

IBM InfoSphere Optim
Version 9 Release 1

Using IBM InfoSphere Optim Manager



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Note

Before using this information and the product it supports, read the information in “Notices” on page 27.

Version 9 Release 1

This edition applies to version 9, release 1, modification 0 of IBM Optim solution components and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this publication

This document describes how to configure and use IBM InfoSphere® Optim Manager to run and manage test- and production-level services that are located in a repository.

Chapter 1. InfoSphere Optim solution components

Use IBM® InfoSphere Optim™ solution components to run and manage test- and production-level services in a repository.

InfoSphere Optim Manager

IBM InfoSphere Optim Manager is a web application that you can use to configure, manage, run, and monitor data management services. You can also use InfoSphere Optim Manager to perform basic maintenance on the repository. InfoSphere Optim Manager is also known as the *manager*.

To run services that you develop with IBM InfoSphere Optim Designer, access the manager through InfoSphere Optim Designer. (InfoSphere Optim Designer is also known as the *designer*.)

To run and manage services that are in test or production, access the manager through an application server. For example, the manager is delivered with a version of WebSphere® Application Server Community Edition, to which you can deploy the manager with minimal configuration. You can then access the manager on the application server and use the manager to run and manage services in the repository.

Repository

The *repository* is a persistent storage area for data and other application resources.

For InfoSphere Optim solutions, the repository is the central location that contains all service information for services that are in development, test, or production. The repository contains a registry that contains the locations of all components that use the repository. The repository also contains configuration information for the manager and the service interface.

You can install and use multiple repositories, but each component instance can use only one repository at a time.

Each repository consists of a repository server and a repository manager. The repository server is an Informix® database that is specifically configured to hold the service information for IBM InfoSphere Optim data management solutions. The repository manager is the repository management application that administers the repository server. You can obtain a repository by installing the repository manager and the repository server together on a single Linux or UNIX computer. Alternatively, you can obtain a repository by installing IBM InfoSphere Optim Repository. InfoSphere Optim Repository is a VMware image of a Linux environment that includes preconfigured instances of the repository manager and the repository server. Use VMware Player or similar software to play the VMware image.

InfoSphere Optim Proxy

IBM InfoSphere Optim Proxy is a constantly running process that receives service requests from the manager and forwards the service requests to the server for processing. InfoSphere Optim Proxy is also known as the *proxy*.

For fast performance, install the proxy and server on a computer that has fast connections to the data sources that you are processing.

Server

The server is the component that processes service requests. When the proxy receives a service request, the proxy forwards the request to the server. The server reads data from data sources and writes data to data sources according to the instructions found in the service request.

For fast performance, install the proxy and server on a computer that has fast connections to the data sources that you are processing. To install the server, install IBM InfoSphere Optim from the server launchpad.

InfoSphere Optim Repository Services

IBM InfoSphere Optim Repository Services is the Informix client software for the repository database. The server can connect to a repository only if InfoSphere Optim Repository Services is also installed on the computer. InfoSphere Optim Repository Services is also known as *repository services*.

Optim Service Interface

Optim Service Interface is a web application that can be used by other applications to run, monitor, and manage services. Optim Service Interface is also known as the *service interface*.

The service interface accepts HTTP requests and XML request payloads where applicable. The service interface processes the request and returns an HTTP response code and output document where applicable.

How services in a repository are run by using the manager and other components

Components must work together to complete a service request successfully.

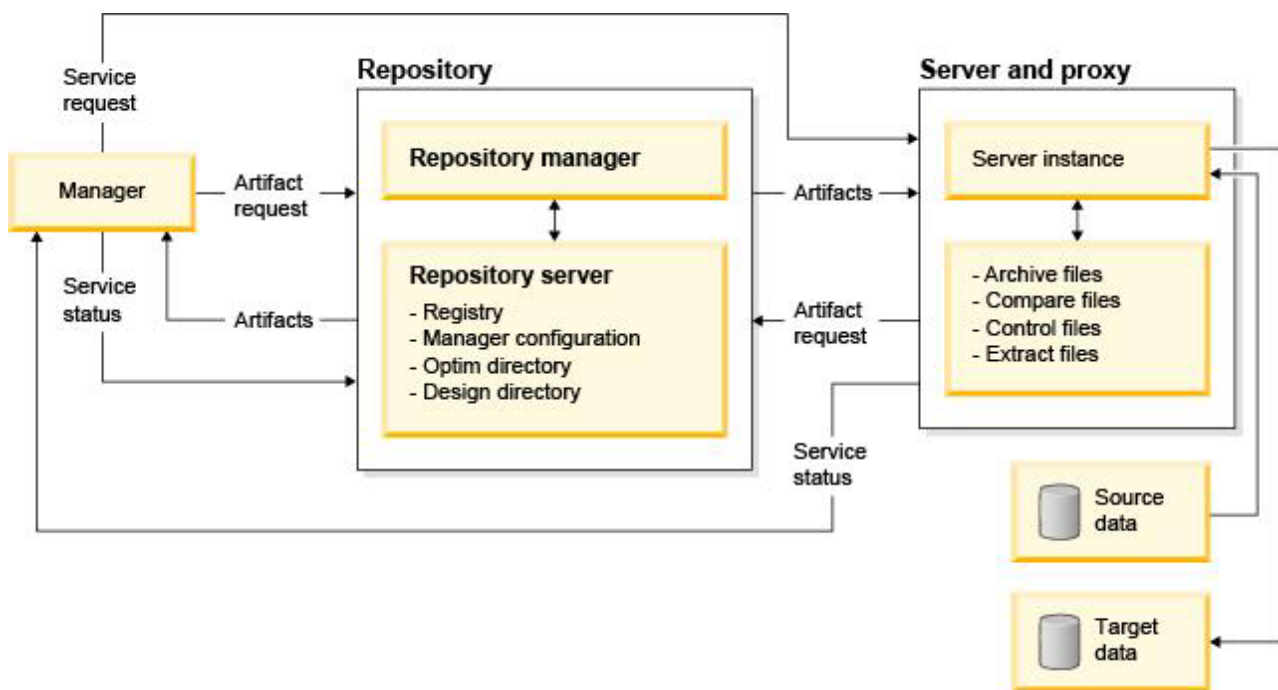


Figure 1. Components running a service

This diagram shows how components work together to run a service:

1. A user accesses the manager to view a list of available services.
2. The manager sends a request to the repository for a list of available services, and the repository sends the list of available services to the manager.
3. The user selects a service to run.
4. The manager forwards the service request to the proxy to which the service is assigned.
5. The proxy launches an instance of the server to process the service request.
6. The server processes the service request. Depending on the type of service, the server might request and receive additional service information from the repository, access data from a data source, read and write to files that are stored on the server computer, and write data to a data source.
7. When the service is complete, the server instance closes itself.
8. The manager reads the service status from the server computer and updates the repository.
9. A user accesses the manager to determine whether a service completed successfully.
10. The manager reads the service status from the repository and displays the service status to the user.

Chapter 2. InfoSphere Optim data objects

IBM InfoSphere Optim solutions use data objects and models for processing and for tracking processing status. These data objects are stored in an Optim directory, which is stored in a database.

Database alias (DB alias)

A *database alias* (or *DB alias*) is a short name used to identify the parameters required to connect to a specific database.

A DB alias name is used as a high-order qualifier for an object or table name, providing information Optim needs to access the appropriate database. A DB alias is needed anytime a database object is referenced. For example, a DB alias name is used to qualify the name of a database table that is referenced in an access definition.

Access definition

An *access definition* is a declaration that identifies the start table, related tables, relationships, and selection criteria that define the data to be processed.

An access definition identifies the tables, relationship traversal, and selection criteria for the data that you want to process. An access definition might also identify tables from which archived data is deleted. It also provides parameters for indexes and archive actions: user-defined SQL statements run at predefined points in an archive or restore process. You can select a named access definition or create an access definition for a single archive request.

Use an access definition to complete the following tasks:

- Identify the tables from which data is archived in the archive process. You can insert the name of a single table and request that Optim reads and provides the names of all related tables. One table is identified as the start table, or table from which data is first archived.
- Identify tables from which data is deleted after archiving. You can set an option to review and change your selections before data is deleted.
- Select relationships to be traversed and the direction of traversal when archiving the data. You can use relationships defined to the database and create relationships in the Optim directory to replicate the relationships that are managed by your applications.
- Define criteria for the set of related rows to be archived. The criteria can be defined in either of the following ways:
 - Selection criteria based on the age of the data or values in one or more columns.
 - A manually selected list of start table rows (Point and Shoot).
- Set up indexes to be created when data is archived.
- Establish archive actions to be run when data is archived or restored.
- Review how Optim traverses the database to ensure that the correct data is archived (by using the show steps function).

Table map

A *table map* is a map that defines specifications for correlating source and destination tables of compatible data.

A table map identifies and matches two tables or sets of tables in an insert or load process that is used in a restore process. A table map can also exclude one or more tables from processing.

A table map can also reference a column map. Reference a column map to map together columns with different names, to transform source column values before insertion, and to bypass processing for specified columns.

A table map is required for an insert, load, or restore process.

Column map

A *column map* is a map that defines the specifications for mapping columns of compatible data between source and destination tables.

A table map can reference a column map to complete the following tasks:

- Map a source column to a destination column that has a different name
- Transform source column values before inserting them into destination columns
- Bypass processing for specific columns

A Column Map Procedure facilitates data transformations in a process that are beyond the scope of Column Map functions.

Extract file

An *extract file* is a file that contains a set of related rows extracted from one or more tables, saved in proprietary format. An extract file can contain data, object definitions, or both.

Extract files use the .xf file extension by default. Extract files are stored in the data directory that is specified in Personal Options.

Control file

A *control file* is an automatically generated file that records process specifications and the success or failure of processing.

Control files use the .cf file extension by default.

Compare file

A *compare file* is a file that contains the full results of an InfoSphere Optim compare request (that is, a comparison of two data sources). A compare file is not a report, but a compare file can be used to generate multiple reports with different parameters.

Service

A *service* is a unit of work accomplished by an interaction between computing devices. InfoSphere Optim data management services can be used to archive, move, compare, edit, and transform complete business objects in the data sources at your enterprise.

Service input

Each InfoSphere Optim data management service can use variable inputs. Variable inputs have default values that can be changed before you run the service. You can reset the inputs to their default values at any time.

Service inputs are also known as *overrides*.

Service set

A *service set* is an ordered list of services. When you run a service set, the manager runs each service in the service set, one at a time, in the specified order. Create a service set to simplify the running of related services in a specific sequence.

Group of services

A *group of services* is a collection of services that are to be viewed, run, or scheduled only by specific users. If a service is in a group of services, a user can view or run the service only if the user is granted access to the group of services.

Show steps

InfoSphere Optim data management services accomplish tasks by running an ordered sequence of steps. To determine what a service does, you can review the steps that the service takes to accomplish a task.

In the manager, you can review the steps for each service in **Service Management**. Each step shows the table that is processed, the method that is used to select rows within the table, and general information about what is done to the rows in the table.

Repository administration

Services and configuration information are contained in a central repository. You can use the manager to perform maintenance actions on the repository and to administer user access to the repository.

Chapter 3. Running test- or production-level services in a repository

Use IBM InfoSphere Optim Manager with other InfoSphere Optim solution components to run test- or production-level services that are developed with IBM InfoSphere Optim Designer and that are located in a repository.

Starting the manager on an application server

To use the manager to run and manage test- or production-level services, you must first start the manager on its application server. After the manager is started on the application server, you can access the manager at any time.

Before you can start the manager, you must install the manager. You must also configure the manager and the components that the manager uses to run services. For example, you must deploy the manager WAR file to the application server.

To start the manager on an application server:

1. Start the application server. If the application server is set to start the manager web application automatically, then the manager is started immediately after the application server. If you deployed the manager to the version of WebSphere Application Server Community Edition that is delivered with the manager, then complete the following step. In this step, *shared_installation_directory* is the installation directory that you specified for the manager.
 - Microsoft Windows computers: Click **Start > All Programs > IBM InfoSphere > Optim > Start WAS-CE**, or run the script *shared_installation_directory\WebSphere\AppServerCommunityEdition\bin\startup.bat*.
 - Linux or UNIX computers: Run the script *shared_installation_directory/WebSphere/AppServerCommunityEdition/bin/startup.sh*.
2. If necessary, start the manager web application by using the application server console. If you deployed the manager to the version of WebSphere Application Server Community Edition that is delivered with the manager, then complete the following steps:
 - a. Use a web browser to access and sign into the Administrative Console. The default location is at <http://hostname:port/console/>, where *hostname* is the host name or IP address of the WebSphere Application Server Community Edition computer and *port* is the port number. The default port number is 8080. Use user ID system and password manager to access the Administrative Console.
 - b. Click **Web App WARs**.
 - c. Click **Start** for the component with an URL of `/optim`.

To automate the starting of the manager after you restart the computer, configure the application server as a Windows service or Linux or UNIX daemon.

Accessing the manager on an application server

To run and manage test- or production-level services, you must use an instance of the manager that is deployed to an application server.

To access the manager on an application server, use a web browser to access and sign into the manager. The location is as follows, where *hostname* and *port* are the host name and port of the application server on which the manager is deployed.

- For the default, full-color version of the manager, use <http://hostname:port/optim/console>.

- For a high-contrast version of the manager that uses black text on a white background, use `http://hostname:port/optim/console#contrast=bw`.
- For a high-contrast version of the manager that uses white text on a black background, use `http://hostname:port/optim/console#contrast=wb`.

If you deploy the manager to the version of WebSphere Application Server Community Edition that is delivered with the manager, then the default port is 8443. Your browser might warn you of a problem with the website's security certificate. This is expected if you use SSL to access a web application that uses a self-signed certificate. Choose to continue to the website.

If you cannot access the manager, ensure that the following statements are true.

- The manager is started on the application server on which the manager is deployed.
- You can access the application server on which the manager is deployed from your computer.
- Your web browser is supported by the manager and uses a supported version of the Adobe Flash Player plug-in.

You can use the browser to bookmark the location for future access.

Configuring the manager

To run test- or production-level services in a repository, an administrator must first install and start the components that you use to run these services. The administrator can then connect the manager with the other components and assign services to servers.

Before you begin, you must use a web browser to access and sign into the manager. The default location is at `http://hostname:port/optim/console/`, where *hostname* and *port* are the host name and port of the application server on which the manager is deployed. If you install the version of WebSphere Application Server Community Edition that is delivered with the manager, and you deploy the manager to that copy of WebSphere Application Server Community Edition, then the default port is 8080.

If you cannot access the manager, ensure that the manager is started by the administrator of the application server on which the manager is deployed, that you can access the application server from your computer, and that your web browser is supported by the manager and uses a supported version of the Adobe Flash Player plug-in.

Assigning a service to a server

Use the manager to assign a service to a server. You must assign a service to a server before you can run the service. All services within a service set must be assigned to a server before you can run the service set.

Only users with a user role of admin, operator, or requestor can assign a service to a server. To assign a service to a server, a user must have access to the **Service Management** tab.

You can assign a server to a service only if the server is online and is configured to run services. If the server to which you want to assign a service is not available, contact your administrator. The administrator must ensure that the following conditions are met:

- The proxy and the server must both be installed on the server computer.
- If the server is not installed in the default location on the server computer, the proxy must be configured with the server location.
- If the incorrect repository was specified when you installed the proxy, the proxy must be configured with the correct repository location.
- The server computer must be running.
- The proxy must be running on the server computer.

- The network connection between the server computer and the repository computer must be unimpeded.

To assign a service to a server by using the manager:

1. Access the manager on the application server.
2. Click **Service Management**.
3. Open the **Services** folder, click the service, and click **Assign Server**.
4. Complete the wizard.

Related tasks:

“Accessing the manager on an application server” on page 9

To run and manage test- or production-level services, you must use an instance of the manager that is deployed to an application server.

Changing the service inputs

Each service contains default values that the service uses to complete its task (such as the user name and password to access a data source). After a service is added to a repository, you can use the manager to change the values that are used by the service. You can also restore the service inputs to their default values.

Only users with a user role of admin, designer, operator, or requestor can change the service plan of a service. To change the service inputs, a user must have access to the **Service Management** tab. If the service belongs to service groups, the user must have access to the service groups to which the service belongs.

To change the service inputs by using the manager:

1. Access the manager on the application server.
2. Click **Service Management**.
3. Open the **Services** folder and click the service.
4. Click **Inputs**, change the input values, and click **Save**. Changes that you make to the service inputs are saved until you change the service inputs again or restore the service to its default values. Changes to the service inputs apply both when you run the service alone and when you run a service set that contains the service.

Related tasks:

“Accessing the manager on an application server” on page 9

To run and manage test- or production-level services, you must use an instance of the manager that is deployed to an application server.

“Assigning a service to a server” on page 10

Use the manager to assign a service to a server. You must assign a service to a server before you can run the service. All services within a service set must be assigned to a server before you can run the service set.

Creating a service set

A *service set* is an ordered list of services. When you run a service set, the manager runs each service in the service set, one at a time, in the specified order. Create a service set to run related services with a single action.

Before you create a service set, ensure that the services that are to be in the service set are tested and stable. Service sets are version-specific. When you run a service set, the manager runs the specific version of each service that was added to the service set. To use a more recent version of a service, you must create another service set that specifies the more recent version of the service.

To create a service set:

1. Access the manager on the application server.
2. Click **Service Management**.
3. Click **Create Service Set**.
4. Use the dialog to select and order the services within the service set. If you want the service set to continue running subsequent services in the service set after a service fails, clear **Stop if service fails**.
5. When you have selected all of the services that you want to select for the service set, and the services are in the correct order, click **OK**.

Creating a group of services

A *group of services* is a collection of services that are to be run or scheduled only by specific users. Create groups of services to control which users can run which services.

Only users with a user role of admin can create a group of services.

To create a group of services:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Users and Groups**.
4. Click **Group Management**.
5. Click **Add Group**.
6. Enter a name and description for the group of services and click **OK**.
7. Select the group of services in the list and click **Add Services to Group**.
8. Select a service that you want to add to the group of services and click **OK**. Repeat this step for each service that you want to add to the group.

Granting user access to a group of services

A *group of services* is a collection of services that are to be run or scheduled only by specific users. If a service is in a group of services, a user can run the service only if the user is granted access to the group of services.

Only users with a user role of admin can grant user access to a group of services.

To grant user access to a group of services:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Users and Groups**.
4. Click **User Management**.
5. Select the user and click **Grant User Access**.
6. Select the group of services and click **OK**.

Related tasks:

“Creating a group of services”

A *group of services* is a collection of services that are to be run or scheduled only by specific users. Create groups of services to control which users can run which services.

Creating a user-defined tab in the manager

The manager can have user-defined tabs that contain web applications or web sites.

Only users with a user role of admin can create a user-defined tab in the manager.

To create a user-defined tab in the manager:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Tabs**.
4. Click **Add User-Defined Tab**.
5. Enter the tab label and description that you want to use and the Uniform Resource Locator (URL) for the web application or website, and click **OK**.

Changing access to tabs in the manager

All manager users are allowed to see all tabs in the manager by default. A user can see all tabs even if the user is not allowed to perform any actions on the tabs. You can simplify the manager interface by hiding tabs from users who do not have a user role of admin.

Only users with a user role of admin can change access to tabs in the manager.

To change access to tabs in the manager:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Tabs**.
4. Clear **Show** for the tabs that you want to hide from users who do not have the admin user role. Select **Show** for the tabs that you want to make available to all users.

The changes take effect when users sign out of the manager.

Related tasks:

“Creating a user-defined tab in the manager” on page 12

The manager can have user-defined tabs that contain web applications or web sites.

Exporting a repository database

You can export the contents of the databases in the repository to files on your computer. You can then import the contents of the files into another repository to obtain a functional copy of the repository. You can also export a repository database and send the export file to IBM Product Support to help diagnose an issue.

Each repository contains the following databases:

- The database `rrdb` contains service information and the locations of the InfoSphere Optim solution components that are associated with the repository.
- The database `optimpod` contains the manager configuration information and the data objects that are required to run services. For example, the database `optimpod` contains access definitions, table maps, column maps, primary keys, and relationships.

You must export and import both of these databases to obtain a functional copy of the repository.

Only users with a user role of admin can export a repository database.

To export the contents of a database in the repository:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Repository**.
4. Click **Administration**.
5. Click **Export Database**.
6. Select the database that you want to export and click **Export**.

7. Specify the location to which you want to save the contents of the exported database and click **Save**. Do not change the names of the files (*optimpod.zip* and *rrdb.zip*).

To import the repository database export files into another repository:

1. Stop the repository server by logging on to the repository computer and entering the *stoprepo* command.
2. Copy the exported database files to the folder *optimbase\data* on the repository computer, where *optimbase* is the base installation folder for InfoSphere Optim solution components. For example, on Linux, the default base installation folder is */opt/IBM/InfoSphere/Optim/*.
3. Rename the files to *optim-repository-export-optimpod.zip* and *optim-repository-export-rrdb.zip*.
4. Run the script *optimbase/repo/tools/optimcmd/importrepository.bat* on the repository computer.

Backing up a repository

Back up your repository regularly to ensure that you can recover from hardware failures or accidental deletion of files. Use this topic to back up your repository on demand by using the **UNLOAD** command of the Informix DB-Access utility.

Only users with a user role of admin can back up a repository. The repository is unavailable while the backup is running.

To back up a repository:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Repository**.
4. Click **Administration**.
5. Click **Back Up Repository**.
6. Specify whether you want a full backup or an incremental backup of what changed since the last backup and click **Back Up**.

By default, backups are stored in */opt/IBM/InfoSphere/Optim/repo/server/ids11750/backups* on the repository computer. After the backup is complete, copy the backup files from the backup folder to another computer. Copying backup files to another computer ensures that you will have backups available in the case of hardware failure. Mount an external drive to the repository computer or use FTP to copy backups from the repository to another computer.

Restoring a repository from backup

Restore the service and configuration information in your repository in the case of accidental deletion of data or hardware failure. Use this topic to restore your repository from a backup that was initiated from the manager or that was made by using the **UNLOAD** command of the Informix DB-Access utility.

Only users with a user role of admin can restore a repository. A restore completely overwrites the repository databases with the contents of the chosen backup. The repository is unavailable while the restore is running, and the manager must be restarted on the application server after the restore completes.

By default, backups are stored in */opt/IBM/InfoSphere/Optim/repo/server/ids11750/backups* on the repository computer. Backup files are named *backup_yyyymmddhhmmss_L0* or *backup_yyyymmddhhmmss_L1*, where *yyymmddhhmmss* is the date and time at which the backup was made. Backup files with an L0 suffix are full backups, and backup files with an L1 suffix are incremental backups. To use an incremental backup, the backup folder must also contain the full backup on which the incremental backup is based.

To restore a repository:

1. If necessary, copy the backup files to the backup folder on the repository computer.
2. Access the manager on the application server.
3. Click **Configuration**.
4. Click **Repository**.
5. Click **Administration**.
6. Click **Restore Repository**.
7. Select the backup to use and click **Restore**.

After the restore completes, access the application server console and restart the manager WAR.

Related tasks:

“Backing up a repository” on page 14

Back up your repository regularly to ensure that you can recover from hardware failures or accidental deletion of files. Use this topic to back up your repository on demand by using the **UNLOAD** command of the Informix DB-Access utility.

Granting repository access to another product solution

InfoSphere Optim solution components can integrate with the components of other product solutions. In such cases, the components of another product solution might need a user account to access the repository. Use the manager to create a repository user account for the other product solution.

Only users with a user role of admin can grant repository access to another product solution.

Before you grant repository access to another product solution, see the documentation for the other product solution to confirm what user name is required.

To grant repository access to another product solution:

1. Access the manager on the application server.
2. Click **Configuration**.
3. Click **Repository**.
4. Click **User Management**.
5. Enter the user name that is required by the other product solution and click **Grant Repository Access**.

Using the manager

After the manager is configured, users can run services, schedule services, and monitor the progress of services using the manager.

Before you begin, you must use a web browser to access and sign into the manager. The default location is at `http://hostname:port/optim/console/`, where *hostname* and *port* are the host name and port of the application server on which the manager is deployed. If you install the version of WebSphere Application Server Community Edition that is delivered with the manager, and you deploy the manager to that copy of WebSphere Application Server Community Edition, then the default port is 8080.

If you cannot access the manager, ensure that the manager is started by the administrator of the application server on which the manager is deployed, that you can access the application server from your computer, and that your web browser is supported by the manager and uses a supported version of the Adobe Flash Player plug-in.

Running a service or service set

Use the manager to run a test- or production-level service in the repository, or to run a service set that contains test- or production-level services.

You can run a service only if the service is ready to run. If a service is not ready to run, **Service Management** contains details about what must be done to make the service ready to run.

You can run a service set only if all services in the service set are ready to run.

To run a service or service set, a user must have access to the **Service Management** tab. If the service belongs to service groups, the user must have access to the service groups to which the service belongs.

To run a service or service set by using the manager:

1. Access the manager on the application server.
2. Click **Service Management**.
3. Open the **Services** folder and click the service, or open the **Service Sets** folder and click the service set.
4. Click **Inputs** and review the input values for the service. You can change the input values and click **Save** to save the changes. Any changes that you make to the input values are saved until you change the input values again. If you are running a service set, you can change the input values of any of the services in the service set. These changes are made to the services themselves and not to the service set.
5. Click **Run** and complete the wizard.

Related tasks:

“Accessing the manager on an application server” on page 9

To run and manage test- or production-level services, you must use an instance of the manager that is deployed to an application server.

“Assigning a service to a server” on page 10

Use the manager to assign a service to a server. You must assign a service to a server before you can run the service. All services within a service set must be assigned to a server before you can run the service set.

Scheduling a service or service set

Use the manager to schedule a test- or production-level service in the repository, or to schedule a service set that contains test- or production-level services in the repository. You can schedule the service to be run at a specific time or at a specific interval. If the service already has an active schedule, you can use the manager to change that schedule.

You can schedule a service only if the service is ready to run. If a service is not ready to run, **Service Management** contains details about what must be done to make the service ready to run.

You can schedule a service set only if all services in the service set are ready to run.

Only users with a user role of admin, designer, operator, or requestor can schedule a service or service set. To schedule a service or service set, a user must have access to the **Service Management** tab. If the service belongs to service groups, the user must have access to the service groups to which the service belongs.

To schedule a service or service set by using the manager:

1. Access the manager on the application server.
2. Click **Service Management**.
3. Open the **Services** folder and click the service, or open the **Service Sets** folder and click the service set.
4. Click **Inputs** and review the input values for the service. You can change the input values and click **Save** to save the changes. Any changes that you make to the input values are saved until you change

the input values again. If you are scheduling a service set, you can change the input values of any of the services in the service set. These changes are made to the services themselves and not to the service set.

5. Click **Schedule**. If the service or service set already has an active schedule, **Schedule** shows you the active schedule. If the service or service set does not have an active schedule, click **Create Schedule**.
6. Enter or change the schedule details and click **Save**.

Related tasks:

“Accessing the manager on an application server” on page 9

To run and manage test- or production-level services, you must use an instance of the manager that is deployed to an application server.

“Assigning a service to a server” on page 10

Use the manager to assign a service to a server. You must assign a service to a server before you can run the service. All services within a service set must be assigned to a server before you can run the service set.

Stopping a service set

You can use the manager to stop a service set before it completes. You might want to stop a service set when a service within the service set fails.

You can stop only service sets. You cannot stop individual services.

To stop a service set, a user must have access to the **Service Monitoring** tab. Any user can stop service sets that were run or scheduled by any other user.

Stopping a service set does not undo any changes that the service set made to the database.

To stop a running service set by using the manager:

1. Access the manager on the application server.
2. Click **Service Monitoring**.
3. In the first section of the **Service Monitoring** page, click the instance that corresponds with the service set that you want to stop. You might need to use a different service monitoring filter to see the instance that corresponds with the service set that you want to stop.
4. Click **Stop Service Set**, and click **OK** to confirm.

Related tasks:

“Accessing the manager on an application server” on page 9

To run and manage test- or production-level services, you must use an instance of the manager that is deployed to an application server.

Monitoring the status of service instances using the manager

The manager allows you to monitor the status of the services that you run.

Dashboard

When you access the manager on an application server, you can use the **Dashboard** interface. Use **Dashboard** to monitor the status of the manager, its associated repository and servers, and any services that are run by using the manager.

Service Monitoring

Under **Service Monitoring**, you can review the service instance records that are generated when a service or service set is run. Service instance records show the repository folder in which each

service is located and the service instance status. Service instance records also show the service instance start and end times, the service type, and the server that was used to run the service instance.

If you access the manager on an application server, a user can see a service instance record only if the user has access to all groups of services to which all of the associated services belong. For example, user smith does not have access to any groups of services. User smith therefore cannot see any service instance records for any services that belong to a group of services. User smith also cannot see any service instance records for any service sets that contain services that belong to a group of services.

Service Management

Under **Service Management**, you can review a graph that indicates the ratio of services that are ready to services that are not ready. Double-click the graph to jump to the location where you can run services that are ready.

To view the information in the graphs in tables, click **Tabular View**.

Configuration

Under **Configuration**, you can review the status of the repository and the configured servers. You can also see whether there are any connection issues between the manager and the repository and the configured servers. Connection issues can indicate that there is a network issue or that the configured servers are not running.

Service Monitoring

Use **Service Monitoring** to view a list of service instance records on the manager. A service instance record is created whenever a service or service set is run. Service instance records show the status of each service instance and indicate whether the service instance completed successfully.

Service Monitoring contains two sections:

- The first section contains a list of service instance records.
- The second section contains more detailed information about the service instance that is selected in the first section. You can use this information to diagnose problems if the service does not complete successfully.

If you access the manager on an application server, you can create filters to limit the types of service instance records that are displayed in **Service Monitoring**. You can filter the list by status, service type, server, and service start time. Filters are saved with your user record and are available until you delete the filter.

If you access the manager on an application server, a user can see a service instance record only if the user has access to all groups of services to which all of the associated services belong. For example, user smith does not have access to any groups of services. User smith therefore cannot see any service instance records for any services that belong to a group of services. User smith also cannot see any service instance records for any service sets that contain services that belong to a group of services.

Running command-line processing

You can run one or more services by submitting service requests to the server from the command line.

Before running a service, you must assign the service to a server by using the manager. The proxy on the server computer must be running to process the service request. You must also install the designer to obtain the files that you need to run command-line processing.

There are two options for using the command line:

- Use the **runservice** script to enter run services by using fewer arguments, and you can customize this script to fit your needs.
- The **java -jar com-ibm-nex-client-tool.jar** command can be used in a script that you prepare yourself.

runservice script

The **runservice** script is in the *base_folder\designer\runservice* folder, where *base_folder* is the base folder for IBM InfoSphere Optim solution components on your computer. The default base folder for InfoSphere Optim solution components is C:\IBM\InfoSphere\Optim. You must open the command line in the *base_folder\designer\runservice* folder. The folder contains two script files, one for Microsoft Windows (**runservice.bat**) and one for Linux and UNIX (**runservice.sh**).

The **runservice** script requires that you add the root folder of a Java™ 6.0 JRE or JDK installation to the PATH environment variable.

The **runservice** script uses the following syntax:

```
runservice [--service | -s] servicename:version
[--url | -u] repositoryURL [--continueOnError | -c]
```

--service | -s servicename:version

The service name and version number (in *n.n.n* format). Required.

Service names are case-sensitive. If a service name contains a space or contains multibyte character set (MBCS) characters, you must enclose the name in double quotation marks.

For example: -s demosvc:1.0.0.

--url | -u repositoryURL

The location of the repository that contains the service. The location <http://localhost:8080> is used by default.

For example: -u <http://repository1:8080>.

--continueOnError | -c

This parameter sets the script to continue sending services to the server for execution, even if a service fails to be started by the server.

java -jar com-ibm-nex-client-tool.jar command

The **com-ibm-nex-client-tool.jar** file is in the *base_folder\designer\runservice* folder, where *base_folder* is the base folder for IBMInfoSphereOptim solution components on your computer. The default base folder for InfoSphereOptim solution components is C:\IBM\InfoSphere\Optim. You must open the command line in the *base_folder\designer\runservice* folder.

The **java -jar com-ibm-nex-client-tool.jar** command uses the following syntax, where *java_folder* is the root folder of a Java 6.0 JRE or JDK installation. To avoid being required to enter the root folder every time that you enter this command, add the root folder to the PATH environment variable.

```
java_folder/java -jar com-ibm-nex-client-tool.jar
[--service | -s] servicename:version
[--url | -u] repositoryURL [--continueOnError | -c]
```

--service | -s servicename:version

The data management service name and version number (in *n.n.n* format). Required.

Service names are case-sensitive. If a service name contains a space or contains multibyte character set (MBCS) characters, you must enclose the name in double quotation marks.

For example: -s demosvc:1.0.0.

--url | -u *repositoryURL*

The location of the repository that contains the service. Required.

For example: -u http://repository1:8080.

--continueOnError | -c

This parameter sets the script to continue sending services to the server for execution, even if a service fails to be started by the server.

Running multiple services

You can use the command line to run multiple services. The services are started one at a time in the specified order.

Specify each service and version pair separated by a comma. Do not leave a space before or after a comma.

For example:

```
runservice -s service1:1.0.0,service2:1.0.0 -u http://repository:8080 -c
```

Spaces in service names

If a service name contains a space or contains multibyte character set (MBCS) characters, the name must be enclosed in double quotation marks (" "). For example:

```
runservice -s "service name":1.0.0 -u http://repository:8080
```

Appendix. InfoSphere Optim Manager user interface reference

The user interface of IBM InfoSphere Optim Manager allows you to run and manage Optim services.

The InfoSphere Optim Manager user interface contains the following tabs and the **Preferences** dialog.

- **Dashboard**
- **Configuration**
- **Service Management**
- **Service Monitoring**

Some tabs might not be available to some users or in some situations. The manager might also contain user-defined tabs that are not in the standard user interface.

Dashboard

When you access the manager on an application server, you can use the **Dashboard** interface. Use **Dashboard** to monitor the status of the manager, its associated repository and servers, and any services that are run by using the manager.

Service Monitoring

Under **Service Monitoring**, you can review the service instance records that are generated when a service or service set is run. Service instance records show the repository folder in which each service is located and the service instance status. Service instance records also show the service instance start and end times, the service type, and the server that was used to run the service instance.

If you access the manager on an application server, a user can see a service instance record only if the user has access to all groups of services to which all of the associated services belong. For example, user smith does not have access to any groups of services. User smith therefore cannot see any service instance records for any services that belong to a group of services. User smith also cannot see any service instance records for any service sets that contain services that belong to a group of services.

Service Management

Under **Service Management**, you can review a graph that indicates the ratio of services that are ready to services that are not ready. Double-click the graph to jump to the location where you can run services that are ready.

To view the information in the graphs in tables, click **Tabular View**.

Configuration

Under **Configuration**, you can review the status of the repository and the configured servers. You can also see whether there are any connection issues between the manager and the repository and the configured servers. Connection issues can indicate that there is a network issue or that the configured servers are not running.

Related reference:

“Monitoring the status of service instances using the manager” on page 17
The manager allows you to monitor the status of the services that you run.

Configuration

When you access the manager on an application server, you can use the **Configuration** interface. Use **Configuration** to view information about the configuration of the repository and servers that are associated with the manager, and to perform basic repository maintenance. You can also use **Configuration** to create and configure user-defined tabs and groups of services.

Users with administrator access to the manager (user role admin) can use **Configuration** to perform the following tasks.

- Creating groups of services and granting user access to these groups of services
- Creating user-defined tabs that are displayed within the manager
- Configuring the tabs that can be viewed by users who do not have user role admin
- Exporting a repository database
- Backing up or restoring the repository databases
- Granting repository access to other product solutions

Related tasks:

“Creating a group of services” on page 12

A *group of services* is a collection of services that are to be run or scheduled only by specific users. Create groups of services to control which users can run which services.

“Granting user access to a group of services” on page 12

A *group of services* is a collection of services that are to be run or scheduled only by specific users. If a service is in a group of services, a user can run the service only if the user is granted access to the group of services.

“Creating a user-defined tab in the manager” on page 12

The manager can have user-defined tabs that contain web applications or web sites.

“Changing access to tabs in the manager” on page 13

All manager users are allowed to see all tabs in the manager by default. A user can see all tabs even if the user is not allowed to perform any actions on the tabs. You can simplify the manager interface by hiding tabs from users who do not have a user role of admin.

“Exporting a repository database” on page 13

You can export the contents of the databases in the repository to files on your computer. You can then import the contents of the files into another repository to obtain a functional copy of the repository. You can also export a repository database and send the export file to IBM Product Support to help diagnose an issue.

“Backing up a repository” on page 14

Back up your repository regularly to ensure that you can recover from hardware failures or accidental deletion of files. Use this topic to back up your repository on demand by using the **UNLOAD** command of the Informix DB-Access utility.

“Restoring a repository from backup” on page 14

Restore the service and configuration information in your repository in the case of accidental deletion of data or hardware failure. Use this topic to restore your repository from a backup that was initiated from the manager or that was made by using the **UNLOAD** command of the Informix DB-Access utility.

“Granting repository access to another product solution” on page 15

InfoSphere Optim solution components can integrate with the components of other product solutions. In such cases, the components of another product solution might need a user account to access the repository. Use the manager to create a repository user account for the other product solution.

Service Management

Use **Service Management** to configure, run, and manage services and service sets.

Service Management contains two sections:

- A section that displays a list of services in the repository and a list of service sets in the repository
- A section that displays detailed information about the service or service set that is selected in the first section

Select a service or service set to display additional information about the service or service set:

- **Details** shows overview information about the selected service or about each service in the selected service set. You can use this information to diagnose issues that prevent you from running the service.
- **Inputs** shows the parameters that are used to run the selected service or to run each service in the selected service set. You can change the values of the parameters for many types of service. If you can change the parameter values, you can also reset the parameters to their default values. You must save any changes that you make to the parameter values before you run the service. If you do not save your changes, the server uses the previously saved values for these parameters when the server runs the service.
- **Schedule** shows all existing schedules for the selected service or service set. You can create one schedule for each service and service set. You can set the schedule to run once, to repeat at a specific interval, or to run on a certain day of the month. If the day of the month that you specify does not

exist in a month, the schedule does not run during that month. If you set the schedule to repeat, you can set the schedule to repeat indefinitely or to repeat until a certain date and time.

- **Show Steps** shows the actions that the service performs in the order in which the service performs the actions. Use **Show Steps** to understand what the service does and to compare the service with other, similar services.

Related tasks:

“Assigning a service to a server” on page 10

Use the manager to assign a service to a server. You must assign a service to a server before you can run the service. All services within a service set must be assigned to a server before you can run the service set.

“Changing the service inputs” on page 11

Each service contains default values that the service uses to complete its task (such as the user name and password to access a data source). After a service is added to a repository, you can use the manager to change the values that are used by the service. You can also restore the service inputs to their default values.

“Creating a service set” on page 11

A *service set* is an ordered list of services. When you run a service set, the manager runs each service in the service set, one at a time, in the specified order. Create a service set to run related services with a single action.

“Running a service or service set” on page 15

Use the manager to run a test- or production-level service in the repository, or to run a service set that contains test- or production-level services.

“Scheduling a service or service set” on page 16

Use the manager to schedule a test- or production-level service in the repository, or to schedule a service set that contains test- or production-level services in the repository. You can schedule the service to be run at a specific time or at a specific interval. If the service already has an active schedule, you can use the manager to change that schedule.

“Stopping a service set” on page 17

You can use the manager to stop a service set before it completes. You might want to stop a service set when a service within the service set fails.

Service Monitoring

Use **Service Monitoring** to view a list of service instance records on the manager. A service instance record is created whenever a service or service set is run. Service instance records show the status of each service instance and indicate whether the service instance completed successfully.

Service Monitoring contains two sections:

- The first section contains a list of service instance records.
- The second section contains more detailed information about the service instance that is selected in the first section. You can use this information to diagnose problems if the service does not complete successfully.

If you access the manager on an application server, you can create filters to limit the types of service instance records that are displayed in **Service Monitoring**. You can filter the list by status, service type, server, and service start time. Filters are saved with your user record and are available until you delete the filter.

If you access the manager on an application server, a user can see a service instance record only if the user has access to all groups of services to which all of the associated services belong. For example, user `smith` does not have access to any groups of services. User `smith` therefore cannot see any service instance records for any services that belong to a group of services. User `smith` also cannot see any service instance records for any service sets that contain services that belong to a group of services.

Related reference:

“Monitoring the status of service instances using the manager” on page 17
The manager allows you to monitor the status of the services that you run.

Preferences

Use **Preferences** to set the preferred operation settings for the manager.

User Preferences

User Preferences are available if you access the manager on an application server. Each user can set **User Preferences** for the time intervals at which the manager refreshes its display.

Global Preferences

Global Preferences are available if you access the manager from the designer or if an administrator accesses the manager on an application server.

- Designer users can use **Global Preferences** to complete the following tasks.
 - View the location of the registry within the repository
 - Set the time intervals at which the manager refreshes its display
- Administrators can use **Global Preferences** to complete the following tasks.
 - View the location of the registry within the repository
 - Set the default time intervals for all manager users and the security settings for the manager (such as timeout)

Display Preferences

Each user can use **Display Preferences** to set the color scheme and font size that is used on the local computer. Each user can also set the manager so that a confirmation dialog is not displayed when the user runs a service or service set.

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