Artix 1.2 Release Notes

In this document

This document contains the following sections:

Upgrading from Previous Versions

When upgrading from a previous version of Artix you need to do the following:

- acquire and install new licences. If you have not received your new license please contact your IONA representative.
- recreate all of your existing Artix projects as the Artix 1.2 project format and the Artix 1.1 project format are not compatible.
- disassociate the `.iap` file extension from the Artix Designer if you selected this option when installing Artix 1.1 on a Windows platform.

New Features

The following new features have been added for the Artix 1.2 release:

- Artix Locator
- Artix Session Manager
- Enhanced Type Support
- Artix Designer
- Additional Formats
- Performance Enhancements
- OTS Transaction Integration
- ISF Integration

- Java APIs for Artix

Artix Locator

The Artix Locator is a WSDL-based naming service that supports dynamic, high performance service registration and service lookup for automatically adapting to changing conditions including machine failures, new service instances being added, and site/server reconfiguration.

In particular, Service Providers are automatically registered with the Artix Locator when they start-up and multiple instances of the same service can be registered a locator. When clients request a service, the Artix Locator will return a reference from the pool of same service instances using a round-robin load balancing algorithm.

Artix Session Manager

Plugin that works with Artix Locator to manage client sessions to Artix servers. Manages the mismatch between clients and servers, and creates a mechanism to have conversational interactions. Enables .NET clients to connect to existing infrastructure whether state full or state less, shielding the complexity from the developer.

Enhanced Type Support

Artix 1.2 has extended its type support to include the following:

- Support for `xsd:nillable` (SOAP, CORBA)
- Support for mapping binary types (`xsd:base64Binary`, `xsd:hexBinary`, `soapenc:base64`)
- Support for inheritance in SOAP (SOAP mapping supports schema type inheritance)
- Support for `xsd:Qname` (SOAP, CORBA) provides namespace support.
- Support for SOAP encoded structs
- Support for `minOccurs`, `fixed` and `default` in `xsd:element`
- Support for sequence of `octets` in CORBA

Artix Designer

Artix Designer has added support for the following:

- generating Artix contracts from fixed binding metadata

- generating Artix contracts from delimited/tagged binding metadata
- Interactive contract validation
- generating "flattened" contracts

Additional Formats

Artix 1.2 includes support for the following data formats:

- Fixed Data Format
- Delimited/tagged Data Format
- Name/Value Data Format

Performance Enhancements

The Artix routing plugin now supports pass through routing to avoid payload marshalling/demarshalling when possible. This and other performance enhancements have increased performance by up to 10 times.

OTS Transaction Integration

Ability to participate in a 2PC transaction. In addition the ability the run OTS subordinate to Tuxedo, enabling the migration phase of tuxedo systems to CORBA using Artix Relay. An Artix switch extension is supplied to allow Artix to be subordinate in a XA transaction.

ISF Integration

Integration with the IONA Security Framework providing integration with SiteMinder, LDAP and File adaptors for Authentication and Authorization. Enabling Artix application not only to be secured at the wire level but also at the application level with roles, privileges & realms. Supported for CORBA and HTTP transports.

Java APIs for Artix

A technology preview of the JAVA API's to the C++ core is shipped in the contrib directory. This technology preview shows the server implementation limited to simple types using JAX-RPC compliant API's. The Java APIs for Artix allows a developer to create business logic in Java but access all the payloads, transports and features provided by the Artix runtime.

Documentation Updates

The Artix 1.2 Documentation is updated regularly on the IONA Support Web Site. Please check there regularly for the latest documentation.

Known Problems

The following are known problems in this release:

- Demos
- GUI
- Tuxedo Plugin

Demos

The following are known issues with the demos:

- The WSDL files in `simple_client_server` need editing. Both WSDL files are using dynamic port assignment (`localhost:0`), but the demo code does not implement this feature. The demo returns a Client cannot contact server error. Changing the ports to a local port (e.g., 8080), makes the demo work.
- To run the `hello_world/soap_mq` demo you need to modify your configuration to add the `mq` plugin into the `orb_plugins` list.

GUI

The following are known problems using Artix Designer:

- The deployment package generated by Artix Designer cannot be used to deploy an Artix project.
- C++ code generation only works for the default service name.

Tuxedo Plugin

Tuxedo does not allow you to have a space in the pathname of any path referenced in the `tux.env` script. You need to use the short file name format for Windows environments. You can display the short filenames using `dir /x`.

Fixed Bugs

The following bugs have been closed in Artix 1.2:

- name mangling problem when you have parts called `return` and `var_return`
- HTTPS does not work
- add support for get/put session information into the SOAP message headers
- generated client fails when persistent POA used
- routing plugin fails if CORBA client message has `out` arguments
- `IT_Tuxedo` link error with TUX 6.5
- `tpinit()` failing when routing to a Tux server
- `wsdltocpp` must generate a warning if a WSDL `complexType` is declared in the types section but is not used anywhere else in the WSDL
- generate code to check for g2 message sub record existence

Reporting Problems

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

Other Resources

- IONA University (`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/global/`) 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.
- The latest updates to the Artix documentation can be found at `http://www.iona.com/docs`.

- Knowledge base articles
  (`http://www2.iona.com/MinervaRoot/index.jsp`): A database that
  contains practical advice on specific development issues, contributed by
  IONA developers, support specialists, and customers.