How-To Library

Informatica

Creating, Deploying, and Updating an Application in the Developer Tool

Abstract

Create and deploy an application that contains mappings, workflows, and other application objects to make the objects accessible to users that want to leverage the data outside of the Developer tool. You can deploy the application to a Data Integration Service to run the objects, or to an application archive file to save a copy of the application and deploy it to a Data Integration Service later. If you make changes to an application object in the Developer tool, you can update the deployed application. This article describes how to create, deploy, and update an application.

Supported Versions

- Big Data Management® 10.2.2
- Big Data Streaming 10.2.2

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Overview

An application is a deployable object that can contain data objects, mappings, workflows, and other objects. Deploy an application to a Data Integration Service to make the objects accessible to users that want to leverage the data outside of the Developer tool.

You can create a full application or an incremental application. A full application is an application that you must redeploy each time that you update the application. An incremental application is an application that you can update by deploying an application patch.

When you deploy an application to a Data Integration Service, the service runs the application and the objects that it contains.

If you do not want to deploy the application to a Data Integration Service, you can deploy an application to an archive file. You might deploy an application to an archive file for the following reasons:

- To enable an administrator to check the application into version control.
- To enable an administrator to import the application to a Model repository.
- Your organization requires that administrators deploy applications to Data Integration Services.

You can update an application to update the objects in the application. To make the changes available to end users, you might deploy an application patch or redeploy the application depending on the application type.

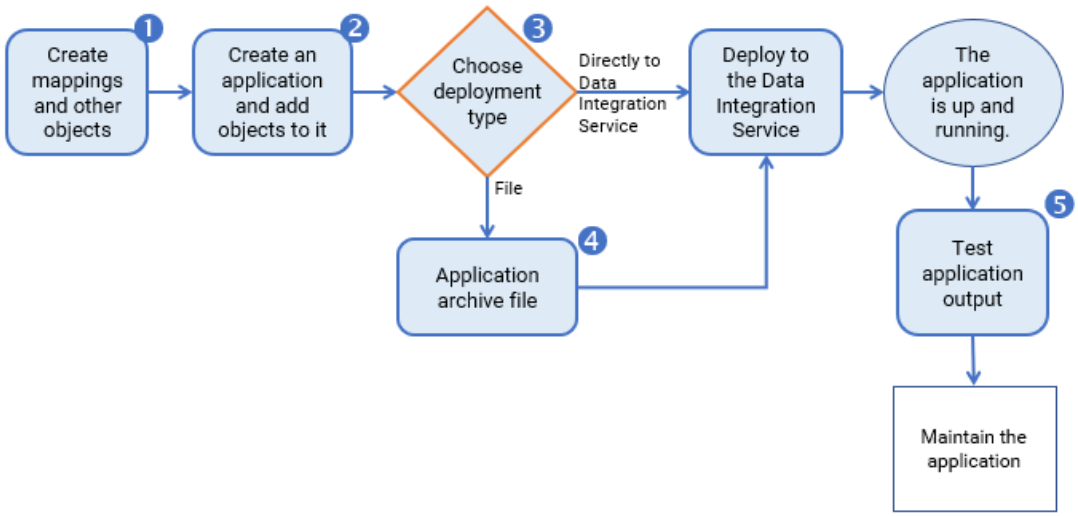
If the application is an incremental application, you can deploy an application patch. A patch can update application objects while other application objects continue running, but the patch might require more time to execute compared to redeploying a full application.

If the application is a full application, you must redeploy the application for the changes to take effect. When you redeploy an application, you must choose to retain or discard application state information. State information refers to mapping properties, mapping outputs, and the properties of run-time objects. If the application is running, you must also stop the application. If you do not want to abort running objects, you can rename the application or deploy the application to a different service.

How to Create, Deploy, and Update an Application

Create and edit mappings, workflows, and other objects. Then deploy the objects in an application to make them accessible to end users.

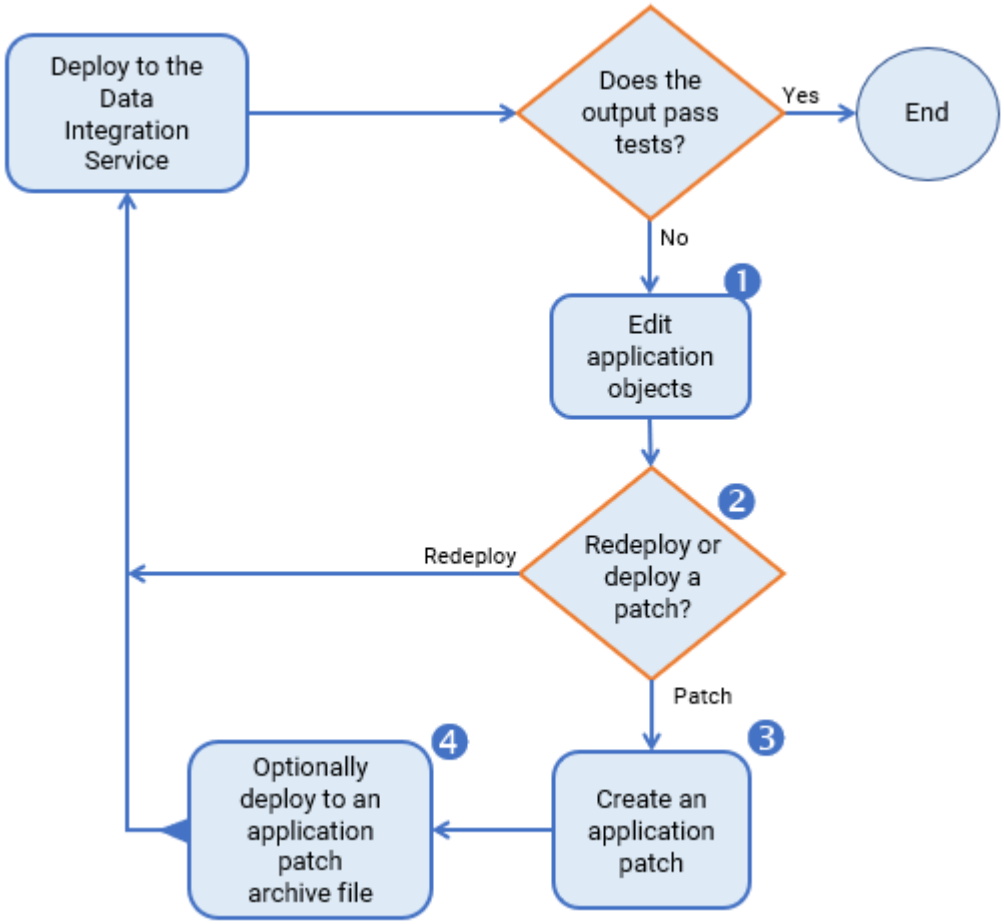
The following image shows the process of developing and deploying an application:



1. Create mappings, workflows, transformations, and other objects to access and transform data.
2. Create an application and add objects to the application.
3. Choose to deploy the application directly to a Data Integration Service or to an application archive file:
   - Deploy the application directly to a Data Integration Service to allow the Data Integration Service to run objects.
   - Deploy the application to an application archive file to allow an administrator to archive the file.
4. Deploy the archive file to a Data Integration Service.
5. Test the application to ensure that it meets organizational requirements.

After you test the application, you must maintain the application by editing application objects and updating the deployed application.

The following image shows how an application is maintained:



1. If the output does not meet requirements, edit the objects in the application.
2. Choose to update the application by redeploying the application or by deploying an application patch. You can deploy an application patch only if the application is an incremental application.
3. If you choose to deploy a patch, create the patch using the Incremental Deployment Wizard.
4. Deploy the patch to the Data Integration Service, optionally deploying the application patch to an archive file.

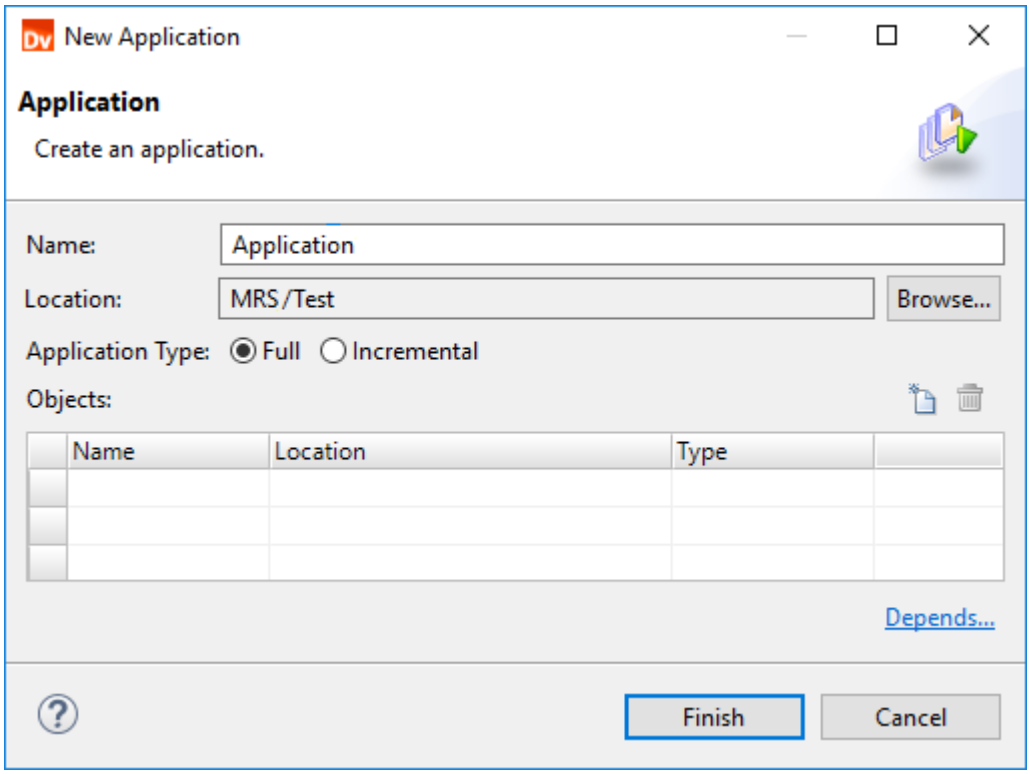
The tasks in this article use the Developer tool. An administrator can deploy an application and perform other administrative tasks from the command line or from the Administrator tool. For information about using the Administrator tool for these tasks, see the *Informatica Application Service Guide*. For information about using the command line, see the *Informatica Command Reference*.

Creating an Application

Create an application to deploy one or more objects to a Data Integration Service so that end users can access the data.

1. Select a project or folder in the **Object Explorer** view.
2. Click **File** > **New** > **Application**.

The **New Application** dialog box appears.



3. Enter a name for the application.

   The application name is part of the session log file name when you deploy the application. Depending on the application, the session log file name might include the application name, feature name, connection ID, and the date and time.

   The session log file name is included with the log directory path in the log file path. On Windows operating systems, the log file path has a limit of 259 characters. Consider the length limitation when you name the application.

4. Click **Browse** to select the application location.

   You must create the application in a project or a folder.

5. Select the application type. You can select Full or Incremental.

   After you create the application, you cannot edit the application type.

6. Click the Add button to add objects to the application.

   The **Add Objects** dialog box appears.

7. Select one or more objects and click **OK**.

   The Developer tool lists the objects you select in the **New Application** dialog box.

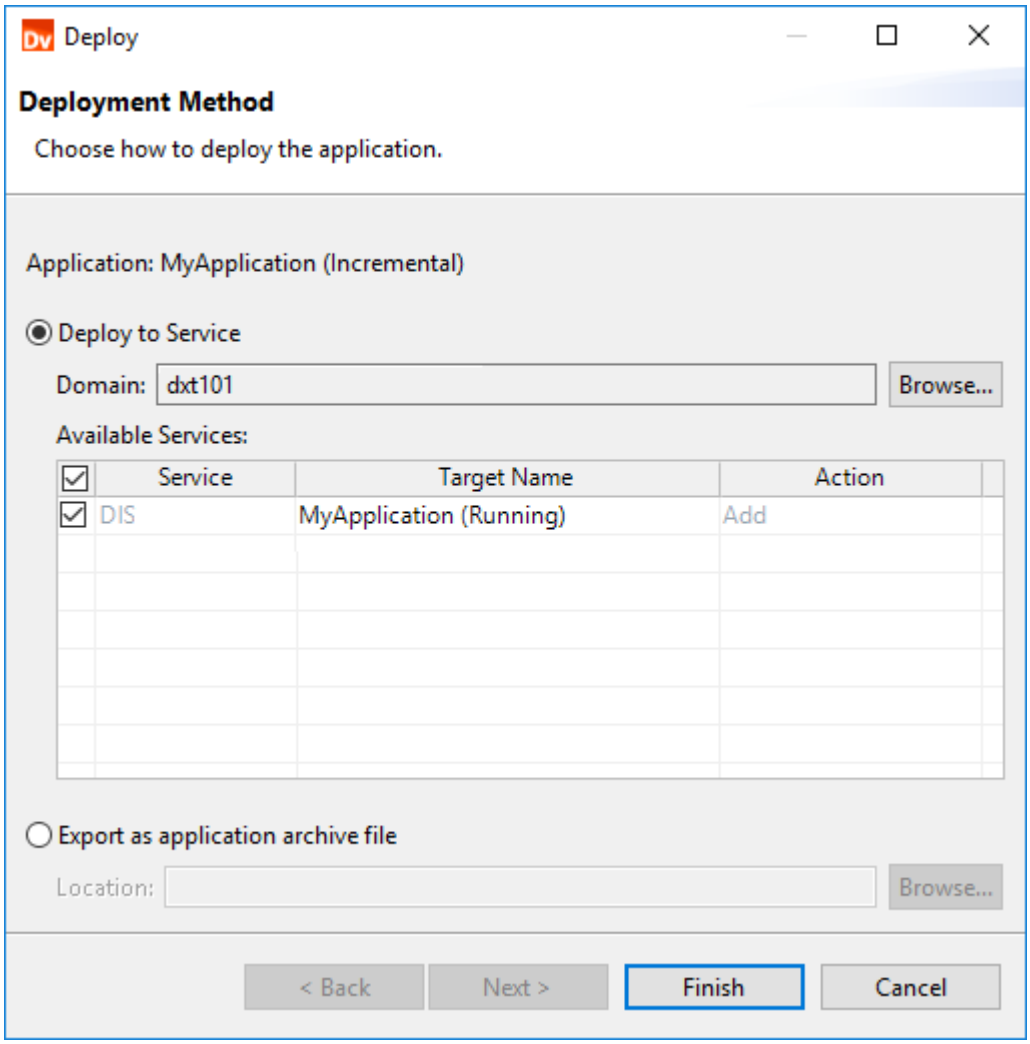
8. Click **Finish**.

Deploying an Application

After you create an application, deploy the application to a Data Integration Service to run application objects, or deploy it to an application archive file.

1. Right-click an application in the **Object Explorer** view and select **Deploy**.

   The **Deploy** dialog box appears.



2. Choose one of the following options to deploy the application:

   - To deploy the application to a Data Integration Service, select **Deploy to Service**.
     - Optionally, click **Browse** to select a domain.
     - Select the Data Integration Services to which you want to deploy the application.
   - To deploy the application to an application archive file, select **Export as application archive file**. Then click the **Browse** button to select the directory where you want to save the file.

If you deploy the application to a Data Integration Service, the Data Integration Service runs the application and the objects that it contains. You can test the output of application objects and validate the output against requirements. If necessary, edit the application objects and update the deployed application.

If you deploy the application to an application archive file, you can store the file, make it available for import to another Model repository, or deploy the application from the file to a Data Integration Service at a later time.

Deploying an Object

Deploy an object to a Data Integration Service as an application, or deploy the object to an application archive file to export the object as an application.

To deploy an object as an application, the application must be valid. If the application is not valid, you can export the object without an application by right-clicking the object in the **Object Explorer** view and selecting **Export**. You can store the object in a version control system or import it to a different Model repository.

1. Choose to deploy an executable object or a flat file data object.
   - To deploy a mapping, workflow, or other executable object, right-click the object and select **Deploy**.
   - To deploy a flat file data object, right-click the object and choose to deploy the object as a web service, SQL data service, or REST web service.

   The Developer tool prompts you to create an application.
2. Enter an application name.
3. To choose a location for the application, accept the default location, or click **Browse** and select another location.
4. Select the application type. You can select Full or Incremental.

   If you deploy a flat file data object as a web service, SQL data service, or REST web service, the application cannot be an incremental application.

   After you create the application, you cannot edit the application type.
5. To add objects to the application, click the Add button and select objects.
6. Click **Next**.
7. Choose one of the following options to deploy the application:
   - To deploy the application to a Data Integration Service, select **Deploy to Service**.
     - If the Developer tool contains the connection information for multiple domains, click **Browse** to select a domain.
     - Select the Data Integration Services to which you want to deploy the application.
   - To deploy the application to an application archive file, select **Export as application archive file**. Then click the **Browse** button to select the directory where you want to save the file.
8. To deploy the object to a web service, complete the following steps:
   a. Configure properties for the web service.
   b. To add operations to the web service, click **Next**.

      By default, the Developer tool creates an operation for each object that you deploy as a web service.
   c. Select each operation, operation input, and operation output to display and configure the properties.
   d. Click **Finish**.
9. To deploy the object to an SQL data service, complete the following steps:
   a. Enter a name for the SQL data service.
   b. Accept the default location, or click **Browse** to select a Model repository and a project folder location for the SQL data service.
   c. Click **Next**.

      The **Add Virtual Tables to SQL Data Service** dialog box appears.
   d. Click the Add button.
   e. Enter a name for the virtual table.

f. Click the Open button in the **Data Object** column.

   The **Select a Data Object** dialog box appears.

g. Select a physical data object and click **OK**.

h. Enter the virtual schema name in the **Virtual Schema** column.

i. Select **Read** in the Data Access column to link the virtual table with the data object. Select **None** if you do not want to link the virtual table with the data object.

10. To deploy an object to a REST web service, complete the following steps:

    a. Configure properties for the REST web service.

    b. Select the columns to include in the definition.

    c. Select the HTTP method.

11. Click **Finish**.

The Developer tool deploys the application to the Data Integration Service. The Data Integration Service runs the application and the objects that it contains.

You can test the output of application objects and validate the output against requirements. If necessary, edit the application objects and update the deployed application.

Importing Application Archives

Import an application or an application patch that was deployed to an archive file to make the file contents available in the Model repository.

If you import a file that was archived from a different Model repository or was retrieved from a version control system, you can import the application and the application objects that were used to create the archive file.

1. Click **File** > **Import**.

   The **Import** wizard appears.

2. Select **Informatica** > **Application Archive**.

3. Click **Next**.

4. Click **Browse** to select the archive file. To import an application archive file, use the .iar extension. To import an application patch archive file, use the .piar extension.

   The Developer tool lists the archive file contents.

5. Select the Model repository into which you want to import the application.

6. Click **Finish**.

The Developer tool imports the application into the repository.

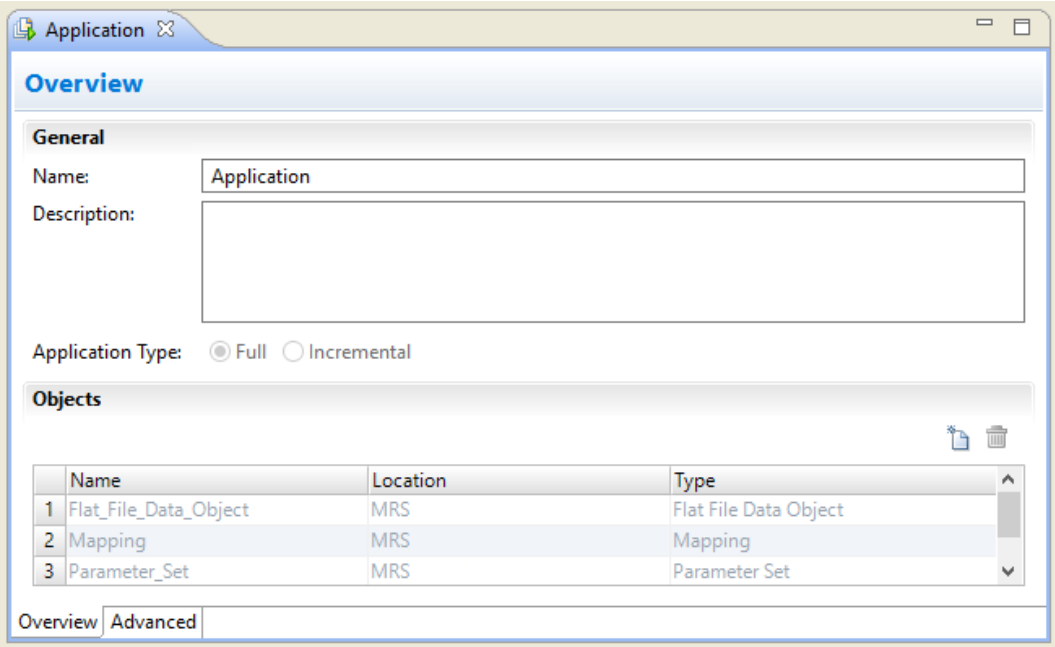
Editing an Application

Edit application objects, or edit the application to add and delete objects, and edit application properties.

1. To edit an application object, open the object from the **Object Explorer** view. Make the required changes.

2. To edit the application, right-click the application in the **Object Explorer** and select **Open**.

The **Application Editor** appears.



3. Click the Add button to add objects to the application.

   The **Add Objects** dialog box appears.
4. Select one or more objects and click **OK**.
5. Select one or more objects to delete and click the Delete button.
6. Save the application.

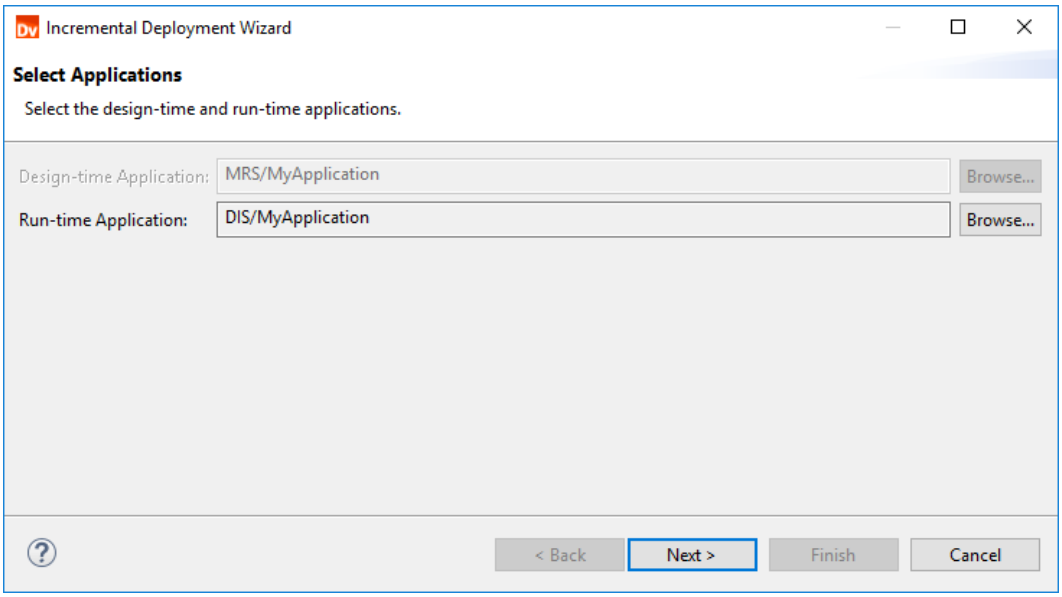
After you edit the application, update the application to propagate the changes to the deployed application.

Deploying an Application Patch

If you edit an object in an incremental application, you can update the object in the deployed application by creating and deploying an application patch. Deploy the application patch to a Data Integration Service or to an application patch archive file.

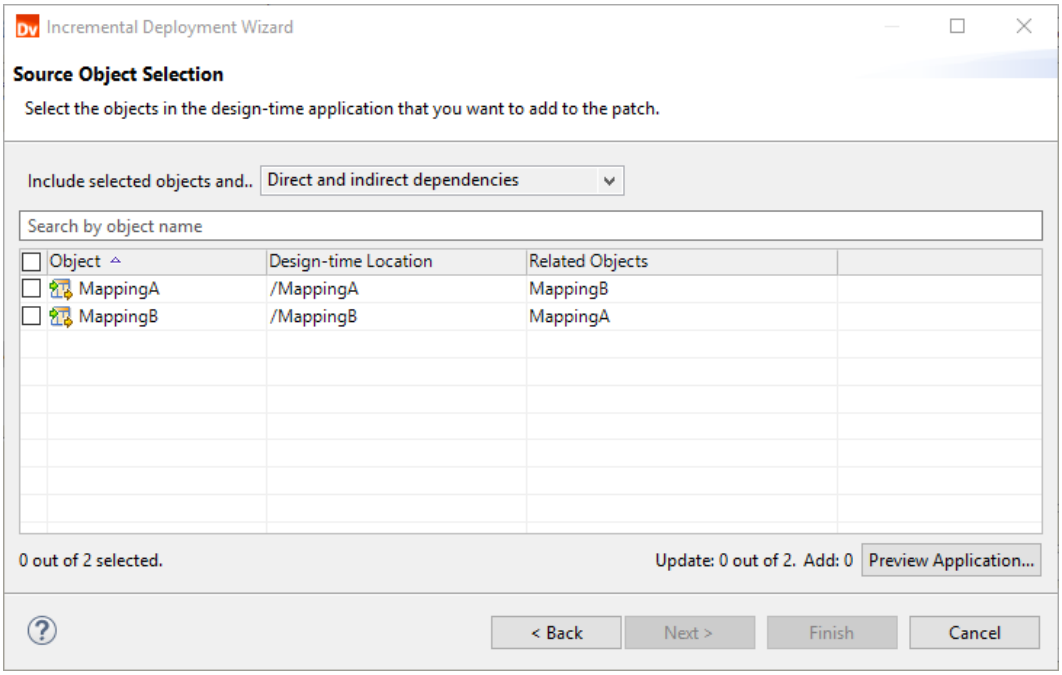
1. In the **Object Explorer** view, right-click an incremental application and select **Update Application Objects**.

   The **Select Applications** page of the Incremental Deployment Wizard appears.



2. On the **Select Applications** page, click **Browse** and select the run-time application that you want to update on the Data Integration Service.
3. Click **Next**.

   The wizard fetches the run-time application. Then, the **Source Object Selection** page appears.

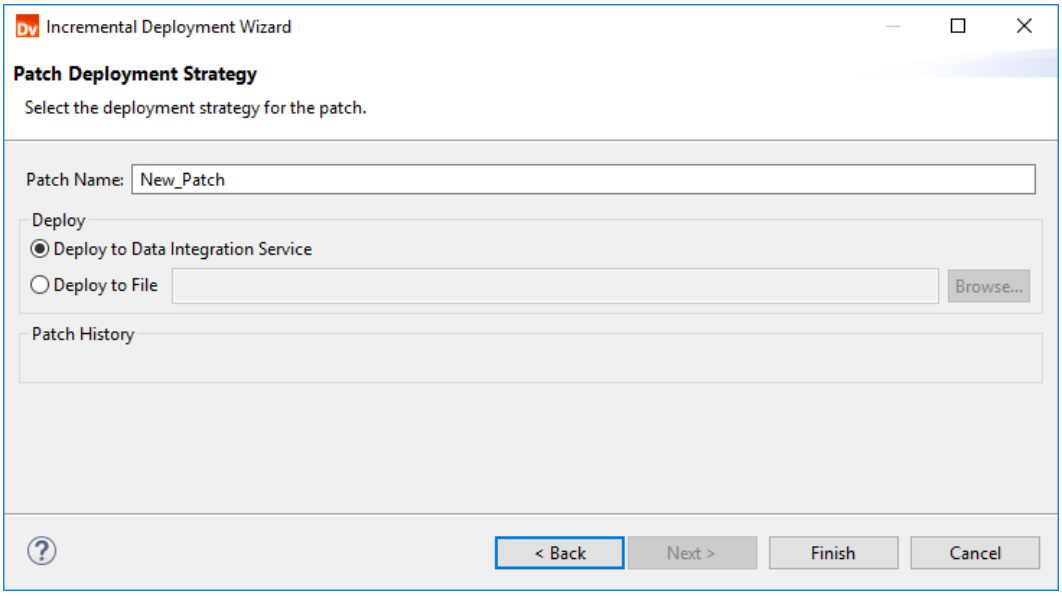


4. On the **Source Object Selection** page, select the objects in the design-time application that you want the Data Integration Service to replace in the run-time application.
5. Select one of the following application patch types:
   - Direct dependencies. The patch inherits the direct dependencies of the selected objects.
   - Direct and indirect dependencies. The patch inherits the direct and indirect dependencies of the selected objects.
   - Direct, indirect, and remote dependencies. The patch inherits the direct, indirect, and remote dependencies of the selected objects.

   Default is Direct and indirect dependencies.

   The dependencies appear in the **Related Objects** column. For example, for an application patch that inherits direct and indirect dependencies, the column lists the selected objects' direct and indirect dependencies.
6. To review the impact on each object in the run-time application, click **Preview Application**.
7. Click **Next**.

   The **Patch Deployment Strategy** page appears.



8. On the **Patch Deployment Strategy** page, enter the name of the patch.
9. Select one of the following deployment options:
   - Deploy to Data Integration Service. Deploys the application patch to the Data Integration Service. The Data Integration Service applies the application patch to the run-time application.
   - Deploy to File. Deploys the application patch to an archive file. If you deploy the patch to an archive file, select a directory on your local machine where you want to save the file.
10. Review the patch history.

    The patch history lists the application patches that have been created for the incremental application.

For detailed information about application patches, see the *Informatica Developer Tool Guide*.

Redeploying an Application to a Data Integration Service

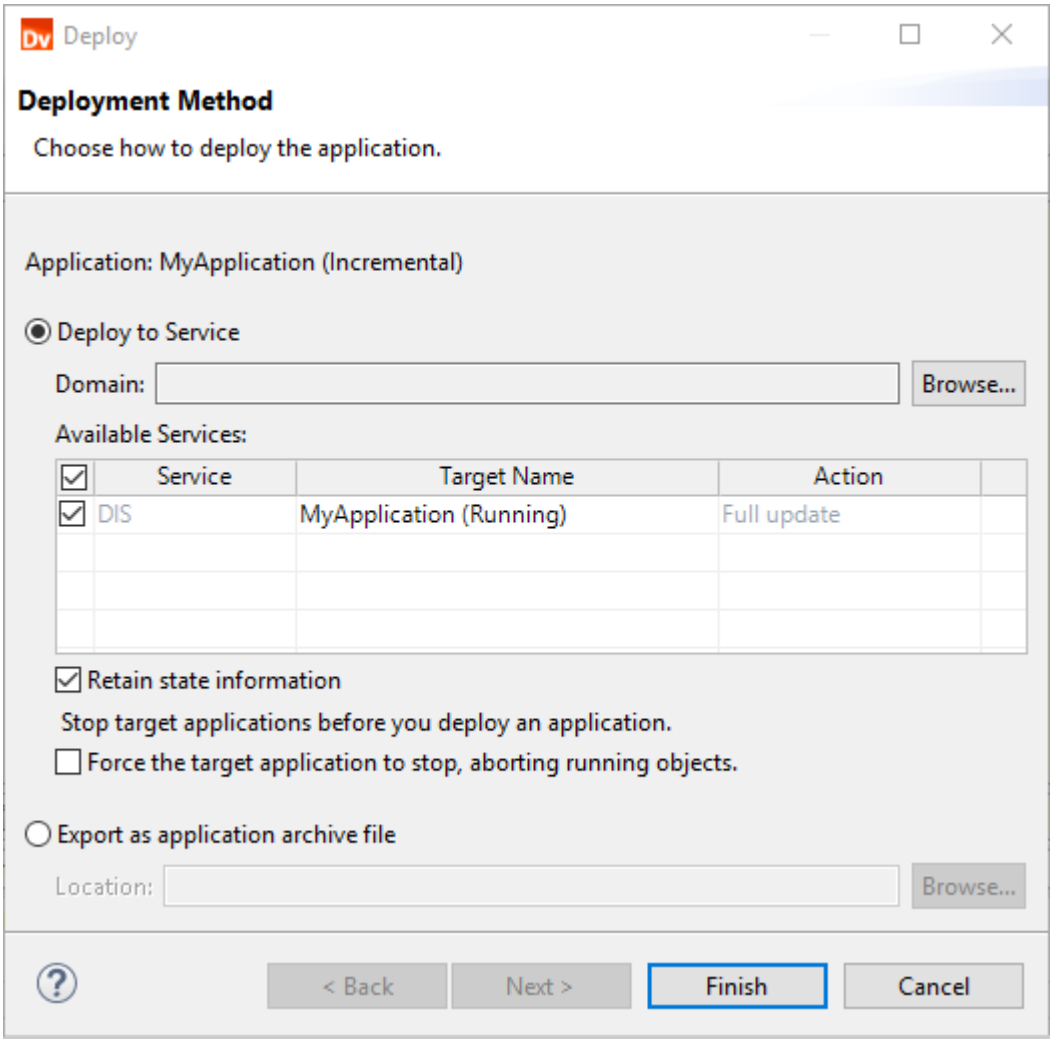
Redeploy an application to a Data Integration Service to replace the run-time application on the Data Integration Service with the design-time application.

1. Right-click an application in the **Object Explorer** view and click **Deploy**.

   The **Deploy** dialog box appears.
2. Select **Deploy to Service**.
3. If no default Data Integration Service is set, click **Browse** to select the domain.

   The **Choose Domain** dialog box appears.
4. Select a domain and click **OK**, and then select a Data Integration Service.

   The Target Name column displays the application with the same name by default. For example, the following image shows the deployment of the application MyApplication:



5. Click the Target Name column to choose a different target application on the Data Integration Service.
6. To retain the state of run-time objects that are part of the application, select **Retain state information**.
7. Optionally, select **Force target application to stop, aborting running objects**.

You can redeploy an application without stopping it only if the state of the application is not Running. If the administrator has not stopped the application, verify with the administrator whether you can choose to force the application to stop.

8. Click **Finish**.

After you redeploy the application, you can validate it against organizational or project requirements.

Authors

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