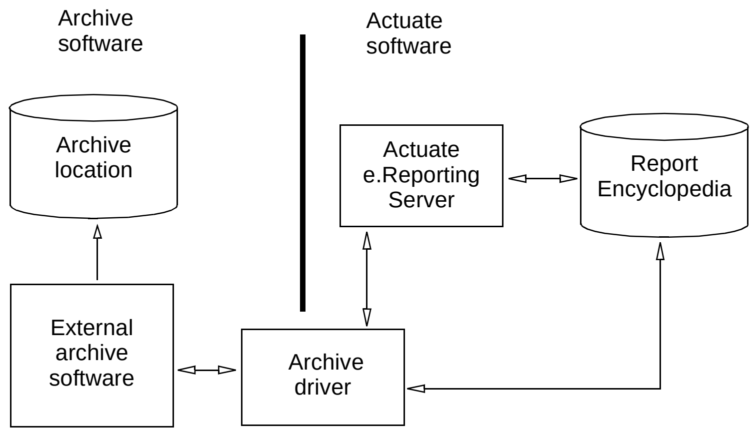
How archiving works with auto-archive

As part of auto-archive, an administrator can specify an archive driver that the report server uses to archive files in the Report Encyclopedia before they are deleted from the Report Encyclopedia. The archive driver is software that is the interface between the report server and an external archiving tool. On Windows, the archive driver is a .DLL, on UNIX, the driver is a shared library.

For information about creating an archive driver, see the *Integrating Actuate e.Reporting Server*.

The name of the archive driver is specified in the Auto Archive tab of the Report Encyclopedia Server properties dialog box.

When the report server performs aging, it loads the archive driver. During auto-archiving, if a file is set to be deleted and the Archive before deleting option is set, the file is exported to the external archiving tool. The file is read-locked by the report server during the archive process so that no other process can delete or change the file during archival.



After the archive driver signals that the archive is successful, the report server deletes the file. The report server does not delete the file if the archive driver signals a failure.

Encyclopedia auto-archive settings

These are the settings for the Report Encyclopedia. The Report Encyclopedia auto-archive rules are overridden by setting an auto-archive rule on a folder, report, or report generation request.

Administrators can set the auto-archive policy for files in the Report Encyclopedia. Administrators can:

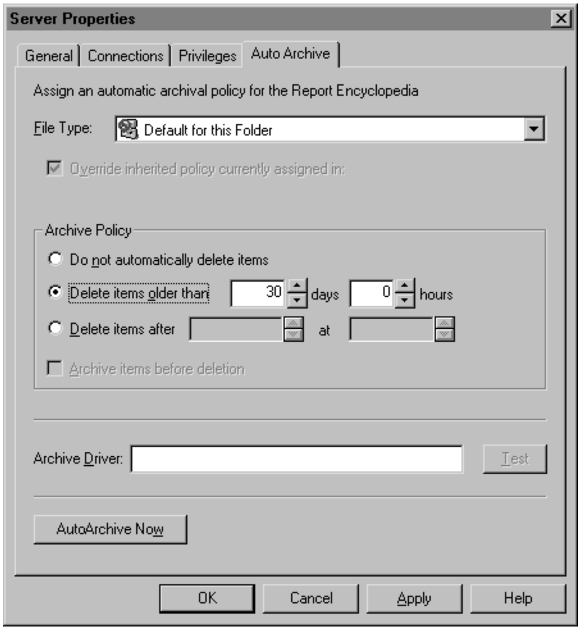
- Set the auto-archive rule for all the files in the Report Encyclopedia.
- Set an auto-archive rule for a specific file type.
- Specify the archive driver used for archiving Report Encyclopedia files.

Setting Report Encyclopedia auto-archive rules

Administrators set the auto-archive rules for the Report Encyclopedia from the Server Properties dialog box. Only an administrator can set the Report Encyclopedia auto-archive rules. The items in this dialog box are disabled for users.

1 To display the Server Properties dialog box, select the Report Encyclopedia volume folder and choose File→Properties, or choose Properties from the Report Encyclopedia volume's context menu.

2 Choose the Auto Archive tab.



3 In the Auto Archive tab, select a file type from the File Types list.

The File Types list box lists the default file type and all defined open server file types. For information about open server file types, see "Predefined open server file types," later in this chapter.

The Default for this file item defines the auto-archive rules for all the files in the Report Encyclopedia that do not have a specified auto-archive rule.

4 Enter the auto-archive rules for the selected file type.

5 Select and set auto-archive rules for file types as necessary.

6 Specify the archive driver in the Archive driver field.

The archive driver specified for the Report Encyclopedia is the driver used to archive Encyclopedia files. If you specify an archive driver:

- Choosing the Test button tests the archive driver and archive tool. The button is disabled if an archive driver is not specified or if the user is not an administrator.
- Choosing the AutoArchive Now button starts an aging cycle. The button is disabled if the user is not an administrator.

Specifying the report server aging times

By default, aging starts at 2:15 a.m. every day. The report server administrator can define the times to perform aging each day.

On Windows server, the administrator sets a string entry on the registry key HKEY_LOCAL_MACHINE\SOFTWARE\Actuate\Actuate Report Server\4.1 with a name AC_OBJECT_ARCHIVE_THREAD_SCHEDULE.

On UNIX systems, set the environment variable AC_OBJECT_ARCHIVE_THREAD_SCHEDULE.

The format of the value of the Registry key or environment variable is a semi-colon separated list of the times in ascending order using the following 24-hour format. For example, the following value will start the aging cycle at 3:15 a.m. and 4:15 p.m.:

03:15;16:15

To disable auto-archive, set AC_OBJECT_ARCHIVE_THREAD_SCHEDULE and do not specify a time.

About Actuate open server

Using the standard e.Reporting Server users can view reports and other types of files from the Report Encyclopedia. If you have the Advanced e.Reporting Server, the Actuate open server functionality extends the Actuate Reporting System to handle report executables and reports from third-party vendors. For example, users can generate and print non-Actuate reports.

Administrators configure the Report Encyclopedia to run open server reports in a manner similar to Actuate report files such as report executable files .ROX, report output files, .ROI or HTML files, and report parameter files .ROV.

The Advanced e.Reporting Server supplies open server drivers for Seagate Crystal reports and SQRIBE SQR reports on Windows. Actuate does not provide any Crystal reports or SQR software. Obtaining third-party software such as Crystal reports or SQR software and any required licenses is the responsibility of the customer. For information about creating other open server drivers, see *Integrating Actuate e.Reporting Server*.

The Crystal report extensions defined by the Advanced e.Reporting Server are:

- RPX, defined as Crystal executable .RPT file
- RPW, defined as Crystal web report .RPW file
- RPT, defined as Crystal report .RPT file

The SQRIBE report extensions defined by the Advanced e.Reporting Server are:

- SPF, defined as SQRIBE report .SPF file
- SQR, defined as an uncompiled SQRIBE report .SQR file
- SQT, defined as SQRIBE report .SQT file

Administrators can:

- Manage the various open server report generation tools that are used with the report server. These include such administration server-related tasks as adding, removing, and editing properties and settings for these tools.
- Access external files using open server functionality. These might include files that are external to the Report Encyclopedia but are accessible to the machine on which the Actuate e.Reporting Server is installed.
- Handle the generation and printing of open server reports.

Users can:

- Import open server reports. For information about importing open server reports, see Chapter 2, “Working with the desktop Navigator,” in *Using e.Reports*.
- Schedule requests to generate and print open server reports. For information about setting auto-archive rules for report requests, see Chapter 4, “Running a report from the desktop,” in *Using e.Reports*.

To use the Actuate open server functionality, you must install the following software on the report server machine:

- The Actuate Advanced e.Reporting Server
- Open server report files such as third-party report executable or report documents files
- The appropriate open server driver
- Third-party report generation engine and any required supporting software such as Seagate Crystal Reports or the SQRIBE SQR Server

In the Report Encyclopedia, you must specify the parameters and settings for the open server report executable and documents, including:

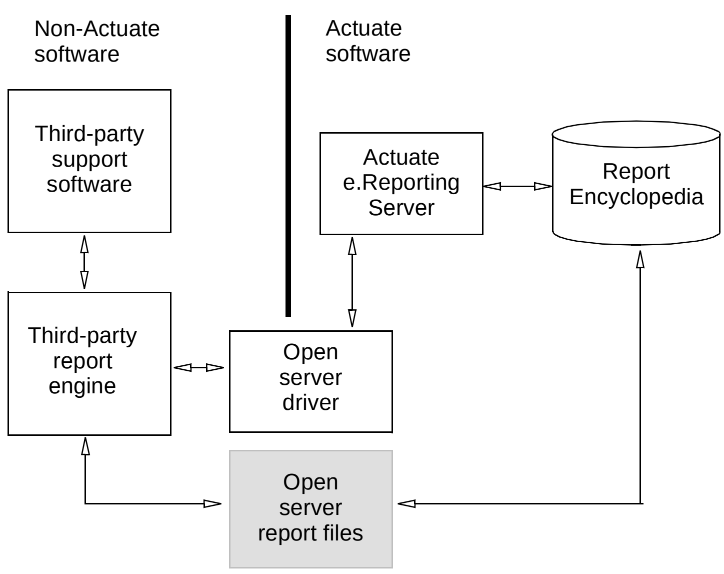
- Location of the open server driver and the third-party report generation engine
- Parameters and settings required to generate the open server reports
- Report-specific parameters and settings

If you are using the standard e.Reporting Server, you can only specify open server file types. This lets you associate file types with icons and lets you describe file types. You cannot use the open server features to generate or print open server reports from within the Report Encyclopedia.

Using the open server

As administrator, after you configure the report server to handle open server reports, users can create requests to run or print open server reports from the Report Encyclopedia. When the report server runs a request, it exports a copy of the third-party report and passes parameters and other information about the open server report to the open server driver. The open server driver communicates with the report server and the third-party report generation tool to generate or print a report document, and signals the report server that the report is complete. The report server can import the completed report document into the Report Encyclopedia.

The following illustration shows the interaction of the components.



Predefined open server file types

Actuate e.Reporting Server defines a set of open server file types:

- Actuate report files
- HTML files
- Crystal report files
- SQR report files
- Text files

Specifying open server file types

If you are using the Advanced e. Reporting Server, administrators use the open server features to generate reports such as Crystal reports or other open server reports.

After you set up and configure the third-party report generation software and Actuate open server interface software, you must specify the settings for the open server file types:

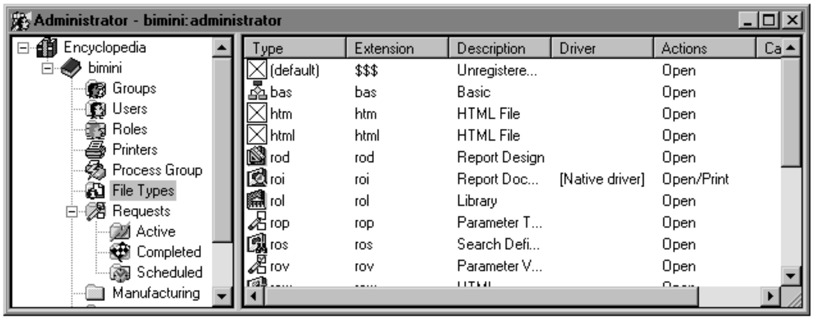
- Location of the open server driver and report generation engine
- Parameters and settings required for open server report generation
- Open server report specific parameters and settings

The open server file types are listed in the Report Encyclopedia's file types system folder. You create and modify open server file type information in this folder.

File Types folder

These file types are automatically defined in the Files Type folder:

- Actuate files
- HTML files
- Crystal report files
- SQRIBE report files
- Text files
- Default file types for files not defined in this folder

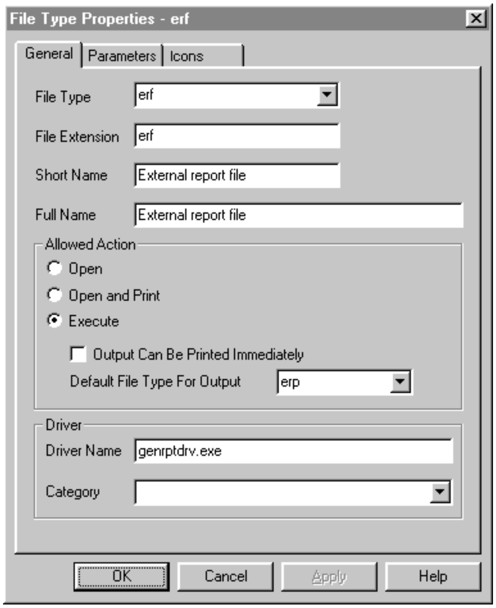


Defining open server file types

To specify an open server file type, select the file and choose Properties from its context menu.

If you are defining an open server file type that uses an open server driver, the developer of the open server driver must provide you with the parameters and other information needed in the General and the Parameters tab, as well as the software needed to use the open server driver. To specify special icons or the icons seen when viewing the Report Encyclopedia over the Web, choose the Icons tab.

In the General tab, specify the information for the open server file type such as the file type and other information displayed in the Report Encyclopedia, the type of executable, and the open server driver software.

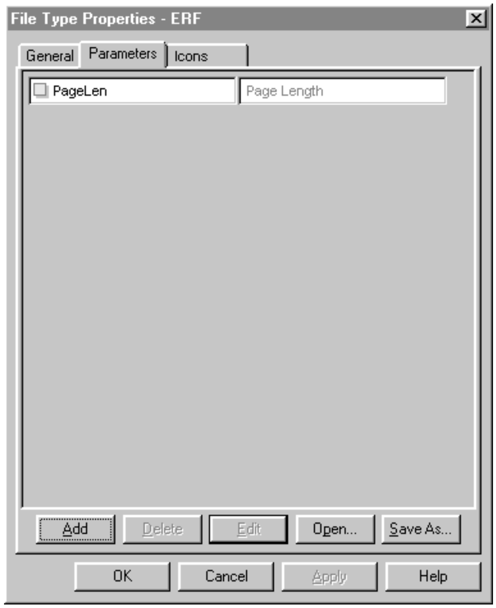


If a relative path is specified for an open server driver, the path is relative to the report server's \driver directory.

The Category field is used to serialize open server processes. A Category name is a text string. Normally, the report server tries to schedule as many requests as possible. If more than one factory is available, more than one report generation request can be active. For open server reports, if the open server driver or the third-party report generation tool cannot handle more than one report generation request at a time, administrators can specify a category to allow only one active report request to run at a time. The category name can be any simple text string.

For example, an administrator can create two file types, one with the category name RPT-TYPE1 and the other RPT-TYPE2. If users generate multiple RPT-TYPE1 report requests, the report server runs only one RPT-TYPE1 report request at a time even if multiple Factory processes are available. However, if a RPT-TYPE2 and a RPT-TYPE1 report request are generated for the same time, both requests are run at the same time if there are Factory processes available.

To specify parameters for the open server file type, choose the Parameters tab.

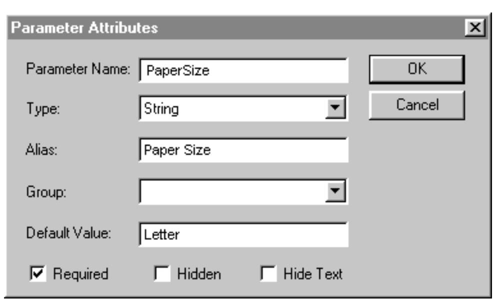


You can enter the parameters individually or use the parameters from an Actuate .ROV file:

- Choose Add to define parameters individually.
- Choose Open to specify an Actuate .ROV file.

The parameters defined as part of the open server file type are used for all open server reports associated with this file type. When you import an open server file type you can specify parameters that will be associated with the individual report.

For example, if you define an open server file type for printing, and the open server report, open server driver, and third-party printing software require a parameter for paper size, you can create a parameter called PaperSize that uses Letter as the default value.



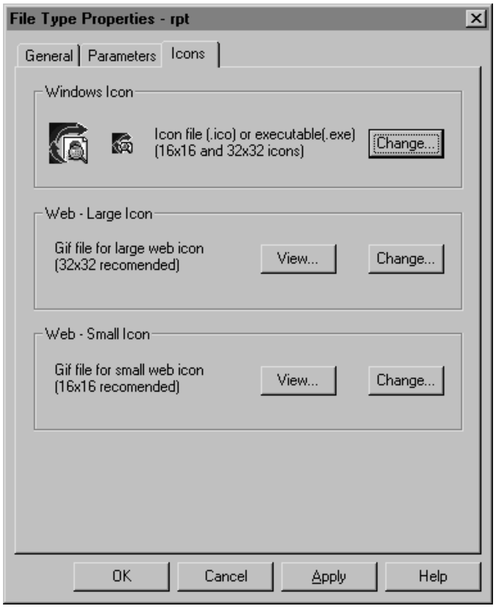
Parameters defined as part of the file type definition are not displayed when importing the open server file.

When users specify parameters, they cannot override hidden open server parameters. If a user specifies a parameter that attempts to override a hidden parameter the report generation fails.

To override an existing parameter, the new parameter value must be of the same type as the existing parameter. If there is a mismatch between parameter format types, the report generation is aborted.

The report server has reserved parameter names that begin with AC_. For more information about reserved parameter names, see *Integrating Actuate e.Reporting Server*.

When viewing the Report Encyclopedia using an Actuate client such as the Actuate Viewer or End User Desktop, the Report Encyclopedia uses the Windows icon for the open server file type if one is available. Over the Web, the Report Encyclopedia uses the icon specified in the Icons tab. To specify an icon file for a file type, choose Change to specify the icon file.



About the open server for Sqribe

The Actuate open server driver for Sqribe reports handles only Sqribe compiled, executable file type .SQT that are analogous to Actuate .ROX files. Actuate's open server driver for Sqribe does not support Sqribe .SQR report files.

The Sqribe open server driver can generate the following output file types from a Sqribe .SQT report:

- Output file type .SPF proprietary Sqribe output (similar to a .ROI)
- Output file type .SQW Web format output (similar to .ROW). (not printable)
- Output file type .TXT A plain text file

To run Sqribe reports, the database connection parameter is required. The open server parameter name is SQR_DB_CONNECT and is of string parameter.

Sqribe report printing parameter

Using the Sqribe software, the open server driver cannot redirect output to different printers. The default report server printer is used. For printing .SPF files. the sqrwp.exe program is assumed to be at the default install path:

C:\Sqribe\Sqr\ODB\Binw\sqrwp.exe

User's can set a parameter to specify a different path. The string parameter is SQRIBE_SQRWP_PATH. In most cases, this parameter can be set as a file type parameter for Report Encyclopedia .SPF file type definition.

Parameter for bursting web output

By default, Sqribe web reports appear as one large HTML file. The open server driver for Sqribe can also specify that the Sqribe web report be separated into multiple, linked HTML files using the Sqribe burst mode option.

The Actuate parameter for burst mode is a string parameter SQR_BURSTING. SQR_BURSTING accepts either P<n> or S<n> where n is an integer.

- Pn specifies burst with n pages per HTML file
- Sn specifies burst with n symbolic or logical group sections per HTML file

Report level parameters

Sqribe does not provide a way for other applications to read parameters from an .SQT report file. Report developers must supply the parameter information to the report server administrator or the person uploading the Sqribe report.

For Sqribe reports, the order of parameters is important. Users uploading a report must specify Sqribe report parameter names in a special format. The format for Sqribe report parameters are SQR<n>_<parameter_name>

The n is an integer specifying the order of the parameter (lowest 'n' comes first) in parameter file and the parameter name is the name of the parameter used in the Sqribe report.

About the open server for Crystal reports

The Actuate open server driver for Seagate Crystal Reports handles the following Crystal report files:

- Crystal reports with a .RPT file extension
- Crystal web reports with a .RPW file extension

Crystal parameters using ranges of values are not supported.

Using Crystal reports with a .RPT file extension

Crystal reports use the .RPT file extension for both report executables and report documents. When importing a Crystal .RPT file, you specify whether the .RPT file is a:

- Crystal report executable with a .RPX Report Encyclopedia type

  From the Report Encyclopedia, users can run the .RPX report executable by creating a report request.

- Crystal report with a .RPT Report Encyclopedia type

  From the Report Encyclopedia, users can open and print the .RPT Crystal report

The open server driver for Crystal can generate the following output file types from a Crystal report executable:

- .RPT a Crystal report
- .RPW a Crystal web report
- .TXT a plain text file

Specifying a category for Crystal reports

Due to a limitation with Crystal Reports 7, you cannot run multiple Crystal reports simultaneously. To ensure multiple Crystal reports are not run simultaneously on an Advance e.Reporting Server, specify a category for the Crystal report executable open server file type. For more information on categories, see "Defining open server file types," earlier in this chapter.

Parameters used with Crystal reports executable files

When specifying parameters used with a Crystal report with the .RPX Report Encyclopedia file type, use the underscore character (_) to represent a space. For example, if a Crystal report uses the parameter name ID NUMBER, the Actuate parameter name is ID_NUMBER.

For Crystal reports, you can specify the following parameters that are used by the Actuate-supplied open server driver when generating a Crystal report:

Parameter	Use
CRYSTAL_DB_SERVER	A string value. Specifies the database server machine name.
CRYSTAL_DB_NAME	A string value. Specifies the database name.
CRYSTAL_DB_USER	A string value. Specifies the database user name.
CRYSTAL_DB_PASSWORD	A string value. Specifies the database user name's password.
CRYSTAL_DB_DLL	A string value. Specifies the location of the Crystal reports DLL.

Using Crystal web reports with a .RPW file extension

Crystal web reports with .RPW file extension are given the Report Encyclopedia file type .RPW. Users can open and print Crystal web reports.

Printing Crystal reports

Using the Crystal reports software, the open server driver cannot redirect output to different printers. The default report server printer is used. When printing Crystal report files, the open server driver uses only the number of copies parameter.

Chapter

5

Building and managing your first Report Encyclopedia

This chapter walks you through the process of setting up and managing a Report Encyclopedia. This tutorial covers the following tasks:

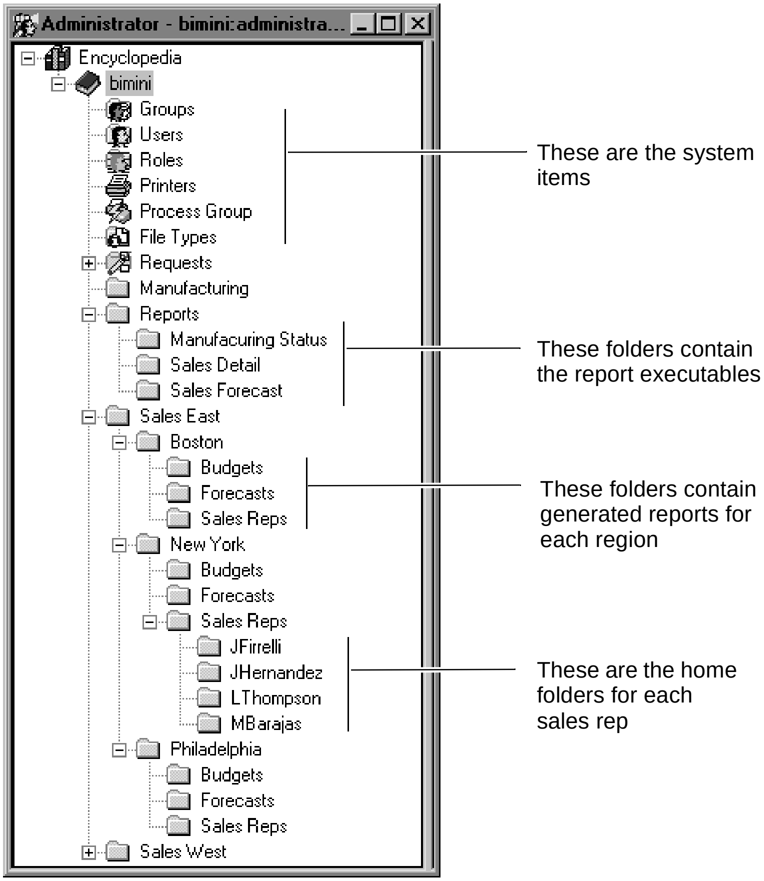
- About the sample Report Encyclopedia
- Setting up the Report Encyclopedia
- Setting privileges for the folders and reports
- Creating the notification groups
- Adding reports to the Report Encyclopedia
- Verifying Report Encyclopedia security
- Allocating report server resources

About the sample Report Encyclopedia

This chapter discusses the planning, building, and management of a sample Report Encyclopedia for MultiChip Technology, a fictitious manufacturer of semiconductors. While the features of the Administrator Desktop and Report Encyclopedia allow for a wide range of solutions, the purpose of the example is to illustrate one possible way to set up a Report Encyclopedia. Your company may have different preferences based on its organizational structure and reporting needs.

The example begins with the default Report Encyclopedia structure. As administrator, you will add and configure Encyclopedia items for the MultiChip sales organization. These items will organize, manage, and provide security for users, reports, and processing resources to ensure smooth operation of the sales forecasting and manufacturing processes.

The following illustration shows the contents of the MultiChip Report Encyclopedia that you will create.



Overview of MultiChip Technology's reporting needs

MultiChip Technology manufactures a wide variety of semiconductor products—static and dynamic memory chips, CPUs, and custom-designed circuits. The company sells these products through a geographically distributed sales force located in eastern and western regions. Each of those regions has offices in several cities.

Sales are managed according to a quarterly revenue forecast that must meet or exceed the operating plan for the business. To manage expenses and growth effectively, the forecast needs to be within 5% of the actual revenue booked by the company. To accomplish this goal, the reporting system must address the following business issues:

- Coordinate the forecast of products ordered with the schedule of products being manufactured.
- Find discrepancies in the sales forecast so they can be resolved by the end of the quarter. Typical discrepancies include:
    - Credit-approval problems
    - Double booking of sales
    - Orders for products that will not be available
- Identify deals in danger of slipping out of the quarter.
- Track new deals being added to or removed from the forecast that may affect manufacturing quantities.

Sales representatives write orders that are entered into a sales forecast database. That database also contains customer history such as credit and previous order profiles. The information is then reviewed as follows:

- Sales representatives review the data for accuracy.
- Sales managers evaluate how their region is doing relative to sales goals and also check for discrepancies.
- Manufacturing managers see what parts need to be produced.

Some of these needs can be addressed by reviewing the database. Other needs require reports. To support the information requirements, the reporting system generates the following reports.

Report	Description	Received by
Sales Detail	Shows each part ordered by customer, quantity, price, desired delivery date, and so on.	Sales representatives Sales managers
Sales Forecast	Summarizes planned vs. forecasted vs. actual orders, top deals, deals in trouble, and other management information.	Sales managers
Manufacturing Status	Lists parts and quantities to be produced in the next 90 days.	Sales representatives Sales managers Manufacturing managers

Resources required to build the Report Encyclopedia

To build the custom Encyclopedia, different tasks are performed by different people within a typical organization:

- Developers create the report designs based on requirements from the sales organization. These reports will then be placed in the Encyclopedia to be distributed to users.
- Sales managers and manufacturing managers provide lists of individuals who must have access to certain reports.
- Administrators use the reports and organizational profiles to set up the Encyclopedia and manage the report server resources.

The following sections describe the steps to set up the Report Encyclopedia for MultiChip Technology.

Setting up the Report Encyclopedia

As administrator, planning the Report Encyclopedia structure for your own organization will be easier if you work through the steps in this example and see the issues the example addresses. The users and the roles those users play are often closely intertwined in terms of their information needs. As administrator, you can begin by adding users and then defining roles and associating those roles with the users. Or, you can define the roles first.

In the following example, you walk through the creation of a custom encyclopedia for New York sales representatives in the East region. You can follow the same general steps to set up the Encyclopedia for other cities within that region and for all regions.

Administrators can also use Actuate utilities ACPIMPRT and ACIMPORT to create a Report Encyclopedia from the report server's native file system hierarchy and input files that contain additional Report Encyclopedia information. For more information about setting up the Report Encyclopedia, see Chapter 5, "Report Encyclopedia utilities," in the *Actuate e.Reporting Server Guide*.

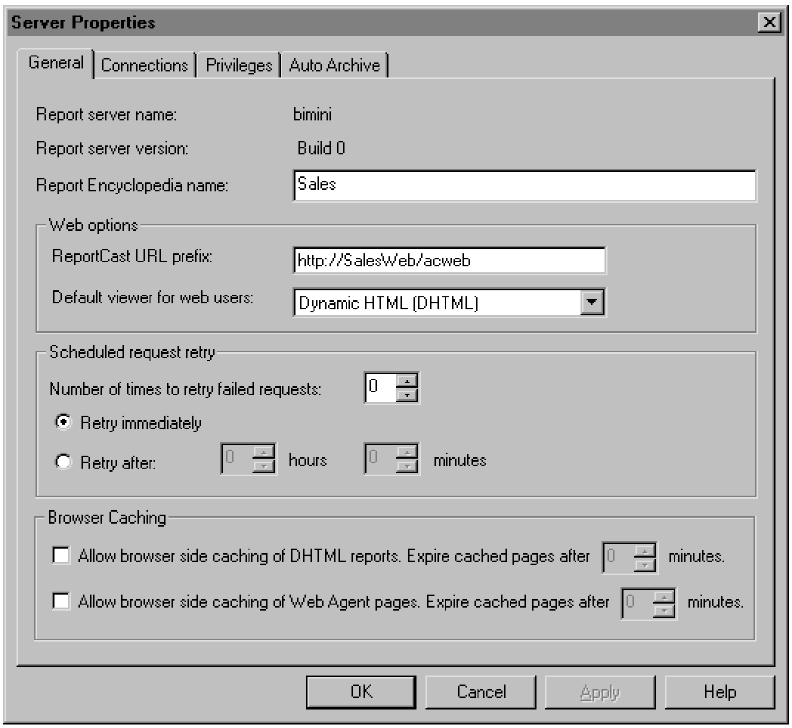
Encyclopedia settings

As administrator, having already planned the usage of the Report Encyclopedia, you can specify global settings for the Report Encyclopedia using the Server Properties dialog box. In the dialog box, set the Report Encyclopedia defaults for the following items:

- User web viewing preference
- Scheduled request retry
- Report Encyclopedia home folder access
- Auto-archive

How to set Report Encyclopedia settings

1 As administrator, select the Report Encyclopedia volume folder and choose File→Properties, or choose Properties from the Report Encyclopedia volume's context menu to display the Server Properties dialog box.



2 From the Server Properties dialog box, choose the General tab. In this page you can set the:

- User web viewing preference
- Scheduled request retry options

You can also set the Report Encyclopedia name displayed on the ReportCast web pages and the default ReportCast web server used to display HTML pages that are stored in the Report Encyclopedia.

3 When the report server is running you can set the default options for scheduled request retry options, and any other options as needed.

Set the web viewing option to DHTML if you know users need to view Actuate reports in DHTML using a web browser. Also, viewing reports as DHTML is the only way users can view Actuate reports that use page security.

4 Choose the Privilege tab to display the Privileges page for the Report Encyclopedia home folder.

After you have set up users and roles, you can change the privileges for users and roles as needed. Every user has visible, secure read, read, delete, and execute privileges on the home folder.

5 Select the Auto Archive tab to display the auto-archive settings for the Report Encyclopedia.

You can set the default auto-archive rule for the Report Encyclopedia for all reports and for specific file types. If you have installed an archive driver to archive files before deleting, enter that information here.

You can also override the Report Encyclopedia defaults for specific folders and files such as report documents.

Adding users

In this example, you, as administrator, having already planned the structure of the Report Encyclopedia, know you want to organize users, roles, and privileges. In this section, you will add users by specifying their user names. You will specify privileges and roles later.

How to add users

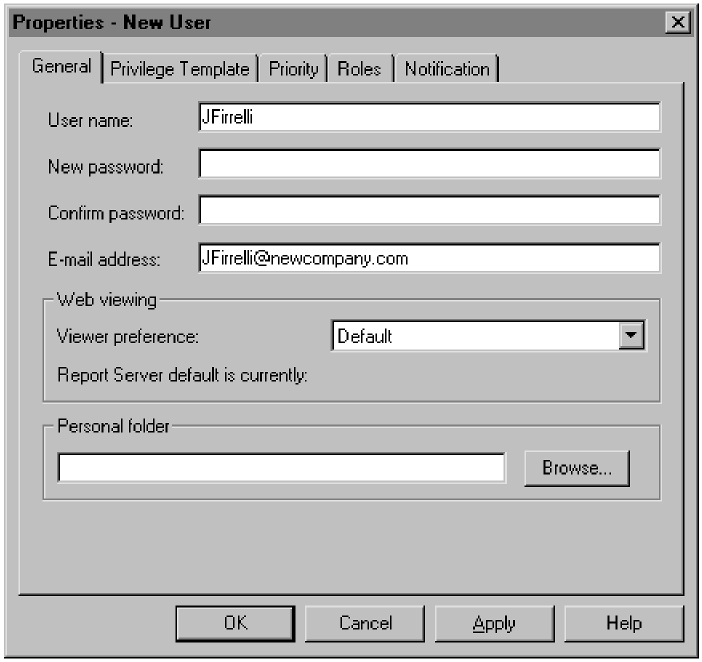
1 As administrator, select the Users folder and choose New User from its context menu.

The user's Properties dialog box appears.

2 Enter the following information in the dialog box.

User Name: JFirrelli

For the purposes of this example, use the default settings for notification preference, privileges, priority, and roles. Discussion of these settings occurs later in this chapter.



3 Choose Apply.

4 To add more users, repeat steps 1, 2, and 3. For the purposes of this example, add the following users: JHernandez, LThompson, MBarajas, LHerndon, MPatterson.

5 When you are finished adding users, choose OK.

The Administrator window now shows an administrator and five users.

Using roles

Administrators typically use roles to assign common privileges for employees at certain levels, such as sales representatives or managers. The roles assigned relate to how information will be shared and operate independently of the hierarchy within the business organization. When users generate reports, they can use these roles to easily assign file privileges to groups of users.

For a given file or folder, a role can also inherit the privileges associated with another role. Creating roles with parents makes it easy to change privileges for users at different levels by changing only the parent. This technique eliminates the need to assign several roles to some users.

For example, if sales managers have access to the same items as sales reps, you can make the sales rep role the parent for the sales manager role. Sales managers would then inherit all privileges from sales reps for a given file or folder.

The following table summarizes the planned relationships among the roles, users, and privileges for MultiChip Technology.

Role	Users	Report file privileges	Inherits from...
Sales Rep	JFirrelli LThompson MBarajas	Read: Sales Detail Manufacturing Status	None
Sales Manager	MPatterson	Read and execute: Sales Forecast	Sales Rep
Eastern Regional Manager	JHernandez	Read: All folders in the East region except home folders	Sales Manager
Manufacturing Manager	LHerndon	Read and execute: Manufacturing Status	None

Using roles to handle personnel changes

Using roles makes it easy to handle personnel changes, such as promotions, new hires, departures, vacations, and reorganizations. For example, if the New York sales manager (JHernandez) goes on vacation and designates JFirrelli as the acting manager, you, as administrator, could temporarily add JFirrelli to the Sales Manager role. Doing so would assure that JFirrelli can access reports sent to the sales managers. When JHernandez returns, you simply remove JFirrelli from the Sales Manager role.

How to define roles

1. As administrator, select the Roles folder and choose New Role from its context menu.

   The Create a New Role dialog box appears.
2. Type Sales Rep, then choose Apply.
3. Type over the text to create the next role.
4. Repeat steps 2 and 3 to create the following roles: Sales Manager, Eastern Regional Manager, Manufacturing Manager.
5. Choose Close to return to the Administrator window.

Now that you have defined the roles, the next operation is to assign users to those roles.

How to assign users to roles

1 As administrator, select the Sales Rep role and choose Properties from its context menu.

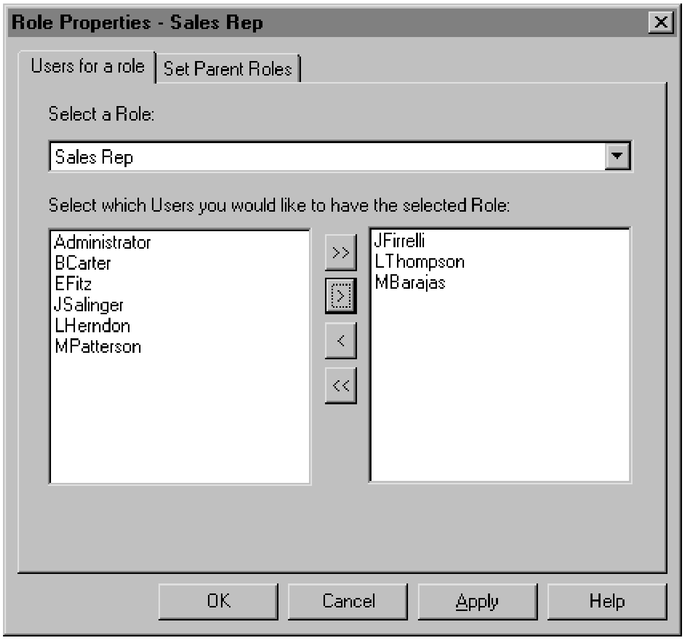
   The Role Properties dialog box appears.

2 Press Ctrl and click the following user names from the list on the left side of the pane: JFirrelli, LThompson, MBarajas.

3 Click the single right arrow button (>) to add them to the Sales Rep role.

4 Choose OK.

If you use the double right arrow button (>>), every name on the list will move from the left pane to the right pane.



How to assign parent roles

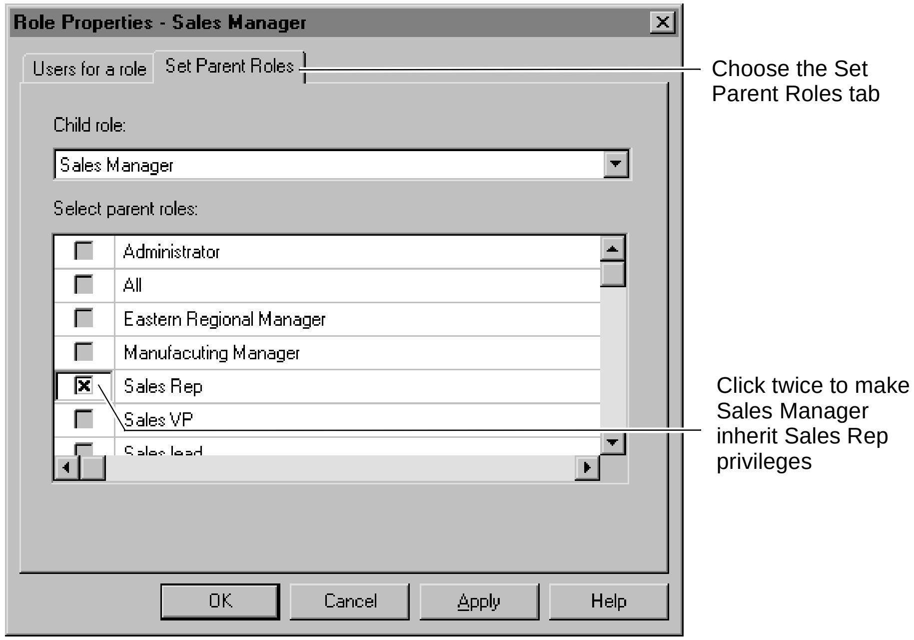
1 As administrator, select the Sales Manager role and choose Properties from its context menu.

2 Select MPatterson and click the right arrow button to add her to the Sales Manager role.

3 Choose the Set Parent Roles tab.

   The Set Parent Roles page appears.

4 Click twice in the check box next to Sales Rep to select it as the parent role. Then choose Apply.



5 Choose the Users for a role tab.

The User for a role page appears.

6 Select the Eastern Regional Manager role.

Now you assign parent roles to more users.

1 Select JHernandez and click the right arrow button.

2 Choose the Set Parent Roles tab.

The Set Parent Roles page appears.

3 Select the Eastern Regional Manager role.

4 Select Sales Manager as the parent role, then choose Apply.

5 Choose the Users for a role tab.

The User for a Role page appears.

6 Select the Manufacturing Manager role.

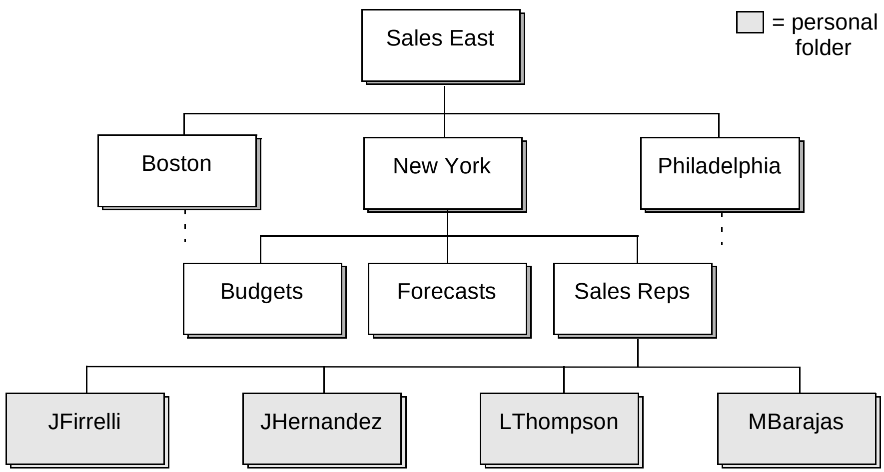
7 Select LHerndon and click the right-arrow button, then choose Apply.

8 Choose Close when you have finished defining all the roles.

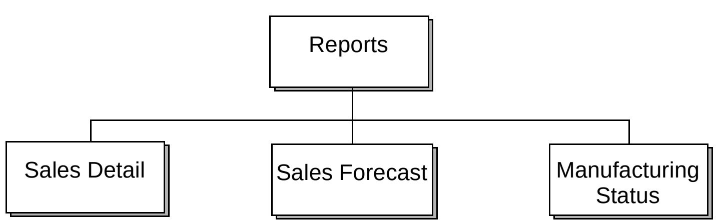
Creating Report Encyclopedia folders

To make storing and retrieving Report Encyclopedia items easy for the users, an administrator can create a set of hierarchical folders. Folders provide a familiar way for users to navigate and find the report items they need. Arranging the folders in a hierarchy makes it easy to organize many report items. Administrators can also specify privileges by folder to restrict access to sensitive information.

When planning your folders, it can be helpful to draw a diagram showing the hierarchy. The following diagram shows the folder hierarchy for sales reps in the Eastern region. In the diagram, only the folders for New York are shown; however, the same folder structure is repeated for all cities in the region.



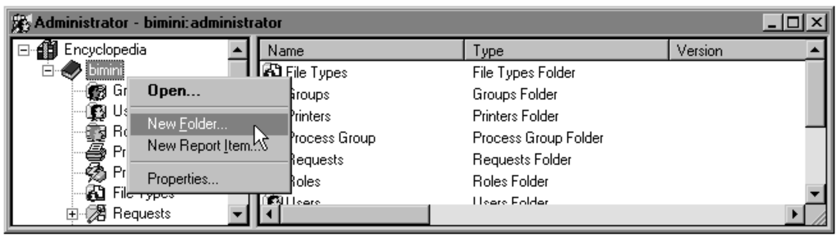
The personal folder for each sales rep stores their report documents, such as their Sales Detail reports. The executables used to generate the reports are stored in another set of folders. Storing report executables in a separate folder hierarchy makes it easy to limit access to only the developers who create the reports and the administrator. The following diagram illustrates the folder hierarchy for storing report executables.



Most reports are generated for specific users or groups of users, and the report documents are delivered to the user's home folder or to other folders under a given city or region. In this example, the Manufacturing Status report needs to be viewed by all users. Because every user needs access to this report, you can save processing time and storage space by generating a single copy of the report and storing it in a folder to which all users have access. When you, as administrator, create the folder hierarchy, you will add a folder called Manufacturing Info at the root level. Then you will give all users privileges to this folder.

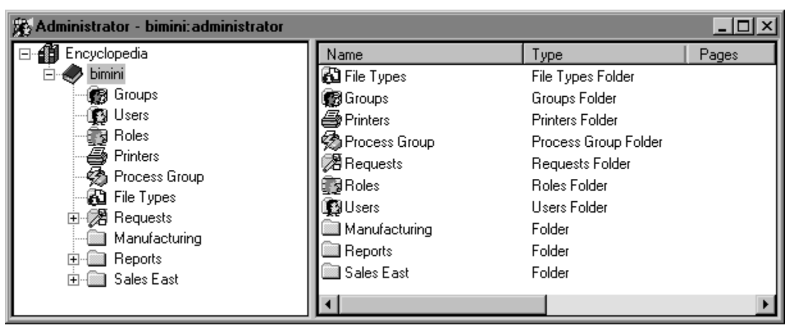
How to create the folder hierarchy

1 As administrator, select the Report Encyclopedia volume folder and choose New Folder from its context menu. For the top-level folders, the containing folder is the Report Encyclopedia volume.

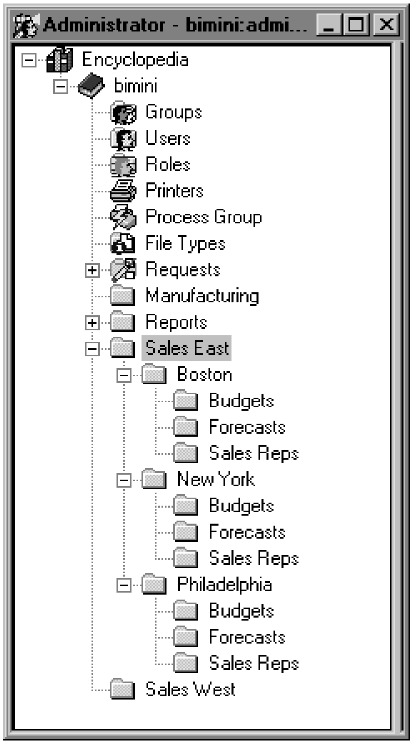


A new folder appears with the name New Folder.

2 Type the name of the new folder. For the first folder, type Sales East.



3 Repeat steps 1 and 2 to create all the folders in the hierarchy as shown in the following illustration.



How to create personal folders

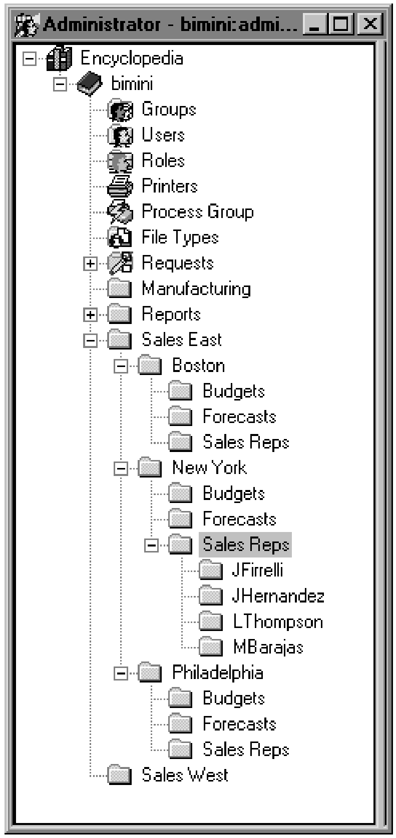
1 As administrator, select the Sales Reps folder under the New York folder.

2 Choose New Folder from the Sales Reps folder's context menu.

3 Type JFirrelli as the name of the folder. This folder will serve as the personal folder for JFirrelli.

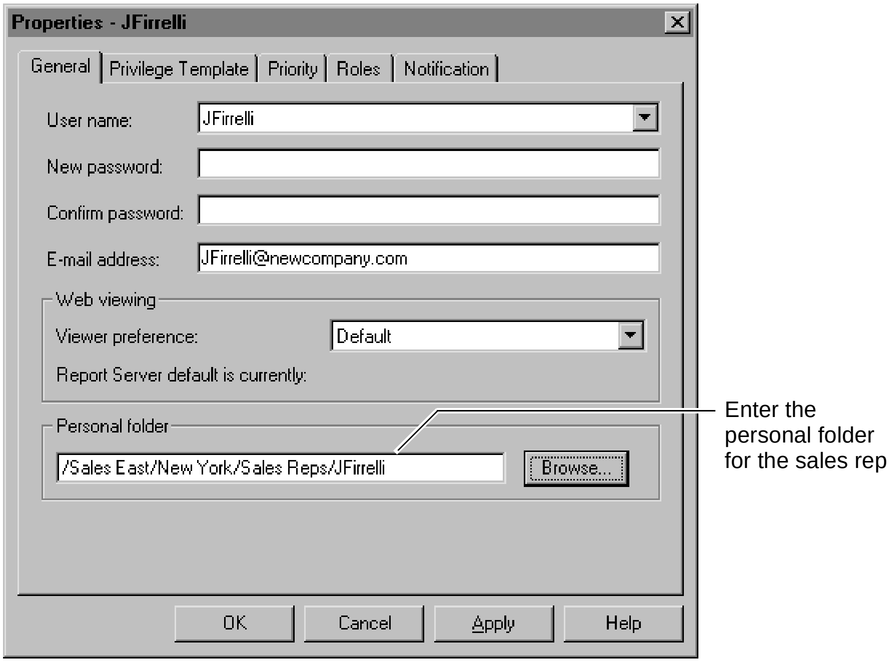
Repeat this procedure for each sales representative using the following folder names: JHernandez, LThompson, and MBarajas.

Your folder hierarchy now looks like the following illustration.



4 After you have created the personal folders, go to the Users folder and update the Users home folder information in the user's Properties dialog box.

For example, the personal folder information for JFirrelli is updated.



If you enter the personal folder names before you create the folders, the Administrator Desktop asks if you want to create the folders if you choose OK or Apply.

For more information about adding users, see "How to add a user" in Chapter 2, "Managing Report Encyclopedia security."

Setting privileges for the folders and reports

The purpose of the personal folders is to provide each user with a private and secure location to store documents. No one except the user should have privileges to a personal folder. In most cases, you, as administrator, assign privileges to files and folders using roles. A personal folder is a situation in which you should assign privileges directly to the user.

How to set privileges for personal folders

If you specify a personal folder for the user in the user's Properties dialog box, the user is automatically granted full privileges to the personal folder, and no privileges to any other folders. You can change the privileges for the personal folder.

1 As administrator, select the personal folder for JFirrelli (found in Sales East/New York/Sales Reps).

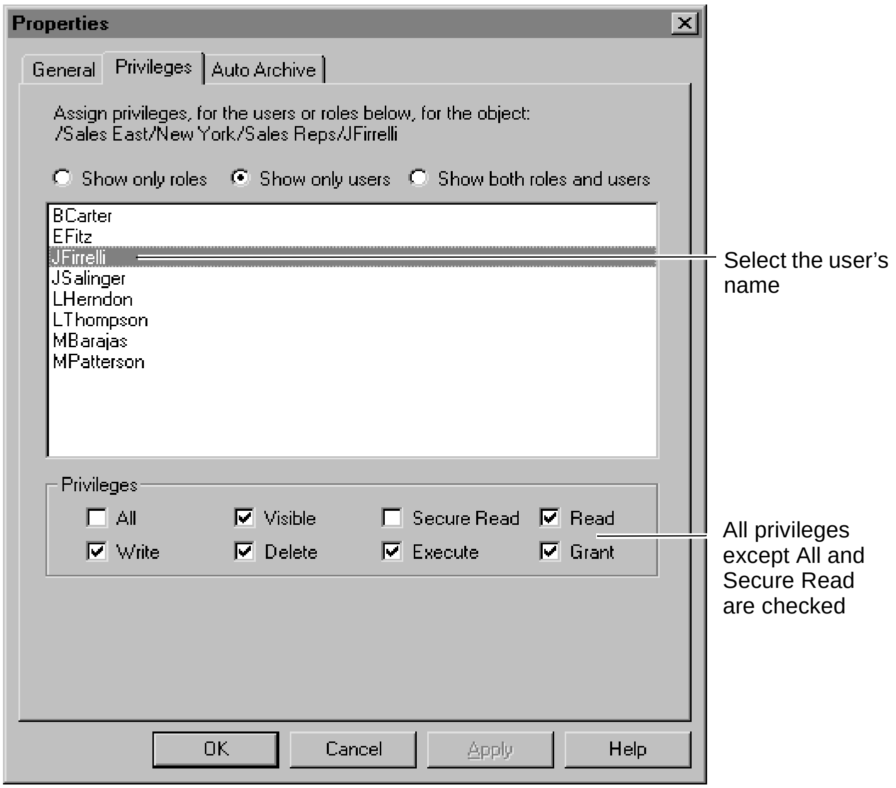
2 Choose Properties from the folder's context menu.

The Properties dialog box appears.

3 Choose the Privileges tab.

Depending on the option selected, the Privileges page displays either roles, users, or both roles and users. Select the user option to display the list of all the users you created. By default, the administrator has full privileges to all folders, and users have full privileges to their personal folder, but not for other folders.

4 Select JFirrelli to see that the user has all privileges except All and Secure Read for the folder.



5 Choose OK to save your settings and close the dialog box.

For the purposes of the MultiChip Technology example, repeat steps 1 through 5 for each of the following users: JHernandez, LThompson, and MBarajas.

Granting a privilege on a folder automatically grants read privilege for all folders above it in the hierarchy because the user has to be able to see the complete hierarchy in order to find his own folder. So, when you grant privileges on a user's home folder, you do not need to go through the additional step to provide privileges for JFirrelli on the Sales Reps, New York, or Sales East folders.

How to set privileges for reports

As administrator, you begin by creating the report subfolders: Sales Detail, Sales Forecast, and Manufacturing Status. These folders store the report executable files.

For information on adding reports to a Report Encyclopedia see, "Adding reports to the Report Encyclopedia," later in this chapter.

Most users do not need access to these folders because the reports are generated automatically with the results sent either to their home folders (Sales Detail and Sales Forecast reports) or the Manufacturing Info folder (Manufacturing Status report). There will be situations where managers want to run the reports on demand.

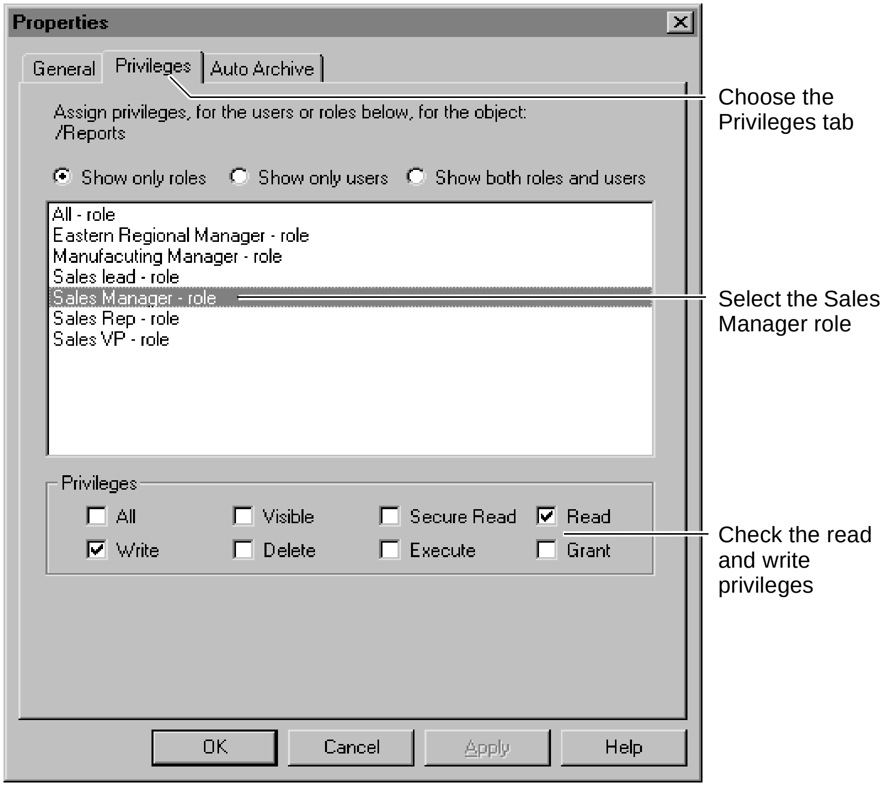
To run a report from the Reports folder, a sales manager needs:

- Read and write privilege on the Reports folder
- Read and execute privilege on the report executable files

To grant these privileges to all sales managers, use the Sales Manager role. First, set the privileges for the Reports folder as follows:

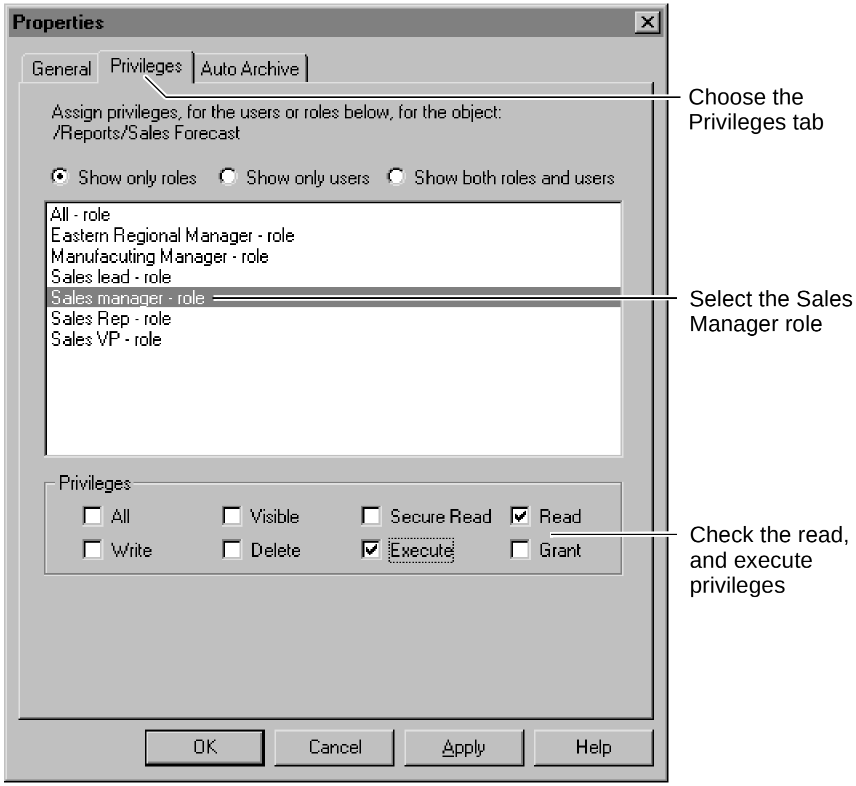
1. Select the Reports folder.
2. Choose Properties from the folder's context menu.

   The Properties dialog box appears.
3. Choose the Privileges tab.
4. Select the Sales Manager role and check the read and write privileges.



5 Choose OK to save your settings and close the dialog box.

Next, follow the same steps for each of the report executable files by selecting the file, displaying the Properties dialog box, and checking the read and execute privileges for Sales Managers.



Creating the notification groups

Notification groups provide a convenient way to inform sets of users that reports are available. In many cases, the members of a notification group are the same as those in a role. For example, a Sales Reps group for notifying sales representatives of the Sales Detail report has the same users as the Sales Rep role.

Sometimes, a notification group can encompass multiple roles. For example, a Manufacturing Info group for notifying users of the Manufacturing Status report can include sales reps and manufacturing managers.

MultiChip Technology's plan for notification groups is summarized in the following table.

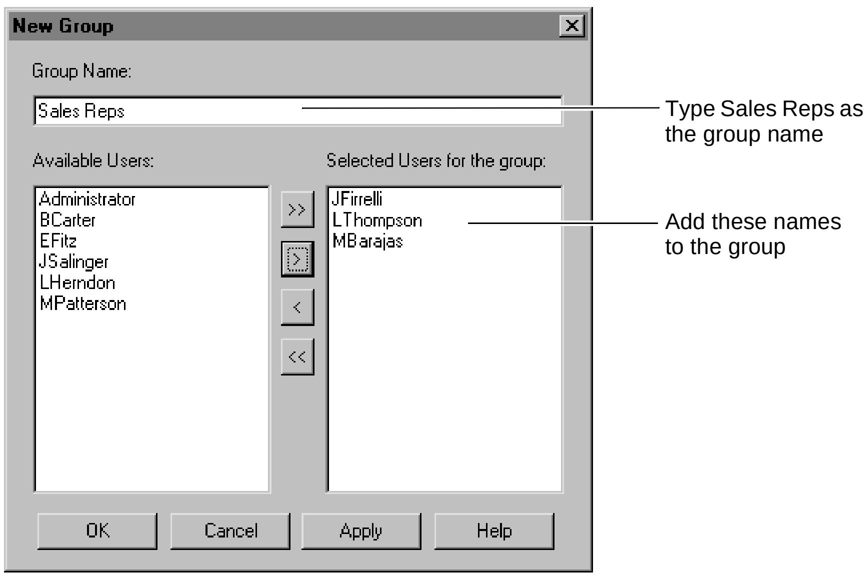
Group	Users
Sales Reps	All sales reps
Sales Managers	All sales managers
Manufacturing Info	All sales reps and manufacturing managers

How to create notification groups

1 As administrator, select the Groups folder and choose New Group from its context menu.

The New Group dialog box appears.

2 Type Sales Reps as the group name, then select JFirrelli, LThompson, and MBarajas and click the right arrow button to add them to the group.

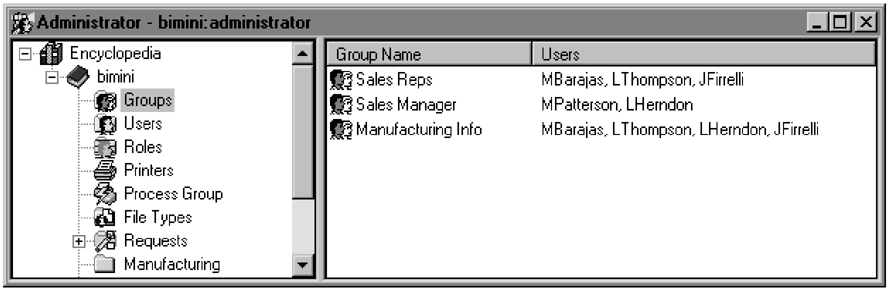


3 Choose Apply to save the new group.

4 Repeat steps 1 through 3 to create the Sales Manager group with LHerndon and MPatterson, and the Manufacturing Info group with JFirrelli, LHerndon, LThompson, and MBarajas.

5 Choose Close to exit the New Group dialog box.

The groups now appear as shown in the following illustration.



Adding reports to the Report Encyclopedia

After a developer creates the report executables, those report executable files must be copied into the Report Encyclopedia. To do so, you can drag the files from the file system into the appropriate Report Encyclopedia folder.

For a production Report Encyclopedia, add reports created by Actuate report developers. For this walk through, add reports distributed with Actuate Developer Workbench. The report are in subdirectories of the Developer Workbench EXAMPLES directory.

How to copy report executables to the Report Encyclopedia

1 Using File Manager or Explorer, select one of the report files.

2 Drag the file to the appropriate destination folder under the Reports folder in the Report Encyclopedia.

3 Repeat steps 1 and 2 for each report file.

4 Add other external files such as bitmap files required by the report executable. Use the right mouse button to access the context menu for the destination folder. Select New Report Item and use the Save to Volume dialog box to copy files into the Report Encyclopedia.

Scheduling and running reports

See Chapter 4, "Running a report from the desktop," in *Using e.Reports*.

Using Advanced e.Reporting Server features

If you are using the Advanced e.Reporting Server you can:

- Run and print open server reports
- View Actuate Reports that use page security
- Use a Report Server Security Extension application

To use open server reports, you must create open server file types and import the open server report files. For more information about configuring the report server for open server reports, see "About Actuate open server" in Chapter 4, "Managing report server resources."

For more information about importing open server reports, see Chapter 2, "Working with the desktop Navigator," in *Using e.Reports*.

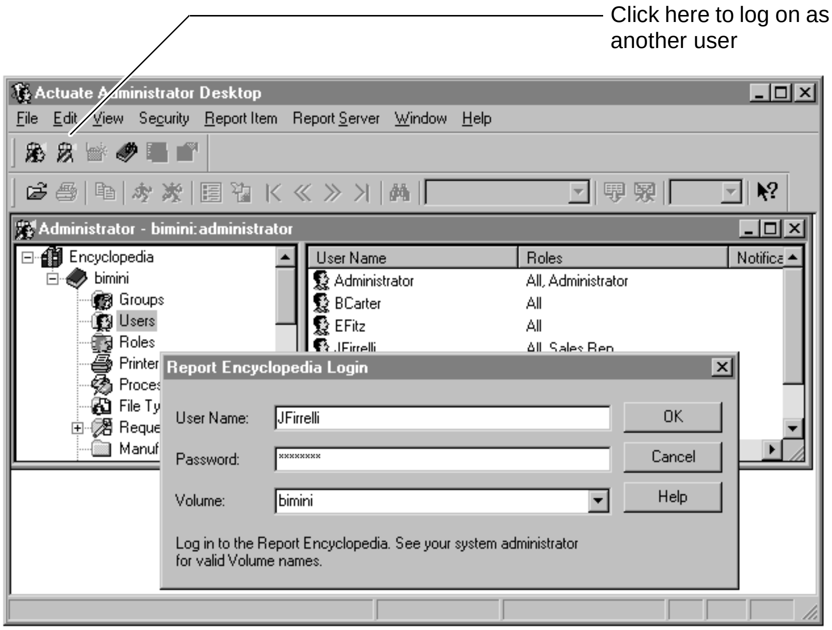
To enable Actuate reports that use page security, set users' privileges on the report document .ROI to secure read. For information about enabling page security, see "Enabling report page security" in Chapter 2, "Managing Report Encyclopedia security."

To extend the functionality of page security, you can install a RSSE application. For information about RSSE, see "About Actuate report page security" in Chapter 2, "Managing Report Encyclopedia security." For information about installing an RSSE application, see the *Actuate e.Reporting Server Guide*.

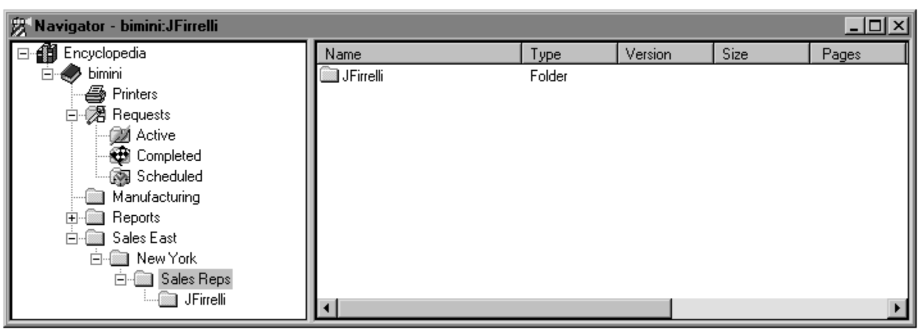
Verifying Report Encyclopedia security

With careful planning of the users, folders, roles, and groups, your Report Encyclopedia meets organizational security needs. As administrator, after you create the users, folders, roles, and groups, you should test the Encyclopedia security to make sure everything is set up correctly. An easy way to test security is by logging into the Encyclopedia under different user names and exploring the folders to ensure the user has the appropriate access. The same test will also reveal users that have inappropriate access.

To log on as a user who is not an administrator while you are in the Administrator Desktop, choose the Navigator icon. Then enter the user's name and password (if any) in the Report Encyclopedia Login dialog box.



The Encyclopedia appears exactly as it will for the user. The following illustration shows the Encyclopedia as JFirrelli would see it.



Allocating report server resources

After the Encyclopedia is set up, the administrator must manage the report server resources to handle report generation in the most efficient way. Chapter 4, "Managing report server resources,"describes the role process groups play in report generation and outlines the factors an administrator must consider when configuring the processes. This section gives specific examples of how you would create and manage process groups for the MultiChip Technology Report Encyclopedia.

Overview of the company’s needs and resources

The two major factors to consider when planning how to configure process groups are the scheduling needs of Report Encyclopedia users and the server resources available.

In this example, as administrator, you have set up the Encyclopedia for only one department in the company: Sales. Typically, the server needs to handle requests from other departments as well. The server may also run other interactive applications not directly related to the reporting system. To maintain good response time, your configuration must allocate resources to handle some on-demand requests together with regularly scheduled requests, and still reserve CPU time for other server activities.

MultiChip Technology prioritizes its needs as follows:

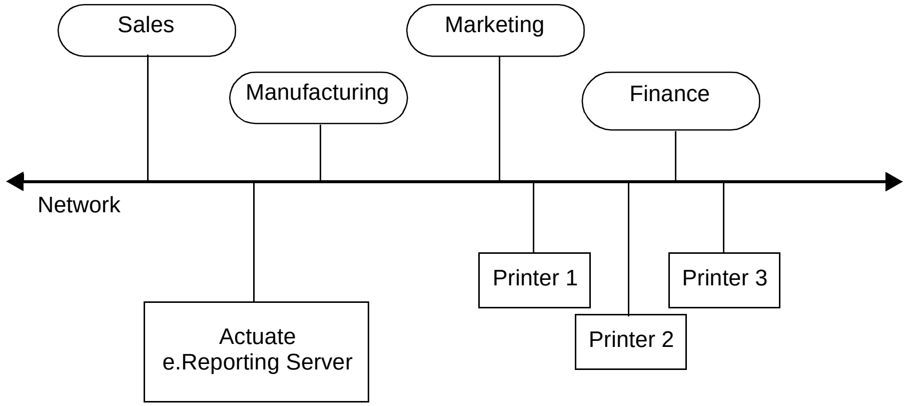
- During business hours, fast response time for interactive applications is critical. The report server should process regularly scheduled requests, limit the number of on-demand reports, and reserve bandwidth for interactive users.

  If Report Encyclopedia users are using ReportCast to view Actuate reports in DHTML format from the Web, you can adjust the View process group settings to optimize the DHTML viewing sessions. For information about the View process group, see “Administering the View process group” in Chapter 4, “Managing report server resources.”

- At night and on weekends, interactive usage is minimal and the entire server can be used for processing requests. The report server should focus on high- and medium-priority requests while satisfying as many low-priority requests as time permits.

The machine running the report server has two CPUs. The extra CPU allows more processes to run concurrently. To print the reports, three printers are available to the server.

The following diagram illustrates the network configuration.



Understanding strategies for configuring processes

Because the company has different needs during daytime and nighttime, you, as administrator, will create two sets of process groups.

Since sales representatives access the Report Encyclopedia at all hours from their web browsers, configure the View process group to have at least one View process running at all times and set the maximum number of View processes to four.

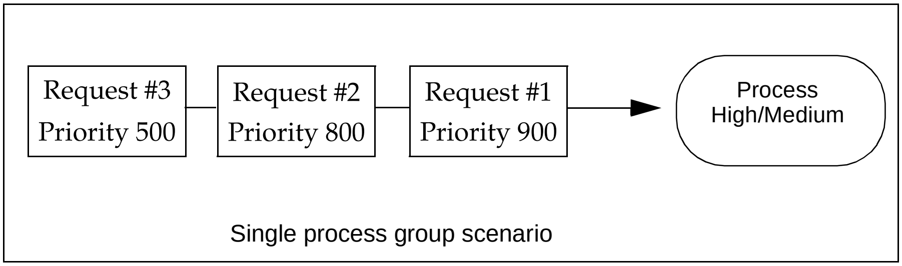
Planning daytime strategy

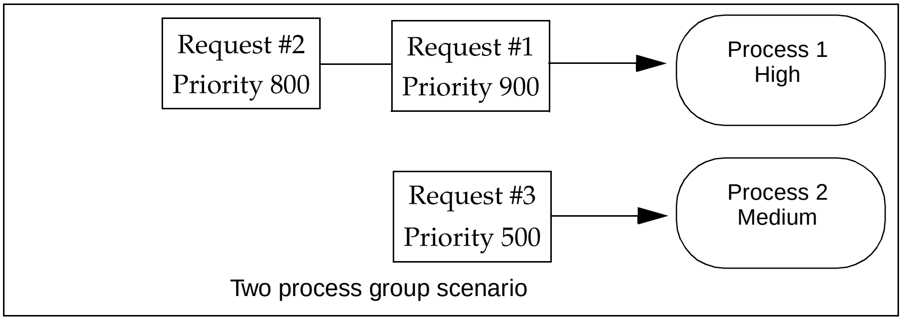
To handle daytime traffic, you, as administrator, will create two Factory process groups and one Print process group:

- The Daytime High group runs high-priority jobs and has two processes.
- The Daytime Medium group runs medium-priority jobs and has one process.
- The Daytime Print group has one process to handle all priorities of print requests.

You create two Factory process groups to ensure that medium-priority jobs will have some processing time. Suppose you created only one process group for both high- and medium-priority jobs. If there are a great number of high-priority jobs, the process group might spend all its time processing those and never get to the medium-priority jobs. If, however, you create a second process group to handle only medium-priority jobs, you ensure that those jobs will be processed.

The following diagram illustrates the difference between creating one process group and creating two process groups.





Having a single Print group with just one process limits on-demand printing to just one of the printers during business hours. The other two printers remain free for use by other applications.

This strategy also provides no process to handle low-priority jobs. They are handled during nights and weekends.

Planning nighttime and weekend strategy

To handle nighttime and weekend processing, you, as administrator, will also create two Factory-process groups and one print-process group. However, the priorities and number of processes are different:

- The Night-Weekend All group handles jobs of all priorities and has four processes.
- The Night-Weekend Low group handles only low-priority jobs and has just one process.
- The Night-Weekend Print group has three processes, one for each printer.

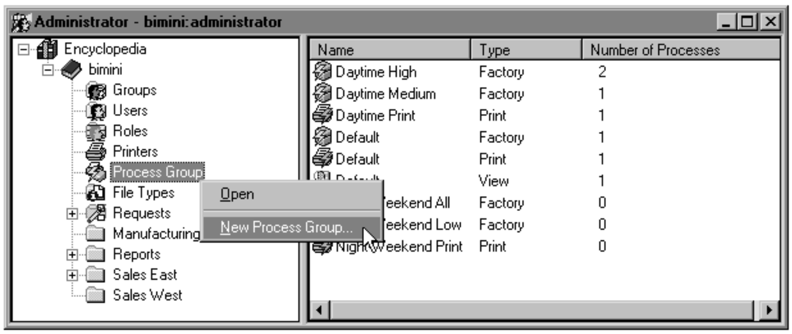
Creating three processes in the Print group allocates one process for each of the three printers. Since little or no on-demand printing is done during nights and weekends, all printers can be used for printing scheduled reports.

Configuring process groups

To configure the process groups, you, as administrator, will create each of them first, and then set their priorities and schedules.

How to create process groups

1 As administrator, select the Process Group folder and choose New Process Group from its context menu.



The New Process Group dialog box appears.

2 As the name of the group, type:

Daytime High

3 Choose Factory as its type, then choose OK.

4 Repeat steps 1 through 3 to create the other process groups, using the following information.

Process group name	Group type
Daytime Medium	Factory
Daytime Print	Print
Night-Weekend All	Factory
Night-Weekend Low	Factory
Night-Weekend Print	Print

How to set priorities and schedules

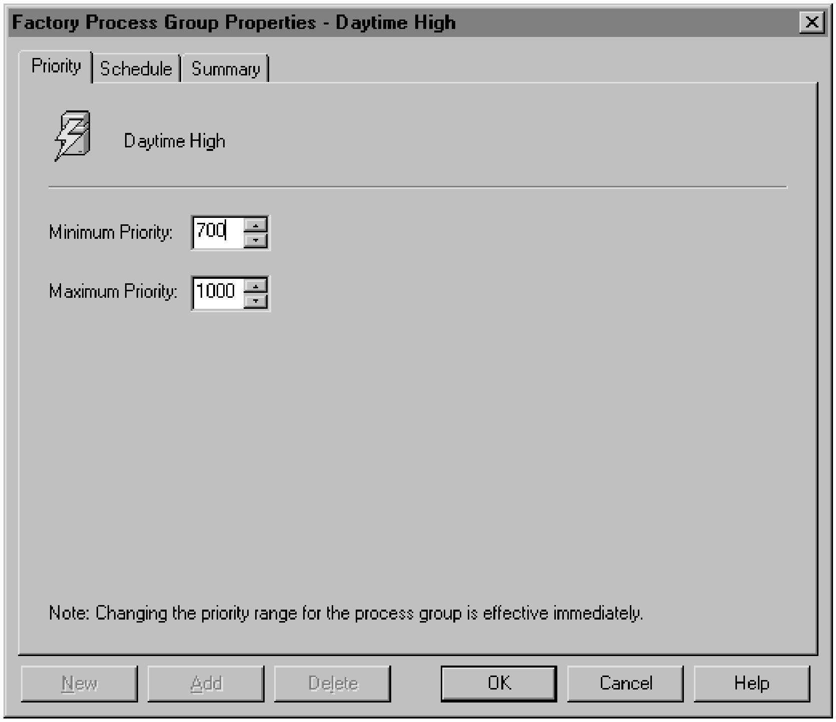
1 As administrator, select the Daytime High process group and choose Properties from its context menu.

The Properties dialog box appears.

2 Choose the Priority tab.

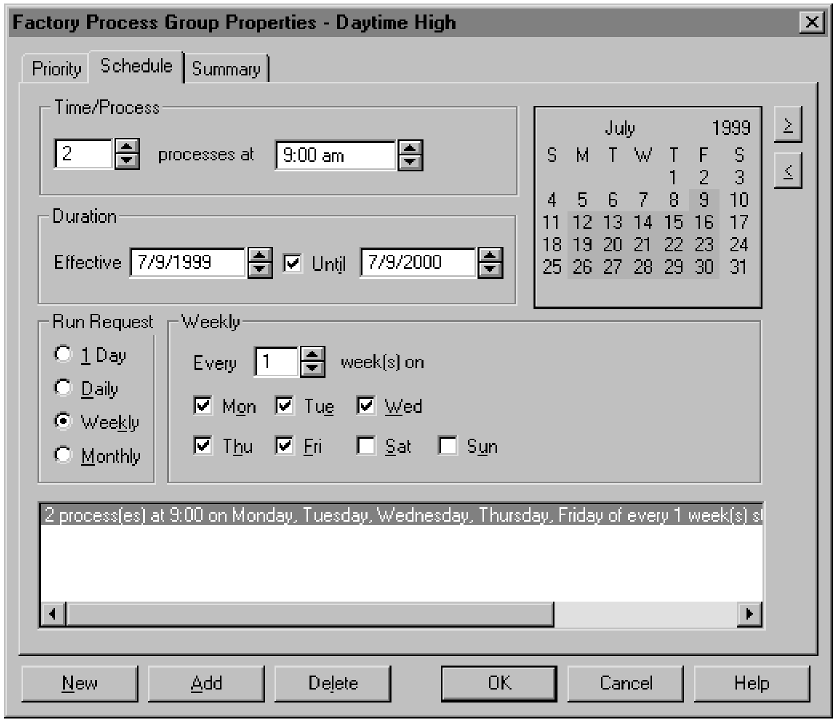
3 Enter 700 as the minimum priority and 1000 as the maximum priority.

This range covers high-priority jobs. You can modify the Minimum Priority setting as needed to cover the jobs that you consider to be high priority.



4 Choose the Schedule tab.

5 Enter the scheduling information as shown in the following illustration.



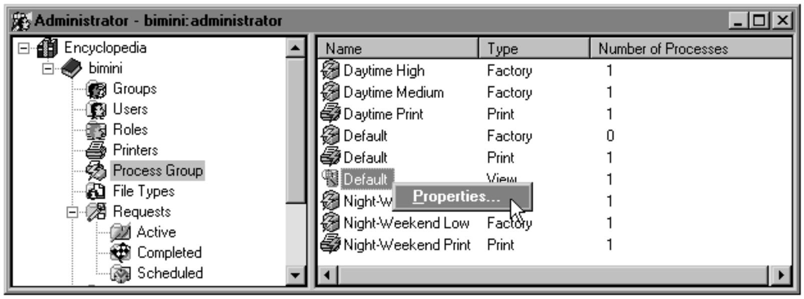
6 Choose Add to add the processes, then choose OK to exit and save your changes.

Repeat steps 1 through 6 using the following information.

Process group	Time/ process	Run request	Priority min-max
Daytime Medium	1 at 9:00am	Weekly: Mon-Fri	300-699
	0 at 5:00 pm	Weekly: Mon-Fri	
Daytime Print	1 at 9:00am	Weekly: Mon-Fri	0-1000
	0 at 5:00 pm	Weekly: Mon-Fri	
Night-Weekend All	4 at 5:00pm	Weekly: Mon-Sun	0-1000
	0 at 9:00am	Weekly: Mon-Fri	
Night-Weekend Low	1 at 5:00pm	Weekly: Mon-Sun	0-299
	0 at 9:00am	Weekly: Mon-Fri	
Night-Weekend Print	3 at 5:00pm	Weekly: Mon-Sun	0-1000
	0 at 9:00am	Weekly: Mon-Fri	

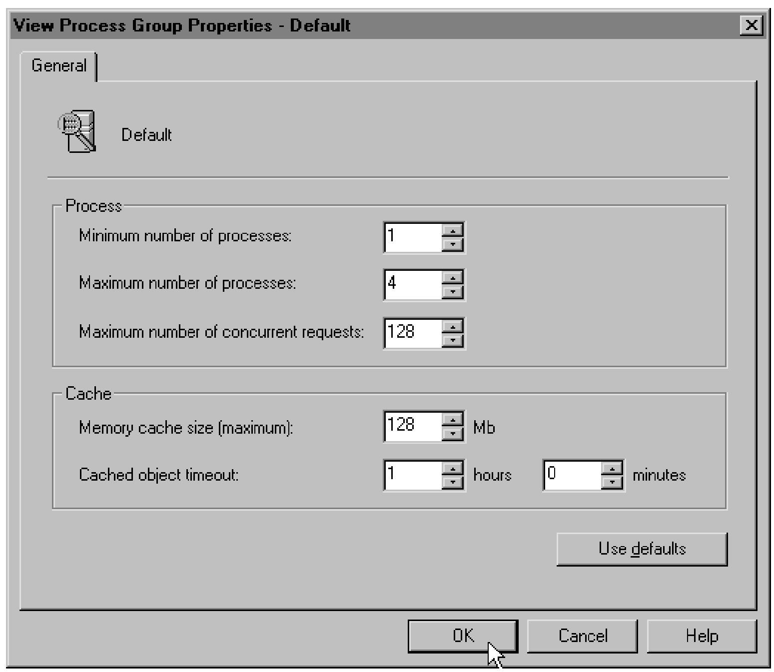
How to configure a View process group

1 As administrator, select the Process Group folder and choose Properties from the Default View process group context menu.



The View Process Group Properties dialog box appears.

2 Change the minimum number of processes to 1 and the maximum number of processes to 4. Choose OK.



Chapter

6

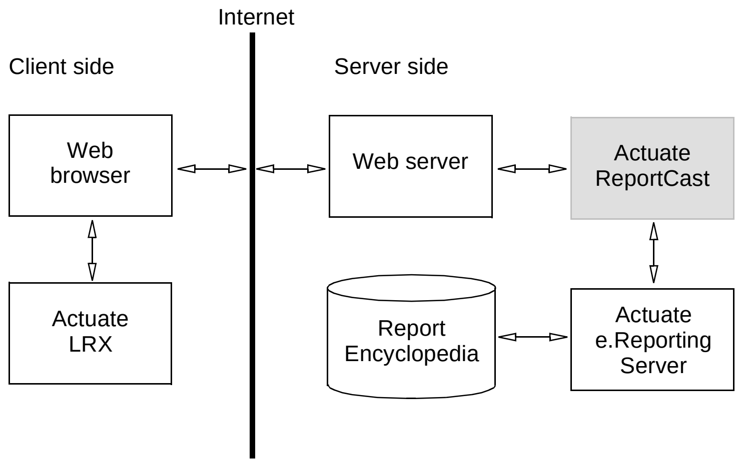
Administering the Report Encyclopedia in the web environment

This chapter contains the following topics:

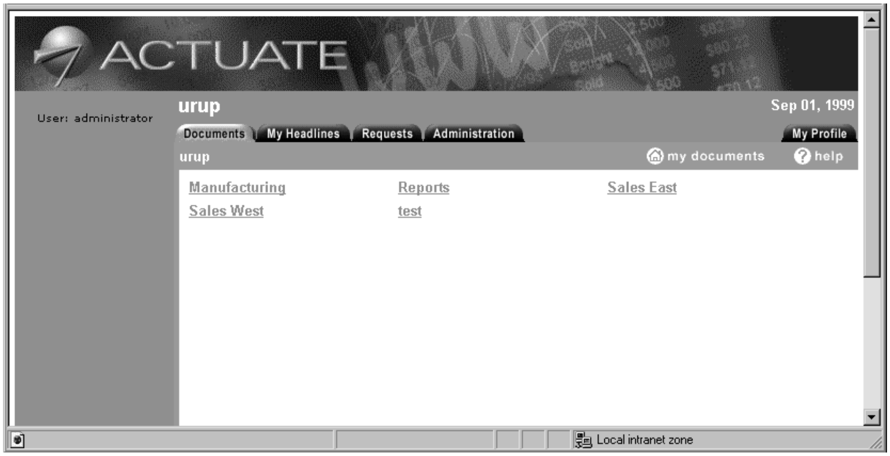
Overview of the Actuate web interface

Using Actuate ReportCast and a web server, you can access reports in a Report Encyclopedia over the Web using a web browser. ReportCast works with Release 3 Report Encyclopedias. ReportCast does not work with Release 2 Encyclopedias.

The following illustration shows where Actuate ReportCast fits in the Actuate Internet architecture.



The following illustration shows a default home page for a Report Encyclopedia. The home page lists the contents of the Encyclopedia root directory.



If you install the Actuate LRX (live report extension) with your web browser, you can view Actuate reports (ROI) over the Web. For more information about the Actuate LRX, see *Using e.Reports*.

In addition to letting users navigate through an Encyclopedia and view reports, Actuate lets administrators create ReportCast channels. Channels use Internet "push" technology to give users access to reports. Actuate supplies the following ReportCast channel web pages:

- List of Channels—A page that lists the channels to which the user is subscribed. (A web site designer can elect to put this list on other pages as well.) This list is sorted alphabetically.
- Channel Contents Page—Displays the contents of a channel. The contents are completed report requests that appear in descending chronological order.
- Subscription Page—A list of channels with check-boxes so that the user can subscribe to or unsubscribe from a channel.
- Channel Administration Page—A page that lets an administrator create, delete, and modify channels.

As administrator, you can customize the look of the Report Encyclopedia pages by changing the ReportCast templates. For more information about customizing Report Encyclopedia web pages, see the Actuate manual *Building an e.Reporting Web Site.*

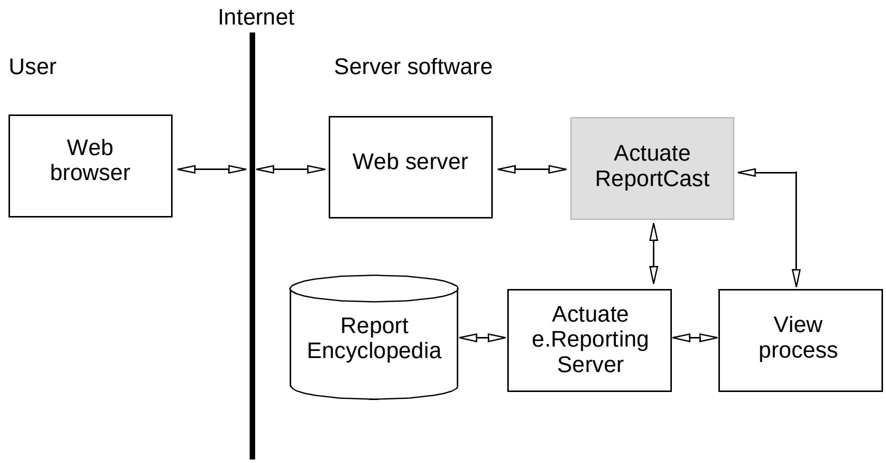
Viewing reports configuration

The Actuate View process technology allows Actuate report documents to be viewed over the Web without the need to install any client software aside from a standard web browser that supports Javascript and dynamic HTML (DHTML).

The View process is an integral component of the Actuate e.Reporting Server. The View process converts pages and other Actuate report document data to DHTML as needed. The report documents continue to be stored and managed in the Actuate Report Encyclopedia as report documents (ROI). This means administrators can use the extensive security provided by the Report Encyclopedia, and since the Actuate reports are not stored as separate HTML files there is no need to maintain separate HTML and .ROI report files.

Using the View process, when a user views a page of a report document over the Web, the View process converts the page and other required report data to DHTML and delivers the page to the Actuate ReportCast. ReportCast and the web server deliver this page to the user as a DHTML page.

The following illustration shows the interaction of the components when using the View process to view Actuate reports.



Users can still view reports in the native .ROI format with the Actuate LRX for Netscape Navigator or Microsoft Internet Explorer and a web browser, or with the Actuate End User Desktop or Actuate Viewer applications.

For information about using DHTML reports, see Chapter 1, “Using e.reports on the Web,” in *Using e.Reports*.

Report viewing modes

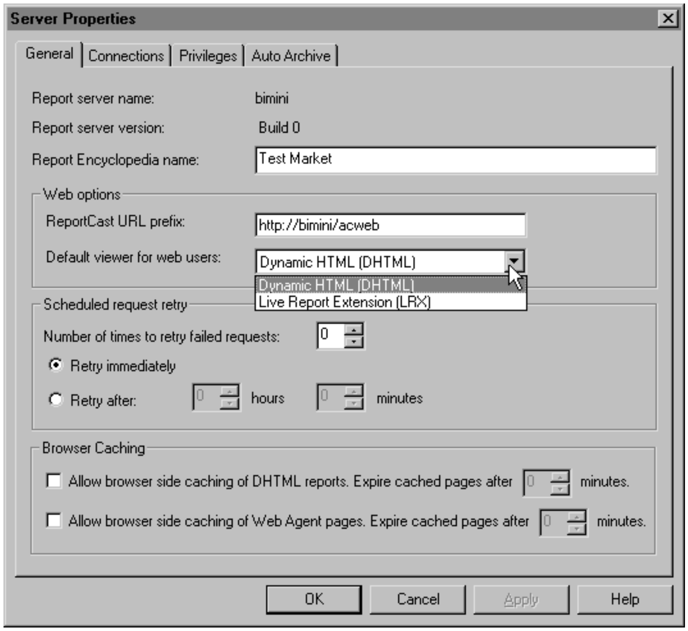
Administrators can specify the viewing mode for viewing Actuate reports over the Web. Specify either the DHTML or LRX. The mode can be set for the Report Encyclopedia and for individual users. The user’s preference overrides the Encyclopedia setting.

- DHTML—Actuate reports converted to DHTML using the Actuate View process. Users need a Javascript and Dynamic HTML capable browser. The web browser must have the use of style sheets enabled.
- LRX—Actuate reports view in the native format. Users must install the Actuate LRX with their web browser.

When viewing a 3.x report from a web browser, your browser tries to use the LRX even if the viewing mode is DHTML.

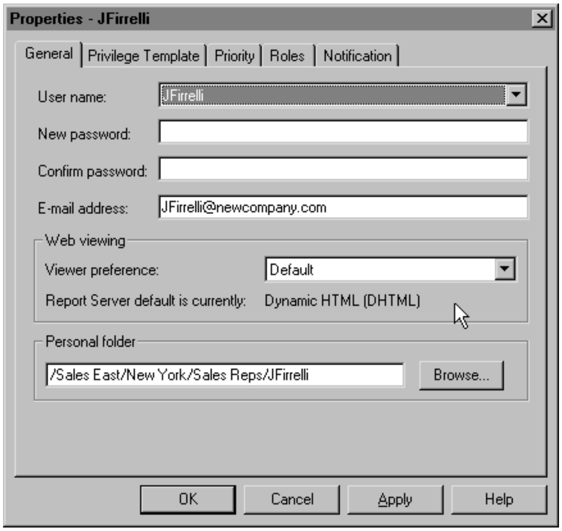
Report Encyclopedia viewing mode

The Report Encyclopedia default web viewing mode for Actuate reports is specified in the Server Properties dialog box. Administrators can specify either DHTML or LRX modes.



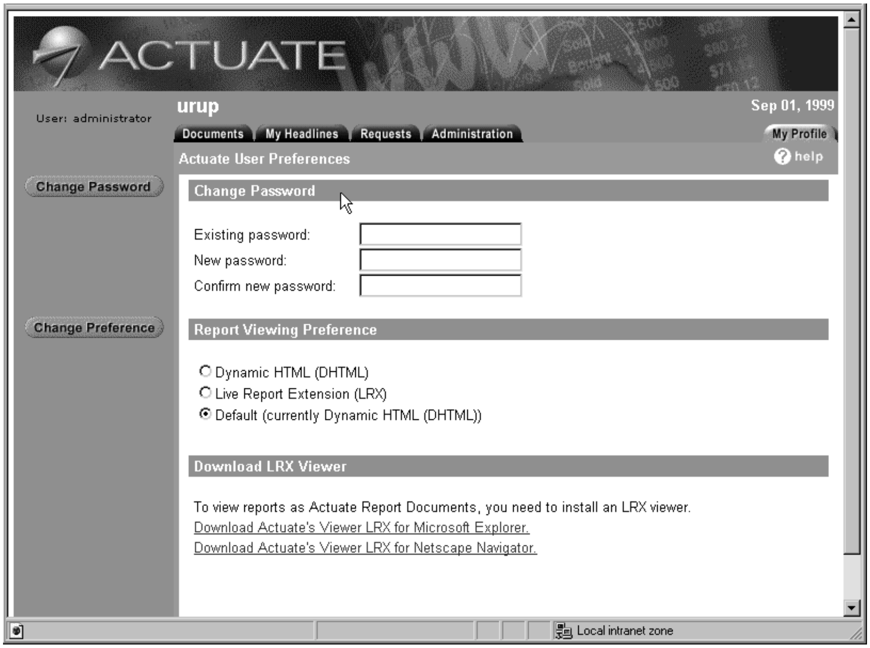
User viewing mode

You can specify web viewing mode for Actuate reports for individual users. Select Default, DHTML, or LRX. The Default setting uses the Report Encyclopedia setting. If the setting differs between the user and the Encyclopedia, the user's viewing mode is used.



You can also set the viewing options from a web browser. Log on to a report server and select the My Profile tab.

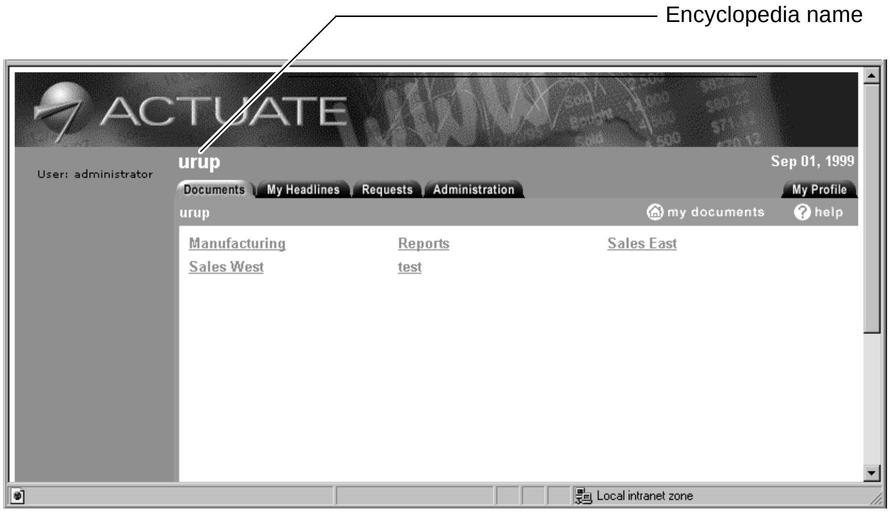
The Actuate User Preferences page appears.



Select the viewing option or change your password. Choosing Change Preferences changes your Report Viewing settings in the Report Encyclopedia. Choosing Change Password changes your Report Encyclopedia password.

The Report Encyclopedia name in web pages

In the Encyclopedia web pages, the name of the Report Encyclopedia is displayed above the tabs. In this illustration, the Report Encyclopedia name is urup.

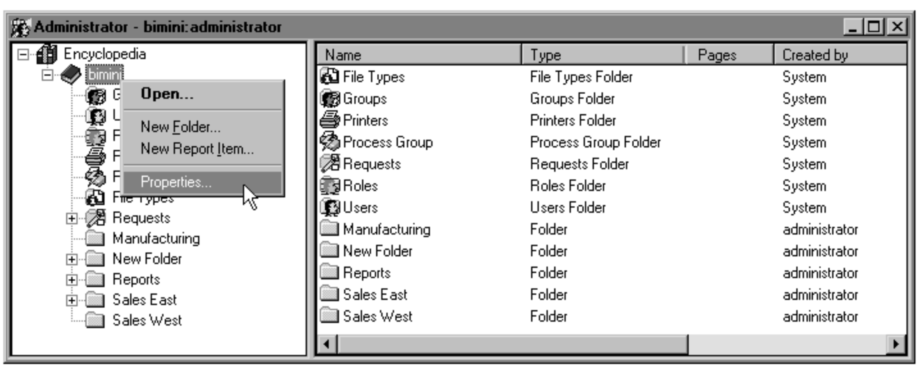


By default, the name Actuate ReportCast displays is the machine name running the report server. You can change the name setting in the Server Properties dialog box using the Administrator Desktop's Administrator window.

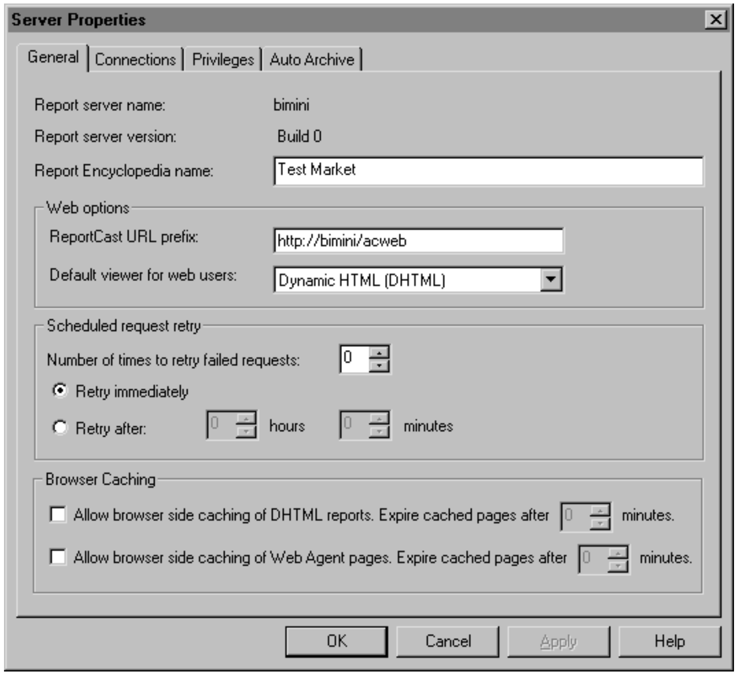
How to change the Report Encyclopedia web name

1 Start the Administrator Desktop and log on to the report server.

2 Right-click on the Report Encyclopedia volume root directory to display the context menu.



3 Select Properties to display the Server Properties dialog box.



4 Enter the name that you want displayed on the Report Encyclopedia's web pages as the Report Encyclopedia name and choose OK.

Setting the URL for the ReportCast web server

As administrator, you can specify the URL of a web server using ReportCast. The Report Encyclopedia uses the ReportCast URL:

- For e-mail notification.
- When a user has secure read privilege on an Actuate report and tries to view the report from an Actuate client program such as the Actuate Viewer or End User Desktop.

If you configured users to be sent e-mail notification, you can change the format of the location of the report in the Report Encyclopedia to a URL.

As the default, the location of the report in the e-mail sent by the report server is specified in the ROTP syntax. For example, e-mail sent to users containing the line:

```
rotp://bimini/Sales/goals/quarterly.roi;7
```

specifies that the seventh version of the report QUARTERLY.ROI is in the folder Sales/goals in the Report Encyclopedia on the machine Bimini. If users can access the report server using ReportCast on the web server Paradise, the administrator can set the ReportCast URL to be:

```
http://paradise/acweb
```

then the e-mail sent to users contains the line:

```
http://paradise/acweb/bimini/Sales/goals/quarterly.roi;7?view
```

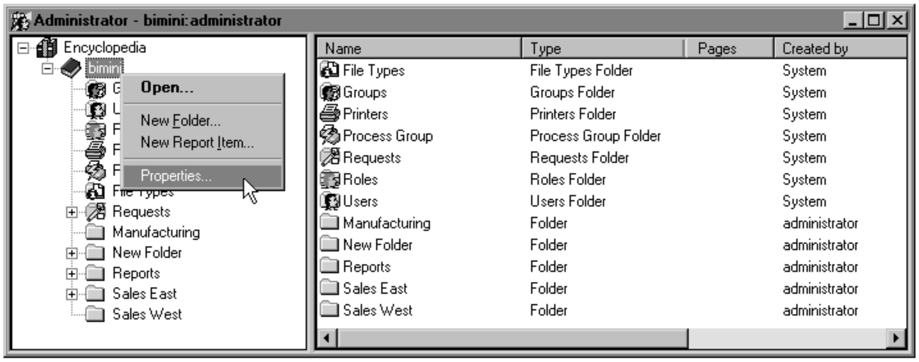
Actuate Reports with secure read privilege can be viewed only in DHTML format over the Web. If a user logs on to the Report Encyclopedia using an Actuate client such as the Viewer and attempts to read the report with secure read privilege, the client program tries to start a web browser on the user's local machine and sends a URL to the web browser to try to access the report over the Web. The URL sent to the browser is similar to the line sent to user for e-mail notification:

```
http://paradise/acweb/bimini/Sales/goals/quarterly.roi;7?viewFrameSet
```

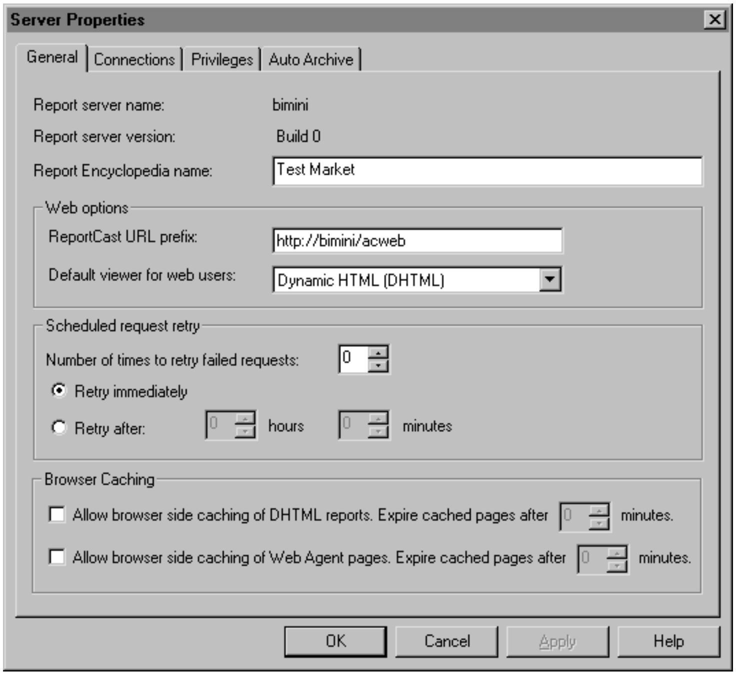
How to specify a ReportCast URL

1 Start the Administrator Desktop and log on to the report server.

2 Right-click on the Report Encyclopedia volume root directory to display the context menu.



3 Select Properties to display the Server Properties dialog box.



4 Enter the ReportCast name. For example, if ReportCast uses the web server Paradise, type:

http://paradise/acweb

Setting web browser page caching options

From the Report Encyclopedia's Server Properties dialog box, an administrator can enable or disable the caching Report Encyclopedia pages by a web browser. From the General page of the Properties dialog box, an administrator can enable or disable these options:

- Allow browser side caching of DHTML reports enables a user's browser to store Actuate report DHTML pages on the user's local machine in the browser's cache directory. An administrator can also specify the length of time before the pages cached on the user's system expire.
- Allow browser side caching of ReportCast web pages enables a user's browser to store Actuate ReportCast pages on the user's local machine in the browser's cache directory. An administrator can also specify the length of time before the pages cached on the user's system expire.

About ReportCast channels

Actuate ReportCast channels requires Actuate ReportCast and a web server. ReportCast channels is a service that allows users to subscribe to particular web “channels” of interest and view Actuate reports that are available on those channels. ReportCast channels uses push technology (also called webcasting, push/distribution, and publish/subscribe) to push reports to particular web channels, where interested users can access and view them. When new reports become available, the appropriate channel receives a notification. From a Report Encyclopedia, subscribed users can check the channel’s web page to get a listing of available reports. When users click on a report link, the report appears in the web browser window. The following are ReportCast channel features:

- Channels are supported only on the Web. They are administered only over the Web.
- Channels are secure; they use the same security scheme as Actuate Encyclopedia folders and items.
- Channels have unique names.
- Every user has a default personal channel. This is the user’s Report Server Completed folder.
- Channels receive notifications when reports generated for the channel are complete.
- Reports in channels can display headlines that describe the reports. This headline appears when listing the contents of a channel.
- Channel items expire after a given time period and are automatically removed from the channel.

As a user, you can:

- Retrieve the list of available channels
- Subscribe to a channel
- Drop a channel subscription
- View the list of reports in a channel
- View the reports in a channel

As administrator using a web browser, you can also:

- Create a channel
- Delete a channel
- Change a channel’s properties

- Update a channel's contents
- Subscribing to channels

Users can subscribe to channels and drop channel subscriptions using their web browser. After connecting to a report server, users can go to a page that lists all channels to which the user has access. Each channel name will appear next to a check box. The box will be checked if the user is already subscribed to the channel. The user can change the check marks to subscribe to, or unsubscribe from, a channel.

The user's personal channel

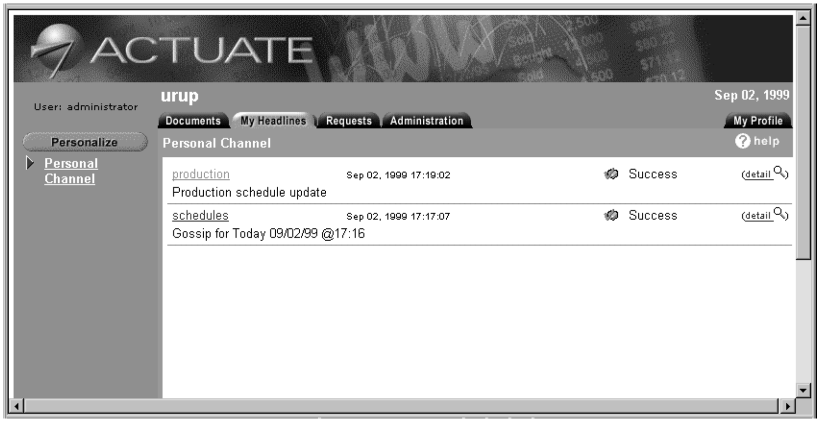
From a web browser, choose the My Headlines tab to get to the user's personal channel. After a successful report generation, the report notification appears in the user's personal channel.

Viewing channels and their contents

Users can view a list of channels from their web browser. Actuate supplies a default web page that lists all the user's subscribed channels. From this page, the user can subscribe to channels and view the channel's contents.

As the Actuate default, when the user views the contents of a channel, the contents appear as a list containing the report headline, and optionally the report name, the creation date, and so on. Clicking on the link for a channel item displays the report itself. The page that lists the channel contents can also list all the subscribed channels in the menu bar on the left.

The contents of a channel remain in the channel even after the user has viewed them. The web browser uses a different color to display visited reports, so the user can easily track which reports have been read.



Creating and maintaining channels

Channel maintenance is done through a web browser using ReportCast to communicate with the report server. Only a Report Encyclopedia administrator can create, modify, or delete channels.

When logged in as an administrator, the Personal Channel page contains a Channel Admin button that lets the administrator maintain channels.

The Report Encyclopedia administrator has access to all channels defined for the Report Encyclopedia and can create, update, and delete channels. The administrator also specifies the reports displayed in the channels and which roles have access to the channels.

To create a channel, ReportCast displays a page that lets the administrator specify the following:

Channel name—The name can be any length, but must be unique. A channel name cannot be changed once the channel is created.

Description—A description of the channel that is available in any HTML page that displays the channel, or the channel name.

Icon URL—The full URL of an image file that contains the image to display for the channel. If this is not set, ReportCast substitutes a default image.

Expiration period—The length of time the report is available in the channel. After the expiration period, the report server deletes the report notice from the channel. The default expiration period is one week.

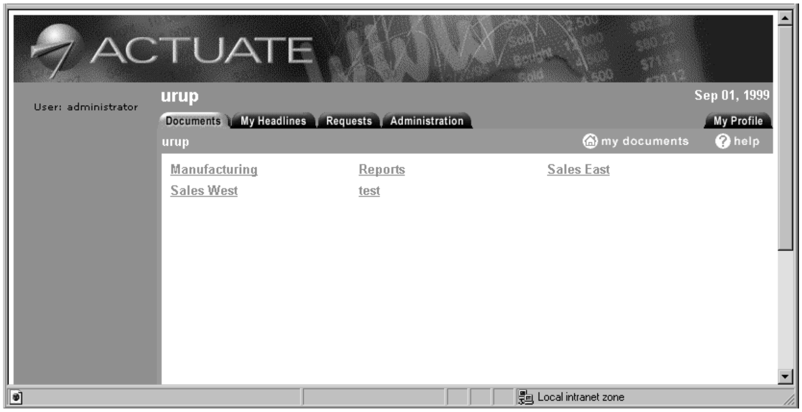
Refresh rate—A rate that determines how often the web browser refreshes a view of the channel. This rate is generated into a web page as an HTML META tag. A rate of 0 means no automatic refresh. The default is 0.

Role permissions—The roles that have permission to view the contents of the channel. When you generate a report for a channel, the default setting lets all the users associated with the specified roles view the report. You can specify which roles have access to a specific report.

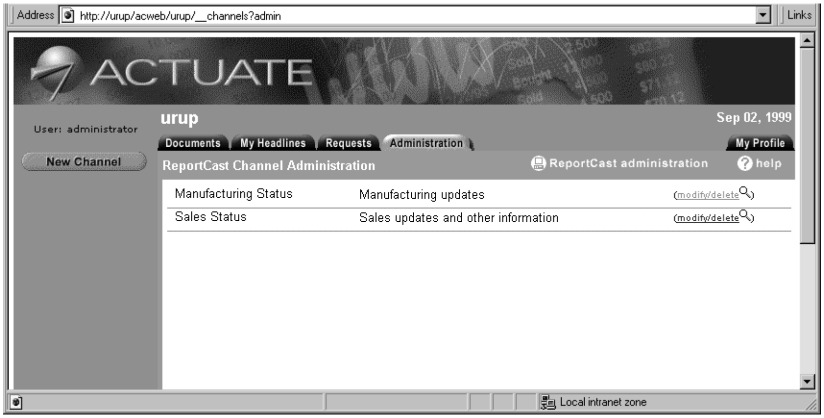
The channel administration page is an HTML form generated by ReportCast. The channel name, expiration period, description, and icon URL are text fields. The list of roles is a series of check boxes, one for each role that can access the channel. Placing a check in the check box means that the role has both read and write permission for the channel. When modifying an existing channel, the channel administration page comes up with checks set for those roles that already have permission for the channel.

How to create a ReportCast channel

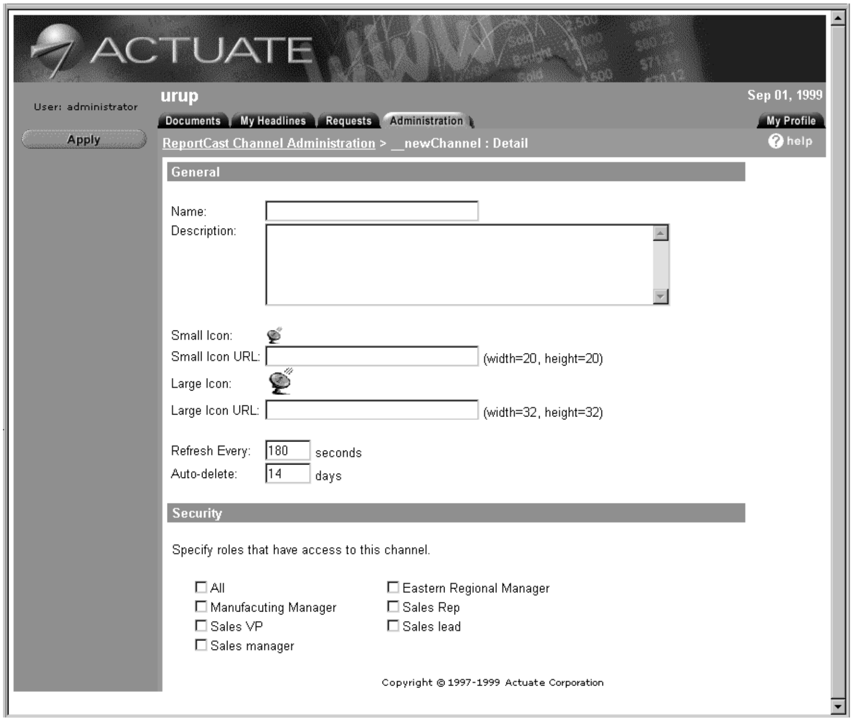
1 Log on to a report server as administrator using a web browser.



2 Choose the Administration tab to display the ReportCast Channel Administration page.



3 Choose New Channel to display the ReportCast Channel Administration new channel detail page.



4 Enter the information for the new channel.

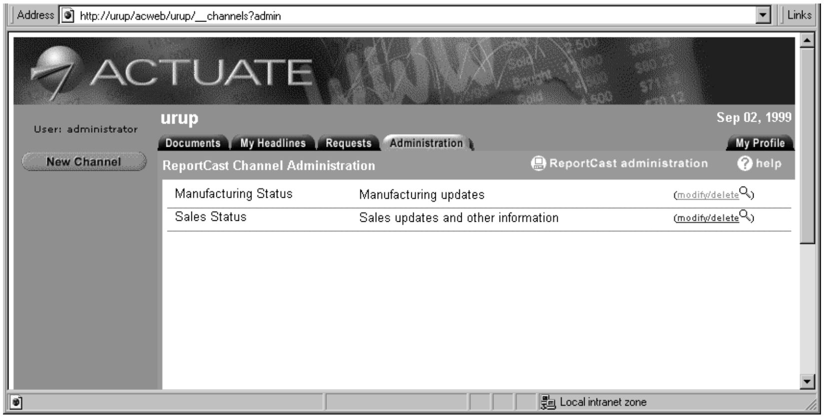
5 Select the roles that will see this channel.

6 Choose Apply to create the channel.

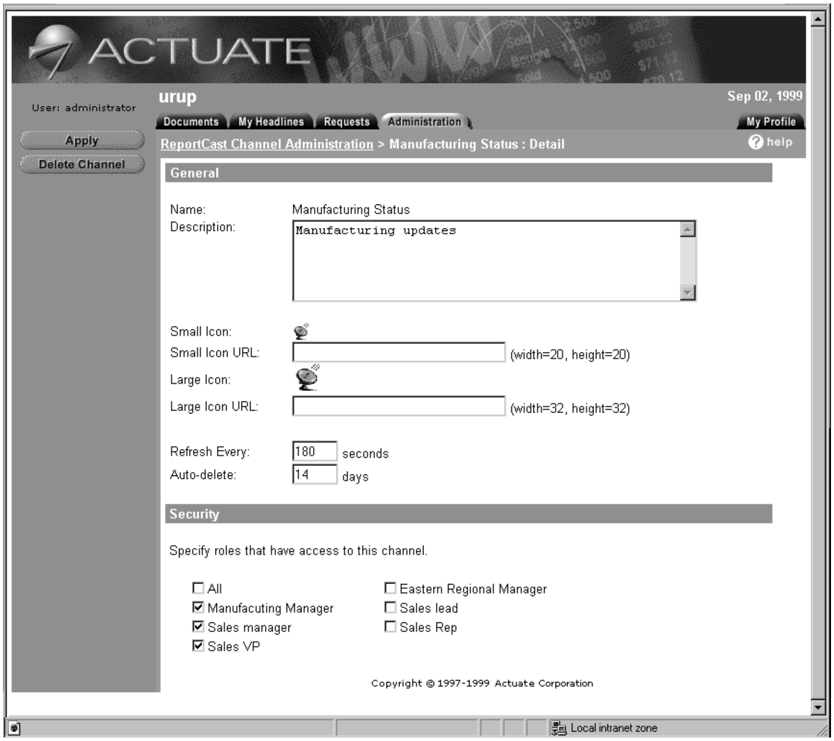
Move to a different page without choosing Apply to exit the page without creating a new channel.

How to update or delete a channel

1 Choose the Administration tab to display the ReportCastChannel Administration page.



2 Choose modify/delete to the right of the report description to display the ReportCast Channel Administration report detail page.



3 To change the channel information, make the changes in the appropriate fields.

4 Choose apply to update the changes.

5 Choose Delete Channel to delete the channel.

6 After you have updated the channels, you can leave the Channel Details page.

To exit the page without modifying a channel, go to another web page without choosing Apply or Delete Channel.

Generating report requests for channels

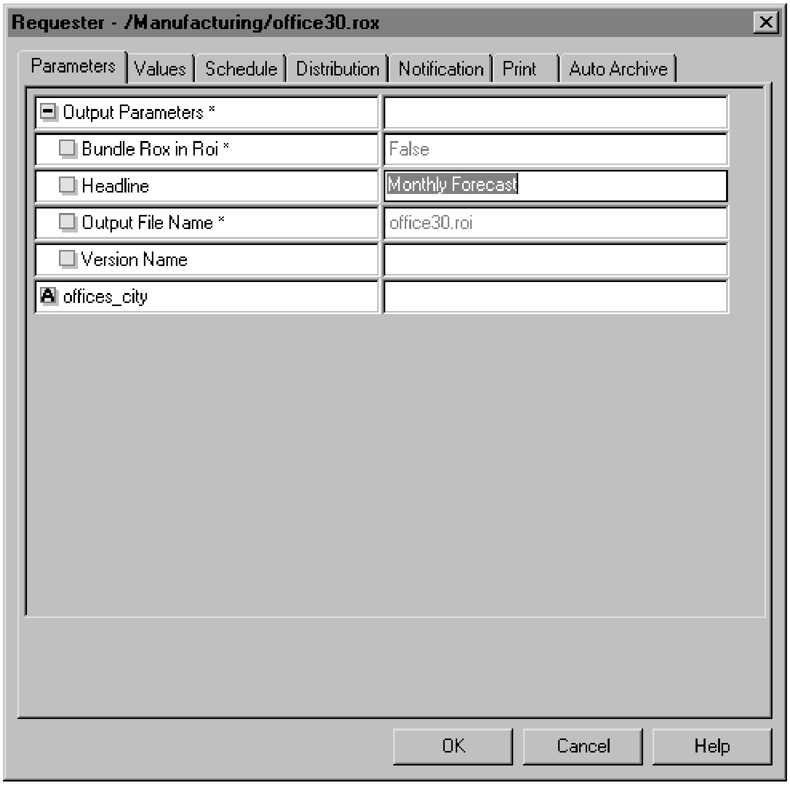
When you generate a report request using your web browser, you can specify which channels to notify when the report is generated. The channel selection is at the bottom of the Request Report web page.

The rules regarding report generation and viewing from a Report Encyclopedia apply. You still need the appropriate privileges to generate and view a report. And the users viewing the report via a channel also need the appropriate privileges. For information about privileges, see “About privileges” in Chapter 2, “Managing Report Encyclopedia security.”

When the report server generates the report, a notification message is displayed in the channel. A subscriber to the channel can view the report by selecting the channel notification.

Headlines

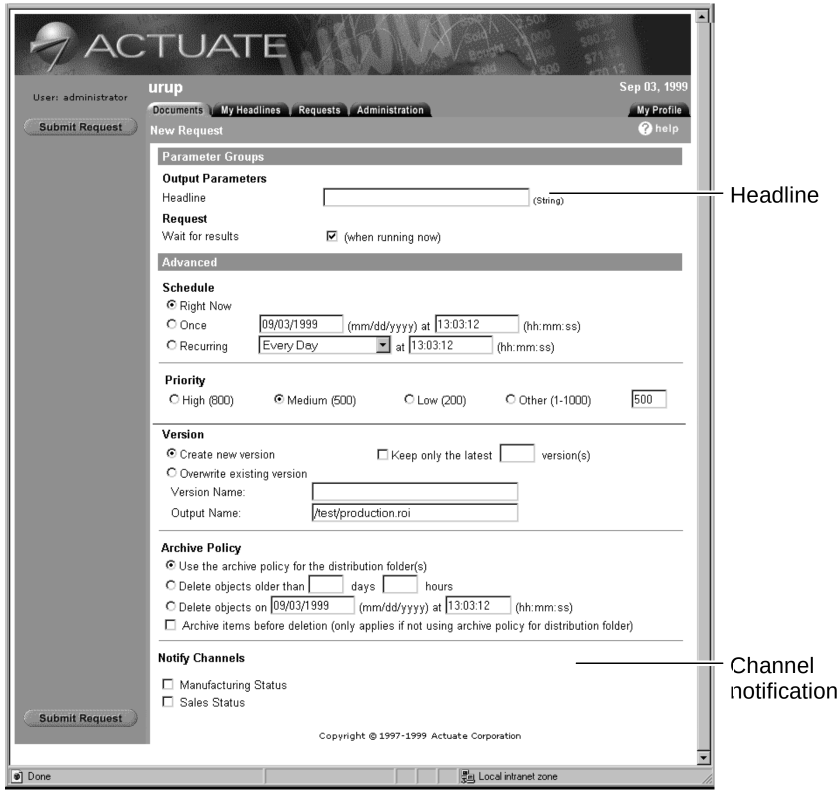
When you generate a report for a channel, you can specify a headline that will be generated as part of the channel notification. Users who generate the report can enter a value for the parameter in either the Requester dialog box, or in ReportCast New Request page. In the Requester dialog box, the Headline parameter is one of the Output Parameters. In ReportCast New Request page, the Headline parameter appears as a field in the New Request web page form. The following illustration shows the Headline parameter in a Requester dialog box.



Report developers can also access the Headline parameter. By default, the report server copies the value of the Headline parameter into the completed request headline. Developers can change the headline by changing the global variable that corresponds to the parameter. Changing the headline for a completed request does not change the original parameter. That is, if the report is run from an .ROV file, then changing the headline for the completed request does not change the original parameter value in the .ROV file.

How to generate a report request for a channel

1. From your web browser log on to the report server.
2. Go to the folder containing the report.
3. Choose the report executable to display the New Request web page.
4. Enter the report request information such as any parameters, and when you want to generate the report. You can enter a headline that will appear with the report notification on the channel page.
5. At the bottom of the web page, the available channels appear. Select the channels you want to notify when the report is completed. For each channel, you can exclude roles that have access to the report.



6 To submit the report request, choose Submit Request at either the top or bottom of the page.

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