

Artix[®] Connect for WCF

BizTalk Integration Guide

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BizTalk Integration Guide

Progress Software

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Preface

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The Artix Connect for WCF Library

The Artix Connect for WCF documentation library consists of the following books:

- [Installation Guide](#)

Read the Installation Guide if you are about to install Artix Connect for WCF.

- [Release Notes](#)

Read the Release Notes for a list of features, known issues, and release-specific information.

- [Getting Started Guide](#)

Read this Getting Started Guide if you are new to Artix Connect for WCF and want to walk through a step-by-step tutorial that shows you how to use Artix Connect for WCF to integrate a .NET application with a CORBA and JMS back-end.

- [User's Guide](#)

Read the User's Guide if you want to use Artix Connect for WCF to integrate a .NET application with CORBA, JMS queues and topics, or EJBs.

- [BizTalk Integration Guide on page 1](#)

Read the BizTalk Integration Guide if you want to walk through a steps-by-step tutorial that shows you how to use Artix Connect for WCF to integrate BizTalk Server 2006 or BizTalk Server 2006 R2 with a JMS back-end system and a CORBA back-end system.

Document Conventions

Typographical conventions

This book uses the following typographical conventions:

<code>fixed width</code>	<p>Fixed width (Courier font) in normal text represents portions of code and literal names of items such as classes, functions, variables, and data structures. For example, text might refer to the <code>javax.xml.ws.Endpoint</code> class.</p> <p>Constant width paragraphs represent code examples or information a system displays on the screen. For example:</p> <pre>import java.util.logging.Logger;</pre>
<code>Fixed width italic</code>	<p>Fixed width italic words or characters in code and commands represent variable values you must supply, such as arguments to commands or path names for your particular system. For example:</p> <pre>% cd /users/YourUserName</pre>
<i>Italic</i>	<p>Italic words in normal text represent <i>emphasis</i> and introduce <i>new terms</i>.</p>
Bold	<p>Bold words in normal text represent graphical user interface components such as menu commands and dialog boxes. For example: the User Preferences dialog.</p>

Keying conventions

This book uses the following keying conventions:

No prompt	<p>When a command's format is the same for multiple platforms, the command prompt is not shown.</p>
%	<p>A percent sign represents the UNIX command shell prompt for a command that does not require root privileges.</p>
#	<p>A number sign represents the UNIX command shell prompt for a command that requires root privileges.</p>
>	<p>The notation > represents the MS-DOS or Windows command prompt.</p>
...	<p>Horizontal or vertical ellipses in format and syntax descriptions indicate that material has been eliminated to simplify a discussion.</p>
[]	<p>Brackets enclose optional items in format and syntax descriptions.</p>
{ }	<p>Braces enclose a list from which you must choose an item in format and syntax descriptions.</p>

	In format and syntax descriptions, a vertical bar separates items in a list of choices enclosed in {} (braces).
--	---

Admonition conventions

This book uses the following conventions for admonitions:

	Notes display information that may be useful, but not critical.
	Tips provide hints about completing a task or using a tool. They may also provide information about workarounds to possible problems.
	Important notes display information that is critical to the task at hand.
	Cautions display information about likely errors that can be encountered. These errors are unlikely to cause damage to your data or your systems.
	Warnings display information about errors that may cause damage to your systems. Possible damage from these errors include system failures and loss of data.

Introduction

This chapter describes, at a high-level, how Artix Connect for WCF connects BizTalk Server 2006 or BizTalk Server 2006 R2 to CORBA and JMS external services.

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What is Artix Connect for WCF?

Introduction

Artix Connect for WCF is a BizTalk Server 2006 WCF custom binding adapter that makes integrating BizTalk applications with external services, such as CORBA and JMS, simple and easy. It is implemented using the BizTalk Server Adapter Framework.

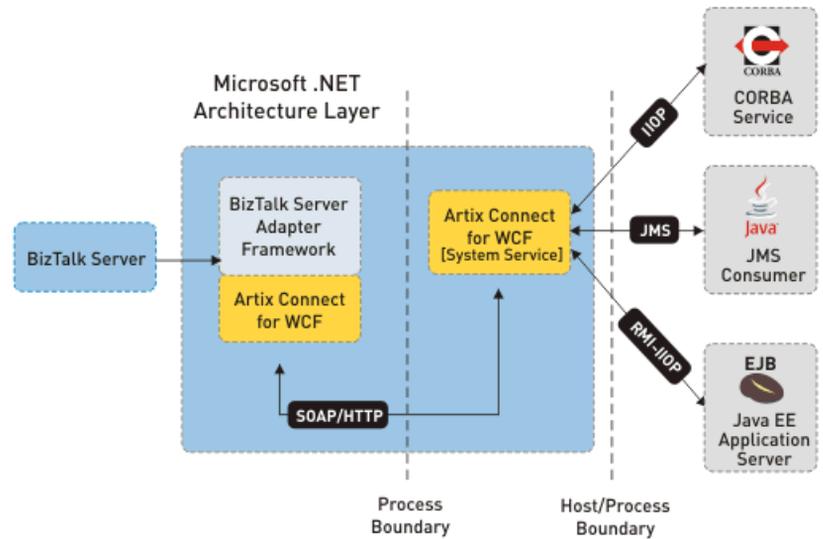
Artix Connect for WCF includes a wizard that, in a few steps, takes your target external service contact information and generates the XML schema definitions and binding metadata needed for BizTalk to contact that service. Using Artix Connect for WCF means that you do not have to manually create the binding information and configuration is made easy.

Artix Connect for WCF supports both one-way and two-way message exchange patterns.

Graphical representation

[Figure 1 on page 17](#) shows Artix Connect for WCF's integration with BizTalk from an architecture point of view.

Figure 1. Artix Connect for WCF BizTalk Integration



How it works

Once you supply the Artix Connect for WCF wizard with the contact information for your external target service, it generates the XML schema definitions and binding metadata for that service. You simply use the schema and metadata to bind the target service endpoint to the BizTalk Send and Receive Ports when you are designing business process orchestrations. Using Artix Connect for WCF, you can:

- Configure Send Ports to consume CORBA and JMS services, thus enabling BizTalk to transmit messages to these external services.
- Expose endpoint metadata and configure Receive Locations to publish SOAP messages to the BizTalk MessageBox database.

Assumptions

This document assumes that you are familiar with BizTalk Server 2006 or BizTalk Server 2006 R2. It does not assume that you are familiar with Artix Connect for WCF, JMS or CORBA, although some knowledge would be helpful.

Running the Tutorial

This chapter walks you through a tutorial that shows you how to use Artix Connect for WCF to enable BizTalk Server to communicate with CORBA and JMS. It assumes that you are running either the CORBA or the JMS sample application at any one time. The steps are the same, but the details are specific to each sample application. The screenshots are taken from the CORBA sample application.

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Introduction to CORBA Sample Application

CORBA sample application

The BizTalk CORBA sample application is located in the following directory of your Artix Connect for WCF installation:

```
InstallDir\Visual Studio Adapter\samples\biztalk\corba
```

It contains the following subfolders:

- `bin`—contains prebuilt executable for the CORBA service.
 - `corba`—contains the source code for the CORBA system.
 - `biztalk`—contains the Visual Studio 2005 solution for the BizTalk application.
 - `etc`—contains the IDL file for the CORBA system and a configuration file.
-

Before you begin

Before you use Artix Connect for WCF to connect to a CORBA service, you must have:

1. Access to the CORBA service IDL file.
2. Access to the CORBA object reference. Artix Connect for WCF supports the following object reference formats:
 - i. IOR in the form of a string or a file
 - ii. `corbaloc` URL
 - iii. `corbaname` URL

These details are requested by the Artix Connect for WCF wizard and are provided for you for the sample application.

Introduction to CORBA

For an high-level introduction to CORBA, see the [Introduction to CORBA](#) in the *User's Guide*.

Introduction to JMS Sample Application

Overview

The BizTalk JMS sample application is located in the following directory of your Artix Connect for WCF installation:

```
InstallDir\Visual Studio Adapter\samples\biztalk\jms
```

It contains the following subfolders:

- `bin`—contains prebuilt executable for the JMS service.
 - `biztalk`—contains the Visual Studio 2005 solution for the BizTalk application.
 - `server`—contains the source code and Java class files for the JMS system.
-

Before you begin

Before you use Artix Connect for WCF to connect to a JMS queue or topic, you need to know:

- The JMS implementation of the system to which you are trying to connect.
- Connection details for the JMS broker you are using.
- Details of the queue or topic that you are using.

These details are requested by the Artix Connect for WCF wizard and are provided for you for the sample application.

Introduction to JMS

For an high-level introduction to JMS, see the [What is JMS?](#) in the *User's Guide*.

Step 1: Setting Configure for BizTalk Option.

Introduction

Important

Before using Artix Connect for WCF with BizTalk, you must ensure that the **Configure for BizTalk** option in the Artix Administration tool is selected.

Steps

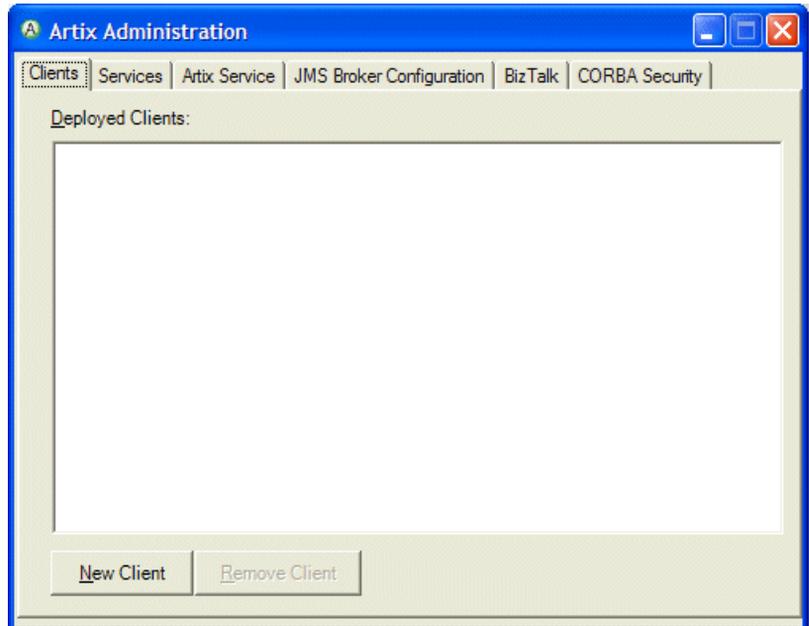
To set the Configure for BizTalk option, complete the following steps:

1. Launch the Artix Administration tool from the Windows start menu:

(All) Programs | IONA | Artix Connect For WCF | Artix Administration

It appears as shown in [Figure 2 on page 22](#).

Figure 2. Artix Administration Tool



2. Select the BizTalk tab.
3. Tick the **Configure for BizTalk** check box.
4. Close the Artix Administration tool.

Step 2: Running the Back-end Services

Overview

The sample applications include back-end services. To run the:

CORBA sample: Run the CORBA service.

JMS sample: Run the JMS broker and the Java server.

Running the CORBA service

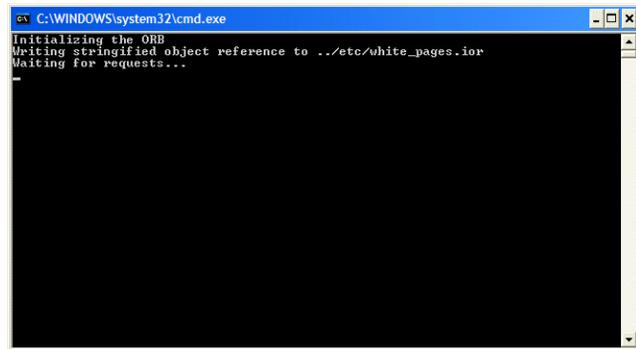
To run the CORBA service:

1. Open a Windows Explorer window and navigate to the following directory of your Artix Connect for WCF installation:

```
InstallDir\Visual Studio Adapter\samples\biztalk\corba\bin
```

2. Double-click on the `start_corba_server.bat` file to start the CORBA server.
3. If the Windows Firewall asks if you want to unblock the application, select **Unblock**.

The CORBA server takes a few seconds to start. When it is ready and listening for incoming requests, it should appear as shown in [Figure 3 on page 25](#).

Figure 3. CORBA Server Ready and Waiting for Requests

Running the JMS broker

The sample application runs by default against either Apache ActiveMQ or FUSE Message Broker (which is an open source JMS broker based on Apache ActiveMQ).

If you do not already have a JMS broker, download and install FUSE Message Broker from the following website:

<http://open.ionac.com/downloads>

Install using all of the default settings.

To run FUSE Message Broker:

1. Open a Windows Explorer window and navigate to the following directory of your FUSE Message Broker or Apache ActiveMQ installation:

```
InstallDir\bin
```

2. Double-click on the `activemq.bat` file to start the JMS broker.

3. Wait for the broker to fully initialize; that is, until you see the message "Started SelectChannelConnector@0.0.0.0:8161".

Running the Java server

To run the sample Java server:

1. Open a Windows command prompt and add the JMS implementation JAR to your classpath.

For example, for FUSE Message Broker 5.1.0.0, run:

Example 1. Adding FUSE Message Broker 5.1.0.0 to the Classpath

```
set CLASSPATH=ActiveMQInstallDir\activemq-all-5.1.0.0-fuse.jar;%CLASSPATH%
```

2. Change directory to the following directory:

```
InstallDir\Visual Studio Adapter\samples\biztalk\jms\bin
```

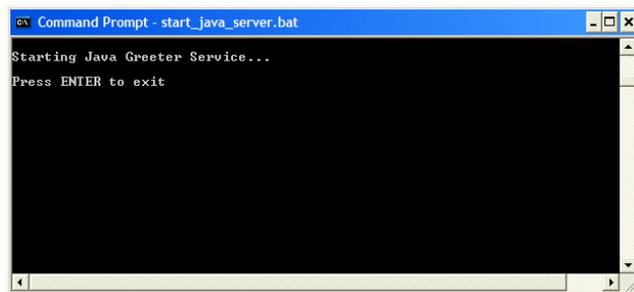
3. Start the Java server using the following command:

```
start_java_server.bat
```

For a list of JMS implementation JARs for all supported JMS brokers, see [JMS Broker Implementation JARs](#) in the *Installation Guide*:

4. Wait for the Java service to fully initialize and connect to the JMS broker; that is, until it displays the message "Press ENTER to exit" (see [Figure 4 on page 26](#)).

Figure 4. Fully Initialized Java Server



Step 3: Opening the BizTalk Solution

Steps

To open the BizTalk solution:

1. Open a Windows Explorer window and navigate to the following directory of your Artix Connect for WCF installation:

- **CORBA sample:** `InstallDir\Visual Studio Adapter\samples\biztalk\corba\biztalk.`
- **JMS sample:** `InstallDir\Visual Studio Adapter\samples\biztalk\jms\biztalk.`

2. Double-click on the `.sln` solution file.

- **CORBA sample:** `WhitePages.sln.`
- **JMS sample:** `JMSBiztalkGreeter.sln.`

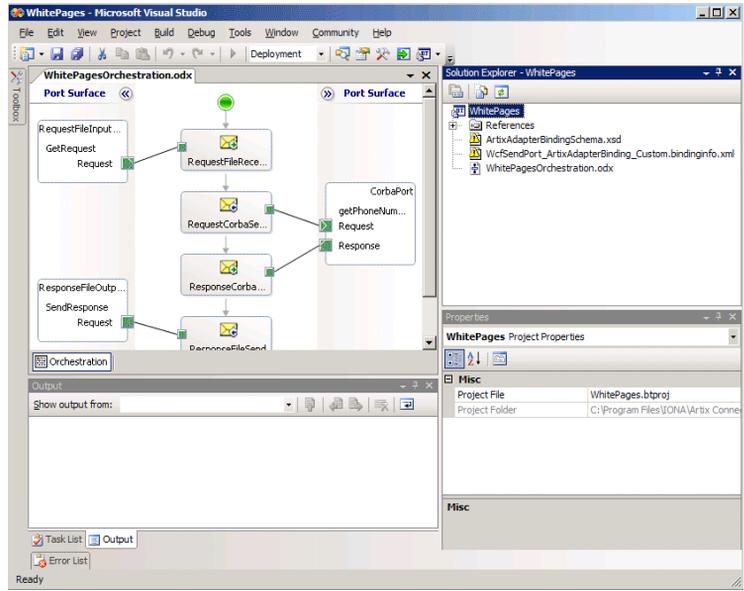
This launches Visual Studio 2005 and opens the solution.

3. Select the orchestration project:

- **CORBA sample:** `WhitePagesOrchestration.odx.`
- **JMS sample:** `GreeterOrchestration.odx.`

The solution opens as shown, for example, in [Figure 5 on page 28](#).

Figure 5. BizTalk CORBA Solution



Ensuring solution is always visible

To ensure that the solution is always visible in the solution explorer:

1. Select **Tools | Options**.
2. Select **Projects and Solutions**.
3. Tick the **Always show solution** checkbox.
4. Click **OK**.

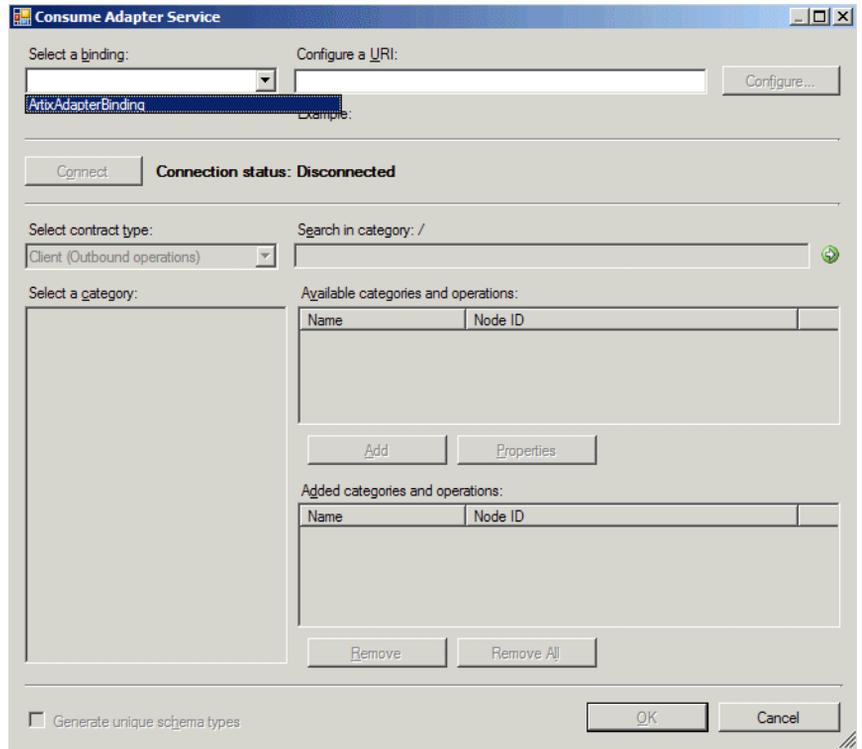
Step 4: Launching the Artix Connect for WCF Wizard

Steps

The first step in using Artix Connect for WCF is to launch the Microsoft LOB adapter framework.

1. In the Visual Studio Solution Explorer window, right-click on the sample application project and select **Add | Add Generated Items** from the context menu.
2. In the Add Generated Items dialog, choose **Consume Adapter Service** and click **Add**.
3. In the Consume Adapter Service dialog, from the Select a binding drop-down list, select **ArtixAdapterBinding**, as shown in [Figure 6 on page 30](#).

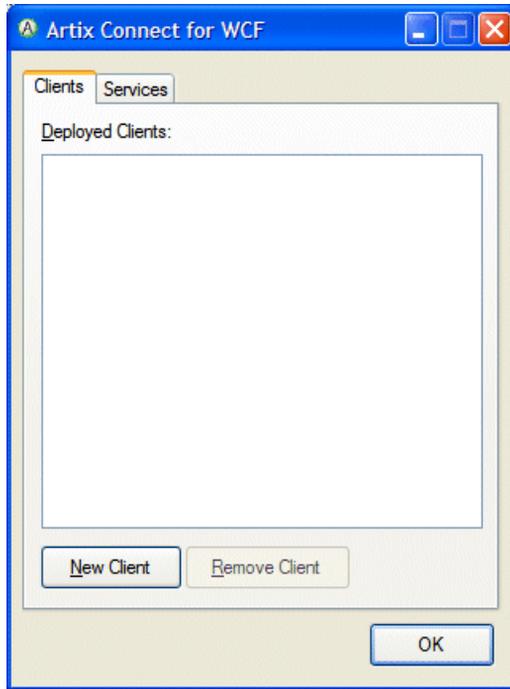
Figure 6. Add Consume Adapter Service Dialog



4. Click **Configure**.
5. In the Configure Adapter dialog, click **OK**.
6. In the Consume Adapter Service dialog, click **Connect**.

The Artix Connect for WCF wizard opens as shown in [Figure 7 on page 31](#). The deployed clients list is empty if you have not already deployed any clients.

Figure 7. Artix Connect for WCF Wizard



Step 5: Connecting to Target External Service

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Connecting to CORBA

Steps

To use the Artix Connect for WCF wizard to connect to the CORBA system:

1. In the Artix Connect for WCF wizard, click **New Client**.
2. In the New Client window, select the **CORBA** radio button.
3. Click **Next**.
4. The CORBA Security Settings window only appears if you have not already used the Artix Administration tool to choose the security mode that you need. For the purposes of running the sample application:
 - i. Select **None**.
 - ii. Click **Next**.

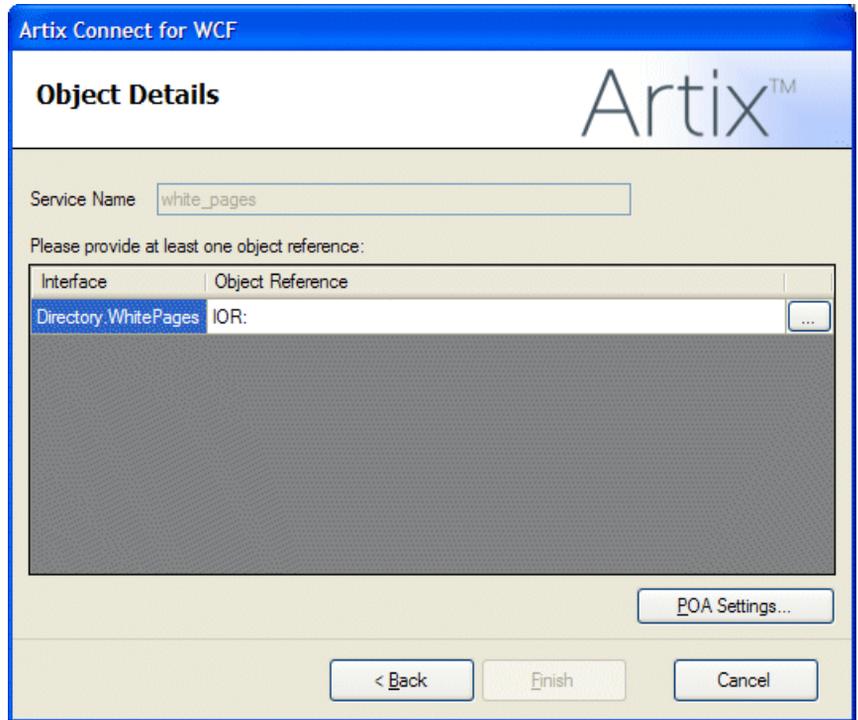
For more information on using CORBA security, see [Using Security](#) in the *User's Guide*.

5. In the IDL File Selection window, click **Browse**.
6. In the Select IDL File dialog box, browse to the location of the sample CORBA system IDL file, which is located in the following directory of your Artix Connect for WCF installation:

```
InstallDir\Visual Studio Adapter\samples\biztalk\corba\etc
```

7. Select the `white_pages.idl` file and click **Open**.
8. In the IDL File Selection window, click **Next**.
9. In the Object Details window, the interface defined in the IDL file is displayed, as shown in [Figure 8 on page 34](#).

Figure 8. CORBA Object Details Window



- 10 To provide the CORBA service object reference, click ... and browse to the location of the sample CORBA system IOR file. It is located in the same directory as the IDL file; that is:

`InstallDir\Visual Studio Adapter\samples\biztalk\corba\etc`

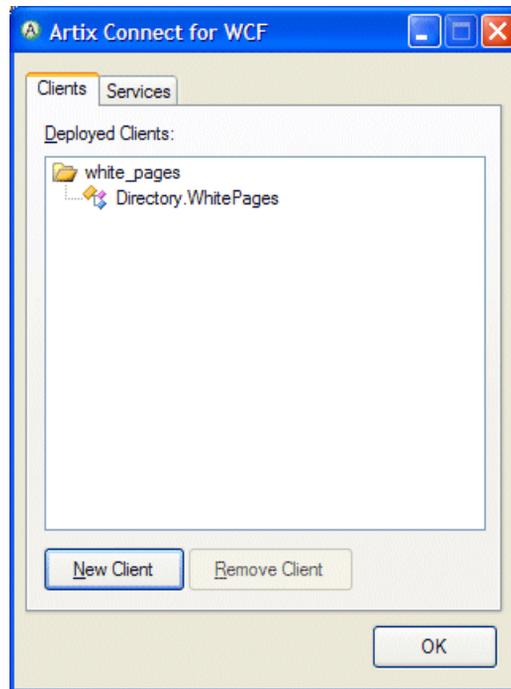
- 11 Select the `white_pages.ior` file and click **Open**.

The wizard adds the IOR file to the Object Reference field of the Object Details window.

- 12 Click **Finish**.

In the Artix Connect for WCF wizard, the CORBA white pages system is added to the list of deployed clients (see [Figure 9 on page 35](#)).

Figure 9. CORBA White Pages Added to Deployed Clients List



13 Click **OK**.

The Artix Connect for WCF wizard completes and returns to the Consume Adapter Service wizard.

14 Proceed to [Step 6: Making CORBA and JMS Operations Available to BizTalk on page 43](#).

Connecting to JMS

Introduction

The default JMS broker used with the sample application is FUSE Message Broker. If you want to use any of the other supported JMS brokers, please refer to [Using Other JMS Brokers](#) in the *Getting Started Guide*. It provides you with prerequisite steps that you need to complete before using another JMS broker. In addition, for each JMS broker, it includes the JMS broker and destination settings that you need when working through the steps in this section.



Note

When the instructions for using the other supported brokers point to the sample directory, they refer to the CORBA JMS sample application that is also included with Artix Connect for WCF. Follow the instructions, but where you are asked to make changes to a file in the CORBA JMS sample application, make the changes instead to the equivalent file in the BizTalk JMS sample application.

Selecting a JMS Broker

To use Artix Connect for WCF to connect the JMS system:

1. In the Artix Connect for WCF wizard, click **New Client**.
2. In the New Client window, select the **JMS** radio button.
3. Click **Next**.
4. In the JMS Broker Settings window, shown in [Figure 10 on page 37](#).

Figure 10. Adding JMS Broker Settings

The screenshot shows a dialog box titled "Artix Connect For WCF" with a sub-header "JMS Broker Settings" and the Artix logo. The dialog contains the following fields and controls:

- JMS Broker:** A dropdown menu currently showing "No JMS".
- JMS Implementation JAR(s):** A text input field followed by a "Browse..." button.
- Initial Context Factory:** A text input field.
- Navigation:** Three buttons at the bottom: "< Back", "Next >", and "Cancel".

- i. Under **JMS Broker**, select **ActiveMQ** or **FUSE Message Broker**.

Note that the Initial Context Factory is set automatically when you select a JMS broker.

- ii. Under **JMS Implementation JAR(s)**, click **Browse** and select the implementation JAR for the FUSE Message Broker or Apache ActiveMQ version that you are using. For example, for FUSE Message Broker 5.1.0.0, browse to the top level of the FUSE Message Broker installation directory and select the `activemq-all-5.1.0.0-fuse.jar` file.

For a complete list of JMS implementation JARs, see [JMS Broker Implementation JARs](#) in the *Installation Guide*.

- iii. Click **Next**.



Note

You are only asked to set JMS broker settings once. The JMS Broker Settings window does not appear when you run the Artix Connect for WCF wizard again. If you want to subsequently change the JMS broker that you are using, please use the Artix Administration tool to enter details of the new broker. For details, see [Using Other JMS Brokers](#) in the *Getting Started Guide*.

Selecting a payload format

The JMS Payload Format window enables you to give the client a name and to select the type of message that you are sending. In the sample application, the message type is `String`.

To set the JMS payload format for the sample application:

1. Leave the Client Name as `JMSClient`.
2. Under Payload Format, select the **String** radio button, as shown in [Figure 11 on page 39](#).

Figure 11. Adding JMS Client Name and Payload Format Details

Artix Connect for WCF

JMS Payload Format Artix™

Client Name:

Payload Format:

- String
- Binary
- XML

 Select the "String" or "Binary" format for untyped messages and "XML" for typed messages. If you select "XML", you will need to define the message structure in the next step. Messages with the "Binary" format will be sent to the JMS destination as ObjectMessages containing a byte array.

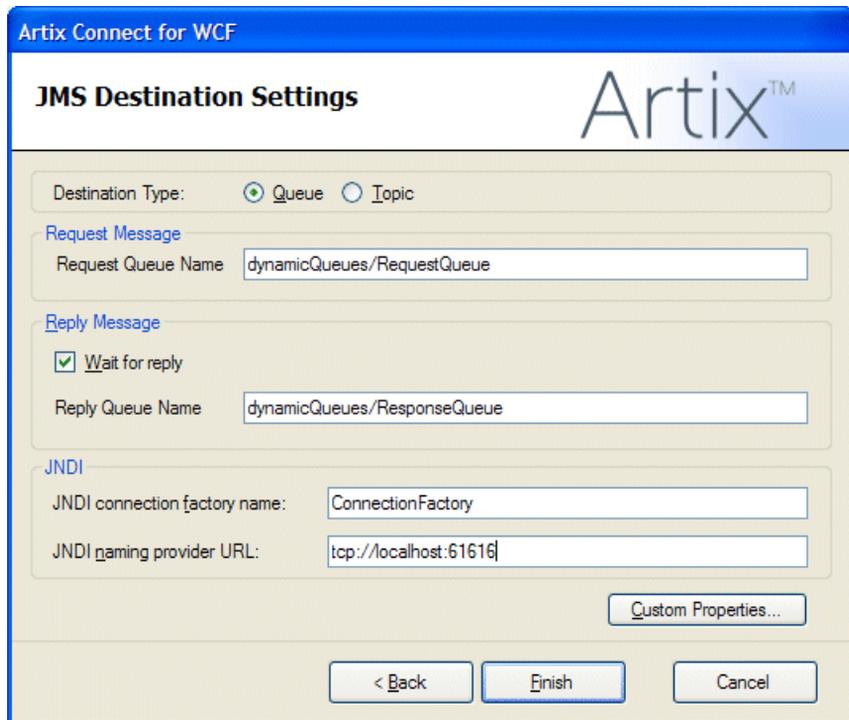
3. Click **Next**.

If you were sending an XML message, you would need to define the message structure. For the purposes of the sample application, this is not necessary. If, however, you want to see an example of defining an XML message, refer to [Selecting a payload format](#) in the *Getting Started Guide*.

Specifying JMS destination settings

In the JMS Destination Settings window you need to set JMS destination information (see [Figure 12 on page 40](#)). This information is specific to the JMS service to which you want to connect and the JMS broker that you are using.

Figure 12. JMS Destination Settings



1. Fill in the JMS Destination Settings window. The fields are described in [Table 1 on page 40](#). For the sample application, use the settings shown in [Figure 12 on page 40](#).

For example settings for the other supported JMS brokers, see the [Using Other JMS Brokers](#) in the *Getting Started Guide*.

Table 1. JMS Destination Settings

Field	Description
<i>Destination Type</i>	Specifies whether you are connecting to a JMS queue or topic.
<i>Request Queue/Topic Name</i>	Specifies the name of the JMS queue or topic to which you are trying to connect.
<i>Reply Queue/Topic Name</i>	Specifies the name of the JMS queue or topic to which the reply, if there is one, is sent.

Field	Description
<i>JNDI connection factory name</i>	Specifies the name of the JMS broker connection factory.
<i>JNDI naming provider URL</i>	Specifies the URL used to locate and connect to the JMS broker.

2. You can set custom properties; for example, if the JMS service requires an access user name and password, as follows:



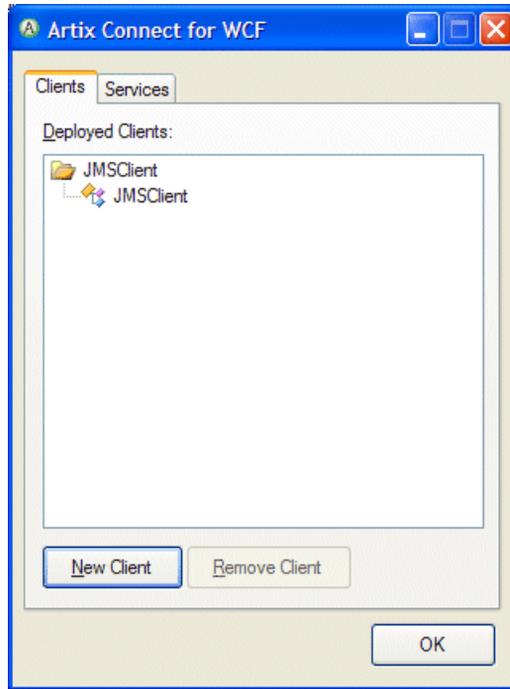
Note

This is not required for the sample application.

- i. Click **Custom Properties**.
 - ii. In the Custom Properties window, under **Name** type the name of your custom property, and under **Value** type the value of your custom property.
 - iii. Click **OK**.
3. Click **Finish**.

The wizard completes its tasks and the JMS client is listed under Deployed Clients, as shown in [Figure 13 on page 42](#).

Figure 13. JMS Client Deployed



4. Click **OK**.

The Artix Connect for WCF wizard completes and returns to the Consume Adapter Service wizard.

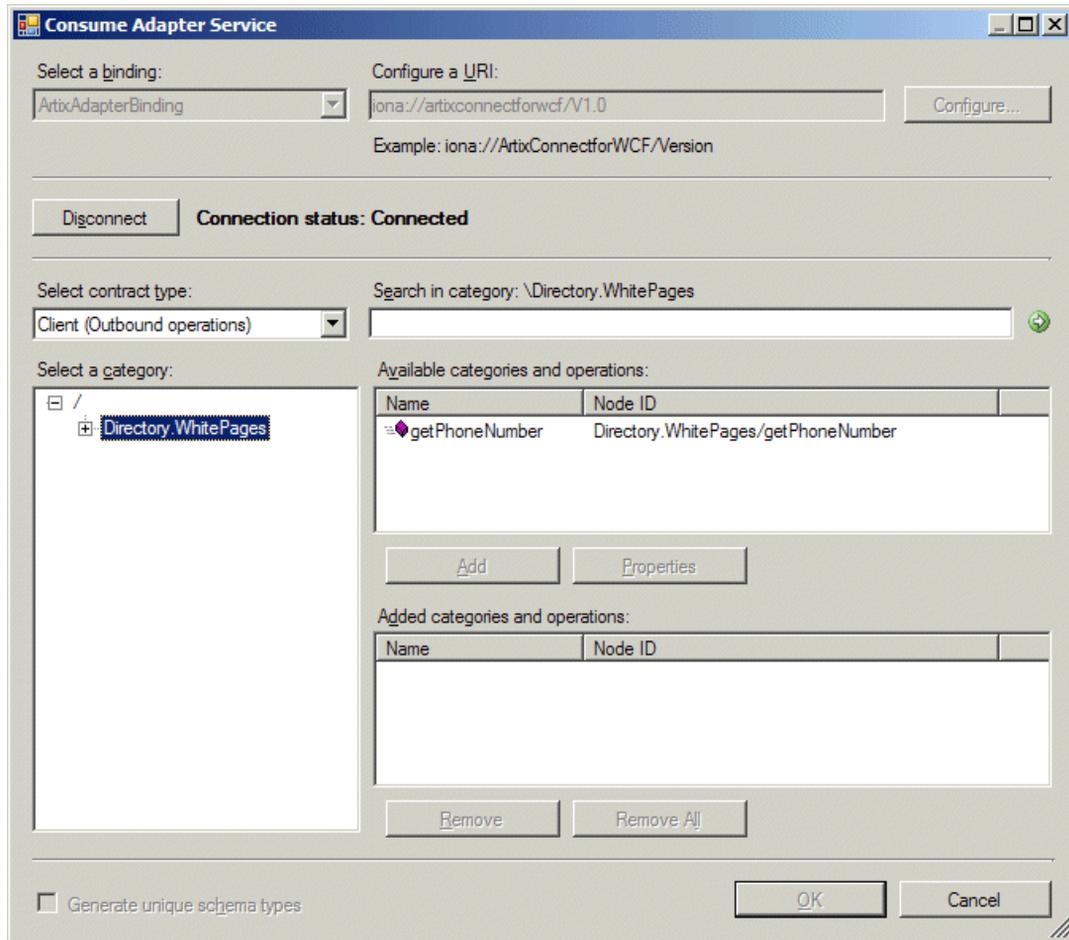
Step 6: Making CORBA and JMS Operations Available to BizTalk

Introduction

The Consume Adapter Service wizard lists the client that you just deployed in the **Select a category** panel (see, for example, [Figure 14 on page 44](#)). The **OK** button is disabled. It remains so until you specify which operations you want to use with BizTalk. The operations that you choose are made available to BizTalk through the schema files that Artix Connect for WCF generates.

Artix Connect for WCF supports both one-way and two-way message exchange patterns.

Figure 14. CORBA Operations



Steps

To make the operations available to BizTalk, complete the following steps:

1. In the Consume Adapter Service wizard, under the **Select a category** panel, select the client that you just deployed:

- **CORBA sample:** Directory.WhitePages

- **JMS sample:** `JMSClient`
2. In the **Available categories and operations** panel, select the operations that you want to use:
 - **CORBA sample:** `getPhoneNumber`
 - **JMS sample:** `jmsRequest`
 3. Click **Add** to add the operations to the **Added categories and operations** panel.
 4. Click **OK**.

The wizard starts to generate the XML schema definitions and binding metadata required by BizTalk to enable it to communicate with the target external service.

Step 7: Deploying your BizTalk Project

Introduction

Once you have used Artix Connect for WCF to generate the XML schema definitions and binding metadata needed to enable BizTalk to communicate with the CORBA service or the JMS service, you must configure and deploy receive and send locations. The generated .dll needs to be deployed into the runtime environment to be accessible to BizTalk.



Note

For the purposes of the sample applications, configuration is done using the Visual Studio orchestration file. You can also configure the send and receive locations using the BizTalk Administration Console. See your BizTalk documentation for details.

Receive and Send locations

In both the CORBA and the JMS sample applications, the receive location is a folder on your machine to which BizTalk has read access. Any messages saved to this folder will be published to BizTalk. The send location is a file on your machine to which BizTalk publishes any reply messages.

Configuring a receive location

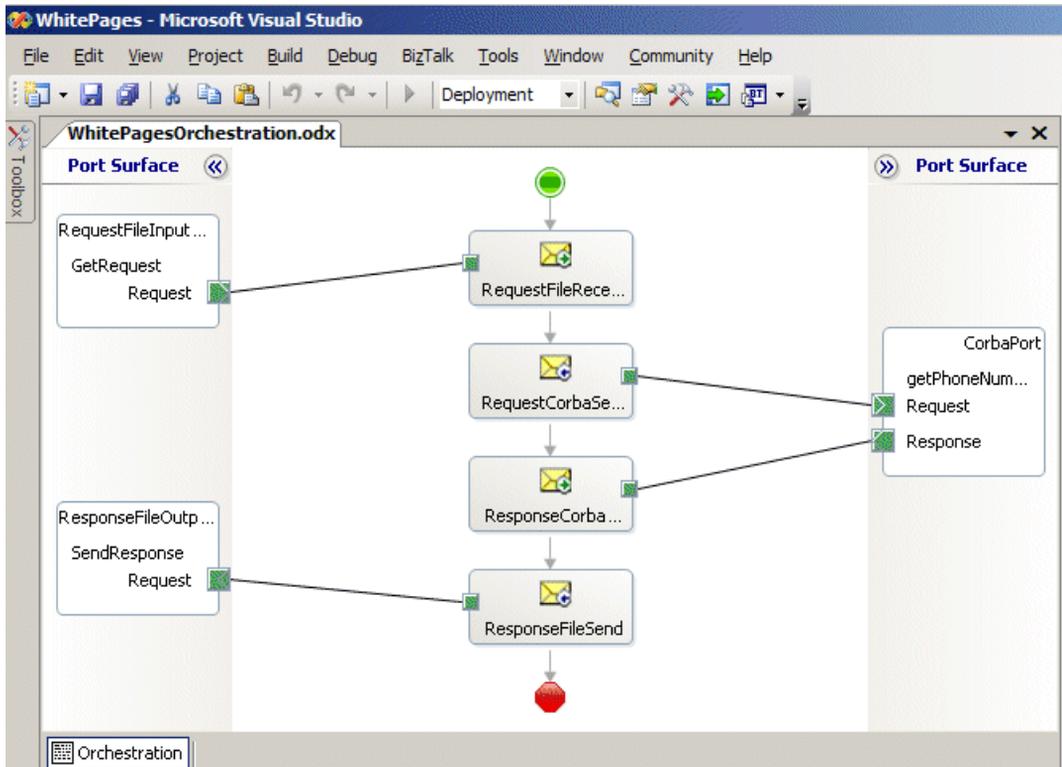
To configure a receive location:

1. In the Visual Studio Solution Explorer, double click on the sample orchestration file:

- **CORBA sample:** `WhitePagesOrchestration.odx`.
- **JMS sample:** `GreeterOrchestration.odx`.

The orchestration appears, for example, as shown in [Figure 15 on page 47](#).

Figure 15. BizTalk CORBA Orchestration



2. In the Orchestration Designer, right-click on:

- **CORBA sample:** RequestFileInputPort.
- **JMS sample:** IncomingMessagePort

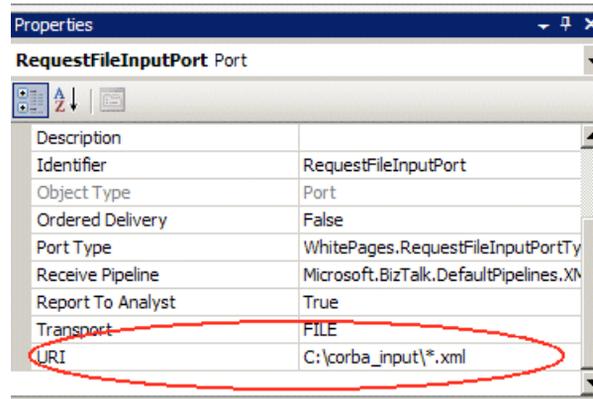
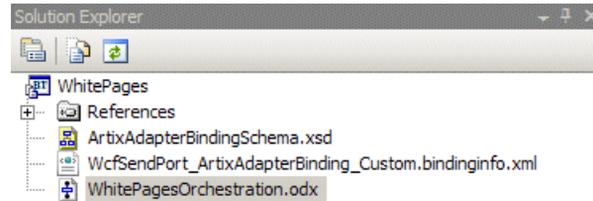
The port is represented in the top-left corner of the orchestration (the name may appear truncated).

3. Select **Properties Window** from the context window.

4. In the **Properties** window, set the URI property to *MyFolder*.xml*, where *MyFolder* is a clean folder on your file system to which BizTalk has read

access; for example, `C:\corba_input*.xml` as shown in Figure 16 on page 48.

Figure 16. Configuring a Receive Location



Configuring a send location

To configure a send location:

1. In the Orchestration Designer, right-click on:
 - **CORBA sample:** `ResponseFileOutputPort`.

- **JMS sample:** `OutgoingMessagePort`.

The port is represented in the bottom-left corner of the orchestration (the name may appear truncated).

2. Select **Properties Window** from the context window.
3. Set the URI property to a file to which the output messages can be written. The file does not need to exist on your file system, but the location does; for example, `C:\output.xml`.

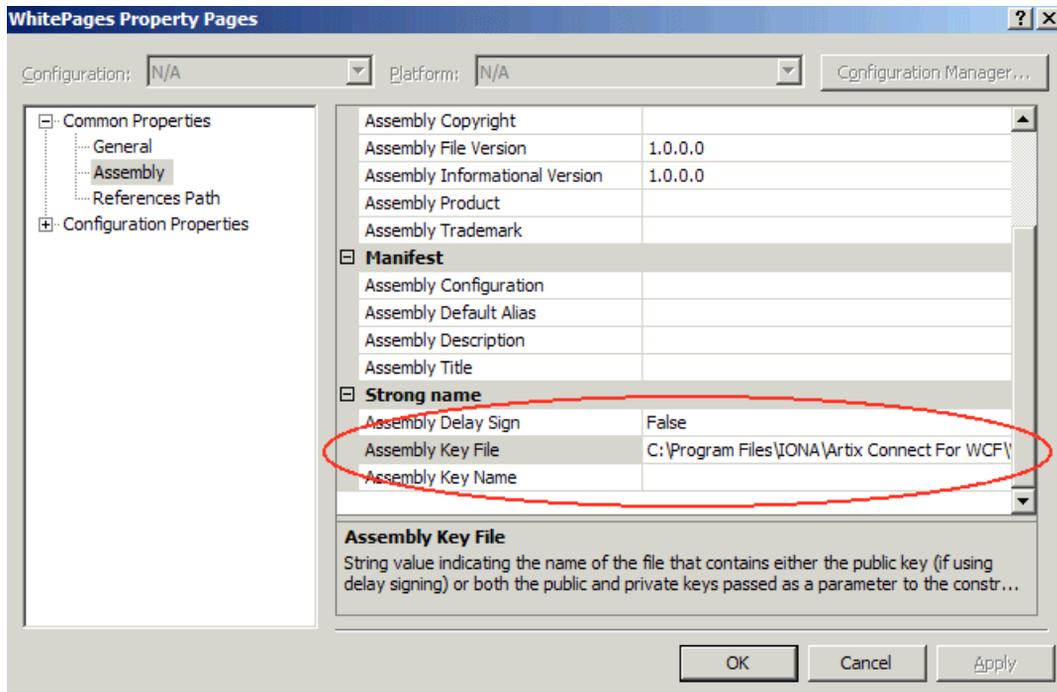
Signing the assembly

Before you can deploy your BizTalk project, you must assign a strong name to the assembly. A strong-named assembly provides security benefits and guarantees the uniqueness of the assembly by assigning a digital signature and a unique key pair.

To assign the sample assembly with a strong name, complete the following steps:

1. In the Visual Studio Solution Explorer, right-click on the project.
2. Select **Properties** from the context menu.
3. In the Property Pages dialog box, click **Assembly**.
4. In the right pane, scroll down to the **Strong name** section.
5. Click the field to the right of **Assembly Key File**, and click the ellipsis (...) as shown in [Figure 17 on page 50](#).

Figure 17. Assigning a Strong Name



6. In the Assembly Key File dialog box, select:

- **CORBA sample:** `WhitePages.snk` file by navigating to the following directory of your Artix Connect for WCF installation:

```
InstallDir\Visual Studio
Adapter\samples\biztalk\corba\biztalk
```

- **JMS sample:** `JmsBiztalkGreeter.snk` file by navigating to the following directory of your Artix Connect for WCF installation:

```
InstallDir\Visual Studio
Adapter\samples\biztalk\jms\biztalk
```

7. Click **Open**.

8. Click **OK**.

Deploying your solution

To deploy the sample solution:

From the **Build** menu, select **Deploy *SampleApplication***.

Step 8: Configuring BizTalk Send and Receive Ports

Introduction

In this section, you use the BizTalk Administration Explorer to finalize the port configuration.

Configuring the receive port

To configure the receive port:

1. Open the BizTalk Administration Console from the Windows Start menu as follows:

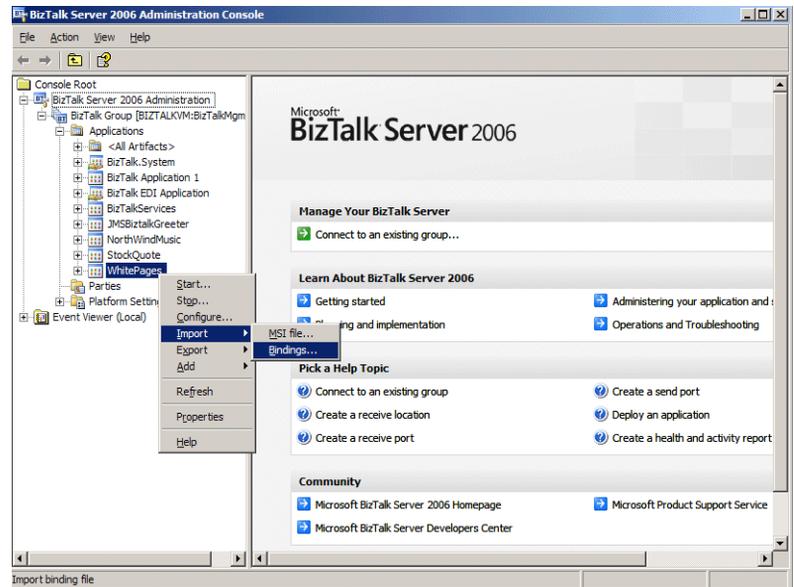
(All) Programs | Microsoft BizTalk Server 2006 | BizTalk Server Administration

2. Expand the **BizTalk Server 2006 Administration** node.
3. Expand the **BizTalk Group** node.
4. Expand the **Applications** node.
5. Right-click on the newly deployed application:

- **CORBA sample:** `WhitePages`.
- **JMS sample:** `JMSBiztalkGreeter`.

6. Choose **Import | Bindings**, as shown, for example, in [Figure 18 on page 53](#).

Figure 18. Importing Bindings



7. In the Import Bindings dialog, navigate to `WcfSendPort_ArtixAdapterBinding_Custom.bindinginfo.xml`, which is located in the sample application Visual Studio project at:
- **CORBA sample:** `InstallDir\Visual Studio Adapter\samples\biztalk\corba\biztalk\WhitePages`
 - **JMS sample:** `InstallDir\Visual Studio Adapter\samples\biztalk\jms\biztalk\JMS Biztalk Greeter`
8. Click **Open**.

Configuring the send port

To configure the send port:

1. Right-click on the application again.
2. Click **Configure**.

3. In the Configure Application dialog:

- **CORBA sample:**

- Select **WhitePagesOrchestration**.
- In the Host drop-down list, select the `BizTalkServerApplication`.
- Under **Outbound Logical Ports**, select `CorbaPort`.
- From the Send Ports/Send Port Groups drop-down list, select `WcfSendPort_ArtixAdapterBinding_Directory.WhitePages_Custom`.
- Click **Apply**.
- Click **OK**.

- **JMS sample:**

- Select **BizTalk_Orchestration1**.
- In the Host drop-down list, select the `BizTalkServerApplication`.
- Under **Outbound Logical Ports**, select `JMSBackendPort`.
- From the Send Ports/Send Port Groups drop-down list, select `WcfSendPort_ArtixAdapterBinding_JMSClient_Custom`.
- Click **Apply**.
- Click **OK**.

Configuring send port FILE transport

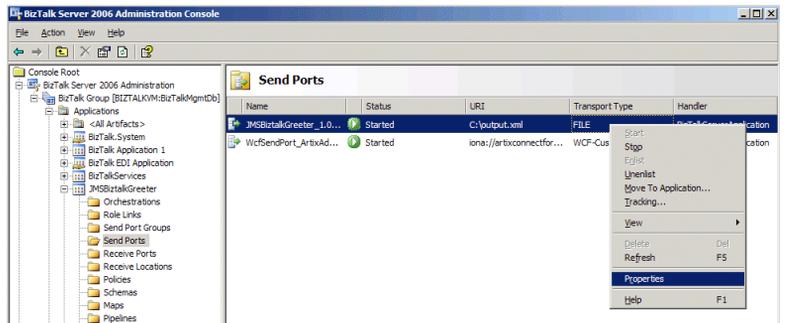
The BizTalk sample applications require that more than one message can be sent. To ensure that this is possible, you must configure the send port `FILE` transport to allow the files to be overwritten. To set the `FILE` transport properties to overwrite:

1. Expand the deployed solution node:

- **CORBA sample:** `WhitePages`
- **JMS sample:** `JMSBiztalkGreeter`.

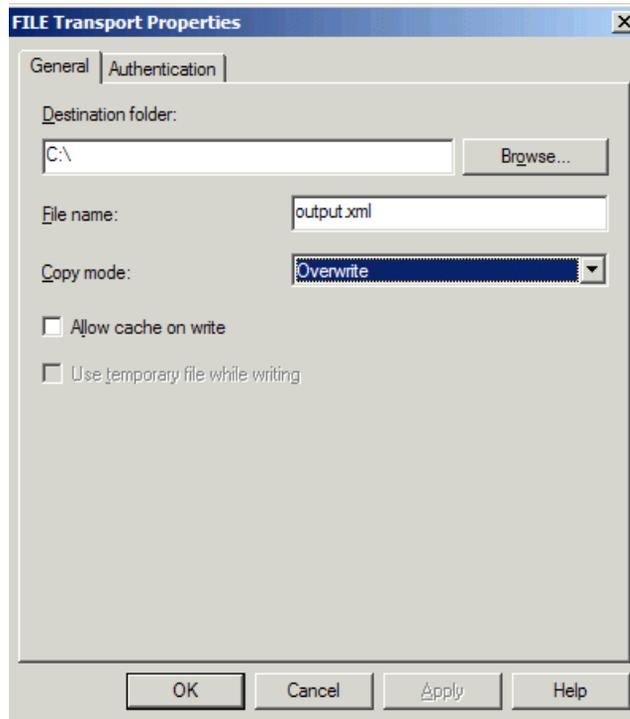
2. Select the **Send Ports** folder.
3. Select the appropriate send port:
 - **CORBA sample:** `WhitePages_1.0.0.0_RestofFileName`
 - **JMS sample:** `JMSBiztalkGreeter_1.0.0.0_RestofFileName`.
4. Under Transport Type, right-click on **FILE** and click **Properties**, as shown in [Figure 19 on page 55](#).

Figure 19. Setting File Transport Properties



5. In the properties dialog, click **Configure**.
6. In the FILE Transport Properties dialog, shown in [Figure 20 on page 56](#), from the **Copy mode** drop-down list, select **Overwrite**.

Figure 20. Setting FILE Transport Copy Mode



7. Click **Apply** followed by **OK**.
8. In the properties dialog, click **Apply** followed by **OK**.

Step 9: Running the Sample Application

Running the Sample Application

To run the sample application:

1. In the BizTalk Server 2006 Administration Console, right-click on the sample application and click **Start**.
2. In the Start Application dialog, click **Start**.
3. Return to the Visual Studio project.
4. Right-click on:

- **CORBA sample:** `ArtixAdapterBindingSchema.xsd`.
- **JMS sample:** `JmsStringRequest.xsd`.

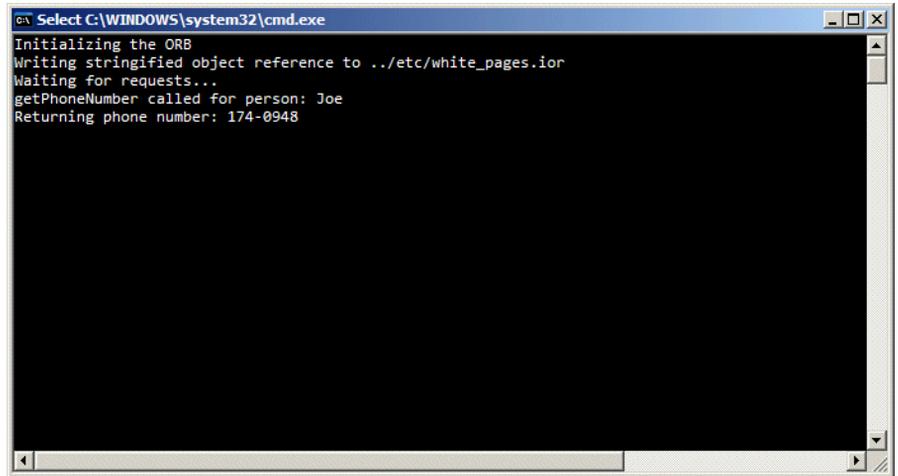
And select **Generate Instance** from the context menu.

An XML file is generated at the location shown in the Output window (you may have to scroll to the right to see it).

5. Open the XML file in notepad and replace the contents of:
 - **CORBA sample:** `<person>` element with any name; for example, Joe.
 - **JMS sample:** `<ns0:requestContentElement>` element with any name.
6. Save this file to the receive location that you defined in [Configuring a receive location on page 46](#).

After a few moments, you will see the message has been received by the CORBA server if your running the CORBA sample or the Java server if you are running the JMS sample. See, for example, [Figure 21 on page 58](#).

Figure 21. Message Received by CORBA Server



```

C:\WINDOWS\system32\cmd.exe
Initializing the ORB
Writing stringified object reference to ../etc/white_pages.ior
Waiting for requests...
getPhoneNumber called for person: Joe
Returning phone number: 174-0948

```

Subsequently, the file that you configured as part of the send port in [Configuring a send location on page 48](#); that is, `C:\output.xml`, should appear and contain the response message.

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