Content Manager OnDemand for Multiplatforms
Version 8.5

Report Distribution: Installation, Use, and Reference

SC19-2953-00

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Note

Before using this information and the product it supports, read the information in "Notices" on page 81.

This edition replaces SC18-9233-02

This edition applies to Version 8 Release 5 of IBM Content Manager OnDemand for Multiplatforms (product number 5724-J33) and to all subsequent releases and modifications until otherwise indicated in new editions.

This product includes software developed by the Apache Software Foundation (http://www.apache.org/).

Contents

ibm.com and related resources v
How to send your comments v
Contacting IBM vi

Report Distribution overview 1
User 2
Group 2
Application 3
Application group 3
Folder 4
Report 4
Banner 5
Bundle 5
  Output formats 6
  Manifest 7
Schedule 8
Recipient 8
Distribution 8
Why is report distribution useful? 10
How does report distribution work with OnDemand? 11

Installing and configuring the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature . 13
Software and hardware requirements 13
Running Report Distribution on Windows 14
Running Report Distribution on AIX 16
Running Report Distribution on HP-UX Itanium . . 19
Running Report Distribution on Solaris 22
Running Report Distribution on Linux 25
Configuring parameters 29
  ARS_RDF_PRINT_CONVERT_PDF parameter . . 29
  ARS_RDF_TRANSFORM_XML parameter . . . 29
Suspending ARSRD program for all platforms . . . 29
Stopping the ARSRD program on AIX, HP-UNIX, and Solaris 30
Stopping the ARSRD program on Windows . . . 31
Killing the ARSRD program on AIX, HP-UNIX, Solaris, and Linux 31

Planning distributions 33
Acme Art company overview 34
Acme Art company's sales department 34
Step 1 for scenario: Organizing information. . . . 35
Step 2 for scenario: Creating groups 37
Step 3 for scenario: Creating reports 38
Step 4 for scenario: Creating distributions 39

Creating distributions 41
Defining reports 42
  Options to define a report 43
  Adding a report 45
Bundling reports for distribution 47
  Adding a banner 50
  Adding a bundle 51
Scheduling distributions 54
  Adding a schedule 55
Adding recipients to a distribution 58
  Adding recipients to a distribution 60
Delivering a distribution 61
  Defining general options for a distribution . . . 63
  Defining e-mail delivery and notification options 64
  Adding a bundle to a distribution 64
  Adding a schedule to a distribution 65
Validating a distribution 65

Monitoring and maintaining distributions 67
IBM Content Manager OnDemand system log . . . 67
Report Distribution stage log 67
Report Distribution trace file 69
E-mail notifications 69
Maintaining distributions 72

Troubleshooting 73
Message identifiers 73
Messages 74

Notices 81
Trademarks 83

Index 85

ibm.com and related resources

Product support and documentation are available from ibm.com®.

Support and assistance

Product support is available on the Web. Click Support from the product Web site at:

Content Manager OnDemand for Multiplatforms
http://www-01.ibm.com/software/data/ondemand/mp/

Content Manager OnDemand for z/OS®
http://www-01.ibm.com/software/data/ondemand/390/

Information center

See the information center at http://publib.boulder.ibm.com/infocenter/cmod/v8r4m1//index.jsp.

PDF publications

You can view the PDF files online using the Adobe® Acrobat Reader for your operating system. If you do not have the Acrobat Reader installed, you can download it from the Adobe Web site at http://www.adobe.com.

See the following PDF publications Web sites:

Product	Web site
Content Manager OnDemand for Multiplatforms	http://www.ibm.com/support/docview.wss?rs=129&uid=swg27017159
Content Manager OnDemand for z/OS	http://www.ibm.com/support/docview.wss?rs=2207&uid=swg27017164

"How to send your comments"
Your feedback is important in helping to provide the most accurate and highest quality information.

"Contacting IBM" on page vi
To contact IBM customer service in the United States or Canada, call 1-800-IBM-SERV (1-800-426-7378).

How to send your comments

Your feedback is important in helping to provide the most accurate and highest quality information.

Send your comments by using the online reader comment form at https://www14.software.ibm.com/webapp/iwm/web/signup.do?lang=en_US&source=swg-rcf.

Consumability survey

You are invited to tell IBM how to improve the consumability of software products. If you want to help IBM make Content Manager OnDemand easier to use, take the Consumability Survey at http://www.ibm.com/software/data/info/consumability-survey/.

Contacting IBM

To contact IBM customer service in the United States or Canada, call 1-800-IBM-SERV (1-800-426-7378).

To learn about available service options, call one of the following numbers:

- In the United States: 1-888-426-4343
- In Canada: 1-800-465-9600

For more information about how to contact IBM, see the Contact IBM Web site at http://www.ibm.com/contact/us/.

Report Distribution overview

IBM® Content Manager OnDemand Report Distribution lets you manage multiple reports and send them to selected users and printers.

Content Manager OnDemand Report Distribution provides an easy way to automatically group reports and portions of related reports together, organize them, convert the report data into different formats, and send them through e-mail to multiple users or make them available for printing.

A scenario is provided to help you learn the concepts and tasks involved with report distribution. It offers one way that you can model your distributions.

"User" on page 2
: Users are defined as people in your organization who retrieve documents from Content Manager OnDemand or administer part of the system.

"Group" on page 2
: You can organize system users in groups that meet your business requirements; by function, authorization, etc.

"Application" on page 3
: Applications are objects that describe the physical attributes of a report or input file.

"Application group" on page 3
: An application group is a collection of reports that are stored in IBM Content Manager OnDemand.

"Folder" on page 4
: Folders are the objects from which users can search for data stored in OnDemand.

"Report" on page 4
: In Report Distribution, a report is a document or a set of documents that are retrieved from the IBM Content Manager OnDemand system to be bundled and delivered to one or more users.

"Banner" on page 5
: A banner is a page that is printed with the print job that uniquely identifies the output. Typically, banners indicate the owner of the print job as a user of a shared printer.

"Bundle" on page 5
: A bundle is an IBM Content Manager OnDemand Report Distribution object that allows you to package, organize, and optionally provide additional information about the reports that you want to send to the recipients.

"Schedule" on page 8
: You can create a schedule to determine when and how often IBM Content Manager OnDemand sends out a distribution.

"Recipient" on page 8
: A recipient is an IBM Content Manager OnDemand user or group that is assigned to receive reports using report distribution.

"Distribution" on page 8
: A distribution is a set of reports that are contained in a bundle, one or more recipients to receive the reports, and a schedule that specifies when the distribution is delivered.

“Why is report distribution useful?” on page 10
Report distribution allows you to extract loaded documents to create reports that you can automatically distribute to those who need them.

“How does report distribution work with OnDemand?” on page 11
The Content Manager OnDemand system must be installed and configured in your environment with loaded documents and the Content Manager OnDemand administrative client and the Content Manager OnDemand client must be installed on your local machine.

User

Users are defined as people in your organization who retrieve documents from Content Manager OnDemand or administer part of the system.

Users must log on to the library server with an Content Manager OnDemand userid. Content Manager OnDemand makes sure that the userid is valid on the server and uses it to determine the types of things that the user can do. An Content Manager OnDemand userid does not necessarily have to identify an individual by name. However, for accounting purposes, you probably want to assign an Content Manager OnDemand userid to each person that will use Content Manager OnDemand.

When you define a user to Content Manager OnDemand, you create a userid that a person can use to log on to the system. When you add the user, you specify the User Type, which determines the basic things that the user can do. You can also specify an Authority, to let the user do other tasks. For example, a **User Type** of User can be permitted to create users. You can also assign the user to a group and specify permissions to application groups and folders when you add the user to Content Manager OnDemand.

After you create a userid, you can use that userid as a recipient when you create a distribution. You need to make sure, however, that either a valid e-mail address or server printer is specified for that userid, depending on the delivery method.

Group

You can organize system users in groups that meet your business requirements; by function, authorization, etc.

You can define a group to organize users by department and specify the application group and folder permissions that are common to all of the users in the department. The permissions determine the types of actions users assigned to the group can do. You do not have to assign a user to a group, but doing so can greatly simplify administration of users with similar requirements.

You can use groups as recipients for report distribution. When you create a distribution, you can add a group to the recipient list. A group is considered one recipient though it delivers reports to each user in the group.

Plan your groups before you begin creating them. Once you start using the system, it may be difficult to change your group assignments.

To learn more about groups, see the administrative client online help.

Application

Applications are objects that describe the physical attributes of a report or input file.

In IBM Content Manager OnDemand, applications describe report attributes such as the type of data found in the input file, the code page, and whether the input data contains carriage control characters. An application also contains instructions that the data indexing and loading programs use to process the input data. Most customers define an application for each different output print data stream or source of data that they plan to store in Content Manager OnDemand.

When you create an application you must provide a name for the application, select a database organization, specify the annotation flag , assign the application to a storage set, and define at least one database field. Content Manager OnDemand supports up to 32 fields per application.

When you define an application, you specify the properties of the application, such as the database organization, storage characteristics for the reports contained in the application, and the names and characteristics of the database fields that are used in the application. You can also specify the users and groups that can access the data contained in the application with Content Manager OnDemand client programs. You can specify the types of functions users can perform, such as View and Print. You can assign authority to administer the application to a user. The administrator authority allows a user to update and delete the application.

Application group

An application group is a collection of reports that are stored in IBM Content Manager OnDemand.

The reports should have common indexing and storage management requirements. An application group represents the input data stored in Content Manager OnDemand and the indexing information used to search and retrieve documents. Content Manager OnDemand maintains a table that describes each application group. The application group table contains the characteristics and properties that you assigned when you created (and updated) the application group. For example, when you define the users that can access the reports stored in an application group, Content Manager OnDemand stores the information in the application group table. Content Manager OnDemand maintains tables of index data in the application group. When you load a report into the application group, Content Manager OnDemand stores the index data for the report into a table in the application group.

When you create an application group you must provide a name for the application group, select a database organization, specify the annotation flag , assign the application group to a storage set, and define at least one database field. Content Manager OnDemand supports up to 32 fields per application group.

When you define an application group, you specify the properties of the application group, such as the database organization, storage characteristics for the reports contained in the application group, and the names and characteristics of the database fields that are common to the applications assigned to the application group. You can also specify the users and groups that can access the data contained in the application group with Content Manager OnDemand client programs. You can specify the types of functions users can perform, such as View and Print. You can assign authority to administer the application group to a user. The administrator authority allows a user to update and delete the application group.

Folder

Folders are the objects from which users can search for data stored in OnDemand.

Users open a folder and construct queries to search for documents that are stored in the application group(s) that can be searched from the folder. Content Manager OnDemand adds items to the document list that match the search criteria specified by the user.

The folder defines the look and feel of the user interface for each logical set of data. For example, you can specify which search fields are visible to the user, the order of the search fields, the search operators for each search field, and whether the search fields contain default or fixed search values.

When you add a folder to Content Manager OnDemand, you specify the properties of the folder, such as the name and description of the folder, create search and display fields for the folder, and map the folder fields to the application group fields that can be searched from the folder. You can also define permissions for groups and users, to determine the users that can open the folder with Content Manager OnDemand client programs, make changes to the folder with the Content Manager OnDemand administrative client, and so forth.

Report

In Report Distribution, a report is a document or a set of documents that are retrieved from the IBM Content Manager OnDemand system to be bundled and delivered to one or more users.

A report can be e-mailed to the users or sent to their default server printers. Before you retrieve a report, the documents must have been loaded into Content Manager OnDemand, and they might be in one of the following file formats:

- AFP
- Line data
- Unformatted ASCII data
- PDF

You can use one of the following methods to retrieve a report:

Load Building a list of documents based on the documents that are loaded during a specific time frame. This method is associated with application groups.

Named Query
Performing a database query using a public named query that was defined by the Content Manager OnDemand client. This method is associated with folders.

SQL Performing a database query using an SQL query. This method is associated with application groups.

See “Options to define a report” on page 43 for more information about definition, requirements, benefits, and disadvantages of each method.

After you build the report list based on load or construct the database query, Content Manager OnDemand retrieves the documents that meet your requirements. If a report query returns multiple documents from different application groups, the entire set of documents appear in the same report. You cannot specify or change the order in which the documents are retrieved, because it is optimized for performance.

Banner

A banner is a page that is printed with the print job that uniquely identifies the output. Typically, banners indicate the owner of the print job as a user of a shared printer.

A banner can contain information about the distribution, its contents, the bundle, the reports, and the recipient that received the distribution. Recipient information is taken from the user information that was defined when the user was created.

Banners are optional in a report distribution. If you choose to use banners in a distribution, you must add them to a bundle, and add that bundle to a distribution.

You can choose to use three types of banners:

- **Header banner**: the header banner is placed before all the reports in a bundle
- **Separator banner**: a separator banner precedes each report in the distribution
- **Trailer banner**: the trailer banner follows all of the reports in a bundle, and is placed before the manifest, if the manifest is included in the distribution

The three types of banners can contain different information from the distribution and the recipient user IDs of the distribution. Banners can also be generated in different languages. When you define a bundle, you select the language to use for the banners. When the banner page is created, the field titles (such as Distribution Name and Bundle Name) are added to the banner page in the language that you selected. The values that you give those names are not translated.

If you want to create PDF banners or separator pages in Chinese Traditional, Chinese Simplified, Korean or Japanese, please see the section “Creating Banner and Separator pages in Asian languages” on page 51

Bundle

A bundle is an IBM Content Manager OnDemand Report Distribution object that allows you to package, organize, and optionally provide additional information about the reports that you want to send to the recipients.

A bundle contains at least one report, and can optionally include banners and a manifest. Reports can be ordered within the bundle and can be converted to different data types by using a supported third-party transform program. Multiple copies of the same report can exist in the same bundle.

A distribution contains a single bundle, but a bundle can belong to more than one distribution.

The following figure shows all of the contents that can be included in a bundle.

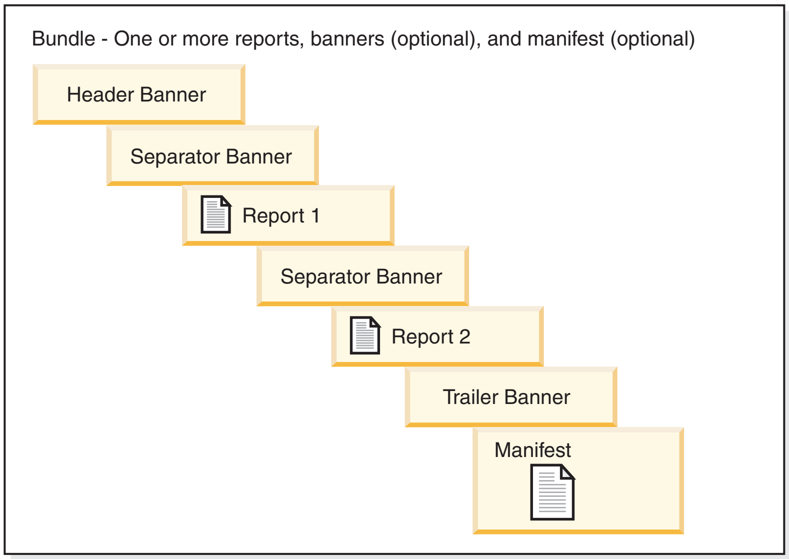

Figure 1. Contents that can exist in a bundle

"Output formats"
IBM Content Manager OnDemand Report Distribution reports support multiple output formats (AFP, Line Data, PDF, and PS) based on the input data type.

"Manifest" on page 7
The manifest is a list of the reports in a bundle.

Output formats

IBM Content Manager OnDemand Report Distribution reports support multiple output formats (AFP, Line Data, PDF, and PS) based on the input data type.

Each bundle contains one or more reports. Each report can possibly be of a different data type. For example, one report can be a PDF input type while another report can be an AFP input type. When delivering a distribution, the bundle process converts all of the reports and banners to one output format. So, before you create a bundle, you must know in what output format that recipients need to receive the reports and banners in the bundle.

Important: If your system is not set up to use a third-party transform, you cannot place mixed data types in a bundle. All of the reports must be the same input data type and, in the case of Line Data, the same format, to be bundled or a failure will occur. Any input type not listed in the following table generates a failure.

Table 1. Default data types supported by OnDemand

Input	Output
AFP	AFP
Line Data	Line Data
PDF	PDF (for e-mail)
PDF	PS (for printing)

By default, any reports originally in PDF will be output as PostScript® (PS) if the distribution is to be printed. If you need to go from PDF input to PDF output, set

ARS_RDF_PRINT_CONVERT_PDF = NO. See "ARS_RDF_PRINT_CONVERT_PDF parameter" on page 29 for more information.

Requirement: If you decide to use the AFP2PDF transform or the Xenos d2e transform, then you must configure the transform parameters in the ARS.CFG file. For information about the ARS.CFG file and the parameters that you can configure for report distribution, see "Configuring parameters" on page 29.

If your system is set up to use the AFP2PDF transform from IBM Printing Systems, then, in addition to the default set of supported data types, report distribution can support the input to output conversions in the following table.

Table 2. AFP2PDF supported data types

Input	Output
AFP	PDF (for e-mail)
AFP	PS (for printing)

As the previous table indicates, some report types can be converted from one report type to another. The report data types can be a mixture of either AFP or PDF when the output type is PDF. All other reports must be the same input data type to be bundled or a runtime failure occurs. Any input type not listed in the previous table generates a failure.

If your system is set up to use the d2e transform program from Xenos, then, in addition to the default set of supported data, report distribution can support the input to output conversions in the following table.

Table 3. d2e supported data types

Input	Output
AFP	PDF (for e-mail)
AFP	PS (for printing)
Line Data	AFP
Line Data	PDF (for e-mail)
Line Data	PS (for printing)
Metadata	AFP
Metadata	PDF (for e-mail)
Metadata	PS (for printing)

As the previous table indicates, the report data types can be a mixture of AFP, Line Data, Metadata, and PDF when the output type is PDF. The report data types can be a mixture of AFP, Line Data, and Metadata when the output type is AFP. All other reports must be the same input data type to be bundled or a runtime failure occurs. Any input type not listed in the previous table generates a failure.

Manifest

The manifest is a list of the reports in a bundle.

The manifest is an optional component of a bundle. When a manifest is included in a bundle that is successfully created, it is recorded as part of the successful bundle creation message in the IBM Content Manager OnDemand system log.

A manifest contains text only. It lists the distribution name, creation time, and the report names that comprise the bundle.

Schedule

You can create a schedule to determine when and how often IBM Content Manager OnDemand sends out a distribution.

A schedule can be time-based or load-based. You can set Content Manager OnDemand to send out a distribution once, daily, weekly, or monthly. If you set the schedule to be load-based, Content Manager OnDemand sends out the distribution as documents that are required for the distribution are loaded into the system.

Recipient

A recipient is an IBM Content Manager OnDemand user or group that is assigned to receive reports using report distribution.

When you create a distribution, you assign who should receive the reports that are contained in the bundle. If a user or a group of users are recipients of a distribution, they can receive and view all of the reports in that distribution even if they do not have permission to view these reports from the Content Manager OnDemand client. For example, a group of users do not have permission to view a customer's purchase orders from Content Manager OnDemand archive in general, however, if they are in the recipient list of a distribution that includes these orders, they still receive them even though they may not have permission to view these reports from the Content Manager OnDemand client.

A recipient list contains all of the recipients of a distribution. A recipient list can contain a combination of individual users and groups. Recipient lists are associated with distributions only, not with any other object in Content Manager OnDemand.

You can add recipients or remove them from distributions. However, you can suspend a distribution for certain recipients without removing those recipients from the recipient list.

The following figure shows an example of a recipient list. This recipient list includes four users and one group with two users in it.

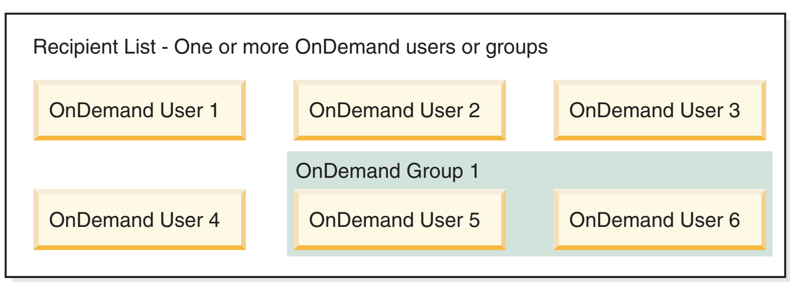

Figure 2. Recipient list. Shows a list that is comprised of four users and a group of two users. A group, which can contain multiple users, is considered a single recipient.

Distribution

A distribution is a set of reports that are contained in a bundle, one or more recipients to receive the reports, and a schedule that specifies when the distribution is delivered.

All of the recipients receive all of the same reports in the same format. You use the IBM Content Manager OnDemand Administrator to define characteristics of a distribution in the Content Manager OnDemand system. A distribution includes:

- Distribution name
- A bundle
- One or more recipients
- Optional: Schedules

  Schedules are optional in a distribution, however, if you do not specify any schedule, the distribution is never processed.

and a bundle might include the following:

- A header banner
- Reports
- Separator banners before each report
- A manifest
- A trailer banner

In a bundle, there must be at least one report. Other items are optional.

The following figure shows a distribution and the items that might be included in a distribution.

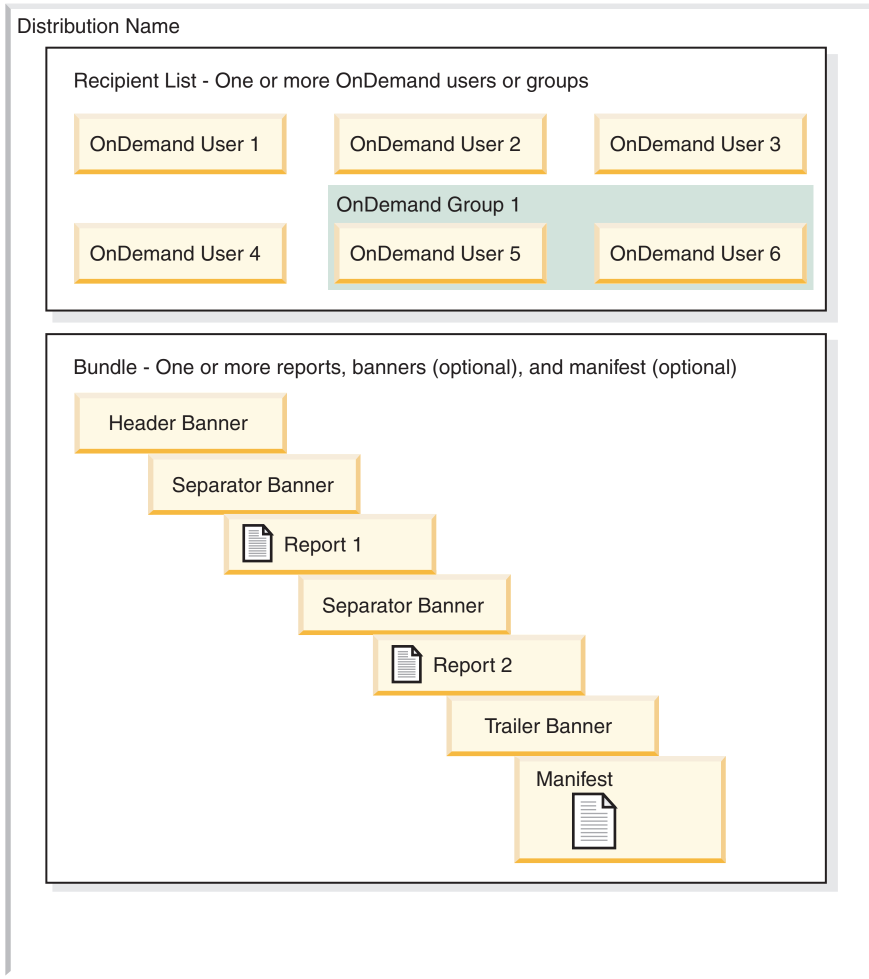

Figure 3. Items that can be included in a distribution

Why is report distribution useful?

Report distribution allows you to extract loaded documents to create reports that you can automatically distribute to those who need them.

IBM Content Manager OnDemand stores and manages documents. Report distribution allows you to:

- Group documents together and place them into a bundle
- Optionally convert the report data into different formats
- Distribute reports to multiple Content Manager OnDemand users
- Distribute single or multiple copies of each report
- Send reports by e-mail or make them available for printing
- Send e-mail notifications to administrators about distributions

With report distribution, you can perform tasks such as print monthly sales statements, e-mail all documents related to an annual review of a customer's policy, or designate a schedule that distributes reports when something new has been loaded to the Content Manager OnDemand system.

How does report distribution work with OnDemand?

The Content Manager OnDemand system must be installed and configured in your environment with loaded documents and the Content Manager OnDemand administrative client and the Content Manager OnDemand client must be installed on your local machine.

For specific set up needs, see "Software and hardware requirements" on page 13.

Report distribution has three main steps:
1. Report extraction
2. Bundle creation
3. Distribution delivery

Content Manager OnDemand uses the information that you provide to complete each of these steps. If one of these steps fail, the other steps after it fail also.

Report extraction

Report distribution retrieves reports based on parameters that you supply. The parameters of the retrieval are defined in a report type query. The ARSRD program (Report Distribution program) provides three methods to extract documents from the Content Manager OnDemand system. These methods are the public named query, SQL query, and Load.

The public named query report type is created in the Content Manager OnDemand client. A named query can retrieve one document, or, it can retrieve a group of documents from multiple application groups at once, depending on the public named query that you use.

An SQL query report type is created in the Content Manager OnDemand administrative client. It retrieves one or more documents from one application or application group. The benefit for using this query over the named query is the fact that you can search all application group fields whereas the named query is limited to the defined folder fields. For more benefits and disadvantages of named queries and SQL queries, see Options to define a report.

The difference between the SQL query and Load is that SQL query retrieves documents on a time-based schedule while Load retrieves documents on a load-based schedule.

The Report Distribution program checks if documents have been loaded for the application group that is specified in the report definition since the last time the check was made. The amount of time to wait between checks is defined by the value called **Number of minutes between schedule searches** on the Report Distribution parameters window in the Content Manager OnDemand administrative client.

The first check is made based on the time of day that is specified in the schedule. For example, if the parameter is set to 15 minutes and the delivery time in the schedule starts at 12:00 p.m., a query is made every 15 minutes starting at 12:00 p.m., ending at 12 a.m. the next day. Any documents loaded into Content Manager OnDemand between 12 a.m. and 12 p.m. do not deliver until the cycle begins at 12 p.m. When the check is made and documents have been loaded, the documents are extracted, bundled, and delivered to the recipients in the distribution. If no documents have been loaded and delivered since the last check, nothing needs to be done. The cycle begins again the next day at 12 p.m.

The Report Distribution program can optionally use an SQL statement with Load to retrieve documents. The SQL statement is used during the extraction of the documents. Without an SQL statement, all of the documents that were loaded are extracted. If an SQL statement is provided, only the documents within the load that match the search criteria specified by the SQL statement are extracted. For example, assume 100 documents were loaded at one time. The system contains 50 documents that specify I-Ming Wu as the sales representative and 50 documents that specify Elanzo Toledo as the sales representative. If only the documents that specify Elanzo Toledo as the sales representative are needed, then an SQL statement can be provided, for example, "WHERE salesrep = 'Elanzo Toledo'", so that only the 50 documents for Elanzo Toledo are extracted.

If you specify that documents are only loaded once a day, and the interval is 15 minutes, then 15 minutes after the first load, the system extracts, bundles, and delivers the reports to the recipients. The remaining queries are done but do not process.

If you specify that documents are loaded multiple times during the day, the first query after the load has completed results in the documents being extracted, bundled, and delivered. So, if documents are loaded twice a day, then 15 minutes after each load completes, results in the documents from the each load being extracted, bundled, and delivered.

Bundle creation

After you define what reports to deliver, you create a bundle, which is a method to organize the reports. The bundle allows you to provide separators before each report, a header banner, and trailer banner. You have the choice as to whether or not to include a manifest of what is included in the bundle. Also, at the bundle creation stage, you need to decide what output to deliver the reports to the recipients.

Distribution delivery

Now that you have found and organized your reports, you must decide who these reports go to and when they should receive them. You select the recipients from the users already defined to the Content Manager OnDemand system. You can select two types of schedules: time-based or load-based. Report distribution runs quietly in the background and activates periodically. When an active distribution is scheduled for a fixed time and day, report distribution retrieves the reports from Content Manager OnDemand and distributes the bundle. If new documents have been loaded since the last time report distribution checked for newly loaded documents, the documents will be extracted, bundled, and delivered.

You can e-mail distributions or elect to print them. The e-mail recipients must be defined to the Content Manager OnDemand system. You do not need to have any specific print software to print bundles.

Installing and configuring the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature

IBM Content Manager OnDemand Report Distribution for Multiplatforms is a separately priced feature of IBM Content Manager OnDemand for Multiplatforms, and as such, it is installed separately.

Before you begin using the IBM Content Manager OnDemand Report Distribution for Multiplatforms program, you must install IBM DB2 Content Manager OnDemand for Multiplatforms. After the IBM Content Manager OnDemand Report Distribution for Multiplatforms program is installed, you can optionally configure it.

The IBM Content Manager OnDemand Report Distribution for Multiplatforms program runs as a daemon on AIX, HP-UX Itanium, and Solaris platforms and runs as a service on Microsoft® Windows®. You must stop it manually if you want the program to end. You have the choice of leaving the program running, suspending it, stopping it, or killing it.

IBM Content Manager OnDemand Report Distribution for Multiplatforms supports only Simple Mail Transfer Protocol (SMTP) servers.

Related tasks

"Suspending ARSRD program for all platforms" on page 29
When you suspend the ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on. It does not read or schedule any new distributions.

"Stopping the ARSRD program on AIX, HP-UNIX, and Solaris" on page 30
On UNIX, when you stop ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on and then exits.

"Stopping the ARSRD program on Windows" on page 31
When you stop the ARSD program on Windows, the program completes all of the distributions it is currently processing and then exits.

"Killing the ARSRD program on AIX, HP-UNIX, Solaris, and Linux" on page 31
On UNIX, when you kill the ARSRD program on IBM Content Manager OnDemand Report Distribution for Multiplatforms, the program terminates immediately.

Software and hardware requirements

The IBM Content Manager OnDemand Report Distribution for Multiplatforms installation requires the IBM Content Manager OnDemand client and administrative client.

Report Distribution is supported on Windows and UNIX® platforms (AIX®, HP-UX Itanium, and Sun Solaris). For more information about the software and hardware requirements needed for the Windows and Content Manager OnDemand administrative client, see http://www.ibm.com/support/docview.wss?rs=129&uid=swg27012104.

Running Report Distribution on Windows

On Windows, Report Distribution runs as a service. You use two command-line programs and the Content Manager OnDemand configurator program to install and configure this service.

Before you begin

Before running the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature, you must install DB2 IBM Content Manager OnDemand for Multiplatforms .

About this task

To run the programs:

Procedure

1. Create the IBM Content Manager OnDemand Report Distribution for Multiplatforms database tables:
   a. Open an Content Manager OnDemand command window. Select **Programs** → **IBM OnDemand for Windows** → **Command Window**
   b. Run the **ARSDB** command. Type **arsdb –Rrtv –I** ***instance name***. This command creates the necessary database tables for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *ARCHIVE*, then the **–I** parameter is optional.
2. Create the applications, application group, and folders necessary to support IBM Content Manager OnDemand Report Distribution for Multiplatforms monitoring:
   a. Open an Content Manager OnDemand command window. Select **Programs** → **IBM OnDemand for Windows** → **Command Window**
   b. Run the **ARSSYSCR** command. Type `arssyscr –r –I` *`instance name`*. This command creates the necessary Content Manager OnDemand objects for Report Distribution. If your instance name is *ARCHIVE*, then the **–I** parameter is optional.
3. Check the installation.
   a. Log onto the Content Manager OnDemand library server where IBM Content Manager OnDemand Report Distribution for Multiplatforms is installed using the Content Manager OnDemand administrative client.

      Important: You must be an Content Manager OnDemand system administrator to use the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature.

      After you log on, you should see a **Report Distribution** section in the tree view, under the current library server.
4. Assign the “System IBM Content Manager OnDemand Report Distribution for Multiplatforms” application group to a storage set. You need to assign this application group to a storage set to store information related to IBM Content Manager OnDemand Report Distribution for Multiplatforms:
   a. From the Content Manager OnDemand administrative client, select **Application Groups**.
   b. In the list in the right panel, right-click the **System Report Distribution** application group to open the selection menu.
   c. Choose the **Update** option and select the **Storage Management** tab.

d. Select one of the defined storage sets from the **Storage Set Name** list.
e. Click **OK**.
5. Create a IBM Content Manager OnDemand Report Distribution for Multiplatforms user ID that will be responsible for all of the data extractions from Content Manager OnDemand:
   a. From the Content Manager OnDemand administrative client, right-click **Users** to open the selection menu, and select **New User**.
   b. Create a user ID with system administrative privileges. Example user ID: rdadm
6. Use the configurator program to install and configure the IBM Content Manager OnDemand Report Distribution for Multiplatforms service. Because Content Manager OnDemand should already be installed and configured, you should already have an instance defined for the server. If the instance is not defined, refer to the appropriate section in the *Installation and Configuration Guide*.
   a. Open the Content Manager OnDemand configurator program. Select **Programs** → **IBM OnDemand for Windows** → **Configurator**
   b. Expand the server and select **Services**. You should see the **OnDemand Report Distribution** service listed. If it is not there, close and restart the configurator program.
   c. If the current status of the Content Manager OnDemand Report Distribution service is Stopped, the service is already installed. If the current status of the service is Not installed, you need to install the service. To install the service, right-click **OnDemand Report Distribution** service to open the option menu, and select **Install**. Enter the user ID and password, and click **OK**. (Specify the same user ID that you used to install other Content Manager OnDemand services when the instance was created.)
   d. Right-click **OnDemand Report Distribution** service to open the option menu, and select **Properties**. The properties window shows two tabs, **Service** and **Advanced**.

      Service
      Allows you to configure the service for manual or automatic operation. Recommendation: Set the service to automatic operation because the service is automatically restarted if the machine is rebooted.

      Advanced
      Allows you to configure the necessary service parameters. You can set the **Userid** and **Password** of the user ID that you created to run the service and extract the reports from Content Manager OnDemand. You must select the a Content Manager OnDemand instance from the **Instance** list. You must also provide the working directory location. The working directory contains the distribution files as they are being processed. When specifying a directory, consider the amount of space you need to create and deliver distributions. Estimate the average number of reports per distribution, the average reports size (in bytes), the average number of recipients, and the average number of distributions processed concurrently. The directory is cleaned up when distributions are completed.
7. Configure other Report Distribution parameters. You can configure the Report Distribution parameters further by modifying the parameters under a

particular instance name in the Windows registry. These parameter values are described under "Configuring parameters" on page 29.

a. Select **Programs** → **Run**, type `regedit`, and click **OK**.
b. Navigate to `HKEY_LOCAL_MACHINE\SOFTWARE\IBM\OnDemand for WinNT\@SRV@_ARCHIVE\CFG`, where *ARCHIVE* is the instance name of the library server.
c. Add a parameter value by right-clicking **CFG** and selecting **New** → **string value** from the options.
d. Name the key and click **ENTER**.
e. Double-click the new key name and set the value to what you want for the log file name. For example `C:\TEMP\ARSRDTRANSFORM.LOG`, where `ARSRDTRANSFORM.LOG` is the name of the log.
f. Repeat 7c through 7efor all or any of the parameters listed in "Configuring parameters" on page 29.

8. Start the service. After the service is configured, you can use the Content Manager OnDemand configurator program to start it.
   a. Open the Content Manager OnDemand configurator program. Select **Programs** → **IBM OnDemand for Windows** → **Configurator**
   b. Expand the machine name and select **Services**.
   c. Right-click the **OnDemand Report Distribution** service to open the option menu and select **Start**. The service starts.
9. Activate IBM Content Manager OnDemand Report Distribution for Multiplatforms. If you do not activate IBM Content Manager OnDemand Report Distribution for Multiplatforms, the service runs, but Report Distribution does not process any scheduled distributions.
   a. From the Content Manager OnDemand administrative client, select and right-click **Report Distribution**.
   b. Select **Parameters**.
   c. In the Report Distribution Parameters window, select **Activate Report Distribution**.
   d. Click **Update**.
10. Configure how Content Manager OnDemand will handle scheduled distributions.
   a. From the Content Manager OnDemand administrative client, select and right-click **Report Distribution**.
   b. Set the frequency with which Content Manager OnDemand checks for scheduled distributions in the **Number of minutes between schedule searches** field.
   c. Configure how many times Content Manager OnDemand will retry an operation in the **Maximum number of times to retry an operation** field.
   d. Click **Update**.

Running Report Distribution on AIX

On AIX, Report Distribution runs as a daemon. You run two command-line programs to install and configure Report Distribution to make the daemon run correctly.

Before you begin

Before running the Report Distribution feature, you must install IBM DB2® Content Manager OnDemand for Multiplatforms.

About this task

To run the command-line programs for Report Distribution on AIX:

Procedure

1. Create the report distribution database tables:
   a. Log onto the library server as the root user.
   b. Run the ARSDB command. Type `/usr/lpp/ars/bin/arsdb –Rrtv –I` *`instance name`*. This command creates the necessary database tables for Report Distribution. If your instance name is *`ARCHIVE`*, then the `–I` parameter is optional.
2. Create the applications, application group, and folders necessary to support Report Distribution monitoring:
   a. Run the ARSSYSCR command. Type `/usr/lpp/ars/bin/arssyscr –r –I` *`instance name`* This command creates the necessary OnDemand objects for Report Distribution. If your instance name is *`ARCHIVE`*, then the `–I` parameter is optional.
3. Check the installation:
   a. From the OnDemand administrative client, log onto the OnDemand library server where Report Distribution is installed. **Important:** You must be an OnDemand system administrator to use the Report Distribution feature.

      After you log on, you should see a Report Distribution section in the tree view, under the current library server.
4. Assign the "System Report Distribution" application group to a storage set. You need to assign this application group to a storage set to store information related to Report Distribution:
   a. From the OnDemand administrative client, select **Application Groups**.
   b. In the list in the right panel, right-click the **System Report Distribution** application group to open the selection menu.
   c. Choose the **Update** option and select the **Storage Management** tab.
   d. Select one of the defined storage sets from the Storage Set Name list.
   e. Click **OK**.
5. Create a Report Distribution user ID that will be responsible for all of the data extractions from OnDemand:
   a. From the OnDemand administrative client, right-click **Users** to open the selection menu, and select **New User**.
   b. Create a user ID with system administrative privileges. Example user ID: rdadm
6. Configure other Report Distribution parameters. You can configure the Report Distribution parameters further by modifying the parameters in the ARS.CFG file. These parameter values are described under “Configuring parameters” on page 29.
7. Run the ARSRD program. Type `/usr/lpp/ars/bin/arsrd -u` *`userid`* `-p` *`password`* `-I` *`instance`* `-d` *`working_dir`*.

   To run the ARSRD program with a trace file, type the following command on one line:

```
/usr/lpp/ars/bin/arsrd -u userid -p password -I instance -d working_dir
-1 trace_file -2 level.
```

Note: If *userid* and *password* are not entered on the command line, ARSRD will prompt the user to enter them. To run ARSRD in the background without a terminal and without entering a userid and password on the command line do the following:

a. Type `nohup /usr/lpp/ars/bin/arsrd` -I *instance* -d *working_dir*
b. ARSRD will prompt for the userid: `OnDemand Login:`
c. Type the *userid* and press enter. The *userid* will not appear on the screen. ARSRD will prompt for the password: `OnDemand Password:`
d. Type the *password* and press enter. The *password* will not appear on the screen.
e. Press **Ctrl-Z** to suspend the ARSRD process, then type **bg** to put it in the background.
f. You may now close the terminal.

Table 4. ARSRD program options

Parameter	Description
-d *dir*	The name of the working directory. The working directory is where the `arsrd` program extracts reports and bundles them. Replace the *dir* parameter with the name of the working directory. When you specify a directory, consider the amount of space that you need to create and deliver distributions. Estimate the following averages: • Number of reports per distribution • Reports size (in bytes) • Number of recipients • Number of distributions processed concurrently The directory is cleaned up when distributions are completed. This parameter is required.
-I *instance*	The instance name specified with the `-I` parameter. The instance name specifies the name of the library server that Report distribution uses to process objects. Replace the *instance* parameter with a library server name. If you do not specify a name after this option, the default instance name points to ARCHIVE.
-1 *trace_file*	The fully qualified name of the trace file. The fully qualified name includes all names in the hierarchical sequence above the trace file to which the trace file refers and the name of the trace file. **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.

Table 4. ARSRD program options (continued)

Parameter	Description
-2 *level*	The level of information reported in the trace file. The trace level that you enter in the command line is calculated by adding the values of each type of trace that you want to use. For example, the default trace level is 3, which is the sum of the number assigned to errors (1) and the number assigned to warnings (2). You can use the following trace values alone or add them together, depending on the level of information that you want to see in the trace file: **1** Errors **2** Warnings **3** Informational messages **4** Flow messages **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.
-u *userid*	The user ID of an OnDemand user with administrator authority. Replace *userid* with a system administrator's user ID. This parameter is required.
-p *password*	The system administrator's password for the user specified with the `-u` parameter. Replace *password* with a the system administrator's password that matches with the user ID given in the previous parameter. This parameter is required.

8. Activate Report Distribution. If you do not activate Report Distribution, the service runs, but Report Distribution does not process any scheduled distributions.
   a. From the OnDemand administrative client, select and right-click **Report Distribution**.
   b. Select **Parameters**.
   c. In the Report Distribution Parameters window, select **Activate Report Distribution**.
   d. Click **Update**.
9. Configure how OnDemand will handle scheduled distributions.
   a. From the OnDemand administrative client, select and right-click **Report Distribution**.
   b. Set the frequency with which OnDemand checks for scheduled distributions in the **Number of minutes between schedule searches** field.
   c. Configure how many times OnDemand will retry an operation in the **Maximum number of times to retry an operation** field.
   d. Click **Update**.

Running Report Distribution on HP-UX Itanium

On HP-UX Itanium, IBM Content Manager OnDemand Report Distribution for Multiplatforms runs as a daemon. You run two command-line programs to install and configure Report Distribution to make the daemon run correctly.

Before you begin

Before running the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature, you must install IBM DB2 Content Manager OnDemand for Multiplatforms.

About this task

To run the command-line programs for IBM Content Manager OnDemand Report Distribution for Multiplatforms on HP-UX Itanium:

Procedure

1. Create the report distribution database tables:
   a. Log onto the library server as the root user.
   b. Run the ARSDB command. Type `/opt/ondemand/bin/arsdb –Rrtv –I` *`instance name`*. This command creates the necessary database tables for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *`ARCHIVE`*, then the –I parameter is optional.
2. Create the applications, application group, and folders necessary to support IBM Content Manager OnDemand Report Distribution for Multiplatforms monitoring:
   a. Run the ARSSYSCR command. Type `/opt/ondemand/bin/arssyscr –r –I` *`instance name`*. This command creates the necessary OnDemand objects for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *`ARCHIVE`*, then the –I parameter is optional.
3. Check the installation:
   a. From the OnDemand administrative client, log onto the OnDemand library server where IBM Content Manager OnDemand Report Distribution for Multiplatforms is installed. **Important:** You must be an OnDemand system administrator to use the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature.

      After you log on, you should see a IBM Content Manager OnDemand Report Distribution for Multiplatforms section in the tree view, under the current library server.
4. Assign the "System Report Distribution" application group to a storage set. You need to assign this application group to a storage set to store information related to IBM Content Manager OnDemand Report Distribution for Multiplatforms:
   a. From the OnDemand administrative client, select **Application Groups**.
   b. In the list in the right panel, right-click the **System IBM Content Manager OnDemand Report Distribution for Multiplatforms** application group to open the selection menu.
   c. Choose the **Update** option and select the **Storage Management** tab.
   d. Select one of the defined storage sets from the Storage Set Name list.
   e. Click **OK**.
5. Create a Report Distribution user ID that will be responsible for all of the data extractions from OnDemand:
   a. From the OnDemand administrative client, right-click **Users** to open the selection menu, and select **New User**.
   b. Create a user ID with system administrative privileges. Example user ID: rdadm

6. Configure other IBM Content Manager OnDemand Report Distribution for Multiplatforms parameters. You can configure the IBM Content Manager OnDemand Report Distribution for Multiplatforms parameters further by modifying the parameters in the ARS.CFG file. These parameter values are described under "Configuring parameters" on page 29.
7. Run the ARSRD program. Type `/opt/ondemand/bin/arsrd -u` *userid* `-p` *password* `-I` *instance* `-d` *working_dir*.

   To run the ARSRD program with a trace file, type the following command on one line:

   `/opt/ondemand/bin/arsrd -u` *userid* `-p` *password* `-I` *instance* `-d` *working_dir* `-1` *trace_file* `-2` *level*.

   Note: If *userid* and *password* are not entered on the command line, ARSRD will prompt the user to enter them. To run ARSRD in the background without a terminal and without entering a userid and password on the command line do the following:

   a. Type `nohup /opt/ondemand/bin/arsrd` -I *instance* -d *working_dir*
   b. ARSRD will prompt for the userid: `OnDemand Login:`
   c. Type the *userid* and press enter. The *userid* will not appear on the screen. ARSRD will prompt for the password: `OnDemand Password:`
   d. Type the *password* and press enter. The *password* will not appear on the screen.
   e. Press **Ctrl-Z** to suspend the ARSRD process, then type **bg** to put it in the background.
   f. You may now close the terminal.

Table 5. ARSRD program options

Parameter	Description
-d *dir*	The name of the working directory. The working directory is where the `arsrd` program extracts reports and bundles them. Replace the *dir* parameter with the name of the working directory. When you specify a directory, consider the amount of space that you need to create and deliver distributions. Estimate the following averages: • Number of reports per distribution • Reports size (in bytes) • Number of recipients • Number of distributions processed concurrently The directory is cleaned up when distributions are completed. This parameter is required.
-I *instance*	The instance name specified with the `-I` parameter. The instance name specifies the name of the library server that IBM Content Manager OnDemand Report Distribution for Multiplatforms uses to process objects. Replace the *instance* parameter with a library server name. If you do not specify a name after this option, the default instance name points to ARCHIVE.
-1 *trace_file*	The fully qualified name of the trace file. The fully qualified name includes all names in the hierarchical sequence above the trace file to which the trace file refers and the name of the trace file. **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.

Table 5. ARSRD program options (continued)

Parameter	Description
-2 *level*	The level of information reported in the trace file. The trace level that you enter in the command line is calculated by adding the values of each type of trace that you want to use. For example, the default trace level is 3, which is the sum of the number assigned to errors (1) and the number assigned to warnings (2). You can use the following trace values alone or add them together, depending on the level of information that you want to see in the trace file: **1** Errors **2** Warnings **3** Informational messages **4** Flow messages **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.
-u *userid*	The user ID of an OnDemand user with administrator authority. Replace *userid* with a system administrator's user ID. This parameter is required.
-p *password*	The system administrator's password for the user specified with the `-u` parameter. Replace *password* with a the system administrator's password that matches with the user ID given in the previous parameter. This parameter is required.

8. Activate IBM Content Manager OnDemand Report Distribution for Multiplatforms. If you do not activate IBM Content Manager OnDemand Report Distribution for Multiplatforms, the service runs, but Report Distribution does not process any scheduled distributions.
   a. From the OnDemand administrative client, select and right-click **IBM Content Manager OnDemand Report Distribution for Multiplatforms**.
   b. Select **Parameters**.
   c. In the IBM Content Manager OnDemand Report Distribution for Multiplatforms Parameters window, select **Activate IBM Content Manager OnDemand Report Distribution for Multiplatforms**.
   d. Click **Update**.
9. Configure how OnDemand will handle scheduled distributions.
   a. From the OnDemand administrative client, select and right-click **IBM Content Manager OnDemand Report Distribution for Multiplatforms**.
   b. Set the frequency with which OnDemand checks for scheduled distributions in the **Number of minutes between schedule searches** field.
   c. Configure how many times OnDemand will retry an operation in the **Maximum number of times to retry an operation** field.
   d. Click **Update**.

Running Report Distribution on Solaris

On Solaris, IBM Content Manager OnDemand Report Distribution for Multiplatforms runs as a daemon. You run two command-line programs to install and configure IBM Content Manager OnDemand Report Distribution for Multiplatforms to make the daemon run correctly.

Before you begin

Before running the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature, you must install DB2 IBM Content Manager OnDemand for Multiplatforms.

About this task

To run the command-line programs for IBM Content Manager OnDemand Report Distribution for Multiplatforms on Solaris:

Procedure

1. Create the report distribution database tables:
   a. Log onto the library server as the root user.
   b. Run the ARSDB command. Type `/opt/ondemand/bin/arsdb –Rrtv –I` *`instance name`*. This command creates the necessary database tables for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *ARCHIVE*, then the –I parameter is optional.
2. Create the applications, application group, and folders necessary to support IBM Content Manager OnDemand Report Distribution for Multiplatforms monitoring:
   a. Run the ARSSYSCR command. Type `/opt/ondemand/bin/arssyscr –r –I` *`instance name`* This command creates the necessary Content Manager OnDemand objects for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *ARCHIVE*, then the –I parameter is optional.
3. Check the installation:
   a. From the Content Manager OnDemand administrative client, log onto the Content Manager OnDemand library server where IBM Content Manager OnDemand Report Distribution for Multiplatforms is installed.

      Important: You must be an Content Manager OnDemand system administrator to use the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature.

      After you log on, you should see a **Report Distribution** section in the tree view, under the current library server.
4. Assign the "System Report Distribution" application group to a storage set. You need to assign this application group to a storage set to store information related to IBM Content Manager OnDemand Report Distribution for Multiplatforms:
   a. From the Content Manager OnDemand administrative client, select **Application Groups**.
   b. In the list in the right panel, right-click the **System Report Distribution** application group to open the selection menu.
   c. Choose the **Update** option and select the **Storage Management** tab.
   d. Select one of the defined storage sets from the Storage Set Name list.
   e. Click **OK**.
5. Create a IBM Content Manager OnDemand Report Distribution for Multiplatforms user ID that will be responsible for all of the data extractions from Content Manager OnDemand:
   a. From the Content Manager OnDemand administrative client, right-click **Users** to open the selection menu, and select **New User**.

b. Create a user ID with system administrative privileges. Example user ID: rdadm

6. Configure other IBM Content Manager OnDemand Report Distribution for Multiplatforms parameters. You can configure the IBM Content Manager OnDemand Report Distribution for Multiplatforms parameters further by modifying the parameters in the ARS.CFG file. These parameter values are described under "Configuring parameters" on page 29.
7. Run the ARSRD program. Type `/opt/ondemand/bin/arsrd -u` *`userid`* `-p` *`password`* `-I` *`instance`* `-d` *`working_dir`*.

   To run the ARSRD program with a trace file, type the following command on one line: `/opt/ondemand/bin/arsrd -u` *`userid`* `-p` *`password`* `-I` *`instance`* `-d` *`working_dir`* `-1` *`trace_file`* `-2` *`level`*.

   If *userid* and *password* are not entered on the command line, ARSRD will prompt the user to enter them. To run ARSRD in the background without a terminal and without entering a userid and password on the command line do the following:

   a. Type `nohup /opt/ondemand/bin/arsrd` -I *instance* -d *working_dir*
   b. ARSRD will prompt for the userid: `OnDemand Login:`
   c. Type the *userid* and press enter. The *userid* will not appear on the screen. ARSRD will prompt for the password: `OnDemand Password:`
   d. Type the *password* and press enter. The *password* will not appear on the screen.
   e. Press **Ctrl-Z** to suspend the ARSRD process, then type `bg` to put it in the background.
   f. You may now close the terminal.

Table 6. ARSRD program options

Parameter	Description
-d *dir*	The name of the working directory. The working directory is where the ARSRD program extracts reports and bundles them. Replace the *dir* parameter with the name of the working directory. When you specify a directory, consider the amount of space that you need to create and deliver distributions. Estimate the following averages: • Number of reports per distribution • Reports size (in bytes) • Number of recipients • Number of distributions processed concurrently The directory is cleaned up when distributions are completed. This parameter is required.
-I *instance*	The instance name specified with the `-I` parameter. The instance name specifies the name of the library server that IBM Content Manager OnDemand Report Distribution for Multiplatforms uses to process objects. Replace the *instance* parameter with a library server name. If you do not specify a name after this option, the default instance name points to ARCHIVE.
-1 *trace_file*	The fully qualified name of the trace file. The fully qualified name includes all names in the hierarchical sequence above the trace file to which the trace file refers and the name of the trace file. **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.

Table 6. ARSRD program options (continued)

Parameter	Description
-2 *level*	The level of information reported in the trace file. The trace level that you enter in the command line is calculated by adding the values of each type of trace that you want to use. For example, the default trace level is 3, which is the sum of the number assigned to errors (1) and the number assigned to warnings (2). You can use the following trace values alone or add them together, depending on the level of information that you want to see in the trace file: **1** Errors **2** Warnings **3** Informational messages **4** Flow messages **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.
-u *userid*	The user ID of an Content Manager OnDemand user with administrator authority. Replace *userid* with a system administrator's user ID. This parameter is required.
-p *password*	The system administrator's password for the user specified with the `-u` parameter. Replace *password* with a the system administrator's password that matches with the user ID given in the previous parameter. This parameter is required.

8. Activate Report Distribution. If you do not activate IBM Content Manager OnDemand Report Distribution for Multiplatforms, the service runs, but Report Distribution does not process any scheduled distributions.
   a. From the Content Manager OnDemand administrative client, select and right-click **Report Distribution**.
   b. Select **Parameters**.
   c. In the Report Distribution Parameters window, select **Activate Report Distribution**.
   d. Click **Update**.
9. Configure how Content Manager OnDemand will handle scheduled distributions.
   a. From the Content Manager OnDemand administrative client, select and right-click **Report Distribution**.
   b. Set the frequency with which Content Manager OnDemand checks for scheduled distributions in the **Number of minutes between schedule searches** field.
   c. Configure how many times Content Manager OnDemand will retry an operation in the **Maximum number of times to retry an operation** field.
   d. Click **Update**.

Running Report Distribution on Linux

On Linux, IBM Content Manager OnDemand Report Distribution for Multiplatforms runs as a daemon. You run two command-line programs to install and configure IBM Content Manager OnDemand Report Distribution for Multiplatforms to make the daemon run correctly.

Before you begin

Before running the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature, you must install IBM Content Manager OnDemand for Multiplatforms.

About this task

To run the command-line programs for IBM Content Manager OnDemand Report Distribution for Multiplatforms on Linux:

Procedure

1. Create the report distribution database tables:
   a. Log onto the library server as the root user.
   b. Run the ARSDB command. Type `/opt/ondemand/bin/arsdb –Rrtv –I` *`instance name`*. This command creates the necessary database tables for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *ARCHIVE*, then the `–I` parameter is optional.
2. Create the applications, application group, and folders that are necessary to support IBM Content Manager OnDemand Report Distribution for Multiplatforms monitoring:
   a. Run the ARSSYSCR command. Type `/opt/ondemand/bin/arssyscr –r –I` *`instance name`*. This command creates the necessary OnDemand objects for IBM Content Manager OnDemand Report Distribution for Multiplatforms. If your instance name is *ARCHIVE*, then the `–I` parameter is optional.
3. Check the installation:
   a. From the Content Manager OnDemand administrative client, log onto the Content Manager OnDemand library server where IBM Content Manager OnDemand Report Distribution for Multiplatforms is installed. You must be a Content Manager OnDemand system administrator to use the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature.

      After you log on, you should see a IBM Content Manager OnDemand Report Distribution for Multiplatforms section in the tree view, under the current library server.
4. Assign the "System Report Distribution" application group to a storage set. You need to assign this application group to a storage set to store information that is related to IBM Content Manager OnDemand Report Distribution for Multiplatforms:
   a. From the Content Manager OnDemand administrative client, select **Application Groups**.
   b. In the list in the right panel, right-click the **System Report Distribution** application group to open the selection menu.
   c. Choose the **Update** option and select the **Storage Management** tab.
   d. Select one of the defined storage sets from the **Storage Set Name** list.
   e. Click **OK**.
5. Create a IBM Content Manager OnDemand Report Distribution for Multiplatforms user ID that will be responsible for all of the data extractions from Content Manager OnDemand:
   a. From the Content Manager OnDemand administrative client, right-click **Users** to open the selection menu, and select **New User**.

b. Create a user ID with system administrative privileges. Example user ID: rdadm
6. Configure other IBM Content Manager OnDemand Report Distribution for Multiplatforms parameters. You can configure the IBM Content Manager OnDemand Report Distribution for Multiplatforms parameters further by modifying the parameters in the ARS.CFG file. These parameter values are described in "Configuring parameters" on page 29.
7. Run the ARSRD program. Type `/opt/ondemand/bin/arsrd -u` *userid* `-p` *password* `-I` *instance* `-d` *working_dir*.

   To run the ARSRD program with a trace file, type the following command on one line:

   `/opt/ondemand/bin/arsrd -u` *userid* `-p` *password* `-I` *instance* `-d` *working_dir* `-1` *trace_file* `-2` *level*.

   Note: If *userid* and *password* are not entered on the command line, ARSRD will prompt the user to enter them. To run ARSRD in the background without a terminal and without entering a userid and password on the command line do the following:
   a. Type `nohup /opt/ondemand/bin/arsrd -I` *instance* `-d` *working_dir*
   b. ARSRD will prompt for the userid: `OnDemand Login:`
   c. Type the *userid* and press enter. The *userid* will not appear on the screen. ARSRD will prompt for the password: `OnDemand Password:`
   d. Type the *password* and press **enter**. The *password* will not appear on the screen.
   e. Press **Ctrl-Z** to suspend the ARSRD process, then type `bg` to put it in the background.
   f. You may now close the terminal.

Table 7. ARSRD program options

Parameter	Description
-d *dir*	The name of the working directory. The working directory is where the `arsrd` program extracts reports and bundles them. Replace the *dir* parameter with the name of the working directory. When you specify a directory, consider the amount of space that you need to create and deliver distributions. Estimate the following averages: • Number of reports per distribution • Reports size (in bytes) • Number of recipients • Number of distributions processed concurrently The directory is cleaned up when distributions are completed. This parameter is required.
-I *instance*	The instance name specified with the `-I` parameter. The instance name specifies the name of the library server that IBM Content Manager OnDemand Report Distribution for Multiplatforms uses to process objects. Replace the *instance* parameter with a library server name. If you do not specify a name after this option, the default instance name points to ARCHIVE.

Table 7. ARSRD program options (continued)

Parameter	Description
-1 *trace_file*	The fully qualified name of the trace file. The fully qualified name includes all names in the hierarchical sequence above the trace file to which the trace file refers and the name of the trace file. **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.
-2 *level*	The level of information reported in the trace file. The trace level that you enter in the command line is calculated by adding the values of each type of trace that you want to use. For example, the default trace level is 3, which is the sum of the number assigned to errors (1) and the number assigned to warnings (2). You can use the following trace values alone or add them together, depending on the level of information that you want to see in the trace file: **1** Errors **2** Warnings **3** Informational messages **4** Flow messages **Important:** Do not use this option unless instructed to by your IBM Service Representative. The trace facility significantly impacts system performance.
-u *userid*	The user ID of an Content Manager OnDemand user with administrator authority. Replace *userid* with a system administrator's user ID. This parameter is required.
-p *password*	The system administrator's password for the user specified with the `-u` parameter. Replace *password* with a the system administrator's password that matches with the user ID given in the previous parameter. This parameter is required.

8. Activate IBM Content Manager OnDemand Report Distribution for Multiplatforms. If you do not activate IBM Content Manager OnDemand Report Distribution for Multiplatforms, the service runs, but Report Distribution does not process any scheduled distributions.
   a. From the Content Manager OnDemand administrative client, select and right-click **IBM Content Manager OnDemand Report Distribution for Multiplatforms**.
   b. Select **Parameters**.
   c. In the IBM Content Manager OnDemand Report Distribution for Multiplatforms Parameters window, select **Activate Report Distribution**.
   d. Click **Update**.
9. Configure how Content Manager OnDemand will handle scheduled distributions.
   a. From the Content Manager OnDemand administrative client, right-click **Report Distribution**.
   b. Set the frequency with which Content Manager OnDemand checks for scheduled distributions in the **Number of minutes between schedule searches** field.
   c. Configure how many times Content Manager OnDemand will retry an operation in the **Maximum number of times to retry an operation** field.

d. Click **Update**.

Configuring parameters

You can configure the `ARS.CFG` file or your Windows registry specifically for report distribution, but you do not need to modify this file or the Windows registry for report distribution to work.

If you do not modify the `ARS.CFG` file or the Windows registry, IBM Content Manager OnDemand Report Distribution for Multiplatforms feature assumes the following statements:

- Convert all PDF documents to PostScript when printing
- Do not transform input data to another data type

All of the report distribution parameters begin with ARS_RDF, followed by a description for a specific setting.

For more information about the ARS.CFG file or the Windows registry and how to modify them, see the *Installation and Configuration Guide*.

"ARS_RDF_PRINT_CONVERT_PDF parameter"
You can use the ARS_RDF_PRINT_CONVERT_PDF parameter to determine whether PDF reports are printed as PDF or as PostScript (PS).

"ARS_RDF_TRANSFORM_XML parameter"
The fully qualified name of the generic transform configuration XML file.

ARS_RDF_PRINT_CONVERT_PDF parameter

You can use the ARS_RDF_PRINT_CONVERT_PDF parameter to determine whether PDF reports are printed as PDF or as PostScript (PS).

If the parameter is set to **YES**, then the bundle process converts the PDF to PS. If set to **NO**, the bundle process does not convert PDF to PS.

The default value for this parameter is set to **YES**.

Parameter

ARS_RDF_PRINT_CONVERT_PDF = *YES* to convert from PDF to PS.

ARS_RDF_PRINT_CONVERT_PDF = *NO* to leave reports in PDF format.

Restart the ARSRD program after you set this parameter for changes to take place.

ARS_RDF_TRANSFORM_XML parameter

The fully qualified name of the generic transform configuration XML file.

Suspending ARSRD program for all platforms

When you suspend the ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on. It does not read or schedule any new distributions.

About this task

When you suspend the ARSRD program, the program will continue to run and it can be reactivated to start processing again.

To suspend the ARSRD program, complete the following steps:

Procedure

1. Right-click **Report Distribution** in the IBM Content Manager OnDemand administrative client and select **Parameters**. The Report Distribution Parameters window opens.
2. Clear **Activate Report Distribution** in the section **Operational Parameters**. This check box is selected by default. You can select it again when you want to start the Report Distribution program to start processing again.

Results

The ARSRD program does not immediately suspend processing. After you deselect the option, the ARSRD program can take several minutes to finish processing the distributions it is currently working on before it suspends its operation.

Related tasks

"Stopping the ARSRD program on AIX, HP-UNIX, and Solaris"
On UNIX, when you stop ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on and then exits.

"Stopping the ARSRD program on Windows" on page 31
When you stop the ARSD program on Windows, the program completes all of the distributions it is currently processing and then exits.

"Killing the ARSRD program on AIX, HP-UNIX, Solaris, and Linux" on page 31
On UNIX, when you kill the ARSRD program on IBM Content Manager OnDemand Report Distribution for Multiplatforms, the program terminates immediately.

Stopping the ARSRD program on AIX, HP-UNIX, and Solaris

On UNIX, when you stop ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on and then exits.

About this task

After you stop the ARSRD program, the daemon is no longer running. It must be restarted in order to have it process distributions again.

To stop the ARSRD program, complete the following steps:

Procedure

1. Log onto the library server as the root server.
2. Run the following command: `ps –ef | grep arsrd | grep –v grep`. Your output should look similar to the following example:
   ```
   root 6222 5886   1 13:19:13  pts/2  0:00 arsrd -u rd -d /ondemand/arstmp/rd
   ```
3. Run the following command: `kill` *`pid`*. For example: kill 6222

Related tasks

"Suspending ARSRD program for all platforms" on page 29
When you suspend the ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on. It does not read or schedule any new distributions.

Stopping the ARSRD program on Windows

When you stop the ARSD program on Windows, the program completes all of the distributions it is currently processing and then exits.

About this task

If you stop the Report Distribution program, ARSRD, the service is no longer running. You must restart the service to process distributions again.

Important: The Windows operating system has a built in time-out value when waiting for a service to stop. If the ARSRD program is processing distributions, the program might not stop quickly enough before the operating system kills it. Killing the ARSRD program causes it to terminate immediately. It does not finish processing any distributions it is currently working on. You need to manually delete everything left in the working directory before the program is restarted or unexpected results can occur.

To prevent the operating system from terminating the ARSRD program prematurely, suspend the program first and allow it to finish processing any current distributions before attempting to stop it.

To stop the ARSRD program, complete the following steps:

Procedure

1. On the machine where the ARSRD program is installed (usually the library server), select **Programs** → **IBM OnDemand for Windows** → **Configurator** to open the configurator program.
2. Expand the server and select **Services**. You should see the OnDemand Report Distribution service listed.
3. Right-click **OnDemand Report Distribution** and select **Stop**.

Related tasks

"Suspending ARSRD program for all platforms" on page 29
When you suspend the ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on. It does not read or schedule any new distributions.

Killing the ARSRD program on AIX, HP-UNIX, Solaris, and Linux

On UNIX, when you kill the ARSRD program on IBM Content Manager OnDemand Report Distribution for Multiplatforms, the program terminates immediately.

About this task

When you kill the IBM Content Manager OnDemand Report Distribution for Multiplatforms program, ARSRD program, it does not finish processing any distributions it is currently working on. The daemon will no longer be running and must be restarted in order to have it process distributions again. **Important:** Do not kill the program if it is not necessary. Subsequent restarting can cause previously completed distributions to be re-delivered.

To kill the ARSRD program, complete the following steps:

Procedure

1. Log on to the library server as the root user.
2. Run the following command: `ps –ef | grep arsrd | grep –v grep`. Your output should look similar to the following example:
   ```
   root 6592 581   1 13:19:13  pts/2  0:00 arsrd -u rd -d /ondemand/arstmp/rd
   ```
3. Run the following command: `kill -9` *`pid`*. For example: kill -9 6592

Results

After you kill the ARSRD program, then you need to manually delete everything left in the working directory before the program is restarted or unexpected results can occur.

Related tasks

"Suspending ARSRD program for all platforms" on page 29
When you suspend the ARSRD program on Report Distribution, the program finishes processing any distributions it is currently working on. It does not read or schedule any new distributions.

Planning distributions

The planing scenario and example data suggest possible ways to organize data in the real-world using the Acme Art company. The information used to create the Acme Art company scenario is fabricated and created only to help explain key report distribution functions and is presented throughout the book.

To plan and organize your data, you need to complete the following tasks:

- Analyze your report distribution requirements and determine the distribution methods and policies that best suit your needs.
- Identify the reports that report distribution will handle.
- Identify the selection criteria for each report.
- Identify users for each report.
- Group users into lists.

When you identify and organize the data that you have, then you use the OnDemand administrative client to define the distribution definitions. To set up deliveries of those distributions, you need to complete the following tasks:

- Define reports.
- Define banners, if you want to use them.
- Define a bundles of reports that are used by distributions.
- Define distributions.
- Identify the distribution schedule.
- Add recipients to distributions.

After you have set up your report distribution system, you need to manage and monitor the distributions. Over time, report values can change, users can change job roles, and distributions might no longer be valid. Ensure that you periodically clean up any old or obsolete reports, distributions, and user information.

1. “Step 1 for scenario: Organizing information” on page 35
   The first step in the Acme Art company planning scenario is to organize the information you intend to use.
2. “Step 2 for scenario: Creating groups” on page 37
   The second step in the Acme Art company planning scenario is to put the information into user groups for distribution to the different employees in the sales department.
3. “Step 3 for scenario: Creating reports” on page 38
   The third step in the Acme Art company planning scenario is to create the reports.
4. “Step 4 for scenario: Creating distributions” on page 39
   The fourth and final step in the Acme Art company planning scenario is to create the distributions of the reports to the employees in the sales department.

Related concepts

"Acme Art company overview"
The Acme Art company overview describes the company's business and the duties of some of the employees at the company.

"Acme Art company's sales department"
The Acme Art company sales department uses Report Distribution to generate and send reports to employees by region, territory, and retailer.

Acme Art company overview

The Acme Art company overview describes the company's business and the duties of some of the employees at the company.

Acme Art company sells new and resale folk art throughout the United States. Joe Jones is a manager for one of the sales departments and has an office at the Acme Art company headquarters. Some of the employees in Joe's sales department not only work as sales representatives for this line of business, but they also appraise and purchase inventory. All of Joe's employees work out of offices in a warehouse separate from the Acme Art headquarters building.

Acme Art company's sales department

The Acme Art company sales department uses Report Distribution to generate and send reports to employees by region, territory, and retailer.

Each department in the Acme Art company is responsible for providing information to the OnDemand system about its users and the reports that they receive. Hari Patel is one of the system administrators for the Acme Art sales department. He is assigned to gather and analyze information from Joe's department for the purpose of using it as input to the Report Distribution feature.

Joe's sales department has employees that receive weekly reports for their territory. Most of the reports that the sales department receives are several pages long, however, employees usually need only the information that applies to the sales territories that they cover. So, Joe provides the following information to the administrator:

- The names and user IDs of the department employees
- The reports that each employee needs

Joe provides this information in a table and explains his department's needs to Hari:

- I-Ming Wu covers two accounts in Illinois and all of the accounts in Missouri. She needs the sales reports delivered to her for each account as soon as they come in to prevent a lot of work coming in at once. Elanzo Toledo and Connie Abrams will receive her accounts if she is out of the office.
- Jason Liu receives weekly reports for his territory, California and Oregon, and because Jason's territory is larger and does a greater volume of business, he has two assistants named Roland Tivold and Soraya Pertwe. If either Roland or Soraya are out sick or on vacation, then the reports need to be sent to both Jason and the other assistant, while the employee who is out, should be taken off the distribution list. On the rare occasion that both are out, then Jason needs to receive all of the reports. If Jason is out of the office, then both Roland and Soraya receive his reports.

- Elanzo Toledo and Connie Abrams work together to cover Kentucky and Tennessee, and they receive all of the same report data once a week.

The following table is the information that Joe provides to the administrator for his department:

Table 8. Information provided to department administrator

Employee Name	User ID	Region	Territory	Retailer
I-Ming Wu	IWU	Midwest	IL	Art Hut
			IL	Brisco Gallery
			MO	All retailers in this territory
Jason Liu	JLIU	Northwest	CA	Home Decor Den
			CA	California Artwork
			OR	Portland Designers
Roland Tivold	RTIVOLD	Northwest	CA	Surfside Gallery
Soraya Pertwe	SPERTWE	Northwest	OR	Ashland Specialty Art Depot
Elanzo Toledo	ETOLEDO	Midwest	KY	Blue Ridge Art
			IN	Amishland Art
Connie Abrams	CABRAMS	Midwest	KY	Blue Ridge Art
			IN	Amishland Art

Hari analyzes the information that Joe provided. He wants to organize the information to minimize the impact to performance and reduce the number of times a distribution is delivered. The number of times a distribution is delivered is based on the number of users receiving the distribution. He decides that the best way to organize the information and to get the best performance from the OnDemand system is to plan around the reports rather than the users.

Step 1 for scenario: Organizing information

The first step in the Acme Art company planning scenario is to organize the information you intend to use.

One way to organize the information is from the bottom up. A bottom-up approach would involve looking at the reports and grouping together lists by who receives them. The steps in this process include:

1. Identifying the reports.
2. Identifying the users and groups that share reports and placing them in a recipient list.
3. Placing reports that share the same recipient list into a bundle.

Now that the information for report distribution has been provided to the report distribution system administrator, Hari Patel, must decide how to organize the data for report distribution. Hari takes the information and creates a table for himself that contains what reports he must create, the bundles that he must put them into, and then identify who receives those bundles.

He names the reports after the specific documents that make up the report. Each report has a set of criteria used to extract those reports from the system. Each report name is unique.

Next, he determines who receives what reports and who to assign to which distribution. Each distribution has a list of recipients, one bundle, and one schedule. If more than one person receives a report bundle, he can organizes the users into a group to use in the recipient list, or, he adds their individual user ID to the recipient list.

In addition to receiving these sales reports, all of Joe's employees get the company's monthly sales report, which Hari has named Monthly Sales Report.

Using all these factors, Hari creates an organizational table:

Table 9. Hari's organizational table

Report name	Bundle name	User ID	Group
Art Hut and Brisco Gallery	Midwest Sales for IL and MO - Art Hut and Brisco Gallery	IWU	
Missouri	Midwest Sales for IL and MO - Art Hut and Brisco Gallery	IWU	
California Artwork and Home Decor Den	Northwest Sales for CA and OR - CalArt, HomeDec, PortDes	JLIU	
Portland Designers	Northwest Sales for CA and OR - CalArt, HomeDec, PortDes	JLIU	
Surfside Gallery	Northwest Sales for CA - Surfside Gallery	RTIVOLD	
Ashland Specialty Art Depot	Northwest Sales for OR - Ashland Specialty Art Depot	SPERTWE	
Amishland Art	Midwest Sales for IN and KY - Amishland and Blue Ridge Art	ETOLEDO	SALINKY
Amishland Art	Midwest Sales for IN and KY - Amishland and Blue Ridge Art	CABRAMS	SALINKY
Blue Ridge Art	Midwest Sales for IN and KY - Amishland and Blue Ridge Art	ETOLEDO	SALINKY
Blue Ridge Art	Midwest Sales for IN and KY - Amishland and Blue Ridge Art	CABRAMS	SALINKY
Monthly Sales Report	Monthly Sales Report	All sales employees	SALESMTY

In the sorted data in table above, you can see that recipient lists can be created for the user IDs that fall together with identical report selection criteria.

Hari decides that grouping the sales documents for the retailers into one report is best for the performance of the system. Combining the call reduces the amount of queries to the database and retrieves the retailer documents together which provides better retrieval performance. He also understands that combining the retailers, the report query could collate the retrieved documents, meaning that one document from one retailer is followed by a document from the second retailer. He cannot guarantee that documents from each retailer are grouped together in the bundle.

If Hari had grouped the reports individually by retailer, it would have impacted the performance of the system. However, Hari realizes that in grouping the reports together, he sacrifices versatility. If Joe's sales department switched assignments often, then calling each retailer's information individually allows Hari to change the report from one bundle to another bundle if the account switches to another recipient. But Hari knows, in this instance, performance is more important than versatility. Also, querying the reports individually by retailer guarantees that the documents retrieved by report distribution arrive grouped together.

Hari must now define the groups that will become the recipients in the recipient list, define the reports that belong to each list, assemble the bundles, and create the distribution for which each report bundle and recipient are assigned to.

Step 2 for scenario: Creating groups

The second step in the Acme Art company planning scenario is to put the information into user groups for distribution to the different employees in the sales department.

Using the Acme Art company sales department data and input from Joe Jones, Hari needs to group pieces of information together for use in distributing reports to the appropriate people.

Before Hari can start creating distributions, he must create groups in the OnDemand system based on the organizational table he made in “Step 1 for scenario: Organizing information” on page 35. He can use these groups as recipients in report distribution. Recipients can be single users or a group of users.

Using groups instead of individual users make it easier to maintain the system. For example, if you used a group as a recipient and you want to delete that group of users from the distribution, you only have to delete one recipient from the list rather than searching through the list for all of the users that you need to delete. Another reason is that a user can be added to a group and the distribution does not need to be updated because the group is already part of the distribution. However, even though more than one user needs the same set of reports, a group should not be used if some of the users in the group do not receive the reports unless others in the group are out of the office.

In this scenario, Hari finds that he can effectively group users together to be recipients of distributions. So, he creates the following groups:

Table 10. Groups to receive distributions

Groups	Purpose
SALINKY	A list for ETOLEDO and CABRAMS, because they receive the same reports all of the time
SALESMTY	A list of all sales employees who should receive the monthly report, Monthly Sales Report.

Hari does not create a group for Jason Liu and his two assistants because they do not receive all of the reports all of the time. Instead, he uses the Report Distribution feature that allows him to activate and deactivate recipients. So, instead of deleting a recipient from the distribution recipient list, he can simply deactivate them. This feature allows Hari to remember who receives reports, and, allows him to place user IDs that have the potential to receive the distribution in the recipient list. In this scenario, Hari uses the deactivate function to place user IDs as backup recipients when someone is out of the office.

Next, Hari must decide how reports are called from the OnDemand system. Report Distribution gives him three choices: public named queries, SQL queries, and Load. He must decide how to use them based on the criteria Joe has given him.

Step 3 for scenario: Creating reports

The third step in the Acme Art company planning scenario is to create the reports.

At this point, Hari has created two tables, an overview of how information is organized among Joe's employees and a table of what groups to create so he can use those groups as recipients when he creates distributions. Now, Hari must plan how he will retrieve the reports that will go into a bundle. Report distribution gives him three methods to use to query and retrieve documents from the OnDemand system: Load, Named Query, and SQL query.

Joe had told Hari that I-Ming Wu needed reports as soon as they were updated to reduce her workload. To Hari, that means that as soon as a sales report from Art Hut or Brisco Gallery was loaded into the OnDemand system, then those reports needed to be sent to I-Ming. Hari needs to specify an SQL query with the Load report type because I-Ming does not need all of the documents that are loaded. She needs only the documents that are for the retailers that she supports.

Jason Liu and his two assistants receive reports from the same region with similar territories, but different retailers. Hari understands that a simple public named query would not satisfy the complexity of this situation, and decides that using the SQL query method allows for a little more flexibility than a named query.

Elanzo Toledo and Connie Abrams cover all of Kentucky and Indiana and receive the same reports. He could group their reports in a named query, but he knows that Acme Art wants to win more retailers in this region, meaning, that the reports that Elanzo and Connie receive would change. To prevent the possibility that they receive all the reports from Kentucky and Indiana, or, in the case that their reports change, Hari decides to limit the reports to the two retailers by using an SQL query.

The monthly sales report is a single report distributed to all sales employees from corporate headquarters. Hari understands that a simple call to this one document at the beginning of each month is all that is required to get the report to all of Joe's employees. He knows that a named query has already been defined in the OnDemand client, and all he'd need to do is point to it when he creates the report for it.

Hari uses his organizational overview table to supply the key values of the SQL queries.

Table 11. Report name with SQL or named query values.

Report name	SQL query or named query information
Art Hut and Brisco Gallery	WHERE state = 'IL' AND (retailer = 'ART HUT' OR retailer = 'BRISCO GALLERY')
Missouri	WHERE state = 'MO'

Table 11. Report name with SQL or named query values. (continued)

Report name	SQL query or named query information
California Artwork and Home Decor Den	WHERE state = 'CA' AND (retailer = 'HOME DECOR DEN' OR retailer = 'CALIFORNIA ARTWORK')
Portland Designers	WHERE state = 'OR' AND retailer = 'PORTLAND DESIGNERS'
Surfside Gallery	WHERE state = 'CA' AND retailer = 'SURFSIDE GALLERY'
Ashland Specialty Art Depot	WHERE state = 'OR' AND retailer = 'ASHLAND SPECIALTY ART DEPOT'
Amishland Art	WHERE state = 'IN' AND retailer = 'AMISHLAND ART'
Blue Ridge Art	WHERE state = 'KY' AND retailer = 'BLUE RIDGE ART'
Monthly Sales Report	Created by named query for the monthly sales report, Monthly Sales Report

Hari could have made a separate report for each retailer, but it would have increased the number of database queries as well as the number of document retrieval requests to the IBM Content Manager OnDemand system.

Now that Hari has planned for the reports, he now needs to determine what reports to bundle together and assign the bundles to the users who need to receive them.

Step 4 for scenario: Creating distributions

The fourth and final step in the Acme Art company planning scenario is to create the distributions of the reports to the employees in the sales department.

As the report system administrator, Hari must create distributions by assigning report bundles to the appropriate recipients, and set the distribution deliveries to the right schedule. Hari understands that when he creates distributions, he must ensure that he has the appropriate user IDs and reports. He knows that if he is not careful, users who do not have authorization to view a report could receive the reports if he puts them as recipients. Hari makes one last table that shows which reports go into which bundles, the schedule the reports are on, and who is assigned to receive them.

Table 12. Report details

Report name	Bundle name	Schedule type	Recipient list
Art Hut and Brisco Gallery Missouri	Midwest Sales for IL and MO - Art Hut and Brisco Gallery	Load	IWU (A) CABRAMS (D) ETOLEDO (D)
California Artwork and Home Decor Den Portland Designers	Northwest Sales for CA and OR - CalArt, HomeDec, PortDes	Weekly	JLIU (A) RTIVOLD (D) SPERTWE (D)

Table 12. Report details (continued)

Report name	Bundle name	Schedule type	Recipient list
Surfside Gallery	Northwest Sales for CA - Surfside Gallery	Weekly	RTIVOLD (A) SPERTWE (D) JLIU (D)
Ashland Specialty Art Depot	Northwest Sales for OR - Ashland Specialty Art Depot	Weekly	SPERTWE (A) RTIVOLD (D) JLIU (D)
Amishland Art Blue Ridge Art	Midwest Sales for IN and KY - Amishland and Blue Ridge Art	Weekly	SALINKY (A)
Monthly Sales Report	Monthly Sales Report	Monthly	SALESMTY (A)

By organizing the information in this last table, Hari knows that he needs to create six bundles and six distributions. Each row contains the information he needs to create for a distribution and each cell in the Reports column contains the report information he needs to create each bundle. The table also shows what types of schedules to assign to the distribution and which recipients need to be in the distribution. Hari has placed an (A) next to an activated recipient and a (D) next to the deactivated recipient.

Before Hari creates the distributions using the OnDemand administrative client, he shows Joe the tables to make sure that he has the correct information. He tells Joe that any deactivated recipients in his table represent the recipients who could alternatively receive reports and they could be activated if the need arises. Hari also mentions that the activated recipients can also be deactivated when needed.

After Joe approves of the assignments that Hari made to each user, Hari logs onto the OnDemand system to begin creating the report distribution objects.

Creating distributions

A *distribution* is a set of reports that have the same recipient or recipients.

At this point, you should have already identified which reports need to go into which bundles and which bundles go to which recipients.

To create a distribution in report distribution, you must add one bundle, include a schedule, and list the recipients. A bundle includes one to several reports that have already been defined in the OnDemand system. A bundle can also contain header, separator, and trailer banners, and a manifest. A schedule helps you to automate the delivery of reports in a bundle to a certain time-based event or load-based event. A distribution brings all objects and factors together to deliver reports in a certain format at a specified time or event.

The following figure shows the high-level steps for creating a distribution.

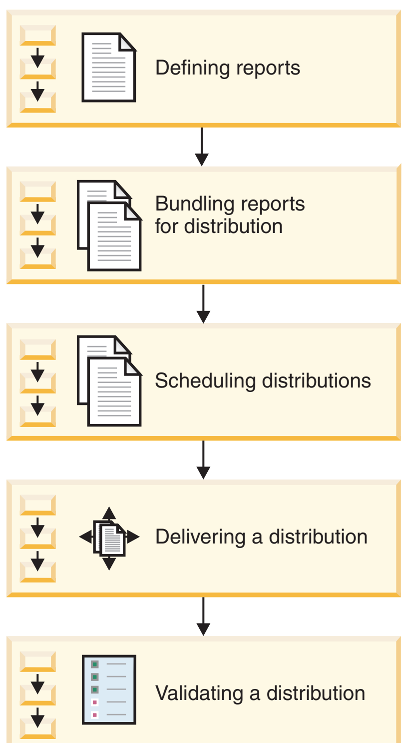

Figure 4. High-level steps for creating a distribution

To deliver a distribution to a recipient, you must ensure that the distribution is active and that each user in the recipient list can receive the reports. To ensure the distribution is active, you must not only identify a schedule in the distribution, but you must also set the schedule. If a schedule is not set, then a distribution is not active. IBM Content Manager OnDemand Report Distribution for Multiplatforms does not check the access level of the recipients, so, take the time to check that all of the objects and aspects of a distribution are valid to ensure that the correct recipients receive their reports.

1. “Defining reports”
   When you are creating distributions, the first task is to define the reports to retrieve for the distribution.
2. “Bundling reports for distribution” on page 47
   The second task for creating distributions is to bundle the defined reports for distribution.
3. “Scheduling distributions” on page 54
   The third task for creating distributions is to determine when to deliver the distributions by using a schedule.
4. “Adding recipients to a distribution” on page 58
   The fourth task for creating distributions is to add the appropriate recipients to the distribution.
5. “Delivering a distribution” on page 61
   The fifth task for creating distributions is to deliver the distribution.
6. “Validating a distribution” on page 65
   The sixth and final fifth task for creating distributions is to validate that the delivery of the distribution.

Defining reports

When you are creating distributions, the first task is to define the reports to retrieve for the distribution.

A *report* is an IBM Content Manager OnDemand document, or a set of documents, that have been loaded in the Content Manager OnDemand system and are defined by **Load**, **Named Query**, or **SQL query**. The default retrieval method is **Load**. You can also decide to use a public named query or an SQL statement for each report. Each method that retrieves reports has advantages and disadvantages described in “Options to define a report” on page 43.

You use the **Load** report type to extract all of the documents that are loaded for a specific application group. If you specify certain documents using an SQL query with the **Load** report type, then only the documents that match the SQL query is extracted. For example, if 100 documents are loaded and only 50 of the documents are needed, then you can specify an SQL query that limits the retrieval to only the 50 documents that are needed.

You also create public named queries in the Content Manager OnDemand client and use them in the Content Manager OnDemand administrative client. Named queries are associated with specific folders, and therefore, are restricted to retrieve documents within those folders. You create SQL statements for reports in the OnDemand administrative client. These SQL statements query the Content Manager OnDemand system directly, across all application groups. You need to carefully enter SQL queries to the system because you could write the statement incorrectly, or, attributes in the system could change, making your SQL statement invalid. For more information on how to write SQL statements, see “Defining an SQL query to retrieve documents” on page 46.

You can define reports in a number of ways. You can extract reports by application group using Load, or, you can define a named query or an SQL query for single document retrieval or multiple document retrieval. You can make each report equal to one Content Manager OnDemand document or to several Content Manager OnDemand documents. Remember that multiple database queries and document retrieval requests can impact performance. When you create your reports, look for who will receive the reports, and create your queries based on that information.

After you create the report, validate that it works by asking yourself the following question: Have you validated that the query defined by the report type is set up correctly? You might have documents that return, but are they the documents that you want delivered? You can test the results using the Content Manager OnDemand client.

Acme Art company scenario

When planning for report distribution for the Acme Art company, the system administrator, Hari Patel, had certain requirements to fulfill. Based on those requirements, Hari decided to use a combination of these report type methods to create distributions to deliver to Joe Jones' sales department.

Hari uses the table that he created in"Step 3 for scenario: Creating reports" on page 38 to define the reports for Joe's department. When he creates the reports for I-Ming Wu, he selects the **Load** option for each of her reports, and uses an SQL query to retrieve her reports.

For the rest of the reports, except for Monthly Sales Report, Hari uses the SQL query report type definition. For the Monthly Sales Report, he selects **Named Query**, accesses the folder that contains the monthly sales report, and then selects **Monthly Sales Report**.

"Options to define a report"
IBM Content Manager OnDemand Report Distribution for Multiplatforms provides 3 options from which you can define reports for a distribution.

"Adding a report" on page 45
After you define the reports for the distribution, you add these reports to the distribution.

Options to define a report

IBM Content Manager OnDemand Report Distribution for Multiplatforms provides 3 options from which you can define reports for a distribution.

In order to add a report for distribution, you need to define reports. There are three options to define a report:

- Using a named query that has been defined by the IBM Content Manager OnDemand client
- Using SQL statements
- Using the Load option

The following table contains definition, requirements, benefits, and disadvantages of each option.

Table 13. Options for defining reports

Option	Definition	Requirements	Benefits	Disadvantages
Defining a report using a named query	If you select this option, you are executing a public named query that was already defined by the Content Manager OnDemand client to search for reports whose application group fields are mapped to the folder fields that the public named query is defined for.	You must have defined a public named query in the Content Manager OnDemand client.	• The search criteria can be validated immediately from the Content Manager OnDemand client to ensure that the values are valid, and the search produces documents that match the search criteria. • You do not need to know SQL syntax and the database fields in order to construct an SQL statement • A named query can retrieve documents from multiple application groups at once, depending on the named query that you use.	• A named query can only be used with a folder, because the folder field information is saved in the named query, and not the application group fields. • You cannot define a public named query in the Content Manager OnDemand Administrator, instead, you must define it in the Content Manager OnDemand client. • If you use a named query, the complexity of the query is limited, because the Content Manager OnDemand client limits the available operators for each folder field, and operators in the search criteria can only be all AND clauses or all OR clauses.
Defining a report using SQL	If you select this option, you are constructing an SQL query to search across the entire Content Manager OnDemand database directly.	You must know SQL syntax and the database fields in order to construct an SQL statement	• The SQL query that you construct is not limited to folder fields, and access all application group fields. • The SQL query can be as complex as necessary. It can include both AND clauses and OR clauses. It can also contain any other available SQL keywords that are not available through a named query. • The SQL query is saved with the report definition, and is always available to the report. • The benefit of using the SQL query over the named query is that you can search all application group fields while the named query is limited to the defined folder fields.	• The search does not work if the SQL query is not correctly entered.

Table 13. Options for defining reports (continued)

Option	Definition	Requirements	Benefits	Disadvantages
Defining a report using the Load option	If you select this option, you are creating a report with all of the documents that have been loaded for the specified application group in a specified time frame based on a load-based schedule.	If you want to construct an SQL query, you must know SQL syntax and the database fields. **Note:** An SQL query is optional if you use this option. If you do not specify an SQL query, the entire load is extracted.	• While the plain SQL query searches against the entire Content Manager OnDemand database, search by Load searches against a particular input file. Therefore, it offers the finest granularity of all the report types among all options. • This option allows a search against a subset of Content Manager OnDemand data that might not be isolated otherwise.	

Adding a report

After you define the reports for the distribution, you add these reports to the distribution.

Before you begin

To add a report, you must be a system administrator.

About this task

Follow these steps to add a report:

Procedure

1. Select and expand the library server.
2. Expand **IBM Content Manager OnDemand Report Distribution for Multiplatforms**.
3. Right-click **Reports**.
4. From the menu, select **New Report** to open the **Add a Report** window.
5. In the **Report Name** text field, enter a meaningful report name.

   Report Name is a required field.A valid report name contains 1 - 60 characters. For example, Art Hut and Brisco Gallery.
6. In the **Description** text field, enter a description for this new report. A valid report description contains 1 - 128 characters. For example, This report contains the purchases made by Art Hut and Brisco Gallery.
7. Select **Load** → **Named Query**, or **SQL** as the report definition. **Load** → **Named Query**, and **SQL** are three options that you can use to define a report.

   You must select one of the above methods to define a report. See options to define a report for more information about definition, requirements, benefits, and disadvantages of each option.
8. If you selected **Load**, select the application or application group, and define the SQL statement that you want to use to search in the application group.

   The SQL statement is optional for the load option.

a. In the **Application Group** list, select the application or application group where you want to search for the report. An application or application group is required before you can proceed.
b. Click **Define SQL** to activate the **SQL** text field. The Define SQL Query window opens.
c. See defining an SQL query to retrieve documents for steps on how to define an SQL query.

9. If you selected **Named Query**, select the folder and public named query from the drop-down lists.
   a. Select the folder that contains the named query that you want to use. Folder is a required field.
   b. Click **Retrieve** to activate the **Public Named Query** list.
   c. From the **Public Named Query** list, select the public named query that you want to use. You are required to select a public named query before you proceed.
10. If you selected **SQL**, select the application or application group, and define the SQL statement that you want to use to search in the application group.
   a. In the Application Group list, select the application or application group where you want to search the report.

      Note: An application or application group is required before you can proceed.
   b. Click **Define SQL** to activate the **SQL** text field. The **Define SQL Query** window opens.
   c. See defining an SQL query to retrieve documents for steps on how to define an SQL query. A SQL query is required.
11. Optional: Select or deselect the **Report Must Contain Documents** check box.
   - If this check box is selected, IBM Content Manager OnDemand returns an error and the distribution fails if no documents are returned after the maximum number of retries have been attempted. The number of times that OnDemand retries is specified in the Report Distribution Parameters window. No distribution is delivered.
   - If this check box is deselected, the report is skipped if no documents are returned. If this report is the only report in the distribution, the distribution is skipped. No distribution is delivered.

"Defining an SQL query to retrieve documents"
You can construct SQL queries to retrieve OnDemand documents.

Defining an SQL query to retrieve documents

You can construct SQL queries to retrieve OnDemand documents.

Before you begin

To define an SQL query to retrieve OnDemand documents, you must be a system administrator.

About this task

There are two ways to construct an SQL query:
- Constructing the query by inserting field names and symbols
- Entering the query into the SQL window directly

Follow these steps to construct an SQL query by inserting field names and symbols:

Procedure

1. From the **Fields** field, select the field name, and click **Insert Field Name**. The field name that you selected appears in the SQL field.
2. From the **Symbols** field, select a symbol and click **Insert Symbol**. The symbol that you selected appears in the SQL field.
3. If you want to include a segment date in the SQL query:
   a. Verify that the **Include Segment Field in SQL** check box is checked. If you need to use the **BETWEEN** operator, make sure that the **USE BETWEEN** operator check box is checked.
   b. Enter valid dates in the **Date 1:** and **Date 2:** fields. A valid date format is determined by the system settings on your workstation. For example, if the system date setting is mm/dd/yyyy, a valid date format can be 08/24/2003.

Bundling reports for distribution

The second task for creating distributions is to bundle the defined reports for distribution.

A *bundle* is an IBM Content Manager OnDemand Report Distribution object that allows you to package, organize, and optionally provide additional information about the reports that you want to send to the recipients. A bundle contains at least one or more reports, and might optionally include banners and a manifest. A distribution contains only one bundle, but a bundle can belong to more than one distribution. A *banner* is an optional report page that contains information from a recipient's user ID for the purpose of distribution. A *manifest* is an optional list of the reports in a bundle.

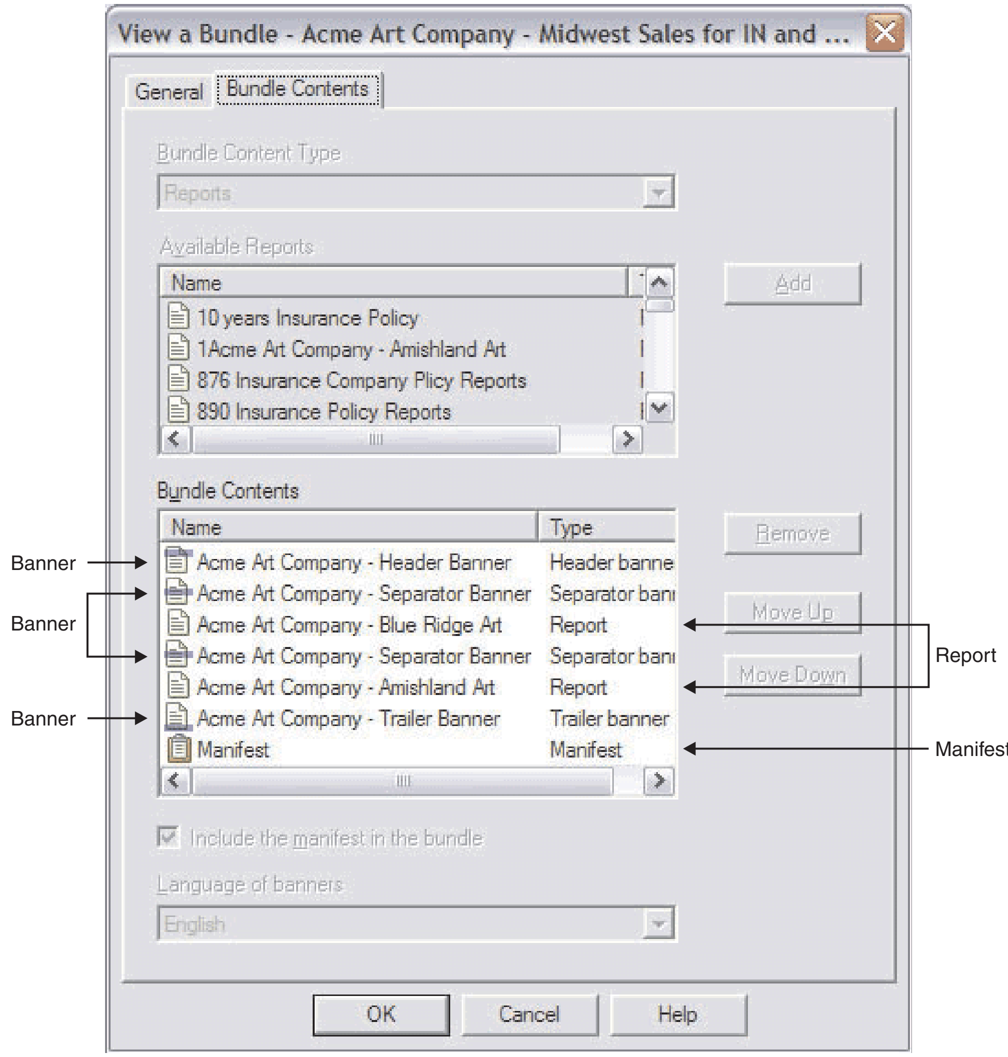

Figure 5. A view of a bundle with header, separator, and trailer banner and a manifest

A bundle must contain reports that have the same data type, or, if the reports are not all the same data type, you must have a third party transform program installed and configured to convert the reports to the same data type. For information about allowable conversions within a bundle, see "Output formats" on page 6.

Within the bundle, you can organize the order that reports appear to the recipients. A bundle can contain multiple instances of the same report. After you have selected two or more reports in the bundle, you can use the bundle capabilities to move a report up or down in the list to control the order of how reports are made available to the recipients.

Banners help recipients to understand the contents of the bundle and aids in the distinction of one report from the next. Using banners, you can provide information to the recipient about the content and other information that you consider important. A lot of the information in the banners comes from the user profile. You have the option to use a header banner, a separator banner, a trailer banner, or a combination of the three. Each bundle can include only one of each type of banner. The header banner appears at the front of the reports, the trailer banner appears at the end. You can only choose one separator banner. If you add a separator banner to a bundle, it is inserted before each report.

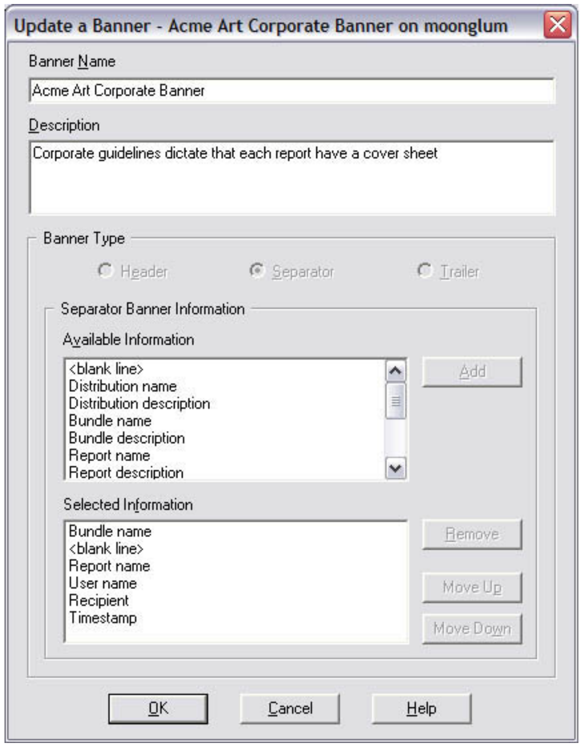

Figure 6. Acme Art uses a separator banner type for the corporate banner

A manifest appears after the trailer banner and it is a text file that contains a list of what is in a bundle. Manifests can be useful to recipients when a bundle contains several reports because they can check what is in a bundle without having to search through the actual reports.

You need to specify one bundle for each distribution. When you create a distribution, you select the bundle, the schedule, and the recipients to receive the bundle. After you create the bundle, validate that it works by asking yourself the following questions:

- Are the correct reports in the bundle?
- Are reports being delivered to users in the order it was requested?
- Can all of the reports in the bundle be converted to the output format specified in the bundle?
- If you included banners, do you have the correct banners in the bundle?
- If you included banners, does the banner contain the information that it needs to have?
- If a manifest is needed or required, has it been included in the bundle?

Acme Art company scenario

One of the Acme Art company administrators, Hari Patel, has already planned for which reports go into which bundles. He uses the table he created in "Step 4 for scenario: Creating distributions" on page 39.

Corporate guidelines, however, dictate that each report have a separator banner, identifying the distribution the report came from, the report name, the recipient's name and user ID, and when the distribution was sent. Corporate also wants each bundle to have a header banner identifying the distribution name, the bundle name, the department, and how many pages are in the bundle. In addition, they want each manager of a sales department to have a copy of the manifest. So, Hari adds a manifest to each bundle. He decides not to include Joe as one of the recipients in the distribution because Joe does not need to receive the actual reports.

"Adding a banner"
You can add 3 types of banners to the bundle of reports; header banner, separator banner, or trailer banner.

"Adding a bundle" on page 51
After you add a banner to the bundle of reports, add the bundle to the distribution by defining its general options and adding the contents of the bundle to the distribution.

Adding a banner

You can add 3 types of banners to the bundle of reports; header banner, separator banner, or trailer banner.

Before you begin

To add a banner, you must be a system administrator.

About this task

Follow these steps to add a banner:

Procedure

1. Select and expand the library server.
2. Expand **IBM Content Manager OnDemand Report Distribution for Multiplatforms**, and right-click **Banners**.
3. From the pop-up menu, select **New Banner**. The Add a Banner window opens.
4. In the **Banner Name** field, enter a meaningful banner name. Banner Name is a required field. You must provide a valid banner name before you can proceed. A valid banner name contains 1 - 60 characters.
5. In the **Description** field, enter a description for this new banner. A valid banner description contains 1 - 128 characters.
6. Select **Header**, **Separator**, or **Trailer** as the banner type. The three types of banners display different information from the distribution and its recipient user IDs. The header banner is placed before all the reports in a bundle. The separator banner delimits the reports in the bundle. The trailer banner follows all the reports in a bundle, and is placed before the manifest. You must select a banner type before you can proceed.
7. Based on the banner type that you selected in the previous step, the elements that can be included in the banner are displayed in the Available Information field. Select the elements that you want to included in the banner, and click **Add**. The elements that you added to the banner are displayed in the Selected Information field. If you want to remove an element, highlight the element, and click **Remove**. If you want to move an element up or down within the Selected Information field, highlight the element, and click **Move Up** or **Move Down**.

   You must select at least one banner element before you can proceed.

"Creating Banner and Separator pages in Asian languages"
Create a PDF banner or separator page in a number of Asian languages.

Creating Banner and Separator pages in Asian languages

Create a PDF banner or separator page in a number of Asian languages.

About this task

Report Distribution must access Adobe fonts to create PDF banner and separator pages for the following languages:

- Chinese Simplified
- Chinese Traditional
- Korean
- Japanese

Other languages do not require Adobe fonts to create PDF banner or separator pages.

To create a banner or separator page:

Procedure

1. Using the Content Manager OnDemand Administrator, select the language in the **Language of Banners** area of the Bundle Object. Table 14 lists the fonts and CMap names for a particular language.

Table 14. Required font and CMap names for a particular language

Language	CIDFont Name	CMap
Chinese Simplified	AdobeSongStd-Light	UniGB-UTF16-H
Chinese Traditional	AdobeMingStd-Light	UniCNS-UTF16-H
Japanese	KozGoProVI-Medium	UniJIS-UTF16-H
Korean	AdobeMyungjoStd-Medium	UniKS-UTF16-H

2. Verify the location of the Adobe font files.

   Table 15 lists the location to store the font and CMap files so that Report Distribution can locate them.

Table 15. Location of Adobe font files

Platform	CIDFont File Directory	CMap File Directory
AIX	`/usr/lpp/Acrobat3/Fonts/Resource/CIDFont`	`/usr/lpp/Acrobat3/Fonts/Resource/CMap`
HP-UX Itanium	`/opt/Acrobat3/Fonts/Resource/CIDFont`	`/opt/Acrobat3/Fonts/Resource/CMap`
Solaris	`/opt/Acrobat3/Fonts/Resource/CIDFont`	`/opt/Acrobat3/Fonts/Resource/CMap`
Windows	`\WINNT\Fonts\Resource\CIDFont`	`\WINNT\Fonts\Resource\CMap`

Adding a bundle

After you add a banner to the bundle of reports, add the bundle to the distribution by defining its general options and adding the contents of the bundle to the distribution.

Before you begin

To add a bundle, you must be a system administrator.

About this task

Complete the following steps to add a bundle:

Procedure

1. Defining general options for a bundle
2. Adding bundle contents

"Defining general options for a bundle"
You can define the general options for the bundle such as output format and the e-mail notifications of the state of the bundle.

"Adding bundle contents" on page 53
You can remove a report or banner from the bundle and change the location of a report in a bundle before you add the contents of the bundle to the distribution.

Defining general options for a bundle

You can define the general options for the bundle such as output format and the e-mail notifications of the state of the bundle.

Before you begin

To define general bundle options for a bundle, you must be a system administrator.

About this task

Follow these steps to define general bundle options:

Procedure

1. Select and expand the library server.
2. Expand **IBM Content Manager OnDemand Report Distribution for Multiplatforms**, and right-click **Bundles**.
3. From the pop-up menu, select **New Bundle** to open the Add a Bundle window.
4. In the **Bundle Name** field, enter a meaningful bundle name. **Bundle Name** is a required field. You must enter a bundle name to proceed. A valid bundle name contains 1 - 60 characters.
5. In the **Description** field, enter a description for this new bundle. A valid bundle description contains 1 - 128 characters.
6. Under **Bundle Output Format**, select **PDF**, **AFP**, or **Line Data** as the output format for this bundle. For example, if you select PDF as the bundle output format, the bundle will be distributed as a PDF document.
7. Optional: Select the **Set e-mail Notification** check box to notify users and groups of errors, warnings, progress, or completion of this bundle. Select the **Error**, **Warning**, **Progress**, and **Completion** check boxes to specify which information you want to include in the e-mail notification.

   Error Select **Error** to send information about problems that occurs while reports are processed into bundles. Errors that are reported include:
   - Unsupported file formats

- Errors with report extraction
- Invalid conversions
- Errors during conversions
- Transform program problems

General errors such as unsupported file formats or report extraction failures prevent the bundles from being generated for all recipients. Other errors might occur on a recipient basis.

Warning
Select **Warning** to send information about skip and retry conditions. A skip is a condition where a report contains no documents, thus the distribution is empty. A retry is a condition that might be caused by the following reasons:

- A report expects documents but no documents are retrieved at the time of processing.
- Bundle or delivery problems
- Printer or e-mail problems

Progress
Select **Progress** to send notice to the user or user group that you selected in the Notify drop-down list after this bundle is processed.

Tip: This option is recommended for troubleshooting purposes only due to the number of e-mails it might produce.

Completion
Select **Completion** to send notice after all recipients' items are processed.

Adding bundle contents

You can remove a report or banner from the bundle and change the location of a report in a bundle before you add the contents of the bundle to the distribution.

Before you begin

To add bundle contents, you must be a system administrator.

About this task

Follow these steps to select items that you want to add to the bundle:

Procedure

1. From the **Bundle Content Type** list, select the item that you want to add to the bundle.
   - A bundle must contain at least one report.
   - You can define only one header banner for a bundle. The header banner is optional.
   - The separator banner is optional. If you add a separator banner, that same separator banner precedes every report in the bundle.
   - You can define only one trailer banner for a bundle. The trailer banner is optional.
2. Click **Add**, the report or banner that you selected is displayed in the **Bundle Contents** field. To remove a report or a banner, highlight the report or banner, and click **Remove**.

- **Removing a report:** If you remove a report, the separator banner that is associated with the report is removed, and separator banners that are associated with other reports remain in the bundle.

  You must have at least one report in a bundle.
- **Removing a separator banner:** If you remove a separator banner, all separator banners throughout the bundle are automatically removed.

To change the location of a report in a bundle, highlight the report, and click the **Move Up** or **Move Down** button.

3. Optional: Select the **Include the manifest in the bundle** check box to include a manifest in this bundle.
4. Optional: From the **Language of banners** list, select the language for the static information in your banner.

   A banner page is created during the distribution process. The banner elements that you select in the Add a Banner window determine what information is included in the banner page. A banner consists of static information (for example, the DISTRIBUTION NAME: label) and variable information (for example, name of the distribution that is being processed). Based on the language setting that you specify for the banner, the appropriate static information is used. For example, if the language setting is Japanese, the Japanese version of the static information is used to build the banner page.

   If you want to create PDF banners or separator pages in Chinese Traditional, Chinese Simplified, Korean or Japanese, please see the section "Creating Banner and Separator pages in Asian languages" on page 51.
5. Click **OK**.

Scheduling distributions

The third task for creating distributions is to determine when to deliver the distributions by using a schedule.

A *schedule* specifies the time to deliver a distribution. When you create a distribution, you select a schedule to use with the distribution. If a schedule is not selected, then the distribution does not process. For reports with a report definition type of named query or SQL, you need to specify when to start delivering distributions to the recipients and whether you want to have an end date or have the distribution delivered indefinitely (forever).

For reports with a load definition type, you must use a schedule type of Load Based. Schedules that have a type of Load Based check the OnDemand system for updated reports every time loaded data is detected. You must specify a start day that checks for loaded data to begin. You can choose to run these checks forever, or select a period of time that the load based schedule runs. If you do not use a load-based schedule at the time you create a distribution, and you have reports in a bundle that are of type Load, then the schedule ignores the fact that a report is load based, and delivers the distribution at the set time.

Load based schedules are used with reports that are defined with the Load report type. A good reason for using the Load report type is when you want to receive the documents right after they are loaded into OnDemand. For example, if a report is loaded once a month and the report contains the total sales for the month for various sales representatives, then the monthly report can be delivered by e-mail to the sales representatives after it is loaded into the OnDemand system.

After you create the schedule, validate that it works by asking yourself the following questions:

- Is the schedule type correct for the distribution?
- Are the start and end dates and times correct?

Acme Art company scenario

Hari Patel, the Acme Art company administrator responsible for Joe Jones' sales department, has created two Load type reports for I-Ming to receive, Art Hut and Brisco Gallery and Missouri, and placed them in a bundle called Midwest Sales for IL and MO - Art Hut and Brisco Gallery. He knows that any Load type reports must be associated with a load based schedule, otherwise, I-Ming will not get the bundle when she needs it.

Hari decides to create a schedule of type Load Based that he can use for the whole sales department called, Sales department load based schedule. He informs other administrators working with other sales departments that they can use this load based schedule for their load based reports if they want.

"Adding a schedule"
You can add a schedule through which you can determine the frequency, day, and time at which to deliver distributions.

Adding a schedule

You can add a schedule through which you can determine the frequency, day, and time at which to deliver distributions.

Before you begin

To add a schedule, you must be a system administrator.

About this task

Follow these steps to add a schedule.

Procedure

1. Select and expand the library server.
2. Expand **IBM Content Manager OnDemand Report Distribution for Multiplatforms**.
3. Right-click **Schedules**.
4. From the menu, select **New Schedule** to open the Add a Schedule window.
5. In the **Schedule Name** field, enter a meaningful schedule name. Schedule Name is a required field. You must enter a valid schedule name before you can proceed. A valid schedule name contains 1 - 60 characters.
6. In the **Description** field, enter a description for this schedule. A valid schedule description contains 1 - 128 characters.
7. From the **Schedule Type** list, select **Once**, **Daily**, **Weekly**, **Monthly**, or **Load Based** as the schedule type. You must select a schedule type before you can proceed.
8. If you selected **Once** as the schedule type:

   This schedule runs once on the start date, and then expires.

   a. Under **Schedule Distribution Once**, select the **start date** from the **Start Date calendar**.

b. In the **Delivery Time** field, use the up and down arrows to select the delivery time. Report distribution uses your IBM Content Manager OnDemandserver time.

c. Optional: In the situation where the distribution is not complete at the delivery time, if you do not want OnDemand to retry at a later time, deselect the **Retry if the distribution is not complete** check box. Otherwise, leave the check box checked. It is possible that a distribution is not complete at the delivery time, because one or more reports are not ready, or there is a system error.

9. If you selected **Daily** as the schedule type:

   This schedule runs at the delivery time every day from the start date. It can repeat forever or expire at the end date that you specify.

   a. Under **Schedule Distribution Daily**, select the start date from the **Start Date calendar**.

   b. Optional: Select the **Repeat the schedule forever** check box if you want Content Manager OnDemandto send out the distribution every day after the start date. If you select this check box, the **End Date** field is greyed out, and you should proceed to specify the delivery time.

   c. From the **End Date** calendar, select the end date.

      The end date must be greater than or equal to the start date.

   d. In the **Delivery Time** field, use the up and down arrows to select the delivery time. Report distribution uses your Content Manager OnDemand server time. For example, if the delivery time is set to 02:00 PM, the distribution is processed when the time on the computer where the Content Manager OnDemand server resides is 02:00 PM.

   e. Optional: In the situation where the distribution is not complete at the delivery time, if you do not want Content Manager OnDemand to retry at a later time, deselect the **Retry if the distribution is not complete** check box. Otherwise, leave the check box checked. It is possible that a distribution is not complete at the delivery time, because one or more reports are not ready, or there is a system error.

10. If you selected **Weekly** as the schedule type:

    This schedule is processed weekly on the day of the week that you specified in the **start date** field. For example, if the start date is Wednesday, September 24, 2003, the report distribution is processed every Wednesday starting on September 24, 2003.

    a. Under **Schedule Distribution Weekly**, select the start date from the **Start Date calendar**.

    b. **Optional:** Select the **Repeat the schedule forever** check box if you want OnDemand to send out the distribution on a weekly basis on the day of the week that is specified in the start date. If you select this check box, the **End Date** field is greyed out, and you should proceed to specify the delivery time.

    c. From the **End Date calendar**, select the end date.

       - The end date must be greater than or equal to the start date.
       - If the end date that you specify is smaller than start date + 7 days, IBM Content Manager OnDemand sends out the distribution once.

    d. In the **Delivery Time** field, use the up and down arrows to select the delivery time. Report distribution uses your Content Manager OnDemand server time. For example, if the delivery time is set to 02:00 PM, the distribution is processed when the time on the computer where the Content Manager OnDemand server resides is 02:00 PM.

e. Optional: In the situation where the distribution is not complete at the delivery time, if you do not want Content Manager OnDemand to retry at a later time, deselect the **Retry if the distribution is not complete** check box. Otherwise, leave the check box checked. It is possible that a distribution is not complete at the delivery time, because one or more reports are not ready, or there is a system error.

11. If you selected **Monthly** as the schedule type:

    This schedule is processed monthly on the day of the month that you specified in the start date field. For example, if the start date is Wednesday, September 24, 2003 and the end date is January 1, 2004, the schedule is processed on September 24, October 24, November 24, and December 24.

    a. Under **Schedule Distribution Monthly**, select the start date from the **Start Date calendar**.

    b. Optional: Select the **Repeat the schedule forever** check box if you want Content Manager OnDemand to send out the distribution every month after the start date. If you select this check box, the **End Date** field is greyed out, and you should proceed to specify the delivery time.

    c. From the **End Date calendar**, select the end date.

       - The end date must be greater than or equal to the start date.
       - If the end date that you specify is smaller than start date + 1 month, OnDemand sends out the distribution once.

    d. In the **Delivery Time** field, use the up and down arrows to select the delivery time. Report distribution uses your OnDemand server time. For example, if the delivery time is set to 02:00 PM, the distribution is processed when the time on the computer where the OnDemand server resides is 02:00 PM.

    e. Optional: In the situation where the distribution is not complete at the delivery time, if you do not want Content Manager OnDemand to retry at a later time, deselect the **Retry if the distribution is not complete** check box. Otherwise, leave the check box checked. It is possible that a distribution is not complete at the delivery time, because one or more reports are not ready, or there is a system error.

12. If you selected **Load Based** as the schedule type:

    This schedule is load driven rather than time driven. A load-based schedule can only work with distributions that have at least one report whose query type is Load. The schedule runs every time when data is loaded into the application group that the reports are associated with. The schedule can repeat forever or expires at the end date that you specify.

    a. Under **Schedule Distribution Load Based**, select the start date from the **Start Date** calendar. This start date is when this schedule is first processed, and the schedule ignores any loads that happen before the start date.

    b. Optional: Select the **Repeat the schedule forever** check box if you want Content Manager OnDemand to send out the distribution whenever a load is available. If you select this check box, the **End Date** field is greyed out, and you should proceed to specify the delivery time.

    c. From the **End Date** calendar, select the end date. This end date is when this schedule is last processed.

    d. In the **Delivery Time** field, use the up and down arrows to select the delivery time. Report distribution uses your Content Manager OnDemand server time.

Adding recipients to a distribution

The fourth task for creating distributions is to add the appropriate recipients to the distribution.

A *recipient* is an IBM Content Manager OnDemand user, or group of users, who receive distributions from the report distribution system. IBM Content Manager OnDemand Report Distribution for Multiplatforms recipients must be defined to the Content Manager OnDemand system, otherwise they cannot receive distributions.

Recipients receive distributions by e-mail or have them sent to a printer. So, for them to receive distributions, they must have one, if not both, of these attributes defined in their Content Manager OnDemand user profile. If you send distributions to a printer, then the printer must be defined to the server. Local printers connected to your computer do not receive distributions. If you have a local or desktop printer connected to your computer, you must receive the distribution by e-mail and then send it to your printer.

When you add recipients to a distribution, the recipients are automatically activated. When recipients are activated, it means that they will receive the distribution. Ensure that recipients who need to receive the distribution have check marks in the boxes by their name. Just having the recipients listed in Selected Recipients does not mean the recipients receive the distribution. If a recipient does not receive a distribution, check if they are activated. If they are activated, and still do not receive the distribution, check their user profile and how the distribution is delivered (by e-mail or to a printer). If neither of these are the problems, check the IBM Content Manager OnDemand Report Distribution for Multiplatforms log file.

The following screen shows reports that were not sent to their intended recipients.

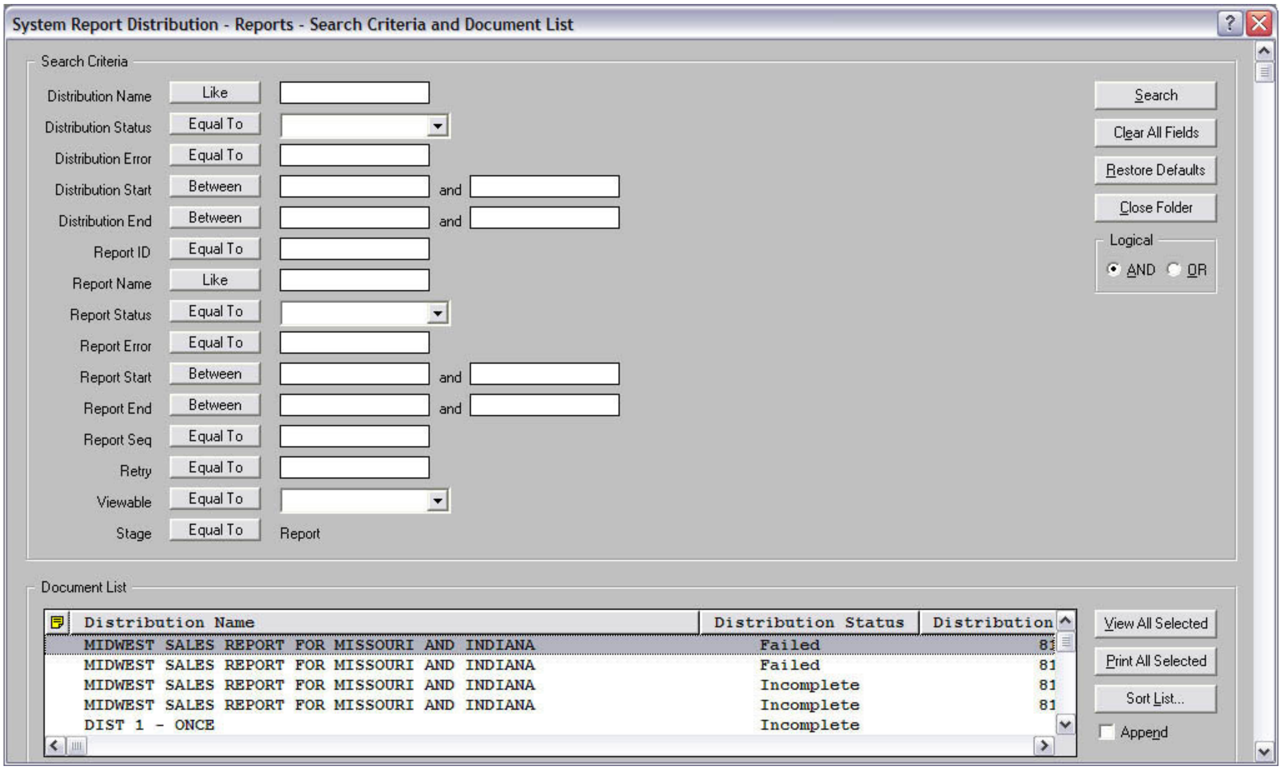

Figure 7. Sample IBM Content Manager OnDemand Report Distribution for Multiplatforms log file that shows a list of reports that failed or are incomplete

If you do not want a recipient to receive a distribution for any reason, you have two options:

- Remove the recipient from the recipient list
- Deactivate (suspend) the recipient

Remove the recipients that no longer need to receive distributions. If you just deactivate them, and never remove them, the Selected Recipients list becomes cluttered with recipients who will never need to see the reports in the distribution. If you want to keep a history of the recipients who used to receive the reports, then create a summary file (right click a distribution, select **Summarize**, and select **Recipients**). You can append new information to the distribution summary file at any time. You can save this summary file at any location as a text file.

If you decide to just deactivate recipients instead of deleting them, then the intention is to activate the recipient sometime in the future. Deactivating recipients are useful for several reasons. You might have to stop a distribution when recipients are temporarily out of the office while activating their backup coworkers to receive the reports.

After you create the recipients, validate that they are correct by asking yourself the following questions:

- If delivering distributions through e-mail, is the e-mail address specified in the user information? If this information is not provided for the user, then the recipient cannot be activated in the distribution. Also, the distribution cannot be created if you have not activated at least one recipient for the distribution.
- If delivering distributions to a printer, is the default server printer specified in the user information? If this information is not provided for the user, then the

recipient cannot be activated in the distribution. Also, the distribution cannot be created if you have not activated at least one recipient for the distribution.
- Is one or more recipients listed and activated?

Important: Report distribution does not check if a recipient is authorized to receive a report. You can create a specific system administrator user ID to work with certain application groups to ensure that more sensitive material is not easily delivered.

Acme Art company scenario

Hari Patel, one of the Acme Art company's system administrators, has to create distributions for Joe Jones' sales department. Joe has told Hari that when certain employees are out of the office, the reports must go to the backup employee. Based on the information that Joe had provided, Hari created a table in "Step 4 for scenario: Creating distributions" on page 39 that he uses now to add the appropriate recipients to the distribution.

"Adding recipients to a distribution"
You can add users or groups as the recipients to whom you want to deliver distributions.

Adding recipients to a distribution

You can add users or groups as the recipients to whom you want to deliver distributions.

Before you begin

To add recipients to a distribution, the following requirements must be met:
- You must be a system administrator.
- Recipients of a distribution can be users or group. Therefore, in order to have a single recipient or multiple recipients that you can add to a distribution, at least one user or group must be defined.
- For users and groups that are potential recipients of a distribution, e-mail or printer information must be specified. Otherwise, a distribution cannot be delivered.

About this task

Follow these steps to add a recipient or multiple recipients to a distribution:

Procedure

1. Under Available Recipients, highlight the recipient or recipients.
2. Click **Add**. The recipient or recipients are displayed under **Selected Recipients**.
3. Optional: To remove a selected recipient or recipients, highlight the recipient or recipients and click **Remove** . For a recipient or recipients that are already in the recipient list, if they do not need to receive the distribution for a period of time and you do not want to remove them from the list (for example, a recipient is on vacation for one month, and does not want to receive weekly reports during this period of time), you can suspend them and re-activate them later. There is a check box next to each selected recipient that is selected by default. To suspend a recipient, clear this check box. To later re-activate the recipient, re-select this check box. The status of the recipient is displayed under

Distribution Recipient Status. Click **Activate All** to activate all recipients. Select **Suspend All** to suspend all recipients.

Delivering a distribution

The fifth task for creating distributions is to deliver the distribution.

A *distribution* is a set of reports contained in a bundle and have the same recipient list. To have a valid distribution, you must include a bundle, a schedule, and a list of recipients.

You have the option to deliver a distribution by e-mail or to have it sent to a printer. Depending on your business needs, you must have one or the other option selected. You cannot have both selected. E-mail is selected by default.

Before you deliver a distribution to the recipients who need the reports, you must have the appropriate information defined as part of the user ID. The user information contains the e-mail address to which to send the distribution and the default server printer of that user. To receive distributions, the printer must be defined to the server. Local printers that are connected to your machine will not receive distributions.

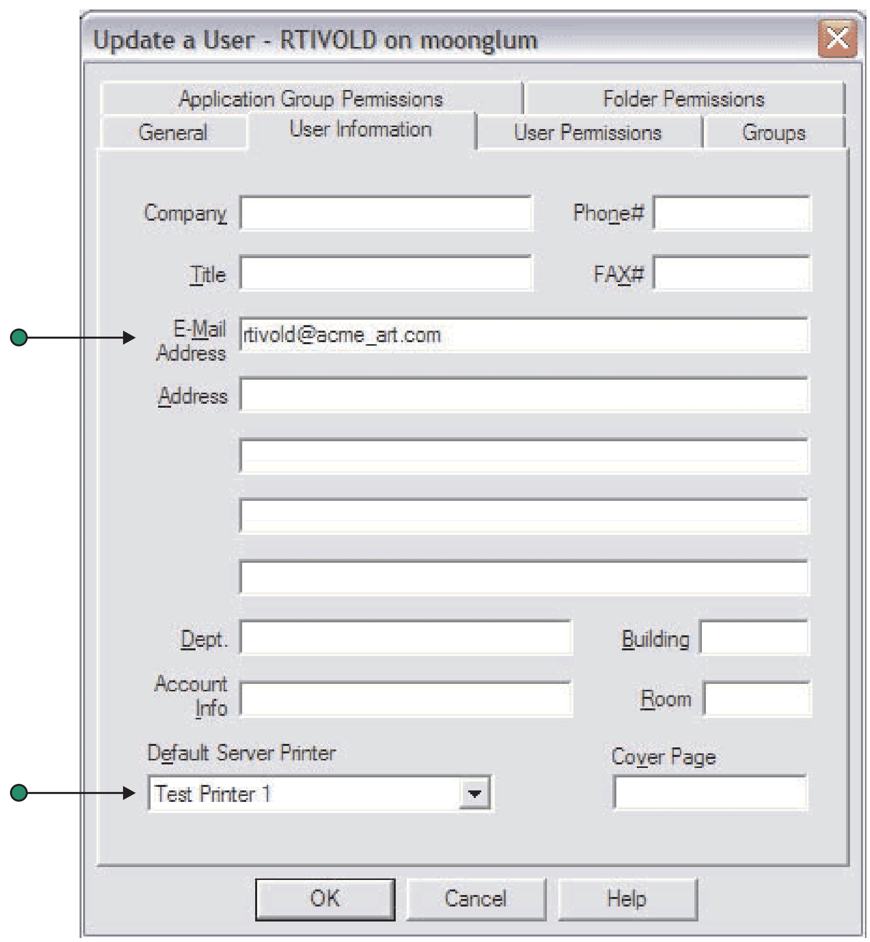

Figure 8. Roland Tivold's user information (e-mail address and default server printer)

If you decide to send the distribution to the recipients by e-mail, each user in the recipient list must have an e-mail address defined in their user profile, otherwise, they will not receive the reports in the bundle. If you decide to send the distribution to a printer, and you do not have a default printer defined for each user in the recipient list, then users who do not have a printer assigned to them will not receive the printout. For example, if you have two users that use the same printer, and only one user has the default printer specified while the other does not, then only the recipient with the default server specified would receive a printout. To have the other recipient receive a distribution, then you must specify a default printer for that user ID that does not have a specified default printer, and then reactivate the recipient in the distribution.

By default, when you select a schedule for a distribution, the schedule is enabled. You can stop a distribution from delivering if you disable the schedule assigned to it. You can disable the schedule by selecting the Set Distribution Schedule check box below the listed schedules in the Distribution window. You might want to disable a schedule because the distribution is being sent to a printer and the printer is not available or needs maintenance. Another reason could be that the distribution is sent through e-mail and the only recipient that receives the distribution is on vacation and does not need the reports.

When you want to deliver a distribution, ensure that you have at least one recipient activated and the schedule is enabled.

After you create a distribution, validate that it works by asking yourself the following questions:

- Have you chosen the correct bundle?
- Is the bundle that you want to deliver included in the bundle list?
- Have you chosen the correct schedule?
- Is the schedule set, making the distribution active? If the schedule is not set, then the distribution is not deliver even if a schedule is assigned to it.
- Do you have all of the appropriate recipients listed and activated?

Acme Art company scenario

It is Acme Art company's policy is to have documents sent to recipients by e-mail to reduce the cost of printing potentially very large reports. So, it is mandatory for any user IDs to have a company e-mail address defined in their user information. Any announcements that need to be posted in the building go to the department managers, who must have a server printer selected in their user information.

Hari periodically receives requests from his manager to disable distributions during certain weekends when routine database and equipment maintenance occurs.

"Defining general options for a distribution" on page 63
The first step in delivering a distribution is to define the name, description, delivery option, and status notification options for the distribution.

"Defining e-mail delivery and notification options" on page 64
After you define the general options for the distribution, you specify e-mail address and notification options, such as a reply to address, for your distributions.

"Adding a bundle to a distribution" on page 64
After you define general options and e-mail options for the distribution, you add the bundle to the distribution.

“Adding a schedule to a distribution” on page 65
The final step in delivering a distribution is to add the schedule to the distribution.

Defining general options for a distribution

The first step in delivering a distribution is to define the name, description, delivery option, and status notification options for the distribution.

Before you begin

To define general bundle options for a distribution, you must be a system administrator.

About this task

Follow these steps to define general distribution options:

Procedure

1. Select and expand the library server.
2. Expand **IBM Content Manager OnDemand Report Distribution for Multiplatforms**, and right-click **Distributions**.
3. From the menu, select **New Distribution** to open the Add a Distribution window.
4. In the **Distribution Name** field, enter a meaningful distribution name. Distribution Name is a required field and contains 1 - 60 characters.
5. In the **Description** field, enter a description for this new distribution. A valid distribution description contains 1 - 128 characters. For ease of use and maintenance, it is highly recommended that you always provide a meaningful description.
6. Select **E-mail** or **Server Printer** as the delivery option. **Delivery** option determines how this distribution is delivered to recipients. If you select **E-mail**, IBM Content Manager OnDemanddelivers the distribution to the recipients' e-mail addresses. If you select **Server Printer**, Content Manager OnDemandprints the distribution on each recipient's default server printer.
7. Optional: Select the **Set e-mail Notification** check box to notify users and groups of errors, warnings, progress, or completion of this distribution. Select the **Error**, **Warning**, **Progress**, and **Completion** check boxes to specify which information you want to include in the e-mail notification.

   Error
   Select **Error** to send report and bundle process errors as well as delivery problems. If an error occurred while reports are processed into bundles, it is reflected in the log files as both a bundle error and a distribution error. For example, if you selected the **Error** check boxes in both Add a Bundle and Add a Distribution windows, and a report extraction fails, this error is recorded in two Content Manager OnDemand logs: The bundle notification reports a failure due to report extraction problems. The distribution notification reports a failure due to bundler problems.

   Warning
   Select **Warning** to send information about skip and retry conditions. A skip is a condition where a report contains no documents, thus the distribution is empty. A retry is a condition that might be caused by the following reasons:

- A report expects documents but no documents are retrieved at the time of processing.
- Bundle or delivery problems
- Printer or e-mail problems

Progress
Select **Progress** to send an e-mail notice about each recipient of a delivery that has completed.

Completion
Select **Completion** to send notice after all of the deliveries have been sent to all of the recipients.

What to do next

After you define general options for a distribution, you can proceed to add a bundle to the distribution.

Defining e-mail delivery and notification options

After you define the general options for the distribution, you specify e-mail address and notification options, such as a reply to address, for your distributions.

About this task

To define e-mail delivery and notification options for a distribution, you must be a system administrator.

Procedure

1. Select and expand the library server.
2. In the left pane under the current library server, right-click **Report Distribution** and select **Parameters** from the option menu.
3. In the E-mail Delivery and Notification Options section, enter the following information:
   a. Enter the IP address or host name of the machine that sends out mail in the **SMTP server address for outgoing mail** field. The SMTP server is usually defined as the IBM Content Manager OnDemand library server.
   b. Enter the e-mail address that you want to use as the sender in the **Global "From:" Address** field. All e-mails that are sent from this SMTP server will display this e-mail address in the **From:** field.
   c. Enter the e-mail address where you want replies to be sent in the **Global "Reply To:" Address** field. All replies will be sent to this e-mail address.
   d. Optional: Enter the server directory path of a global attachment file in the **Server Directory Path to Global Attachment File** field. This attachment is included with all e-mails, including both notifications and distributions. A global attachment file might be a copyright, license, or other type of file that you must distribute.

Adding a bundle to a distribution

After you define general options and e-mail options for the distribution, you add the bundle to the distribution.

Before you begin

To add a bundle to a distribution, you must be a system administrator.

About this task

Under **Distribution Bundle**, select the bundle that you want to add to the distribution. After you select a bundle, the bundle description is displayed under **Bundle Description**.

Adding a schedule to a distribution

The final step in delivering a distribution is to add the schedule to the distribution.

Before you begin

To add a schedule to a distribution, you must be a system administrator.

About this task

Under **Distribution Schedule**, select the schedule that you want to add to the distribution. After you select a schedule, the schedule description and status is displayed under **Schedule Description and Status**. If a schedule is selected, the **Set Distribution Schedule** check box is automatically selected. If you deselect **Set Distribution Schedule**, delivery of the distribution is suspended.

Validating a distribution

The sixth and final fifth task for creating distributions is to validate that the delivery of the distribution.

About this task

While the system can confirm that it delivered a distribution successfully, you must check that it delivers all of the correct reports to all of the right people at the right time. So, even when your distribution delivered successfully, you might find that your distribution is not correct. It might have been delivered at the incorrect time, it could have delivered to some of the people but not all of the people, it might have delivered the reports but in the incorrect format, and so forth. You must check the settings that you provide to ensure that the distribution content is correct.

To validate that a distribution is correct, use the following checklist to validate each object of a distribution:

Procedure

1. **Distributions:**
   - Have you chosen the correct bundle?
   - Is the bundle that you want to deliver included in the bundle list?
   - Have you chosen the correct schedule?
   - Is the schedule set, making the distribution active? If the schedule is not set, then the distribution is not deliver even if a schedule is assigned to it.
   - Do you have all of the appropriate recipients listed and activated?
2. **Schedules:**
   - Is the schedule type correct for the distribution?
   - Are the start and end dates and times correct?
3. **Recipients:**

- If delivering distributions through e-mail, is the e-mail address specified in the user information? If this information is not provided for the user, then the recipient cannot be activated in the distribution. Also, the distribution cannot be created if you have not activated at least one recipient for the distribution.
- If delivering distributions to a printer, is the default server printer specified in the user information? If this information is not provided for the user, then the recipient cannot be activated in the distribution. Also, the distribution cannot be created if you have not activated at least one recipient for the distribution.
- Is one or more recipients listed and activated?

4. **Bundles, banners, and manifests:**
   - Are the correct reports in the bundle?
   - Are reports being delivered to users in the order it was requested?
   - Can all of the reports in the bundle be converted to the output format specified in the bundle?
   - If you included banners, do you have the correct banners in the bundle?
   - If you included banners, does the banner contain the information that it needs to have?
   - If a manifest is needed or required, has it been included in the bundle?
5. **Reports:**
   - Have you validated that the query defined by the report type is set up correctly? You might have documents that return, but are they the documents that you want delivered? You can test the results using the IBM Content Manager OnDemand client.

Monitoring and maintaining distributions

You use both the IBM Content Manager OnDemand administrative client and end-user client to monitor and maintain the objects used for report distribution. You also need to use an additional program, ARSMAINT, to perform maintenance on the database tables which support Report Distribution.

The Content Manager OnDemand administrative client is used to find and display properties of reports, banners, bundles, schedules, and distributions. The Content Manager OnDemand client is used to find the status of distributions that are in progress or that have been completed.

You have three mechanisms to track report distribution processes:

- Content Manager OnDemand system log
- Report Distribution stage log
- Report Distribution trace file

The following sections describe each log in more detail.

"IBM Content Manager OnDemand system log"
The Content Manager OnDemand system log records information about the Report Distribution process.

"Report Distribution stage log"
The Report Distribution stage log contains information about Report Distribution processing.

"Report Distribution trace file" on page 69
The Report Distribution trace file contains information that you should use only when consulting an IBM Service Representative. If you enable this trace facility, system performance decreases significantly.

"E-mail notifications" on page 69
OnDemand can alert a user or group of users to certain report distribution process conditions by notifying them using e-mail.

"Maintaining distributions" on page 72
Maintenance for report distribution is minimal but you must perform two procedures regularly to ensure that the Report Distribution process runs smoothly over time.

IBM Content Manager OnDemand system log

The Content Manager OnDemand system log records information about the Report Distribution process.

The Content Manager OnDemand system log contains information about the ARSRD program status, and, information on bundle creations and distribution deliveries. Even though the same information can be found in the Report Distribution stage logs, the Content Manager OnDemand System log contains some redundant information in case stage logging is disabled.

Report Distribution stage log

The Report Distribution stage log contains information about Report Distribution processing.

About this task

You can get information about the progress of Report Distribution processing by monitoring the IBM Content Manager OnDemand logging.

Content Manager OnDemand has two different logging mechanisms available to Report Distribution, and accessible through an Content Manager OnDemand client. These logging mechanisms are the "IBM Content Manager OnDemand system log" on page 67 and the Content Manager OnDemand Report Distribution stage log. Most Report Distribution logging involves the Content Manager OnDemand Report Distribution stage log.

The Content Manager OnDemand Report Distribution stage log records information for the three different stages that occur during Report Distribution:

- report extraction
- bundle creation
- distribution delivery

When Report Distribution is installed, Content Manager OnDemand creates a folder for each stage so that you can monitor them separately. By default, the folders are called System Report Distribution-Reports, System Report Distribution-Bundles, and System Report Distribution-Deliveries, however, you can modify these names.

When you want to obtain information about the progress of Report Distribution processing, check the Content Manager OnDemand Report Distribution stage log:

Procedure

1. Use stage message logging to monitor the performance of your Report Distribution process. Periodically run stage message logging on any or all stages of your process. To activate stage message logging:
   a. Use the Content Manager OnDemand administrative client to log onto the Content Manager OnDemand library server where Report Distribution is installed. **Important:** You must be an Content Manager OnDemand system administrator to use the Report Distribution feature.
   b. In the left pane under the current library server, right-click **Report Distribution** and select **Parameters** from the option menu.
   c. In the **Stage Message Logging** section, select one or all of the three stages to activate stage monitoring.
   d. Click **Update**.
2. Check the extraction status of reports. You can use the folder "System Report Distribution – Reports" in the Content Manager OnDemand client to monitor the report extraction process. This folder is created as part of the Report Distribution installation. You can modify this folder by specifying or adding certain search criteria and adding, deleting, and rearranging hit information. By default, it shows all of the reports generated by the Report Distribution program and their status. A report message appears for each report in the bundle of a distribution.

   Reports must be extracted from Content Manager OnDemand before bundling or deliveries can take place. Reports are extracted once and used for all the recipients in a distribution. If a report is not extracted successfully, then the bundle creation and distribution delivery fails. If an error occurs during extraction, however, you could possibly retrieve report messages from the log about why it failed.

3. Check the creation status of bundles. You can use the folder “System Report Distribution – Bundles” in the Content Manager OnDemand client to monitor the bundle creation process. This folder is created as part of the Report Distribution installation. By default, it shows all the bundles generated by the Report Distribution program and their status. A bundle message appears for each recipient in a distribution.

   Bundles are created from extracted reports and then combined with any banners and manifest pages. A unique bundle is created for each recipient in a distribution. If a bundle is not created successfully, then the distribution delivery fails. If an error occurs during bundle creation, however, you could possibly retrieve bundle messages from the log about why it failed.
4. Check the delivery status of distributions. You can use the folder “System Report Distribution - Deliveries” in the Content Manager OnDemand client to monitor the distribution delivery process. This folder is created as part of the Report Distribution installation. By default, it shows all of the distributions generated by the Report Distribution program and their delivery status. A delivery message appears for each recipient in a distribution.

   Delivery is the final stage of a distribution. After a bundle is created for a recipient, the delivery process involves determining how the bundle is to be delivered to the recipient. The distribution can be delivered by e-mail attachment or to a printer. If an error occurs during distribution delivery, however, you could possibly retrieve distribution messages from the log about why it failed.
5. Turn off stage monitoring. Monitoring the stages is ultimately beneficial to both the recipients and the administrators of the Report Distribution process. Recording the stage messages, however, is a resource intensive process. To help with possible performance issues, the stage messaging can be turned off for one or more of the stages. This feature is accessed through the Report Distribution Parameters window.
   a. Use the OnDemand administrative client to log onto the Content Manager OnDemand library server where Report Distribution is installed. You must be an Content Manager OnDemand system administrator to use the Report Distribution feature.
   b. In the left pane under the current library server, right-click **Report Distribution** and select **Parameters** from the option menu.
   c. Clear a check box for one or all of the three stages to turn off stage monitoring in the **Stage Message Logging** section.

Report Distribution trace file

The Report Distribution trace file contains information that you should use only when consulting an IBM Service Representative. If you enable this trace facility, system performance decreases significantly.

Start the trace file from the command line when you start Report Distribution. For details about how to start the trace, see the section for your operating system in “Installing and configuring the IBM Content Manager OnDemand Report Distribution for Multiplatforms feature” on page 13.

E-mail notifications

OnDemand can alert a user or group of users to certain report distribution process conditions by notifying them using e-mail.

The e-mail notifications alert users about conditions for bundle creation and distribution delivery. These conditions are:

- Progress
- Warning
- Completion
- Error

You enable these e-mail notifications within the Bundle window.

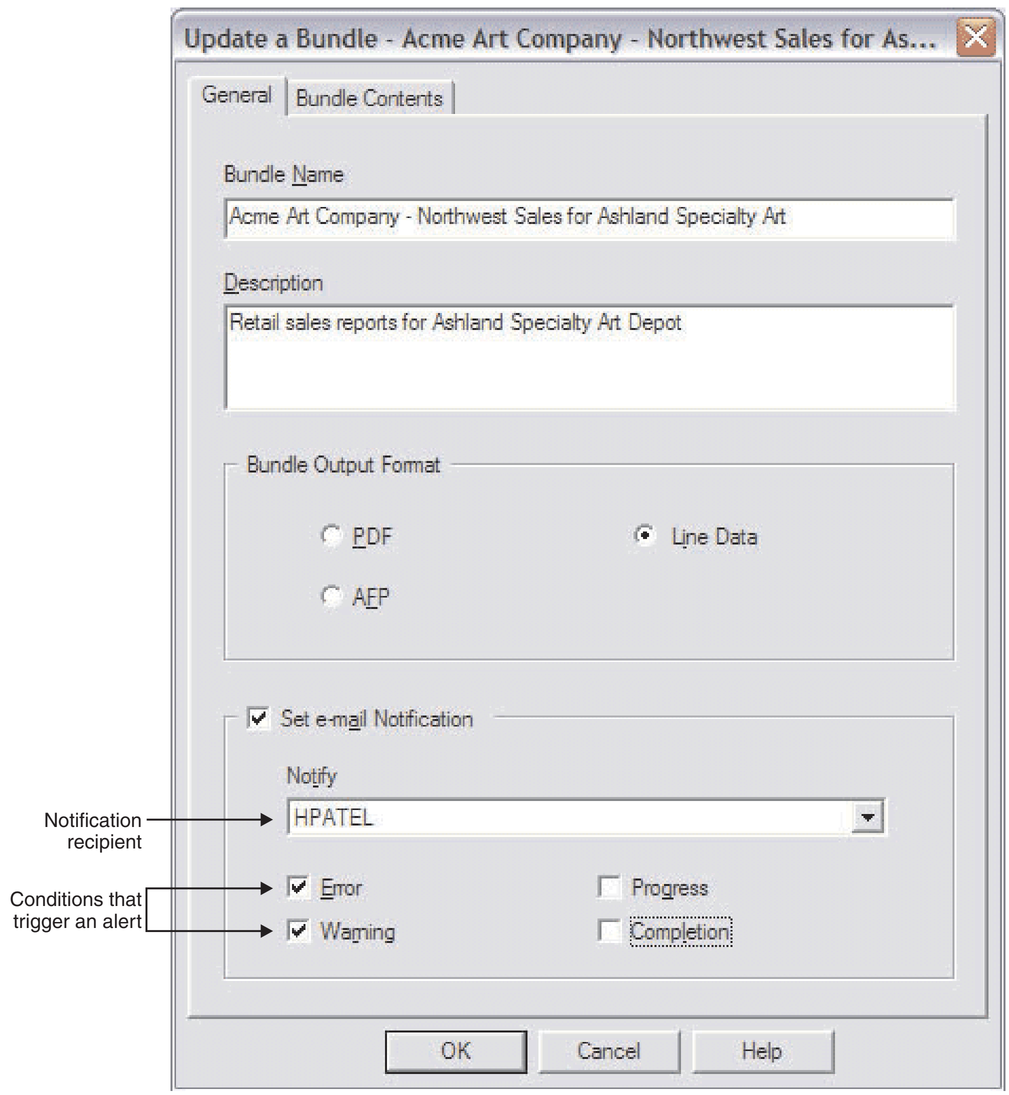

Figure 9. E-mail notification example. An e-mail notification will be sent to the administrator, Hari Patel, when an error or warning condition exists.

E-mail notification does not provide more information than can be found in the Report Distribution stage log or the IBM Content Manager OnDemand system log. However, it has information that is more directed and timely because it is generated in response to certain conditions and sent to the appropriate users who are designated to monitor the report distribution process.

After Report Distribution passes e-mail to the SMTP server, communication between Report Distribution and the mail server ends. For this reason, delivery failures are not logged by Report Distribution because Report Distribution has no way of knowing whether failures occur.

Bundle creation

Table 16. Bundle creation conditions

Condition	Description
Progress (During the stage)	Sent about each recipient when bundle processing for that recipient is complete. One e-mail is created for each recipient. Use the Progress notification for troubleshooting purposes only. It can create a tremendous amount of e-mail activity.
Warning (During the stage)	Sent when bundle processing is set to **RETRY** because of a recoverable error during processing. For example, if you set the retries to three, then an e-mail is sent to you with three warning messages and then a note that the process failed. Each warning message describes what caused the warning to occur.
Completion (End of the stage)	Sent when bundle processing is finished and lists all of the recipients for completed bundles. A single e-mail is sent about the recipients whose bundles are complete.
Error (End of the stage)	Sent when all of the bundles fail. Errors can occur when a report extraction or a general bundle creation fails, or, when a bundle creation for one or more recipients has failed. A single e-mail is sent about the recipients whose bundle creation has failed.

Distribution delivery

Table 17. Distribution delivery conditions

Condition	Description
Progress (During the stage)	Sent about each recipient when delivery processing for that recipient is complete. One e-mail is created for each recipient. Use the Progress notification for troubleshooting purposes only. It can create a tremendous amount of e-mail activity.
Warning (During the stage)	Sent when bundle processing is set to **RETRY** because of a recoverable error during processing. For example, if you set the retries to three, then an e-mail is sent to you with three warning messages and then a note that the process failed. Each warning message describes what caused the warning to occur.
Completion (End of the stage)	Sent when delivery processing completes, and lists all of the recipients for completed bundles. A single e-mail is sent about the recipients whose deliveries are complete.
Error (End of the stage)	Sent when all of the deliveries fail. Errors can occur when a report extraction or a general bundle creation fails, or, when a distribution delivery for one or more recipients has failed. A single e-mail is sent about the recipients whose delivery has failed.

Maintaining distributions

Maintenance for report distribution is minimal but you must perform two procedures regularly to ensure that the Report Distribution process runs smoothly over time.

About this task

The distribution maintenance procedures are maintaining the load monitoring information and finding unscheduled distributions in the system.

Procedure

1. Use the **ARSMAINT** command to expire load information relating to distributions.

   Load information is collected for report distribution purposes by the IBM Content Manager OnDemandARSLOAD program. This load information is used for load-based schedules and to process reports that have a report type of load. The load information is only used for report distribution. Because it is collected over time, it can accumulate to a significant amount very quickly depending on how many loa ds are done.

   The **ARSMAINT** command is designed to help maintain many aspects of OnDemand and has been extended to help maintain the load information kept by report distribution. A new parameter has been added to the **ARSMAINT** command to expire old load information from the system: `arsmaint –l` *`days`*, where *days* represents the number of days load information is retained in the system.

2. Find unscheduled distributions.

   Distributions must be associated with schedules to be processed. Because schedules can be created with expiration dates, at some point, those schedules will expire and the distributions using them will become unscheduled. Unscheduled distributions can also be explicitly created.

   a. Using the Content Manager OnDemandadministrative client, log onto the Content Manager OnDemand server running the Report Distribution program and expand **Report Distribution**.

   b. Right-click **Distributions** and select **Find**. The Search window opens.

   c. Deselect **Enabled Schedule** and **Disabled Schedule** in the Schedule Status box. **No Schedule** should be the only option selected.

   d. Select **OK**. The window closes and you will see a list of distributions in the right pane which are not currently associated with any schedules.

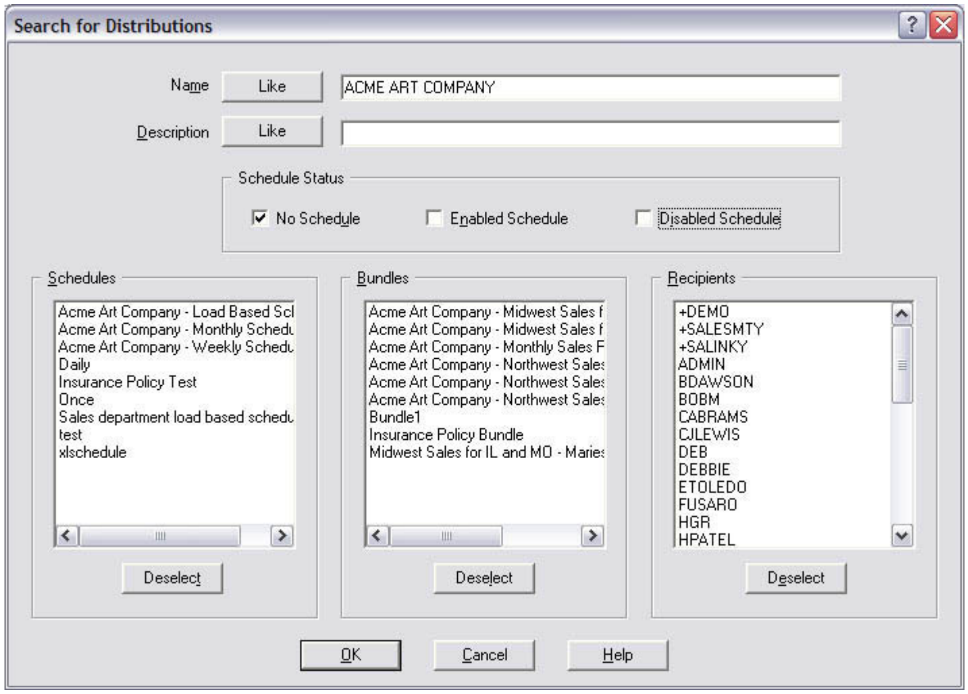

Figure 10. By selecting only No Schedule in the Schedule Status box, you can find unscheduled distributions

Troubleshooting

The Troubleshooting section contains the messages that you might encounter and describes how to read the message code that can appear in the logs.

"Message identifiers"
: You can use the information in this publication to identify Report Distribution errors or problems and resolve them by using the appropriate recovery action. To resolve errors not related to Report Distribution, see *Messages and Codes*.

"Messages" on page 74
: The Report Distribution system messages describe problems and possible solutions. The messages also include the corresponding message code that can appear in the logs.

Message identifiers

You can use the information in this publication to identify Report Distribution errors or problems and resolve them by using the appropriate recovery action. To resolve errors not related to Report Distribution, see *Messages and Codes*.

The IBM Content Manager OnDemand programs issue the same messages for AIX, HP-UX Itanium, i5/OS®, Sun Solaris Operating Environment, and Windows.

The format of the message identifier is **ARS nnnnt**, where:

ARS The message prefix for Content Manager OnDemand messages.

nnnn The message number

t The type and severity of the message. One of the following values:

A – Alert message. A warning for an administrator to take action to avoid performance and reliability problems.

D – Debug message. Contains information that an administrator can use to help service and development resolve problems.

E – Error message. Occurs when an Content Manager OnDemand server program fails.

I – Informational message. Issued by the Content Manager OnDemand server when a program completes successfully. These messages can assist in providing an audit trail.

W – Warning message. Issued by the Content Manager OnDemand server when the results of a program might be in question.

Important: The messages that are written to the Content Manager OnDemand system logs do not contain the ARS prefix and the type suffix. For example, the message that is associated with the failure of a load process would be written as `8127` to the system log, while it is listed as `ARS8127E` in this publication. However, `8127` and `ARS8127E` are one and the same message.

In this publication, the messages and explanations are listed according to the four-digit message numbers (for example, `8127`).

Messages

The Report Distribution system messages describe problems and possible solutions. The messages also include the corresponding message code that can appear in the logs.

"ARS308I" on page 76
Report Add: Name(*rept_name*) Report ID(*rept_id*)

"ARS323I" on page 76
IBM Content Manager OnDemand Report Distribution for Multiplatforms Options Update

"ARS324I" on page 76
Report Delete: Report ID(*rept_id*)

"ARS330I" on page 76
Load Monitor Table Delete: Agid(*agid*) LoadId(*load_id*)

"ARS331E" on page 76
Unable to create working directory >*directory*<

"ARS332W" on page 76
Unable to open message file >*file*<

"ARS333W" on page 76
User does not have an e-mail address for notification: User ID(*userid*) Name(*name*)

"ARS334E" on page 77
Requested data conversion is not possible: Bundle Name(*bund_name*)

"ARS339W" on page 77
IBM Content Manager OnDemand Report Distribution for Multiplatforms program deactivated

"ARS340I" on page 77
Report Distribution bundle created: Distribution Name(*dist_name*) Bundle Name(*bund_name*)

"ARS343W" on page 77
Report Distribution delivery skipped: Distribution Name(*dist_name*) Schedule Name(*sched_name*)

"ARS8000I" on page 77
You supplied an incorrect parameter in the command. For more information about these parameters, see "Configuring parameters".

"ARS8002I" on page 77
Report Delete: Name(*rept_name*) Report ID(*rept_id*)

"ARS8003I" on page 77
Report Update: Name(*rept_name*) Report ID(*rept_id*)

"ARS8004I" on page 77
Banner Add: Name(*banner_name*) Banner ID(*banner_id*)

"ARS8005I" on page 77
Banner Delete: Name(*banner_name*) Banner ID(*banner_id*)

"ARS8006I" on page 77
Banner Update: Name(*banner_name*) Banner ID(*banner_id*)

"ARS8007I" on page 77
Schedule Add: Name(*schedule_name*) Schedule ID(*schedule_id*)

"ARS8008I" on page 77
Schedule Delete: Name(*schedule_name*) Schedule ID(*schedule_id*)

"ARS8009I" on page 77
Schedule Update: Name(*schedule_name*) Schedule ID(*schedule_id*)

"ARS8010I" on page 78
Bundle Add: Name(*bundle_name*) Bundle ID(*bundle_id*)

"ARS8011I" on page 78
Bundle Delete: Name(*bundle_name*) Bundle ID(*bundle_id*)

"ARS8012I" on page 78
Bundle Update: Name(*bundle_name*) Bundle ID(*bundle_id*)

"ARS8013I" on page 78
Distribution Add: Name(*dist_name*) Distribution ID(*dist_id*)

"ARS8014I" on page 78
Distribution Delete: Name(*dist_name*) Distribution ID(*dist_id*)

"ARS8015I" on page 78
Distribution Update: Name(*dist_name*) Distribution ID(*dist_id*)

"ARS8035I" on page 78
Banner Delete: Banner ID(*banner_id*)

"ARS8036I" on page 78
Schedule Delete: Schedule ID(*schedule_id*)

"ARS8037I" on page 78
Bundle Delete: Bundle ID(*bundle_id*)

"ARS8038I" on page 78
Distribution Delete: Distribution ID(*dist_id*)

"ARS8039I" on page 78
Load Monitor Table Add: Agid(*agid*) LoadId(*load_id*)

"ARS8056E" on page 78
Report stage message posting failed: Distribution Name(*dist_name*) Report Name(*rpt_name*) Error(*error*)

"ARS8057E" on page 78
Bundle stage message posting failed: Bundle Name(*bund_name*) Recipient ID(*recip_id*) Error(*error*)

"ARS8058E" on page 78
Delivery stage message posting failed: Distribution Name(*dist_name*) Recipient ID(*recip_id*) Error(*error*)
"ARS8076E" on page 78
Login Failed: Password expired
"ARS8077E" on page 79
Login failed: rc = *rc*
"ARS8105E" on page 79
Requested data conversion is not possible: Bundle Name(*bund_name*) Report Name(*rept_name*)
"ARS8106I" on page 79
Report distribution program started
"ARS8107I" on page 79
Report distribution program ended: rc = *rc*
"ARS8108I" on page 79
Report distribution program activated
"ARS8113I" on page 79
Report Distribution delivered: Distribution Name(*dist_name*) Schedule Name(*sched_name*)
"ARS8114E" on page 79
Report Distribution delivery failed: Distribution Name(*dist_name*) Schedule Name(*sched_name*)
"ARS8141E" on page 79
No recipients found in distribution: Distribution Name(*dist_name*)
"ARS8143E" on page 79
Runtime distribution creation failed: Distribution ID(%2)

ARS308I Report Add: Name(*rept_name*) Report ID(*rept_id*)

Explanation: The specified report was added to the system. This message is for your information only.

User response: No action is required.

ARS323I IBM Content Manager OnDemand Report Distribution for Multiplatforms Options Update

Explanation: The report distribution options were updated. This message is for your information only.

User response: No action is required.

ARS324I Report Delete: Report ID(*rept_id*)

Explanation: The specified report was deleted from the system. This message is for your information only.

User response: No action is required.

ARS330I Load Monitor Table Delete: Agid(*agid*) LoadId(*load_id*)

Explanation: An entry was deleted from the database because data was unloaded from the system. The message identifies the LoadId, which represents the report in the system. The message also identifies the application group. This message is for your information only.

User response: No action is required.

ARS331E Unable to create working directory >*directory*<

Explanation: Unable to create the working directory. This error prevents the report distribution program from running properly.

User response: Check the permissions for the stated directory and resubmit the command.

ARS332W Unable to open message file >*file*<

Explanation: The report distribution program is unable to create the listed message file.

User response: Check the permissions for the directory the file is being created in.

ARS333W User does not have an e-mail address for notification: User ID(*userid*) Name(*name*)

Explanation: Sending an e-mail notification from report distribution has failed because the notification user has no e-mail address defined.

User response: Create an e-mail address for this user.

ARS334E Requested data conversion is not possible: Bundle Name(*bund_name*)

Explanation: The input data types from the associated reports cannot be converted to the requested output data type of the bundle.

User response: Redefine the bundle to contain only reports which have the data types that can be converted to the requested output type or install the necessary transform program to provide the requested conversion.

ARS339W IBM Content Manager OnDemand Report Distribution for Multiplatforms program deactivated

Explanation: The report distribution program has been deactivated. This message is for your information only.

User response: No action is required.

ARS340I Report Distribution bundle created: Distribution Name(*dist_name*) Bundle Name(*bund_name*)

Explanation: A bundle has successfully been created for one or more recipients. This message is for your information only.

User response: No action is required.

ARS343W Report Distribution delivery skipped: Distribution Name(*dist_name*) Schedule Name(*sched_name*)

Explanation: A distribution delivery has been skipped. This error might occur because the distribution contains no active recipients or the reports comprising the bundle are optional and not available.

User response: No action is required.

ARS8000I You supplied an incorrect parameter in the command. For more information about these parameters, see "Configuring parameters".

Explanation:

```
Usage: arsrd -d dir [-I] -u userid -p password
Version:  version
-d  <work_dir> Working directory (required)
-I <od_inst> OnDemand Instance Name
(default: ARCHIVE)
-p <passwd> OnDemand User Login Password
(required)
-u <userid> OnDemand User Login Name (required)
```

User response: Review your parameters and resubmit the command with the correct parameters.

ARS8002I Report Delete: Name(*rept_name*) Report ID(*rept_id*)

Explanation: The specified report was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8003I Report Update: Name(*rept_name*) Report ID(*rept_id*)

Explanation: The specified report was updated. This message is for your information only.

User response: No action is required.

ARS8004I Banner Add: Name(*banner_name*) Banner ID(*banner_id*)

Explanation: The specified banner was added to the system. This message is for your information only.

User response: No action is required.

ARS8005I Banner Delete: Name(*banner_name*) Banner ID(*banner_id*)

Explanation: The specified banner was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8006I Banner Update: Name(*banner_name*) Banner ID(*banner_id*)

Explanation: The specified banner was updated. This message is for your information only.

User response: No action is required.

ARS8007I Schedule Add: Name(*schedule_name*) Schedule ID(*schedule_id*)

Explanation: The specified schedule was added to the system. This message is for your information only.

User response: No action is required.

ARS8008I Schedule Delete: Name(*schedule_name*) Schedule ID(*schedule_id*)

Explanation: The specified schedule was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8009I Schedule Update: Name(*schedule_name*) Schedule ID(*schedule_id*)

Explanation: The specified schedule was updated. This message is for your information only.

User response: No action is required.

ARS8010I **Bundle Add: Name(*bundle_name*) Bundle ID(*bundle_id*)**

Explanation: The specified bundle was added to the system. This message is for your information only.

User response: No action is required.

ARS8011I **Bundle Delete: Name(*bundle_name*) Bundle ID(*bundle_id*)**

Explanation: The specified bundle was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8012I **Bundle Update: Name(*bundle_name*) Bundle ID(*bundle_id*)**

Explanation: The specified bundle was updated. This message is for your information only.

User response: No action is required.

ARS8013I **Distribution Add: Name(*dist_name*) Distribution ID(*dist_id*)**

Explanation: The specified distribution was added to the system. This message is for your information only.

User response: No action is required.

ARS8014I **Distribution Delete: Name(*dist_name*) Distribution ID(*dist_id*)**

Explanation: The specified distribution was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8015I **Distribution Update: Name(*dist_name*) Distribution ID(*dist_id*)**

Explanation: The specified distribution was updated. This message is for your information only.

User response: No action is required.

ARS8035I **Banner Delete: Banner ID(*banner_id*)**

Explanation: The specified banner was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8036I **Schedule Delete: Schedule ID(*schedule_id*)**

Explanation: The specified schedule was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8037I **Bundle Delete: Bundle ID(*bundle_id*)**

Explanation: The specified bundle was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8038I **Distribution Delete: Distribution ID(*dist_id*)**

Explanation: The specified distribution was deleted from the system. This message is for your information only.

User response: No action is required.

ARS8039I **Load Monitor Table Add: Agid(*agid*) LoadId(*load_id*)**

Explanation: An entry was added to the database. The message identifies the LoadId, which represents the report in the system. The message also identifies the application group. This message is for your information only.

User response: No action is required.

ARS8056E **Report stage message posting failed: Distribution Name(*dist_name*) Report Name(*rpt_name*) Error(*error*)**

Explanation: This is a trace message.

User response: No action is required.

ARS8057E **Bundle stage message posting failed: Bundle Name(*bund_name*) Recipient ID(*recip_id*) Error(*error*)**

Explanation: This is a trace message.

User response: No action is required.

ARS8058E **Delivery stage message posting failed: Distribution Name(*dist_name*) Recipient ID(*recip_id*) Error(*error*)**

Explanation: This is a trace message.

User response: No action is required.

ARS8076E **Login Failed: Password expired**

Explanation: A client failed when attempting to log on to the server because of an expired password.

User response: Update the password using an OnDemand client or administrative utility and resubmit the command.

ARS8077E Login failed: rc = *rc*

Explanation: A client failed when attempting to log on to the server.

User response: Verify the userid, password, and server and then resubmit the command.

ARS8105E Requested data conversion is not possible: Bundle Name(*bund_name***) Report Name(***rept_name***)**

Explanation: The input data types from the associated report cannot be converted to the requested output data type of the bundle.

User response: Redefine the bundle to contain only reports which have the data types that can be converted to the requested output type or install the necessary transform program to provide the requested conversion.

ARS8106I Report distribution program started

Explanation: The report distribution program has been started. This message is for your information only.

User response: No action is required.

ARS8107I Report distribution program ended: rc = *rc*

Explanation: The report distribution program has ended. This message is for your information only.

User response: No action is required.

ARS8108I Report distribution program activated

Explanation: The report distribution program has been activated. This message is for your information only.

User response: No action is required.

ARS8113I Report Distribution delivered: Distribution Name(*dist_name***) Schedule Name(***sched_name***)**

Explanation: A distribution has been delivered. This message is for your information only.

User response: No action is required.

ARS8114E Report Distribution delivery failed: Distribution Name(*dist_name***) Schedule Name(***sched_name***)**

Explanation: A distribution delivery has failed.

User response: Check the report distribution system folders for additional information.

ARS8141E No recipients found in distribution: Distribution Name(*dist_name***)**

Explanation: This is a trace message.

User response: No action is required.

ARS8143E Runtime distribution creation failed: Distribution ID(*%2***)**

Explanation: This message is for your information only.

User response: No action is required.

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Index

A

Acme Art company
  employee statistics 34
  overview 34
  scenario 34, 47, 54
Acme Art company scenario 42, 58, 61
activated recipient 58
adding
  banner 50
  bundle contents 53
  report 45
  schedule 55
adding a bundle
  to a distribution 64
adding a schedule
  to a distribution 65
adding recipients
  to a distribution 60
AFP2PDF transform
  configuration requirements 7
  support for data type conversions 7
AIX
  configuring 17
  installing 17
  killing the ARSRD program 31
  running 17
  stopping the ARSRD program 30
  suspending the ARSRD program 30
application 3
  description 3
application group 3
  assigning to a storage set 14, 17, 20, 23, 26
  description 3
  System Report Distribution 14, 17, 20, 23, 26
application groupabout 3
applicationabout 3
ARS 73
ARS_RDF_ TRANSFORM_XML 29
ARS_RDF_PRINT_CONVERT_PDF 29
ARS.CFG 6, 29, 69
ARS308I 76
ARS323I 76
ARS324I 76
ARS330I 76
ARS331E 76
ARS332W 76
ARS333W 76
ARS334E 77
ARS339W 77
ARS340I 77
ARS343W 77
ARS8002I 77
ARS8003I 77
ARS8004I 77
ARS8005I 77
ARS8006I 77
ARS8007I 77
ARS8008I 77
ARS8009I 77
ARS8010I 78
ARS8011I 78
ARS8012I 78
ARS8013I 78
ARS8014I 78
ARS8015I 78
ARS8035I 78
ARS8036I 78
ARS8037I 78
ARS8038I 78
ARS8039I 78
ARS8056E 78
ARS8057E 78
ARS8058E 78
ARS8076E 78
ARS8077E 79
ARS8105E 79
ARS8106I 79
ARS8107I 79
ARS8108I 79
ARS8113I 79
ARS8114E 79
ARS8141E 79
ARS8143E 79
ARSDB command
  creating database tables 14
ARSRD program 11, 67
  stopping 30, 31
  suspending for AIX 30
  suspending for HP-UX Itanium 30
  suspending for Solaris 30
  suspending for Windows 30
ARSSYSCR command 14, 17, 20, 23, 26
assigning an application group 14, 17, 20, 23, 26

B

banner pages
  creating in Asian language 51
banners 41, 47
  about 5
  adding 50
  description of types 5
  header 47
  organizing 47
  separator 47
  trailer 47
bundle 5, 35
  about 5
  adding to a distribution 64
  contents
    adding 53
  conversion 47
  creation 11
    adding reports 69
    banners 69
    checking 69
    errors 69
    manifest 69
  description 5
bundle *(continued)*
  support for mixed data types 6
bundles 47, 68
  banners 41
  manifest 41

C

configurator program 14, 15, 16
configuring parameters 29
conversions
  bundle 47
  data types 47
  reports 47
creating distributions 39
creating reports 38

D

data types 6
  converting 47
  mixing within a bundle 6
database performance 42
database tables for report distribution
  Windows 14
deactivated recipient 58
default outputs
  AFP 6
  Line Data 6
  PDF 6
  PS 6
defining
  general bundle options 52, 63
  SQL query 46
distribution 9, 11, 41
  about 9
  description 9
  e-mail delivery 64
  e-mail notification 64
  from 64
  global attachment file 64
  reply to 64
  SMTP server address 64
distribution delivery 11
  bundle creation 69
  checking 69
  e-mail 69
  errors 69
  printing 69
  recipient 69
distribution schedule 41
distributions 47, 68
  adding recipients 58, 61
  creating 39
  e-mail 58, 61
  monitoring 68
  printer 58, 61
  scheduling 54
document retrieval 42
dynamic SQL 42

E

e-mail 11, 58
e-mail notification
  process log
    Completion 70
    Error 70
    Progress 70
    Warning 70
errors 73

F

folder 4
  description 4
folderabout 4

G

general bundle options
  defining 52, 63
group
  about 2
  description 2
  recipient 2
groups 58
  creating 37
  scenario
    creating groups 37

H

header banner 5, 41
HP-UX Itanium
  configuring 20
  installing 20
  killing ARSRD program 31
  running 20
  stopping ARSRD program 30
  suspending ARSRD program 30

I

input data 6
installation
  validate 14, 17, 20, 23, 26
installing the registry key 14
instance 15
instance name 14, 17, 20, 23, 26

L

Line Data 6
Linux
  configuring 26
  installing 26
  killing the ARSRD program 31
  running 26
Load 11, 42
Load Based 54
load option 42
load-based event 41

M

manifest 7
  about 7
  description 7
manifests 47
message identifiers
  message number 73
  message type
    A 73
    D 73
    E 73
    I 73
    W 73
  messaged prefix
    ARS 73
  report distribution 73
message logs 29
message number 73
message prefix 73
message type
  severity
    A 73
    Alert 73
    D 73
    Debug 73
    E 73
    Error 73
    I 73
    Information 73
    W 73
    Warning 73
Metadata 6

N

named queries 42
named query 11, 54

O

OnDemand
  distribution 9
OnDemand admin client 11, 42
OnDemand client 42
OnDemand logging 68
OnDemand Rep Dist stage log
  bundle creation 68
  distribution delivery 68
  report extraction 68
options
  to define a report 43
organization
  reports 47
organizing information 35
output formats
  default outputs
    AFP 6
    Line Data 6
    PDF 6
    PS 6
  supported conversions
    from input formats 6
  transform configuration
    requirements 7

P

parameter
  ARS_RDF_ TRANSFORM_XML 29
parameters
  ARS_RDF_PRINT_
    CONVERT_PDF 29
  configuring 15
  configuring for AIX 17
  configuring for HP-UX Itanium 21
  configuring for Linux 27
  configuring for Solaris 24
  stage messages 69
PDF 29
performance 42
planning
  step 1: organizing information 35
  step 2: creating groups 37
  step 3: creating reports 38
  step 4 creating distributions 39
printer 11
  local 58, 61
  server defined 58, 61
problems 73
public named query 35

R

recipient 8
  about 8
  description 8
recipient list 8, 35
  about 8
  description 8
recipients 37, 41, 47
  Acme Art company scenario 58
  activated 61
  activating 58
  adding 58
  adding to a distribution 60
  deactivated 61
  deactivating 58
  deleting 58
  distribution 58
  groups 58
  summarize 58
  summary file 58
  suspending 58
recovery action 73
report 4
  about 4
  adding 45
  defining 43
  description 4
  using a named query 43
  using Load 43
  using SQL 43
report conversion 47
report definition type 54
report distribution 29
  banners 41
  creating a user ID 15, 17, 20, 23, 26
  creating database tables 14, 17, 20,
    23, 26
  creating objects for 14, 17, 20, 23, 26
  distribution 41
  group 2

report distribution *(continued)*
how it works with OnDemand 11
monitoring 14
overview 10
recipients 41
why it is useful 10
Report Distribution log file 58
Report Distribution process logging 68
Report Distribution program 11, 30, 31, 42, 61
suspending for AIX 30
suspending for HP-UX Itanium 30
suspending for Solaris 30
suspending for Windows 30
report extraction 11
bundle creation 68
checking 68
distribution delivery 68
errors 68
recipients 68
report organization 47
report overview 1
about 1
description 1
report type definition
Load plus SQL 11
named query 11
SQL query 11
reports 10, 68
creating 38
defining 42
key values 35
recipient list 35
updating 54

S

scenario
Acme Art company 34, 47
distributions 61
recipients 58
schedule 54, 61
creating distributions 39
creating reports 38
defining lists 35
employee statistics 34
identifying reports 35
organizing information 35
selection criteria 35
schedule 8
about 8
adding 55
adding to a distribution 65
description 8
disable 61
enable 61
schedule types 54
schedules
bundle 54
distributions 54
end day 54
forever 54
indefinite 54
start day 54
separator banner 5, 41
separator pagespages
creating in Asian language 51
Solaris
configuring 23
installing 23
killing the ARSRD program 31
running 23
stopping the ARSRD program 30
suspending the ARSRD program 30
SQL queries 42
SQL query 11, 35, 54
defining 46
stage log
bundle creation 68
distribution delivery 68
report extraction 68
stage message log
activate 68
bundle creation 68
distribution delivery 68
report extraction 68
stage messages 69
stage monitoring
stage messages 69
storage set 14
summarize 58
summary file 58
suspended recipient 58
system log 67
System Report Distribution 14

T

time-based event 41
trace file 69
trailer banner 5, 41

U

UNIX
ARS.CFG 29
configuring 29
user 2
user profile
e-mail 61
printer 61
userabout 2
userdescription 2

W

Windows
configuring 14, 29
installing the registry key 14
registry key 14
running 14
service 14
stopping the ARSRD program 31
Windows registry
modifying 15

X

Xenos d2e transform
configuration requirements 7
support for data type conversions 7

Program Number: 5724-J33

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