Before using this information and the product that it supports, read the information in "Notices and trademarks" on page 51.
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IBM InfoSphere Information Services Director command line interface

You can use the command line interface to administer and deploy IBM® InfoSphere® Information Services Director project resources such as applications and services.

You use commands to export project resources from one InfoSphere Information Services Director environment and import them into another InfoSphere Information Services Director environment for backup and restore and reuse of existing project resources.

You can also enable and disable service providers attached to project resources, deploy and undeploy applications from projects, upgrade applications with current service information, and update metadata information in project resources.

Overview and user roles for the InfoSphere Information Services Director command line interface

You run commands from the IBM InfoSphere Information Services Director administration and deployment command line interface to administer InfoSphere Information Services Director resources such as applications and services. You can use this tool to move these resources between different installations of InfoSphere Information Services Director, deploy and undeploy these resources, and modify the metadata information in these resources.

Possible scenarios for when you might want to move project resources from one InfoSphere Information Services Director environment and deploy them on another include:

- Backing up project resources on a second computer to be able to restore them in the event of a system failure or for compliance purposes
- Moving project resources between development environments, test environments, and production environments
- Reusing project resources to save the time and expense of re-creating them in another environment
- Deploying project resources on an upgraded InfoSphere Information Services Director
- Merging services that are developed on different systems in a distributed development environment into a single project and deploying them

Administration tasks you can complete by using the commands provided in the command line tool:

- Enable and disable service providers attached to project resources
- Deploy and undeploy applications from projects to manage service requests to the services in these applications
- Upgrade applications with current service information to ensure that the most recent information is published
- Update imported metadata information to ensure it matches the metadata information in the new environment
The InfoSphere Information Services Director Administrator, the InfoSphere Information Services Director Operator, and the InfoSphere Information Services Director Designer are the only user roles that have the appropriate permissions to run the InfoSphere Information Services Director command line actions.

**InfoSphere Information Services Director Administrator**

Users with the Information Services Director Administrator role can access all of the Information Services Director functions.

**InfoSphere Information Services Director Operator**

Provides access to the InfoSphere Information Services Director runtime functions. An operator can add and remove providers as well as configure runtime parameters of a deployed application, service and operation. In addition, an operator can deploy applications from the design time view.

**InfoSphere Information Services Director Designer**

The InfoSphere Information Services Director Designer role can only access projects that it is authorized for at design time. At the project level at design time, the Designer can view project details and the list of projects; view the list of applications; update applications; export applications; import services into an existing application; and view, add, or remove services.

At run time, the InfoSphere Information Services Director Designer can view the list of applications.

**Command line support**

The IBM InfoSphere Information Services Director Administration and Deployment tool provides commands for improved administration capabilities on InfoSphere Information Services Director resources.

You must have ISD Administrator or ISD Operator permissions to run the following commands for runtime applications and services. You can run Import, Export, and Deploy design time commands with ISD Operator permissions, but you cannot create any new IBM InfoSphere Information Services Director resources.

You can migrate all or selected applications and services among test, development, and production environments by using the **IMPORT** and **EXPORT** commands.

*Table 1. Supported migration commands*

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>ISDImportExport -action designtimeexport</code></td>
<td>Export design time metadata from applications and services in a project from the source InfoSphere Information Services Director environment.</td>
</tr>
<tr>
<td><code>ISDImportExport -action runtimeexport</code></td>
<td>Export runtime application metadata from the source InfoSphere Information Services Director environment.</td>
</tr>
<tr>
<td><code>ISDImportExport -action designtimeimport</code></td>
<td>Import design time metadata from applications and services in a project into the target InfoSphere Information Services Director environment.</td>
</tr>
</tbody>
</table>
Table 1. Supported migration commands (continued)

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISDImportExport -action runtimeimport</td>
<td>Import runtime application metadata into the target InfoSphere Information Services Director environment. Upgrade application and service provider information in deployed applications.</td>
</tr>
<tr>
<td>ISDImportExport -help</td>
<td>View details about using the ISDImportExport command. Arguments in square brackets ([ and ]) are optional. Arguments that can be used multiple times are followed by an asterisk (*). Argument explanations are followed by a double-minus sign (--).</td>
</tr>
</tbody>
</table>

You can modify project resources and connections by using the administration commands.

Table 2. Supported administration commands

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISDAdmin -action enable</td>
<td>Enable service providers attached to deployed service operations.</td>
</tr>
<tr>
<td>ISDAdmin -action disable</td>
<td>Disable service providers from deployed service operations.</td>
</tr>
<tr>
<td>ISDAdmin -action deploy</td>
<td>Deploy applications in projects to enable the services in these applications to receive service requests. Upgrade and redeploy applications by regenerating the EAR file.</td>
</tr>
<tr>
<td>ISDAdmin -action undeploy</td>
<td>Undeploy all deployed applications or selected deployed applications.</td>
</tr>
</tbody>
</table>
| ISDAdmin -action update  | Update the application and service provider metadata information in the project resources that you imported into another environment. You can use this command to:  
  • Run bulk operations to update application objects like operations and service providers based on a specified provider property  
  • Update single or specified operations or provider objects  
  • Run bulk updates of information services connection objects |
| ISDAdmin -help           | View details about using the ISDImportExport command. Arguments in square brackets ([ and ]) are optional. Arguments that can be used multiple times are followed by an asterisk (*). Argument explanations are followed by a double-minus sign (--). |
Command line constraints

This section describes actions that are not supported on the IBM InfoSphere Information Services Director administration and deployment command line interface.

Constraints for the administration and deployment command line interface in IBM InfoSphere Information Server, Version 8.5, include the following:

- A runtime export cannot be imported into an environment that uses a different application server or a different version of an application server.
- The EXPORT command cannot export selected services and operations from multiple applications in a single project.
- The UPDATE command cannot synchronize the following types of information:
  - Metadata for the names and descriptions of projects, applications, services, and operations.
  - Column names and table names for IBM DB2®, Oracle, and IBM InfoSphere Federation Server providers; and SQL queries.
  - Design time metadata for projects, applications, and services.
- The number of operations, services, and applications that you can specify with an ISDImportExport or ISDAdmin command is restricted by hierarchy. For example:
  - You can import or export multiple operations only within one particular service for that particular application in a specific project.
  - You can import or export multiple services only within that particular application in a specific project (and you cannot specify any operations during this action).
  - You can import or export multiple applications only for a specific project (and you cannot specify any services or operations during this action.)

Importing and exporting applications

You can move your existing applications to another instance of IBM InfoSphere Information Services Director by using the EXPORT and IMPORT commands. You can then deploy these applications on this InfoSphere Information Services Director by using the DEPLOY command.

When you create an InfoSphere Information Services Director application, design time metadata is created for the application and any services and operations that it contains. You can deploy this application, which creates runtime metadata for the application and its services and operations. The InfoSphere Information Services Director Administration and Deployment tool supports import and export capabilities for both design time and runtime metadata.

Some considerations for exporting and importing metadata:

- If you import runtime metadata into another environment, you cannot modify the application design on the new system.
- If you import design time metadata into another environment, you can modify the application design on the new system.

Use the EXPORT and IMPORT commands to move your applications among InfoSphere Information Services Director test, development, and production environments.
**Exporting applications**

You can export applications from one IBM InfoSphere Information Services Director environment and import them into another InfoSphere Information Services Director environment to back up or deploy these applications on the second system.

**About this task**

The **EXPORT** command is supported for design time and runtime applications.

- On design time project resources, ISD Designers, ISD Administrators, or ISD Operators can use this command to export all or selected applications and services from the project. An XML file is generated for each exported project or each group of applications that belong to the same project.
- On runtime applications, ISD Administrators and ISD Operators can use this command to export all or selected applications. A DAT file is generated for each exported application or each group of services that belong to the same application.

**Note:** Application names and service names are optional, if they are not specified all applications and their services in the project are exported. You can use the `-omitPassword` option to exclude the password from the exported XML for design time export. Also, you can use the `-omitPassword` option to exclude the password from the exported DAT file for run time export.

**Procedure**

Open a command line editor.

- To export design time applications and services, enter the following command:

  ```
  ISDImportExport -action designtimeexport -user <user name> -password <user password> -p <project name> -a <application name> -s <service name> -output <full path name of the target XML file>
  ```

- To export a run time application, enter the following command:

  ```
  ISDImportExport -action runtimeexport -user <user name> -password <user password> -a <application name> -output <full path name of the target DAT file>
  ```

**Example**

The following examples describe how to export design time project resources:

Export all the design time applications in the project:

```
ISDImportExport -action designtimeexport -user <user name> -password <user password> -p <project name> -output <full path name of the folder or the file where the XML file with the exported information is be written>
```

Export selected design time applications in the project:

```
ISDImportExport -action designtimeexport -user <user name> -password <user password> -p <project name> -a <application name1> -a <application name2> -output <full path name of the XML file where the exported information is to be written>
```

Export selected services from a design time application in the project:
The following examples describe how to export runtime applications:

Export multiple runtime applications:

```bash
ISDImportExport -action runtimeexport -user <user name> -password <user password> -a <application name1> -a <application name2> -a <application name3> -output <full path name of the folder where the DAT file generated for each application with the exported information is to be written>
```

Export a runtime application but omit the password from the exported resources:

```bash
ISDImportExport -action runtimeexport -user <user name> -password <user password> -omitPassword -a <application name> -output <full path name of the folder where the DAT file generated for each application with the exported information is to be written>
```

### Importing applications

After you export applications from an IBM InfoSphere Information Services Director, you can import them into another InfoSphere Information Services Director environment for backup or deployment on the second system.

#### About this task

The **IMPORT** command is supported for design time and runtime applications. This command can be configured to replace any matching artifacts that are found.

- For design time import, ISD Designers, ISD Administrators, or ISD Operators can use this command to import all or selected existing applications and services from the input XML file. You can specify the name of the project into which the design time metadata must be imported or you can use the project name that is defined in the input XML file. If a project does not exist on the target system, only a user with the ISD Administrator role can import it and create the project on the target system.

- For runtime import, all providers are disabled by default. To enable providers for runtime import, you must specify the `-enableProvider` parameter in the runtime import command. The application name into which the information is imported is defined in an input DAT file.

**Important:** Providers are disabled by default because metadata might need to be updated before enabling them (for example, if a database port number, user ID, or password that is used in a database provider is not the same for the systems you are exporting from and importing to). Before enabling the
providers, make sure that all the provider metadata you are importing matches
the provider metadata for the system you are importing to.

**Procedure**

Open a command-line editor.

- To import design time applications and services, enter the following command:
  ```
  ISDImportExport -action designtimeimport -user <user name>
  -password <user password> -project <project name>
  -input <full path name of the source XML file>
  ```

- To import runtime applications, enter the following command:
  ```
  ISDImportExport -action runtimeimport -user <user name> -password <user password>
  -input <full path name of the source DAT file>
  ```

**Example**

The following examples describe how to import design time applications and
services:

**Import all existing artifacts contained in the input XML file:**

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -input <full path name of the source XML file from which the exported information is read>
```

**Import selected design time applications in the project:**

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -a <application name1> -a <application name2> -input <full path name of the source XML file from which the exported information is read>
```

**Import selected services from a design time application in the project:**

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -a <application name> -s <service name1> -s <service name2> -input <full path name of the source XML file from which the exported information is read>
```

**Import all existing artifacts in the input XML file and rename any matching projects found:**

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -rename -input <full path name of the source XML file from which the exported information is read>
```

**Note:** The `-rename` parameter is a toggle option only and it does not accept values.
This command example imports the artifacts and renames matching projects by
appending the current time stamp to the old name.

**Import all existing artifacts in the input XML file and replace any matching projects found:**

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -replace -input <full path name of the source XML file from which the exported information is read>
```

---

Command line interface 7
Import all existing artifacts in the input XML file into a specified existing project:

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -project <project name> -input <full path name of the XML file from which the exported information is read>
```

The following examples describe how to import runtime applications. The service providers for the applications are disabled during an import to allow you update metadata information before you enable them.

Import all runtime applications in a specified folder without enabling its service providers:

```
ISDImportExport -action runtimeimport -user <user name> -password <user password> -input <full path name of the folder where the DAT file with the exported information is to be read>
```

Import a runtime application and enable its service providers:

```
ISDImportExport -action runtimeimport -user <user name> -password <user password> -enableProvider -input <full path name of the DAT file from which the exported information is read>
```

---

**Administering applications**

You can upgrade and deploy your IBM InfoSphere Information Services Director project resources and enable service providers for them.

Use the administration commands to manage your project resources on InfoSphere Information Services Director.

**Note:** In the examples, replace the angle brackets and the information inside the angle brackets with your actual keys and values. For example, to specify the key for updating an IBM InfoSphere DataStage® user ID, replace `-key <key value>` with `-key DS_USERID` in the command line.

**Enabling service providers**

You can enable service providers that are attached to deployed IBM InfoSphere Information Services Director service operations.

**About this task**

The `ENABLE` command is supported for the following runtime application resources:
- All or selected applications
- All services in selected applications
- Selected agent hosts
- Selected service provider type for a particular agent host
- Selected service provider host for a particular agent host

**Procedure**

1. Open a command line editor.
2. For selected operations, enter the command:
3. For bulk operations, enter the command:
   
   ISDAdmin -action enable -user <user name> -password <user password> 
   -a <application name> -s <service name> -o <operation name>

Example

The following examples describe how to enable service providers:

Enable service providers attached to services in a specified application:

   ISDAdmin -action enable -user <user name> -password <user password> -a 
   <application name>

Enable service providers attached to services in multiple applications:

   ISDAdmin -action enable -user <user name> -password <user password> -a 
   <application name1> -a <application name2>

Enable service providers attached to selected services in a specified 
application:

   ISDAdmin -action enable -user <user name> -password <user password> -a 
   <application name> -s <service name1> -s <service name2> -s <service name3>

Enable service providers across all applications and services for a 
specific agent server host:

   ISDAdmin -action enable -user <user name> -password <user password> 
   -agentHost <agent server host name>

Enable service provider types across all applications and services for a 
specific agent server host, provider type, and provider server host:

   ISDAdmin -action enable -user <user name> -password <user password> 
   -agentHost <agent server host name> -providerType <service provider type> 
   -providerHost <service provider server host name>

Disabling service providers

You can disable service providers that are attached to deployed IBM InfoSphere 
Information Services Director service operations.

About this task

The DISABLE command is supported for the following runtime application 
resources:

• All or selected applications
• All services in selected applications
• Selected agent hosts
• Selected service provider type for a particular agent host
• Selected service provider host for a particular agent host
Procedure

1. Open a command line editor.
2. For selected operations, enter the command:

   `ISDAdmin -action disable -user <user name> -password <user password>
   -a <application name> -s <service name> -o <operation name>`

3. For bulk operations, enter the command:

   `ISDAdmin -action disable -user <user name> -password <user password>
   -agentHost <agent server host name> -providerType <service provider type>
   -providerHost <service provider server host name>`

Example

The following examples describe how to disable service providers:

Disable service providers attached to services in a specified application:

   `ISDAdmin -action disable -user <user name> -password <user password> -a <application name>`

Disable service providers attached to services in multiple applications:

   `ISDAdmin -action disable -user <user name> -password <user password> -a <application name1> -a <application name2>`

Disable service providers attached to selected services in a specified application:

   `ISDAdmin -action disable -user <user name> -password <user password> -a <application name> -s <service name1> -s <service name2> -s <service name3>`

Disable service providers across all applications and services for a specific agent server host:

   `ISDAdmin -action disable -user <user name> -password <user password>
   -agentHost <agent server host name>`

Disable service provider types across all applications and services for a specific agent server host, provider type, and provider server host:

   `ISDAdmin -action disable -user <user name> -password <user password>
   -agentHost <agent server host name> -providerType <service provider type>
   -providerHost <service provider server host name>`

Deploying applications

You can deploy applications from IBM InfoSphere Information Services Director projects to enable the services in these applications to receive service requests.

About this task

The DEPLOY command is supported for all or selected services in design time applications.
Procedure

1. Open a command line editor.
2. Enter the following command:

   ```
   ISDAdmin -action deploy -user <user name> -password <user password>
   -p <project name> -a <application name>
   ```

Example

The following examples describe how to deploy applications. If an application with
the same name is already deployed, a warning is displayed and the new
application is not deployed.

Deploy all services in a design time application.

```
ISDAdmin -action deploy -user <user name> -password <user password> -p <project name> -a <application name>
```

Redeploy an existing application.

```
ISDAdmin -action deploy -user <user name> -password <user password>
-replace -p <project name> -a <application name>
```

Upgrade existing applications by replacing the EAR file without changing
service provider information.

```
ISDAdmin -action deploy -user <user name> -password <user password>
-replace -preserveProvider -p <project name> -a <application name1> -a <application name2> -a <application name3>
```

Undeploying applications

You can undeploy applications from IBM InfoSphere Information Services Director.

About this task

The UNDEPLOY command is supported for runtime applications.

Procedure

1. Open a command line editor.
2. Enter the command:

   ```
   ISDAdmin -action undeploy -user <user name> -password <user password>
   -a <application name>
   ```

Example

The following example describes how to undeploy multiple applications:

```
ISDAdmin -action undeploy -user <user name> -password <user password> -a <application name1> -a <application name2> -a <application name3>
```

Upgrading applications

You can upgrade application and service information in deployed IBM InfoSphere
Information Services Director applications.
About this task

The upgrade process is supported for runtime applications to upgrade the artifacts in the EAR file that are generated for the application. The EAR file is regenerated for the application.

Some reasons to upgrade applications include:

- You move an application into an environment that is running a different fix pack/patch level. The application upgrade is performed by using the ISDImportExport -action runtimeimport command.
- A new patch/fix pack is installed in an environment that is hosting deployed applications. Use the ISDAdmin -action deploy command for this scenario.

You can upgrade applications by using the following options:

- Option 1 enables you to update both application and service provider information with the application and service provider information contained in the input DAT file. This option uses the ISDImportExport -action runtimeimport command with a replace parameter to handle matching applications.
- Option 2 enables you to update an application without replacing the existing service provider information. This option uses the ISDImportExport -action runtimeimport command with the replace and preserveProvider parameters to deploy the application contained in the input DAT file without modifying service provider information.
- Option 3 enables you to update and redeploy the application without modifying service provider information by regenerating the EAR file. This option uses the names of the applications to be upgraded as input. The design metadata must be available in the environment so the application can be redeployed. This option uses the ISDAdmin -action deploy command with the replace and preserveProvider parameters to deploy the new EAR file without modifying service provider information.

Procedure

1. Open a command line editor.
2. Enter the following command for the upgrade option that you want.
   - To upgrade both the application and its service provider information:
     ```
     ISDImportExport -action runtimeimport -user <user name>
     -password <user password> -replace
     -input <full path name of the source DAT folder>
     ```
   - To upgrade only the application by using the input DAT file:
     ```
     ISDImportExport -action runtimeimport -user <user name>
     -password <user password> -replace -preserveProvider
     -input <full path name of the source DAT folder>
     ```
   - To upgrade and redeploy only the application by regenerating the EAR file:
     ```
     ISDAdmin -action deploy -user <user name> -password <user password> -replace
     -preserveProvider -p <project name> -a <application name1>
     -a <application name2>
     ```

Example

Upgrade both the application and its service provider information:
Upgrade only the application by using the input DAT file:

```
ISDImportExport -action runtimeimport -user <user name> -password <user password> -replace -input <full path name of the DAT folder from which the new information is read>
```

Upgrade and redeploy only the application by regenerating the EAR file:

```
ISDAadmin -action deploy -user <user name> -password <user password> -replace -preserveProvider -project <project name> -a <application name1> -a <application name2>
```

**Updating metadata**

You update the metadata to ensure that it matches the metadata in the new IBM InfoSphere Information Services Director environment. After you import InfoSphere Information Services Director resources into a new environment, run the `UPDATE` command to synchronize the imported metadata with the metadata in the new environment.

**Before you begin**

You must disable the operation or information provider before you can update the metadata for those resources. If you deploy an application that was imported at design time, run the `DISABLE` command to disable the information provider. If you import an application that was exported at run time, the application is automatically disabled.

**About this task**

- The `UPDATE` command is supported only for runtime applications and information services connections.
- You can update only one metadata attribute at a time. To update multiple metadata attributes, you must run a separate `UPDATE` command for each attribute.
- There are three paths (application, agent host, or connection name) for using this command. Each path has different mandatory and optional options. For every metadata `UPDATE` command that you enter, you must specify one of the following options: `-agenthost`, `-application`, or `-cname`.

**Procedure**

1. Open a command line editor.
2. Update metadata by application, or agent host name, or connection name by running the appropriate command:

   **Note:** The list of mandatory and optional parameters for this command varies depending on which of the three paths you are using. In the command reference documentation, see `UPDATE command` for the list of mandatory and optional parameters.

   - To update metadata by application, use the following command:
ISDAdmin -action update -user <user name> -password <user password>
-a <application name> -s <service name> -o <operation name>
-key <key for the metadata attribute to be updated>
-subkey <job parameter argument you want to modify>
-oldvalue <old value of the attribute you want to modify>
-newvalue <new value for the attribute that you are modifying>
-dsproject <project name> -dsjob <job name> -providerUser <service provider>

• To update metadata by agent host name, use the following command:

ISDAdmin -action update -user <user name> -password <user password>
-agentHost <agent host name> -providerType <DS, DB2, ORA, or DB2CF>
-providerHost <service provider server host name>
-key <key for the metadata attribute to be updated>
-subkey <job parameter argument you want to modify>
-oldvalue <old value of the attribute you want to modify>
-newvalue <new value for the attribute that you are modifying>
-dsproject <project name> -dsjob <job name> -providerUser <service provider>

• To update metadata by connection name, use the following command:

ISDAdmin -action update -user <user name> -password <user password>
-cname <connection name> -key <key for the metadata attribute to be updated>
-oldvalue <old value of the attribute you want to modify>
-newvalue <new value for the attribute that you are modifying>

Examples of updating metadata

This section contains examples for the following scenarios:
• Bulk updates for provider-specific metadata
• Bulk updates for service provider metadata
• Bulk updates for operation metadata
• Updates to IBM InfoSphere Information Server connections metadata
• Updates to IBM InfoSphere Information Services Director job parameters

Examples of bulk updates for provider-specific metadata

The following commands show you how to make bulk metadata updates to the providers by using IBM InfoSphere DataStage metadata and DB2 metadata as examples.

• Update the InfoSphere DataStage password for a specific agent host and InfoSphere DataStage user ID:

    Note: The -oldvalue parameter is optional because the identifiers (the combination of agent host and user ID) uniquely qualify the key that is being updated.

    ISDAdmin -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DS_PASSWORD -providerUser DataStage user ID -oldvalue <old DataStage password> -newvalue <new DS password>

• Update the InfoSphere DataStage user ID for a specific agent host:

    Note: You must use the -oldvalue parameter to specify which user ID you are updating.

    ISDAdmin -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DS_USERID -oldvalue <old DataStage user ID> -newvalue <new DataStage user ID>

• Update the InfoSphere DataStage job name for a specific agent host and project:
Note: You must use the -oldvalue parameter to specify which job name you are updating.

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host> -key DS_JOBNAME -dsproject <DataStage project name> -oldvalue <old job name> -newvalue <new job name>

- Update the DataStage project name for a specific agent host:

Note: You must use the -oldvalue parameter to specify which InfoSphere DataStage project name you are updating.

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DS_PROJECT_NAME -oldvalue <old DS project name> -newvalue <new DS project name>

- Update the agent host for a specific InfoSphere DataStage host:

Note: It is not possible to have more than one InfoSphere DataStage host for a given agent, so the -oldvalue parameter is not required in this scenario.

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host name> -key AGENT_HOST -providerHost <DS server host name> -newvalue <new agent host name>

- Update the InfoSphere DataStage port number for a specific agent host:

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DS_PORT -newvalue <new DS server port number>

- Update the DB2 host name for a specific agent host:

Note: You must use the -oldvalue parameter to specify which DB2 host name you are updating.

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DB2_HOST -oldvalue <old DB2 server host name> -newvalue <new DB2 server host name>

- Update the DB2 port number for a specific agent host and DB2 host:

Note: You must use the -oldvalue parameter to specify which port number you are updating.

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DB2_PORT -providerHost <DB2 server host name> -oldvalue <old DB2 server port number> -newvalue <new DB2 server port number>

- Update the DB2 database name for a specific agent host and DB2 host:

Note: You must use the -oldvalue parameter to specify which database name you are updating.

**ISDAdmin** -action update -user <user ID> -password <user password> -agentHost <agent host name> -key DB2_DATABASE -providerHost <DB2 server host name> -oldvalue <old DB2 database name> -newvalue <new DB2 database name>

- Update the DB2 user ID for a specific agent host and DB2 host:

Note: You must use the -oldvalue parameter to specify which user ID you are updating.
Examples of bulk updates for service provider metadata

The following commands show you how to make updates to service provider metadata:

In the following examples, the `-oldvalue` parameter is optional. You can use this parameter to update only one specific value.

- Change the activation threshold for all InfoSphere DataStage service providers across applications for a specific agent host:
  ```
  ISAdmin -action update -user <user ID> -password <user password>
  -agentHost <agent host name> -key ACTIVATION_THRESHOLD
  -providerType DS -oldvalue <old activation threshold> -newvalue <new activation threshold>
  ```

- Change the activation delay for a specific DB2 service provider across applications for a specific agent host:
  ```
  ISAdmin -action update -user <user ID> -password <user password>
  -agentHost <agent host name> -providerType DB2 -key ACTIVATION_DELAY -oldvalue <old activation delay> -newvalue <new activation delay>
  ```

- Change the activation delay for a specific DB2 service provider residing on a specific host across applications for a specific agent host:
  ```
  ISAdmin -action update -user <user ID> -password <user password>
  -agentHost <agent host name> -providerType DB2 -key ACTIVATION_DELAY -providerHost <DB2 server host name> -oldvalue <old activation delay> -newvalue <new activation delay>
  ```

- Change the maximum idle time for all of the operations in a specified application and service:
  ```
  ISAdmin -action update -user <user ID> -password <user password>
  -a <application name> -s <service name> -key MAX_IDLE -oldvalue <old max idle> -newvalue <new max idle>
  ```

Examples of bulk updates for operation metadata

The following commands show you bulk updates for operation metadata:

In the following examples, the `-oldvalue` parameter is optional. You can use this parameter to update only one specific value.

- Change the load balancer for all operations for a specific agent server host:
  ```
  ISAdmin -action update -user <user ID> -password <user password>
  -agentHost <agent host name> -key LOAD_BALANCER -oldvalue <old load balancer> -newvalue <new load balancer>
  ```

- Change the maximum number of retries for all operations of a specified service in an application:
Example of updating common providers

The following command shows you how to update metadata for a common provider:

- Update the agent server port number for a specific agent host:
  ```
  ISDAdmin -action update -user <user ID> -password <user password> -agentHost <agent host name> -key AGENT_PORT -newvalue <new agent server port number>
  ```

Example of updating IBM InfoSphere Information Server connections metadata

The following command shows you how to update metadata for connections:

- Update the DataStage or DB2 user ID for a specific connection:
  ```
  ISDAdmin -action update -user <user ID> -password <user password> -cname <connection name> -key USER -oldvalue <old DS user ID or old DB2 user ID> -newvalue <new DS or DB2 user ID>
  ```

Examples of updating IBM InfoSphere Information Services Director job parameters

The following commands show you how to update IBM InfoSphere Information Services Director job parameters:

- Update a IBM InfoSphere Information Services Director job parameter:

  ```
  Note: If you do not specify a service name and operation name, then all matches within the application will be updated. You can use the InfoSphere DataStage project name and job name to identify a specific project or job attached to an operation for the update.
  ```

  In the following examples, the -oldvalue parameter is optional. You can use this parameter to update only one specific value.
  ```
  ISDAdmin -action update -user <user ID> -pw <user password> -a <application name> -s <service name> -o <operation name> -dsproject <DataStage project name> -dsjob <DataStage job name> -key JOB_PARAMETER -subkey <specific job parameter whose value is being modified> -oldvalue <old value> -newvalue <new value of the job parameter being modified>
  ```

- Update a job parameter value across multiple applications for a bulk scenario:
  ```
  ISDAdmin -action update -user <user ID> -pw <user password> -agenthost <agent host name> -dsproject <DataStage project name> -dsjob <DataStage job name> -key JOB_PARAMETER -subkey <specific job parameter for the value that is being modified>
  ```

What to do next

After you finish updating metadata, run the ENABLE command to enable the information provider.

Command reference

You run the IBM InfoSphere Information Services Director administration and deployment commands from the command line interface.
Use the command reference to find more detailed information including syntax examples and parameter descriptions for each of the InfoSphere Information Services Director tool commands.

**Note:** In the examples, replace the angle brackets and information inside the angle brackets with your actual keys and values. For example, to specify the key for updating a IBM InfoSphere DataStage user ID, replace `-key <key value>` with `-key DS_USERID in the command line.

**EXPORT command**

You can use this command to export resources from IBM InfoSphere Information Services Director.

**Purpose**

The EXPORT command exports applications and selected services from applications. This command is supported for design time and runtime applications.

**Syntax**

For a design time application, use the following syntax:

```
ISDImportExport -action designtimeexport -user <user name> -password <user password> -p <project name> -a <application name> -s <service name> -omitPassword -output <full path name of the target XML file>
```

For a runtime application, use the following syntax:

```
ISDImportExport -action runtimeexport -user <user name> -password <user password> -a <application name> -omitPassword -output <full path name of the target DAT file>
```

**Parameters**

The following parameters are available for the EXPORT command.

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>-action (-act)</code></td>
<td>Required</td>
</tr>
<tr>
<td><code>-user (-ur)</code></td>
<td>Required</td>
</tr>
<tr>
<td><code>-password (-pw)</code></td>
<td>Required</td>
</tr>
<tr>
<td><code>-project (-p)</code></td>
<td>Required for designtimeexport only</td>
</tr>
</tbody>
</table>

Enter the action command:

- For design time applications, type `designtimeexport` or `dte`
- For runtime applications, type `runtimeexport` or `rte`

Enter your IBM InfoSphere Information Server user ID.

Enter your IBM InfoSphere Information Server password.

Enter the name of the project from which you are exporting applications.
<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
</table>
| -application (-a)           | Required for runtimeexport  
Optional for designtimeexport  
Enter the name of the application in the project that you are exporting. |
| -service (-s)               | Optional for designtimeexport only. Not applicable to runtimeexport.  
Enter the name of the service in the application that you are exporting. |
| -omitPassword (-o)          | Optional  
Excludes all passwords from the exported information.  
For security purposes, use this setting to exclude user credentials from the exported file. |
| -output (-out)              | Required  
Enter the full path name of either the file or the folder where the exported information will be written.  
If you specify a folder instead of a filename, the filename that is generated is the project name for design time metadata and the application name for runtime metadata. |
| -verbose (-v)               | Optional  
Display detailed runtime output (not runtime logging messages). |
| -results (-res)             | Optional  
Print all runtime output to the specified file. |
| -log (-l)                   | Optional  
Print all runtime logging messages to the specified file. Use this option with -loglevel. |
| -logerror (-error)          | Optional  
Print all ERROR and FATAL runtime logging messages to the specified file. |
| -loginfo (-info)            | Optional  
Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file. |
| -loglevel (-level)          | Optional  
Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF. |
**IMPORT command**

You can use this command to move exported applications and services to another IBM InfoSphere Information Services Director for backup or deployment.

**Purpose**

The IMPORT command imports applications and services both at design time and run time. You can configure the IMPORT command to replace any matching applications that are found.

**Syntax**

Import a design time application:

```
ISDImportExport -action designtimeimport -user <user name> -password <user password> -project <project name> -application <application name> -input <full path name of the source XML file>
```

Import a runtime application and enable its service provider:

```
ISDImportExport -action runtimeimport -user <user name> -password <user password> -enableProvider -input <full path name of the source DAT file>
```

**Parameters**

The following parameters are available for the IMPORT command.

**Table 4. Import command parameters**

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-action (-act)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter the action command:</td>
</tr>
<tr>
<td></td>
<td>• For design time applications, type designtimeimport or dti</td>
</tr>
<tr>
<td></td>
<td>• For runtime applications, type runtimeimport or rti</td>
</tr>
<tr>
<td>-user (-ur)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter your IBM InfoSphere Information Server user ID.</td>
</tr>
<tr>
<td>-password (-pw)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter your IBM InfoSphere Information Server password.</td>
</tr>
</tbody>
</table>
### Table 4. Import command parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
</table>
| `-rename (-ren)`           | Optional for design-time import only. Not applicable to runtime import.  
                              When a matching resource such as an application or service exists, the new name is automatically generated for the resource. The timestamp is appended to the existing name of the resource to create a unique name. Matches are resolved at the lowest specified options. For example, if applications and services are specified in the command, matching is done at the services level.  
                              If you do not use the `-rename` or `-replace` command, a warning is displayed when a matching resource (application or service) is found and the new resource is not imported. If there are additional resources to be imported, the IMPORT command moves to the next resource. |
| `-replace (-rep)`          | Optional  
                              If an imported application has the same name as an existing application on the system, the existing application is deleted and the new application with the same name is created from the imported file.  
                              If you do not use the `-replace` or `-rename` command, a warning is displayed when a matching application is found and the new application is not imported. If there are additional application to be imported, the IMPORT command moves to the next application. |
| `-preserveProvider (-prp)` | Optional for runtime import only. Not applicable to design-time import.  
                              Use the `-preserveProvider` parameter with the `-replace` parameter to replace the matching EAR file only and leave the information service provider information intact.  
                              The `-preserveProvider` parameter must be accompanied by the `-replace` parameter to have any effect. |
<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
</table>
| -enableProvider (-enp) | Optional for runtimeimport only. Not applicable to designtimeimport.  
Use the parameter to enable the service providers attached to the application that you are importing.  
If this option is not used, runtime applications are imported but service providers are disabled. Service providers must be enabled for the imported applications and services to be able to receive service requests. |
| -project (-p) | Optional for designtimeimport only. Not applicable to runtimeimport.  
Enter the name of the project into which the resources are imported.  
If you do not specify a project name, the IMPORT command uses the project name in the XML.  
For designtimeimport, the name of the project into which the information is imported is defined in the input XML file.  
For runtimeimport, the name of the application into which the information is imported is defined in the input DAT file. |
| -application (-a) | Optional for designtimeimport only. Not applicable to runtimeimport.  
Enter the name of the application in the project that you are importing. |
| -service (-s) | Optional for designtimeimport only. Not applicable to runtimeimport.  
Enter the name of the service in the application that you are importing. |
| -input (-inp) | Required  
Enter the full path name of the file from which the exported information will be read. |
| -verbose (-v) | Display detailed runtime output (not runtime logging messages). |
| -results (-res) | Print all runtime output to the specified file. |
| -log (-l) | Print all runtime logging messages to the specified file. Use this option with -loglevel. |
| -logfile (-error) | Print all ERROR and FATAL runtime logging messages to the specified file. |
| -loginfo (-info) | Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file. |
ENABLE command

You can use this command to enable service providers that are attached to IBM InfoSphere Information Services Director service operations.

Purpose

The ENABLE command enables service providers for runtime applications, services, and operations. Once they are enabled, the services can receive and process service requests.

Syntax

There are two paths in which you can enable service providers: for a specific application or for an agent host.

Enable service providers for an application:

```
ISDAdmin -action enable -user <user name> -password <user password> -a <application name>
```

Enable service providers for an agent host:

```
ISDAdmin -action enable -user <user name> -password <user password> -agentHost <agent server host name>
```

Enable service provider types for an agent host. Additionally, use a provider type or use a combination of provider type and provider host to enable specific service providers:

```
ISDAdmin -action enable -user <user name> -password <user password> -agentHost <agent server host name> -providerType <provider type> -providerHost <DS host name or DB2 server host name>
```

Parameters

The ENABLE command uses the following parameters.

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-action (-act)</td>
<td>Required</td>
</tr>
<tr>
<td>-user (-ur)</td>
<td>Required</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional</td>
</tr>
<tr>
<td>-help (-?)</td>
<td>Displays help for this command.</td>
</tr>
</tbody>
</table>
Table 5. Enable command parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-password (-pw)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter your IBM InfoSphere Information Server password.</td>
</tr>
<tr>
<td>-application (-a)</td>
<td>Required when enabling applications, services, or operations</td>
</tr>
<tr>
<td></td>
<td>Enter the name of the application to enable the service provider for.</td>
</tr>
<tr>
<td></td>
<td>The -application, -service, and -operation parameters work together.</td>
</tr>
<tr>
<td>-service (-s)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the name of the service in the application to enable the service provider for.</td>
</tr>
<tr>
<td>-operation (-o)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the name of the operation in the service to enable the service provider for.</td>
</tr>
<tr>
<td>-agentHost (-ahost)</td>
<td>Required when enabling providers for an agent host</td>
</tr>
<tr>
<td></td>
<td>Enter the host name of the agent server.</td>
</tr>
<tr>
<td></td>
<td>The -agentHost, -providerType, and -providerHost parameters work together.</td>
</tr>
<tr>
<td>-providerType (-prType)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the type of service provider to be enabled.</td>
</tr>
<tr>
<td></td>
<td>The -agentHost parameter must be specified with the -providerType parameter.</td>
</tr>
<tr>
<td></td>
<td>For DataStage, enter DS.</td>
</tr>
<tr>
<td></td>
<td>For DB2, enter DB2.</td>
</tr>
<tr>
<td></td>
<td>For Oracle, enter ORA.</td>
</tr>
<tr>
<td></td>
<td>For Classic Federation Server, enter DB2CF.</td>
</tr>
<tr>
<td>-providerHost (-pHost)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the host name of the service provider server for which the provider is to be enabled.</td>
</tr>
<tr>
<td></td>
<td>The -agentHost parameter must be specified with the -providerHost parameter.</td>
</tr>
<tr>
<td>-verbose (-v)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Display detailed runtime output (not runtime logging messages).</td>
</tr>
</tbody>
</table>
Table 5. Enable command parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-results (-res)</td>
<td>Optional Print all runtime output to the specified file.</td>
</tr>
<tr>
<td>-log (-l)</td>
<td>Optional Print all runtime logging messages to the specified file. Use this option with -loglevel.</td>
</tr>
<tr>
<td>-logerror (-error)</td>
<td>Optional Print all ERROR and FATAL runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loginfo (-info)</td>
<td>Optional Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF.</td>
</tr>
<tr>
<td>-help (-?)</td>
<td>Optional Displays help for this command.</td>
</tr>
</tbody>
</table>

DISABLE command

You can use this command to disable service providers that are attached to IBM InfoSphere Information Services Director service operations.

Purpose

The DISABLE command disables service providers from runtime applications, services, and operations. After you disable the service provider, service operations cannot process service requests.

Syntax

There are two paths in which you can enable service providers: for a specific application or for an agent host.

Disable service providers for an application:

`ISOSAdmin -action disable -user <user name> -password <user password> -a <application name>`

Disable service providers for an agent host:

`ISOSAdmin -action disable -user <user name> -password <user password> -agentHost <agent server host name>`

Disable service provider types for an agent host. Additionally, use a provider type or use a combination of provider type and provider host to disable specific service providers:
**ISAdmin** -**action** disable -**user** <user name> -**password** <user password>  
-**agentHost** <agent server host name> -**providerType** <provider type>  
-**providerHost** <DS host name or DB2 server host name>

### Parameters

The **DISABLE** command uses the following parameters.

**Table 6. Disable command parameters**

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
</table>
| -**action** (-act)         | Required
|                            | Type disable or d. |
| -**user** (-ur)           | Required
|                            | Enter your IBM InfoSphere Information Server user ID. |
| -**password** (-pw)       | Required
|                            | Enter your IBM InfoSphere Information Server password. |
| -**application** (-a)     | Required when disabling applications, services, or operations
|                            | Enter the name of the application to disable the service provider for. |
|                            | The **-application**, **-service**, and **-operation** parameters work together. |
| -**service** (-s)         | Optional
|                            | Enter the name of the service in the application to disable the service provider for. |
| -**operation** (-o)       | Optional
|                            | Enter the name of the operation in the service to disable the service provider for. |
| -**agentHost** (-aHost)   | Required when disabling providers for an agent host
|                            | Enter the host name of the agent server. |
|                            | The **-agentHost**, **-providerType**, and **-providerHost** parameters work together. |
| -**providerType** (-prType) | Optional
|                            | Enter the type of service provider enabled. |
|                            | The **-agentHost** parameter must be specified with the **-providerType** parameter. |
|                            | For DataStage, enter DS. |
|                            | For DB2, enter DB2. |
|                            | For Oracle, enter ORA. |
|                            | For Classic Federation Server, enter DB2CF. |
Table 6. Disable command parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-providerHost (-pHost)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the host name of the service provider server from which the provider is disabled. The -agentHost parameter must be specified with the -providerHost parameter.</td>
</tr>
<tr>
<td>-verbose (-v)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Display detailed runtime output (not runtime logging messages).</td>
</tr>
<tr>
<td>-results (-res)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all runtime output to the specified file.</td>
</tr>
<tr>
<td>-log (-l)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all runtime logging messages to the specified file. Use this option with -loglevel.</td>
</tr>
<tr>
<td>-logerror (-error)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all ERROR and FATAL runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loginfo (-info)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF.</td>
</tr>
<tr>
<td>-help (-?)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Displays help for this command.</td>
</tr>
</tbody>
</table>

**DEPLOY command**

You can use this command to deploy applications from IBM InfoSphere Information Services Director projects to enable the services in these applications to receive service requests.

**Purpose**

The DEPLOY command deploys design time applications and upgrades deployed applications. After you deploy the application, you can use the DEPLOY command to upgrade the application and service provider information by regenerating the EAR file.

**Syntax**

Deploy selected design time applications:
Upgrade and redeploy only the application by regenerating the EAR file:

```
ISAdmin -action deploy -user <user name> -password <user password>
-replace -project <project name> -a <application name1> -a <application name2>
```

Parameters

The **DEPLOY** command uses the following parameters.

**Table 7. Deploy command parameters**

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-action (-act)</td>
<td>Required The action to perform, type deploy or dep.</td>
</tr>
<tr>
<td>-user (-ur)</td>
<td>Required Your IBM InfoSphere Information Server user ID.</td>
</tr>
<tr>
<td>-password (-pw)</td>
<td>Required Your IBM InfoSphere Information Server password.</td>
</tr>
<tr>
<td>-project (-p)</td>
<td>Required The name of the project that contains the application to be deployed.</td>
</tr>
<tr>
<td>-application (-a)</td>
<td>Required The name of the application to be deployed.</td>
</tr>
<tr>
<td>-replace (-rep)</td>
<td>Optional The parameter that redeploy the matching applications that are found.</td>
</tr>
<tr>
<td>-preserveProvider (-rep -prp)</td>
<td>Optional Use the -preserveProvider parameter with the combination of the -replace parameter to replace the matching EAR file only and leave the information service provider information intact.</td>
</tr>
<tr>
<td>-verbose (-v)</td>
<td>Optional Display detailed runtime output (not runtime logging messages).</td>
</tr>
</tbody>
</table>
Table 7. Deploy command parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-results (-res)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all runtime output to the specified file.</td>
</tr>
<tr>
<td>-log (-l)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all runtime logging messages to the specified file. Use this option with -loglevel.</td>
</tr>
<tr>
<td>-logerror (-error)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all ERROR and FATAL runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loginfo (-info)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF.</td>
</tr>
<tr>
<td>-help (-?)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Displays help for this command.</td>
</tr>
</tbody>
</table>

**UNDEPLOY command**

You can use this command to undeploy applications from IBM InfoSphere Information Services Director.

**Purpose**

The UNDEPLOY command undeploys one or more runtime applications.

**Syntax**

```
ISAdmin -action undeploy -user <user name> -password <user password>
-a <application name>
```

**Parameters**

The UNDEPLOY command uses the following parameters.

Table 8. Undeploy command parameters

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-action (-act)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Type undeploy or undep.</td>
</tr>
<tr>
<td>-user (-ur)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter your IBM InfoSphere Information Server user ID.</td>
</tr>
</tbody>
</table>
### Table 8. Undeploy command parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-password (-pw)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter your IBM InfoSphere Information Server user ID.</td>
</tr>
<tr>
<td>-application (-a)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter the name of the application to be undeployed.</td>
</tr>
<tr>
<td>-verbose (-v)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Display detailed runtime output (not runtime logging messages).</td>
</tr>
<tr>
<td>-results (-res)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all runtime output to the specified file.</td>
</tr>
<tr>
<td>-log (-l)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all runtime logging messages to the specified file. Use this option with <code>-loglevel</code>.</td>
</tr>
<tr>
<td>-logerror (-error)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all ERROR and FATAL runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loginfo (-info)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF.</td>
</tr>
<tr>
<td>-help (-?)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Displays help for this command.</td>
</tr>
</tbody>
</table>

### UPGRADE command

You can use this command to upgrade application and service information in deployed IBM InfoSphere Information Services Director applications.

**Purpose**

The **UPGRADE** command is supported for runtime applications to upgrade the artifacts in the EAR file that are generated for the application. The EAR file is regenerated for the application. You can upgrade application and service information in your runtime applications by using one of the following options:

- **Option 1** enables you to update both applications and service provider information with the application and service provider information contained in the input DAT file. This option uses the **ISDImportExport runtimeimport** command with a `replace` parameter to handle matching applications.
• Option 2 enables you to update an application without replacing the existing service provider information. This option uses the ISDImportExport runtimeimport command with the replace and preserveProvider parameters to deploy the application contained in the input DAT file without modifying service provider information.

• Option 3 enables you to update the application without modifying service provider information by regenerating the EAR file. This option uses the names of the applications to be upgraded as input. The design metadata must be available in the environment so the application can be redeployed. This option uses the ISDAdmin deploy command with the replace and preserveProvider parameters to deploy the new EAR file without modifying service provider information.

**Syntax**

Upgrade an application and its service provider information:

```bash
ISDImportExport -action runtimeimport -user <user name> -password <user password> -replace -input <full path name of the DAT file from which the new information is read>
```

Upgrade only the application by using the input DAT file:

```bash
ISDImportExport -action runtimeimport -user <user name> -password <user password> -replace -preserveProvider -input <full path name of the DAT file from which the new information is read>
```

Upgrade only the application by regenerating the EAR file:

```bash
ISDAdmin -action deploy -user <user name> -password <user password> -replace -preserveProvider -a <application1> -a <application2>
```

**Parameters**

The UPGRADE command uses the following parameters.

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-action (-act)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>The action to perform:</td>
</tr>
<tr>
<td></td>
<td>• To upgrade an application and its service provider information, enter runtimeimport or rti.</td>
</tr>
<tr>
<td></td>
<td>• To upgrade the application by using the input DAT file, enter runtimeimport or rti.</td>
</tr>
<tr>
<td></td>
<td>• To upgrade the application by regenerating the EAR file, enter deploy or dep.</td>
</tr>
<tr>
<td>-user (-ur)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Your IBM InfoSphere Information Server user ID.</td>
</tr>
<tr>
<td>Parameter name (short name)</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>-password (-pw)</td>
<td>Required. Your IBM InfoSphere Information Server password.</td>
</tr>
<tr>
<td>-replace (-rep)</td>
<td>Required for option 1. The new name to use to replace any matching applications that are found. The existing application is deleted and recreated with the imported data.</td>
</tr>
<tr>
<td>-replace -preserveProvider (-rep -prp)</td>
<td>Required for option 2 and option 3. Combination of 2 parameters to use to replace the matching applications and leave the information service provider information intact. The -preserveProvider parameter must be accompanied by the -replace parameter to have any effect.</td>
</tr>
<tr>
<td>-application (-a)</td>
<td>Optional. The name of the application to be updated.</td>
</tr>
<tr>
<td>-input (-inp)</td>
<td>Optional. The full path name of the file from which the new information is read.</td>
</tr>
<tr>
<td>-verbose (-v)</td>
<td>Optional. Display detailed runtime output (not runtime logging messages).</td>
</tr>
<tr>
<td>-results (-res)</td>
<td>Optional. Print all runtime output to the specified file.</td>
</tr>
<tr>
<td>-log (-l)</td>
<td>Optional. Print all runtime logging messages to the specified file. Use this option with -loglevel.</td>
</tr>
<tr>
<td>-logerror (-error)</td>
<td>Optional. Print all ERROR and FATAL runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loginfo (-info)</td>
<td>Optional. Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional. Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF.</td>
</tr>
</tbody>
</table>
Table 9. Upgrade parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-help (-?)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Displays help for this command.</td>
</tr>
</tbody>
</table>

**UPDATE command**

After you import an application or service provider, some metadata information might not match the metadata information in the environment into which it is imported. You use the `UPDATE` command to update this metadata information directly in the repository to match the metadata information in the new environment.

**Restriction:** You can update only one metadata attribute at a time. If you need to update multiple metadata attributes, you must run a separate `UPDATE` command for each metadata attribute.

**Purpose**

The `UPDATE` command updates metadata information from runtime applications and IBM InfoSphere Information Server connections. The scope of the metadata update operation is determined by looking for an agent host name, application name, or connection name. For every metadata `UPDATE` command that you enter, you must specify one of the following keys: `-agenthost`, `-application`, or `-cname`.

**Syntax**

Update metadata information for a specified application:

```
ISDAdmin -action update -user <user name> -password <user password>
 -a <application name> -s <service name> -o <operation name>
 -key <key for the metadata attribute to be updated>
 -subkey <job parameter argument you want to modify>
 -oldvalue <old value of the attribute you want to modify>
 -newvalue <new value for the attribute that you are modifying>
 -dsproject <project name> -dsjob <job name> -providerUser <service provider>
```

Update metadata information for a specified agent server host:

```
ISDAdmin -action update -user <user name> -password <user password>
 -agentHost <agent host name> -providerType <DS, DB2, ORA, or DB2CF>
 -providerHost <service provider server host name>
 -key <key for the metadata attribute to be updated>
 -subkey <job parameter argument you want to modify>
 -oldvalue <old value of the attribute you want to modify>
 -newvalue <new value for the attribute that you are modifying>
 -dsproject <project name> -dsjob <job name> -providerUser <service provider>
```

Update metadata information for a specified connection:

```
ISDAdmin -action update -user <user name> -password <user password>
 -cname <connection name> -key <key for the metadata attribute to be updated>
 -oldvalue <old value of the attribute you want to modify>
 -newvalue <new value for the attribute that you are modifying>
```

**Application metadata parameters**

The `UPDATE` command uses the following parameters. There are three paths (application, agent host, or connection name) for using this command. Each path
has different mandatory and optional options. For every metadata `UPDATE` command that you enter, you need to specify one of the following options:

- `-agenthost`,
- `-application`,
- `-cname`.

Table 10. Application metadata parameters

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
</table>
| `-action (-act)` | Required  
Type update. |
| `-user (-ur)` | Required  
Enter your IBM InfoSphere Information Server user ID. |
| `-password (-pw)` | Required  
Enter your IBM InfoSphere Information Server password. |
| `-application (-a)` | Optional  
Use the `-a` parameter if you want to apply the metadata update within the scope of a particular application.  
Enter the name of the application for which you want to update metadata. You can use the application name to qualify or restrict the operation and provider metadata update. |
| `-agentHost (-ahost)` | Optional  
Use the `-ahost` parameter if you want to apply the metadata update within the scope of a specific agent.  
Note: The agent host can also be used as a key when its value needs to be updated.  
Enter the host name of the agent server. |
| `-cname (-c)` | Optional  
Use the `-c` parameter if you want to apply the metadata update within the scope of a InfoSphere Information Server connection.  
Enter the name that is assigned to the connection between the service provider and InfoSphere Information Server. |
| `-key (-k)` | Required  
Enter the key to be updated. For example, to update the DataStage password, enter DS_PASSWORD. If the key is linked to other options, enter the parameters for those options after the key.  
More information on the supported keys and their dependencies on other options is provided in the following tables in this topic. |
Table 10. Application metadata parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-subkey (-sk)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Use <code>-subkey</code> to update job parameter settings.</td>
</tr>
<tr>
<td></td>
<td>Enter the argument for the setting you want to modify.</td>
</tr>
<tr>
<td>-service (-s)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the name of the service in the application for which you want to update metadata. This parameter is part of the <code>-application</code> path.</td>
</tr>
<tr>
<td>-operation (-o)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Enter the name of the operation in the service for which you want to update metadata. This parameter is part of the <code>-application</code> and <code>-service</code> path.</td>
</tr>
<tr>
<td>-oldvalue (-ov)</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Use <code>-oldvalue</code> when you use any of the following key values to update a metadata attribute:</td>
</tr>
<tr>
<td></td>
<td>- DS_USERID</td>
</tr>
<tr>
<td></td>
<td>- DS_JOBNAME</td>
</tr>
<tr>
<td></td>
<td>- DS_PROJECT_NAME</td>
</tr>
<tr>
<td></td>
<td>- DB2_HOST</td>
</tr>
<tr>
<td></td>
<td>- DB2_DATABASE</td>
</tr>
<tr>
<td></td>
<td>- DB2_PORT</td>
</tr>
<tr>
<td></td>
<td>- DB2_USERID</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> This parameter is required when you need to specify a particular value for a key that has more than one possible value attached to it. This parameter is optional in all other cases in which there is only one possible value for the key that you are updating. For that reason, it is unnecessary to specify a value in those scenarios.</td>
</tr>
<tr>
<td></td>
<td>Enter the exact existing value of the item to be updated.</td>
</tr>
<tr>
<td>-newvalue (-nv)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Enter the new value to assign to the metadata attribute that you are updating.</td>
</tr>
<tr>
<td>Parameter name (short name)</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>-providerType (-prType)</td>
<td>Optional&lt;br&gt;You must use -providerType when you are updating any of the following service providers:&lt;br&gt;• For DataStage, type DS&lt;br&gt;• For DB2, type DB2&lt;br&gt;• For Oracle, type ORA&lt;br&gt;• For Classic Federation Server, type DB2CF</td>
</tr>
<tr>
<td>-providerUser (-pU)</td>
<td>Optional&lt;br&gt;You must use -providerUser when you update a service provider password.&lt;br&gt;Enter the user name of the service provider.</td>
</tr>
<tr>
<td>-dsproject (-dsp)</td>
<td>Optional&lt;br&gt;This parameter can be used when the job name is being updated.&lt;br&gt;Enter the name of the project for which you want to update metadata.&lt;br&gt;Note: You can also use this parameter to identify a specific project that is attached to an operation when you are updating the parameters of that job.</td>
</tr>
<tr>
<td>-dsjob (-dsj)</td>
<td>Optional&lt;br&gt;Enter the name of the job for which you want to update metadata.&lt;br&gt;Note: You can use this parameter to identify a specific DataStage job that is attached to an operation when you are updating the parameters of that job.</td>
</tr>
<tr>
<td>-providerHost (-pHost)</td>
<td>Optional&lt;br&gt;You must use -provider when you update the DB2 database name, DB2 port, DB2 user ID, or DB2 password.&lt;br&gt;Enter the name of the service provider host server.</td>
</tr>
<tr>
<td>-verbose (-v)</td>
<td>Optional&lt;br&gt;Display detailed runtime output (not runtime logging messages).</td>
</tr>
<tr>
<td>-results (-res)</td>
<td>Optional&lt;br&gt;Print all runtime output to the specified file.</td>
</tr>
<tr>
<td>-log (-l)</td>
<td>Optional&lt;br&gt;Print all runtime logging messages to the specified file. Use this option with -loglevel.</td>
</tr>
</tbody>
</table>
Table 10. Application metadata parameters (continued)

<table>
<thead>
<tr>
<th>Parameter name (short name)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>-logerror (-error)</td>
<td>Optional Print all ERROR and FATAL runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loginfo (-info)</td>
<td>Optional Print all INFO, WARN, DEBUG, and TRACE runtime logging messages to the specified file.</td>
</tr>
<tr>
<td>-loglevel (-level)</td>
<td>Optional Specify one of the following logging levels to print: ALL, TRACE, DEBUG, INFO, WARN, ERROR, FATAL, OFF.</td>
</tr>
<tr>
<td>-help (-?)</td>
<td>Optional Displays help for this command.</td>
</tr>
</tbody>
</table>

**Operation keys**

The values of the following keys can be changed to update operation metadata. These keys do not have dependencies with other parameters.

Table 11. Operation metadata keys

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX_QUEUESIZE</td>
<td>Maximum number of service requests that can be in the operation queue at the same time.</td>
</tr>
<tr>
<td>MAX_QUEUEWAIT</td>
<td>Maximum length of time that you want a service request to wait in an operation queue.</td>
</tr>
<tr>
<td>MAX_RETRIES</td>
<td>Maximum number of tries that a service request makes to the server if the request is not received the first time. This setting applies only if there is more than one ASB Agent to send a request to.</td>
</tr>
<tr>
<td>LOAD_BALANCER</td>
<td>Method used to send service requests to the server when multiple service providers are attached to the same operation.</td>
</tr>
</tbody>
</table>

**Common provider keys**

The values of the following keys can be changed to update common provider metadata. These keys do not have dependencies with other parameters.
### Table 12. Common provider keys

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTIVATION_DELAY</td>
<td>Length of time, in milliseconds, that the designated number of service requests (set in ACTIVATION_THRESHOLD) must be in the operation queue before the service provider starts another job or server connection.</td>
</tr>
<tr>
<td>ACTIVATION_THRESHOLD</td>
<td>Number of service requests that must be in the operation queue for a designated length of time (set in ACTIVATION_DELAY) before the service provider starts another job or server connection. Applies to the number of service requests in the operation queue only; does not include the number of service requests in the pipeline.</td>
</tr>
<tr>
<td>AGENT_HOST</td>
<td>Host name of the agent server that communicates with the service provider.</td>
</tr>
<tr>
<td>AGENT_PORT</td>
<td>Port number on the agent server that is used to access the service provider.</td>
</tr>
<tr>
<td>MAX_ACTIVE</td>
<td>Maximum number of job instances or server connections that can be active at the same time. The service provider cannot start a new job or connection after it reaches the maximum number.</td>
</tr>
<tr>
<td>MAX_IDLE</td>
<td>Maximum length of time, in seconds, that a job instance or connection can be idle before it must be stopped. You can set a maximum idle time if there is a known limit to the length of time the job or connection can be idle.</td>
</tr>
<tr>
<td>MAX_RUNTIME</td>
<td>Maximum length of time that a job uses to process service requests. The job processes requests that are in the pipeline when the maximum run time is reached, but the job is not available for subsequent requests.</td>
</tr>
<tr>
<td>MIN_ACTIVE</td>
<td>Minimum number of job instances or server connections that can be active at the same time. The minimum number means that at least one job or server connection is always running.</td>
</tr>
<tr>
<td>MIN_IDLE</td>
<td>Length of time, in seconds, that a job instance or connection can be idle before it must be stopped.</td>
</tr>
<tr>
<td>REQUEST_LIMIT</td>
<td>Maximum number of service requests that the job instance processes at the same time. Only some service providers, such as InfoSphere DataStage, have this capability.</td>
</tr>
<tr>
<td>STUCK_TIMEOUT</td>
<td>Length of time, in seconds, over which the service provider processes an operation before returning an error.</td>
</tr>
</tbody>
</table>
IBM InfoSphere DataStage provider keys

The values of the following keys can be changed to update metadata for InfoSphere DataStage providers. Some of these keys must be used with the options on which they are dependent.

*Table 13. InfoSphere DataStage provider keys*

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS_PROJECT_NAME</td>
<td>Name of the new IBM InfoSphere DataStage project for which to update metadata.</td>
</tr>
<tr>
<td>DS_JOBNAME</td>
<td>Name of the new InfoSphere DataStage job for which to update metadata.</td>
</tr>
<tr>
<td>DS_USERID</td>
<td>Your InfoSphere Information Server engine user ID.</td>
</tr>
<tr>
<td>DS_PASSWORD</td>
<td>Your InfoSphere Information Server engine password. Use with -providerUser, your login user id.</td>
</tr>
<tr>
<td>DS_HOST</td>
<td>Host name or server name of your InfoSphere Information Server engine.</td>
</tr>
<tr>
<td>DS_PORT</td>
<td>Number of the port used to access your InfoSphere Information Server engine.</td>
</tr>
<tr>
<td>JOB_PARAMETER</td>
<td>Name of the job parameter for which to update metadata.</td>
</tr>
</tbody>
</table>

IBM DB2 provider keys

The values of the following keys can be changed to update metadata for DB2 providers. Some of these keys must be used with the options to which they are dependent.

**Restriction:** You can use the UPDATE command only on computers that have a single installation of DB2.

*Table 14. IBM DB2 server provider keys*

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2_USERID</td>
<td>Your DB2 server user ID. Use with -providerHost, the DB2 server name.</td>
</tr>
<tr>
<td>DB2_PASSWORD</td>
<td>Your DB2 server password. Use with -providerUser, your DB2 user ID.</td>
</tr>
<tr>
<td>DB2_HOST</td>
<td>Host name or server name of the DB2 server.</td>
</tr>
<tr>
<td>DB2_PORT</td>
<td>Number of the port used to access the DB2 server.</td>
</tr>
<tr>
<td>DB2_DATABASE</td>
<td>Name of the DB2 database.</td>
</tr>
</tbody>
</table>

Oracle database provider keys

The values of the following keys can be changed to update metadata for Oracle providers.
Restriction: You can use the **UPDATE** command only on computers that have a single installation of Oracle.

*Table 15. Oracle database provider keys*

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORA_USERID</td>
<td>Your Oracle database server user ID.</td>
</tr>
<tr>
<td>ORA_PASSWORD</td>
<td>Your Oracle database server password. Use with <strong>-providerUser</strong>, your Oracle user ID.</td>
</tr>
<tr>
<td>ORA_HOST</td>
<td>Host name or server name of the Oracle server.</td>
</tr>
<tr>
<td>ORA_PORT</td>
<td>Port number that is used to access the Oracle server.</td>
</tr>
<tr>
<td>ORA_DATABASE</td>
<td>Name of the Oracle database.</td>
</tr>
</tbody>
</table>

*IBM InfoSphere Classic Federation Server for z/OS® server metadata keys*

The values of the following keys can be changed to update metadata for InfoSphere Classic Federation Server for z/OS.

*Table 16. InfoSphere Classic Federation Server for z/OS database provider keys*

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB2CF_USERID</td>
<td>Your InfoSphere Classic Federation Server for z/OS user ID.</td>
</tr>
<tr>
<td>DB2CF_PASSWORD</td>
<td>Your InfoSphere Classic Federation Server for z/OS password. Use with <strong>-providerUser</strong>, your Classic Federation user ID.</td>
</tr>
<tr>
<td>DB2CF_HOST</td>
<td>Host name or server name of the InfoSphere Classic Federation Server for z/OS.</td>
</tr>
<tr>
<td>DB2CF_PORT</td>
<td>Port number that is used to access the InfoSphere Classic Federation Server for z/OS server.</td>
</tr>
<tr>
<td>DB2CF_DATABASE</td>
<td>Name of the database for the InfoSphere Classic Federation Server for z/OS.</td>
</tr>
</tbody>
</table>

*Connection metadata keys*

The values of the following keys can be changed to update metadata for InfoSphere Information Server connections.

*Table 17. Connection metadata keys*

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER</td>
<td>Your DataStage or DB2 server user ID.</td>
</tr>
<tr>
<td>PASSWORD</td>
<td>Your DataStage or DB2 server password. Use with <strong>-providerUser</strong>, your provider user ID.</td>
</tr>
</tbody>
</table>
Table 17. Connection metadata keys (continued)

<table>
<thead>
<tr>
<th>Key name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOSTNAME</td>
<td>For DB2 connections only. Host name or server name of the DB2 server.</td>
</tr>
<tr>
<td>PORT</td>
<td>Port number that is used to access the DataStage or DB2 server.</td>
</tr>
<tr>
<td>DBNAME</td>
<td>For DB2 connections only. Name of the DB2 database.</td>
</tr>
</tbody>
</table>
Appendix A. Product accessibility

You can get information about the accessibility status of IBM products.

The IBM InfoSphere Information Server product modules and user interfaces are not fully accessible. The installation program installs the following product modules and components:

- IBM InfoSphere Business Glossary
- IBM InfoSphere Business Glossary Anywhere
- IBM InfoSphere DataStage
- IBM InfoSphere FastTrack
- IBM InfoSphere Information Analyzer
- IBM InfoSphere Information Services Director
- IBM InfoSphere Metadata Workbench
- IBM InfoSphere QualityStage®

For information about the accessibility status of IBM products, see the IBM product accessibility information at [http://www.ibm.com/able/product_accessibility/index.html](http://www.ibm.com/able/product_accessibility/index.html).

Accessible documentation

Accessible documentation for InfoSphere Information Server products is provided in an information center. The information center presents the documentation in XHTML 1.0 format, which is viewable in most Web browsers. XHTML allows you to set display preferences in your browser. It also allows you to use screen readers and other assistive technologies to access the documentation.

The documentation that is in the information center is also provided in PDF files, which are not fully accessible.

IBM and accessibility

See the [IBM Human Ability and Accessibility Center](http://www.ibm.com/able/) for more information about the commitment that IBM has to accessibility.
Appendix B. Reading command-line syntax

This documentation uses special characters to define the command-line syntax.

The following special characters define the command-line syntax:

[] Identifies an optional argument. Arguments that are not enclosed in brackets are required.

... Indicates that you can specify multiple values for the previous argument.

| Indicates mutually exclusive information. You can use the argument to the left of the separator or the argument to the right of the separator. You cannot use both arguments in a single use of the command.

{} Delimits a set of mutually exclusive arguments when one of the arguments is required. If the arguments are optional, they are enclosed in brackets ([]).

Note:
- The maximum number of characters in an argument is 256.
- Enclose argument values that have embedded spaces with either single or double quotation marks.

For example:

```
wssetsrc [-S server] [-l label] [-n name] source
```

The `source` argument is the only required argument for the `wssetsrc` command. The brackets around the other arguments indicate that these arguments are optional.

```
wl sac [-l | -f format] [key...] profile
```

In this example, the `-l` and `-f format` arguments are mutually exclusive and optional. The `profile` argument is required. The `key` argument is optional. The ellipsis (...) that follows the `key` argument indicates that you can specify multiple key names.

```
wr b -import {rule_pack | rule_set}...
```

In this example, the `rule_pack` and `rule_set` arguments are mutually exclusive, but one of the arguments must be specified. Also, the ellipsis marks (...) indicate that you can specify multiple rule packs or rule sets.
Appendix C. Contacting IBM

You can contact IBM for customer support, software services, product information, and general information. You also can provide feedback to IBM about products and documentation.

The following table lists resources for customer support, software services, training, and product and solutions information.

Table 18. IBM resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Support Portal</td>
<td>You can customize support information by choosing the products and the topics that interest you at <a href="http://www.ibm.com/support/entry/portal/Software/Information_Management/InfoSphere_Information_Server">www.ibm.com/support/entry/portal/Software/Information_Management/InfoSphere_Information_Server</a></td>
</tr>
<tr>
<td>Software services</td>
<td>You can find information about software, IT, and business consulting services, on the solutions site at <a href="http://www.ibm.com/businesssolutions/">www.ibm.com/businesssolutions/</a></td>
</tr>
<tr>
<td>My IBM</td>
<td>You can manage links to IBM Web sites and information that meet your specific technical support needs by creating an account on the My IBM site at <a href="http://www.ibm.com/account/">www.ibm.com/account/</a></td>
</tr>
<tr>
<td>Training and certification</td>
<td>You can learn about technical training and education services designed for individuals, companies, and public organizations to acquire, maintain, and optimize their IT skills at <a href="http://www.ibm.com/software/sw-training/">http://www.ibm.com/software/sw-training/</a></td>
</tr>
</tbody>
</table>
Appendix D. Accessing and providing feedback on the product documentation

Documentation is provided in a variety of locations and formats, including in help that is opened directly from the product client interfaces, in a suite-wide information center, and in PDF file books.

The information center is installed as a common service with IBM InfoSphere Information Server. The information center contains help for most of the product interfaces, as well as complete documentation for all the product modules in the suite. You can open the information center from the installed product or from a Web browser.

Accessing the information center

You can use the following methods to open the installed information center.

- Click the Help link in the upper right of the client interface.

  Note: From IBM InfoSphere FastTrack and IBM InfoSphere Information Server Manager, the main Help item opens a local help system. Choose Help > Open Info Center to open the full suite information center.

- Press the F1 key. The F1 key typically opens the topic that describes the current context of the client interface.

  Note: The F1 key does not work in Web clients.

- Use a Web browser to access the installed information center even when you are not logged in to the product. Enter the following address in a Web browser: http://host_name:port_number/infocenter/topic/com.ibm.swg.im.iis.productization.iisinfsv.home.doc/ic-homepage.html. The host_name is the name of the services tier computer where the information center is installed, and port_number is the port number for InfoSphere Information Server. The default port number is 9080. For example, on a Microsoft® Windows® Server computer named iisdocs2, the Web address is in the following format: http://iisdocs2:9080/infocenter/topic/com.ibm.swg.im.iis.productization.iisinfsv.nav.doc/dochome/iisinfsrv_home.html.

A subset of the information center is also available on the IBM Web site and periodically refreshed at [http://publib.boulder.ibm.com/infocenter/iisinfsv/v8r7/index.jsp](http://publib.boulder.ibm.com/infocenter/iisinfsv/v8r7/index.jsp).

Obtaining PDF and hardcopy documentation

- A subset of the PDF file books are available through the InfoSphere Information Server software installer and the distribution media. The other PDF file books are available online and can be accessed from this support document: [https://www.ibm.com/support/docview.wss?uid=swg27008803&wv=1](https://www.ibm.com/support/docview.wss?uid=swg27008803&wv=1)

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Providing comments on the documentation

Your feedback helps IBM to provide quality information. You can use any of the following methods to provide comments:

- To comment on the information center, click the Feedback link on the top right side of any topic in the information center.
- Send your comments by using the online readers’ comment form at www.ibm.com/software/awdtools/rcf/
- Send your comments by e-mail to comments@us.ibm.com. Include the name of the product, the version number of the product, and the name and part number of the information (if applicable). If you are commenting on specific text, include the location of the text (for example, a title, a table number, or a page number).
- You can provide general product feedback through the Consumability Survey at www.ibm.com/software/data/info/consumability-survey
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