



Artix™

Artix Orchestration Release Notes

Version 4.1, September 2006

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About This Release

Artix 4.1 Orchestration is an add-on kit that must be installed into an existing Artix 4.1 Windows, Linux, Solaris, or AIX installation. The installation requirements are described in the [Artix Orchestration Installation Guide](#).

Artix Orchestration adds support for designing an orchestrated set of Web services using the standard Business Process Execution Language (BPEL), and for integrating your orchestrated set of services into your Artix environment.

Artix 4.1 Orchestration adds the following features to Artix 4.1 for all supported platforms:

- Artix Orchestration BPEL engine server
- Web-based Admin Console for the orchestration BPEL engine server
- Persistent storage option for the orchestration BPEL engine server

Artix 4.1 Orchestration adds the following orchestration development tools to Artix 4.1 for the Windows, Linux, and Solaris platforms:

- BPEL Designer
- Artix Orchestration perspectives for Eclipse
- Demonstration code
- Documentation embedded as Eclipse Help
- Artix Orchestration tutorial

Orchestration Designer

The Artix Orchestration Designer is an Eclipse-based application that helps you design BPEL relationships with a GUI design tool. Orchestration Designer is run alongside Artix Designer in its own installation of Eclipse.

To learn to use Orchestration Designer, go through the tutorial as described below. Start Orchestration Designer by running:

```
ArtixInstallationDir\artix\version\bin\start_bpel_designer
```

For Windows, you can also start from the Windows **Start** menu; select **(All) Programs | IONA | Artix 4.1 | Artix Orchestration Designer**.

Artix Orchestration Eclipse perspectives

Artix Orchestration adds the **Artix Orchestration** and **Artix Orchestration Debug** perspectives to its copy of Eclipse.

Artix Orchestration BPEL Engine Server

The Artix Orchestration BPEL engine server provides a host for deploying BPEL processes. Start the orchestration server from the command line:

```
ArtixInstallationDir\artix\version\bin\start_bpel
```

For Windows, the command prompt window in which you invoke `start_bpel` must remain active. You can minimize the window, but if you close it, you also inadvertently stop the orchestration server.

To stop the orchestration server correctly, run:

```
ArtixInstallationDir\artix\version\bin\stop_bpel
```

Admin Console for the orchestration server

While the orchestration BPEL engine server is running, you can administer and monitor its progress with the web-based Admin Console. Access the Admin Console in any browser at the location <http://localhost:8080/BpelAdmin>.

The use of the Admin Console's features is documented in the embedded help system. Click the **Help** link at the bottom of the left column to open the Admin Console documentation.

Persistent storage option

You can run the Artix Orchestration database configuration tool as part of the initial installation, or anytime thereafter, as described in the [Artix Orchestration Installation Guide](#).

The configuration tool sets up a database in a supported database management system, and configures the orchestration server to store its BPEL process deployment information in that database. This allows your BPEL processes to be automatically redeployed and restarted when the orchestration server restarts.

Demonstration code

A demonstration of Artix Orchestration is installed in:

```
ArtixInstallationDir\artix\version\demos\bpel\loanapproval
```

Follow the steps in the `README.txt` file in that directory.

BPEL Samples

A set of documented examples is included to help you learn the details of orchestrating your Artix services. See the HTML index file for each example.

Artix Orchestration documentation

The primary documentation for Artix Orchestration is embedded in the Eclipse Help system for the Orchestration instance of Eclipse. To read the documentation:

1. Start Orchestration Designer as described above.
 2. From the **Help** menu, select **Help Contents**.
 3. Select **Artix Orchestration Designer** in the **Contents** pane.
-

Artix Orchestration tutorial

The help system includes a thorough tutorial that leads you through the steps of learning to use Artix Orchestration's features.

To start the tutorial:

1. Open the **Artix Orchestration Designer** help system as described immediately above.
 2. Select **Artix Orchestration tutorial**.
 3. Go through the parts of the tutorial in order.
-

New Features

For release 4.1, Artix Orchestration has the following extensions and new features:

- Support for the BPEL engine server on Windows and Linux is now extended to the Solaris and AIX platforms.
- Support for Orchestration Designer on Windows and Linux is extended to the Solaris platform.
- Artix 4.1 Orchestration includes support for references in the format defined by the WS-Addressing specification.

Known Issues for Artix 4.1 Orchestration

The following are known issues for Artix 4.1 Orchestration:

- [Separate Eclipse Installation for Orchestration Designer](#)
- [Maintaining Separate Workspaces](#)
- [Revisions to Loan Approval Demo's README File](#)
- [Interrupted Installation](#)
- [Uninstalling Removes a WSDL File](#)

Separate Eclipse Installation for Orchestration Designer

Artix 4.1 ships with an Eclipse-based GUI design tool named Artix Designer. By default, an Artix 4.1 installation includes a copy of Eclipse 3.2 with the Artix Designer plug-ins loaded and configured.

For technical reasons, Artix 4.1 Orchestration must ship with Orchestration Designer based on Eclipse 3.1. When you install the Artix 4.1 Orchestration add-on into your existing Artix 4.1 installation, the Orchestration installer places a second copy of Eclipse containing Eclipse 3.1 into the Artix installation directory tree. Separate batch files launch Artix Designer and Orchestration Designer separately.

Thus, Artix Designer and Orchestration Designer run separately, and do not share an instance of Eclipse. There is no conflict in having multiple instances of Eclipse-based tools on your system, and both can be run at the same time without conflict.

To start Orchestration Designer, use the `start_bpel_designer[.bat]` script. (Artix Designer starts as usual with the `start_eclipse[.bat]` script.)

Maintaining Separate Workspaces

Because Orchestration Designer installs its own version of Eclipse 3.1, when you first run Orchestration Designer, it prompts for the location of an Eclipse workspace.

IONA recommends keeping your Orchestration Designer workspace separate from your Artix Designer workspace. There is no conflict when sharing the source files, but the two Eclipses are not aware of each other's Artix-related perspectives. If you shared a workspace, this would cause an error message when one Eclipse can't find the other's perspectives as referenced in the metadata of the shared workspace.

It is easy to share the same source files, even with separate workspaces. For example, you might develop the WSDL document for an Artix service in Artix Designer, then might want to orchestrate that service with several others in Orchestration Designer. In both cases, the same WSDL document can be used by the separate instances of Eclipse, each in its own workspace.

To avoid duplicating the file, use Eclipse's **File | Import** feature in one workspace to import the file into the other workspace. In Import's **Select** dialog, select **General | File System**, navigate to the other workspace's directory to locate the file of interest.

Revisions to Loan Approval Demo's README File

The README.txt file for the Loan Approval demo must be edited for Artix Orchestration 4.1. In the section titled "Running the Loan Approval demo within Eclipse," make the following changes:

- In step 1, change "start_eclipse" to "start_bpel_designer"
- Remove step 2c.
- Remove step 5b.

Interrupted Installation

If you opt to install a new license file during installation of Artix Orchestration 4.1, the installer can sometimes terminate after the license installation step. In this case, the installation has completed successfully, but without offering you the opportunity to configure persistent storage, or to view the welcome page.

If this happens, you can perform the missing steps as follows:

- The installer has configured the Orchestration BPEL server with non-persistent storage. To reconfigure for persistent storage, run:
`ArtixInstallationDir\artix\4.1\bin\bpel_config`
as described in the [Artix Orchestration Installation Guide](#).
- To view the Artix Orchestration welcome page, open the following file in any web browser:

`ArtixInstallationDir\artix\4.1\doc\orchestration.html`

Uninstalling Removes a WSDL File

Uninstalling Artix Orchestration inadvertently removes the following file from your Artix installation:

`ArtixInstallationDir\artix\4.1\wsdl\db2_mgmt.wsdl`

To avoid this scenario, make a copy of this file before uninstalling Artix Orchestration.

Known Issues for Artix 4.0 Orchestration

The following were the known issues for Artix 4.0 Orchestration:

- [Potential Port Conflicts](#)
- [Ant Deploy Warnings in Demo](#)
- [Adding Partner Link Also Adds Import](#)
- [BPEL Simulator/Debugger Leaves Terminate Button Active](#)
- [Deployment Log Not Updated](#)
- [Installer Opens Command Prompt](#)
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Potential Port Conflicts

The Artix Orchestration server runs an instance of the Apache Tomcat server on port 8080 by default. The Tomcat servlet engine hosts the Admin Console. The orchestration server also runs an instance of the Artix WSDL Publish server on port 8081.

If you have other services running on these ports, you can either disable the conflicting services, or change the orchestration server's default ports as described in the [Artix Orchestration Installation Guide](#).

Ant Deploy Warnings in Demo

The following errors are output when running `ant deploy` as part of the command line portion of the loanapproval demo:

```
bpel.deploy:
  [echo] Deploying Business Process Archive.
[deploybpr] log4j:WARN No appenders could be found for logger
           (org.apache.axis.i18n.ProjectResourceBundle).
[deploybpr] log4j:WARN Please initialize the log4j system properly.
```

Some workarounds are available to suppress these messages:

- Define an `ANT_OPTS` environment variable like this example:

```
ANT_OPTS="-Dlog4j.configuration=file:/%IT_ARTIX_ETC_DIR%\LogConfig.properties"
```

- Provide a `log4j.properties` file in the `%IT_ARTIX_ETC_DIR%` directory so that the `log4j` messages are not output to the console.

Adding Partner Link Also Adds Import

When adding a partner link type to an existing WSDL file, BPEL Designer adds an import, even if there is already an appropriate import in the file.

BPEL Simulator/Debugger Leaves Terminate Button Active

When using the BPEL simulator or debugger, the red Terminate button in the Console toolbar remains enabled after the BPEL process under test terminates. However, clicking the Terminate button has no effect. The expected behavior is a disabled Terminate button after the simulation or debugging session runs to completion.

Similarly, after completion, the Remove Terminated Processes button should clear terminated BPEL processes from the Console window, but does not.

Deployment Log Not Updated

After undeploying a BPEL process, the Deployment Log in the orchestration server's Admin Console is not updated with the undeployment information.

Installer Opens Command Prompt

If you let the Artix Orchestration installer run the database configuration tool to configure the persistent storage option, under Windows, the configuration tool opens a command prompt window while the tool is running.

Silent and Console Installations

The Artix Orchestration installer is available in interactive GUI form only. Console and silent installations are not supported.

Likewise, the Artix Orchestration database configuration tool is only available in interactive GUI form.

Uninstallation Leaves Directory

You can uninstall Artix Orchestration independently of Artix as described in the [Artix Orchestration Installation Guide](#).

Uninstalling leaves the following directory in place. Remove it manually before reinstalling Artix Orchestration.

```
ArtixInstallationDir\artix\version\etc\bpel
```

Unknown Help Content

In Artix Designer, if you invoke **Help | Tips and Tricks**, an Artix Orchestration Designer item displays in the resulting menu. This menu item is inadvertent and leads to a “topic not available” help page.

Reporting Problems

Contact customer support at <http://www.iona.com/support/contact/>.

Other Resources

If you need further help, you can take advantage of the following resources:

- [Artix TechZone](http://www.iona.com/devcenter/artix) (<http://www.iona.com/devcenter/artix>) is a free online forum where IONA developers, your peers, and other professionals come to share tips on Artix Web Services development. Visit the Artix TechZone today to start making the most of your Artix development experience.
- [IONA University](http://www.iona.com/info/services/ps/) (<http://www.iona.com/info/services/ps/>) delivers practical and insightful courses that cover technical and product issues as well as standards-based best practices gleaned from real-world projects.
- [IONA Professional Services](http://www.iona.com/info/services/consulting/) (<http://www.iona.com/info/services/consulting/>) provide product expertise and consulting solutions that empower end-users, system integrators, and software vendors with the knowledge to fully leverage IONA products. Together, IONA consultants and products equip you with a single platform for integrating and developing extremely reliable, scalable, and secure e-Business systems.

- [IONA Security Mailing List](mailto:security-alert@iona.com) (security-alert@iona.com): The mailing list provides security updates associated with all IONA products. To receive security updates from IONA, send e-mail to listserv@iona.com with no subject and the body text `subscribe security-alert youremail`.

Note: Please do not post queries to this e-mail alias; it has been set up only to notify you of security alerts.

- [Online Documentation](http://www.iona.com/support/docs/index.xml) (<http://www.iona.com/support/docs/index.xml>): The latest updates to the Artix documentation are posted on-line.
- [Knowledge base articles](http://www.iona.com/support/index.xml) (<http://www.iona.com/support/index.xml>): A database that contains practical advice on specific development issues, contributed by IONA developers, support specialists, and customers.

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