

# **RTI Administration Console**

**Release Notes**

**Version 6.1.0**



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The security features of this product include software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>). This product includes cryptographic software written by Eric Young (eay@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

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# Chapter 1 Supported Platforms

This release of *RTI® Administration Console* is supported on the platforms in [Table 1.1 Supported Platforms](#). For details on these platforms, see the *RTI Connex DDS Core Libraries Platform Notes*.

**Note:** POSIX®-compliant architectures that end with "FACE\_GP" are not supported. Custom target platforms are not supported.

**Table 1.1 Supported Platforms**

| Operating System | Version  |
|------------------|--|
| Linux®           | All Linux platforms on x64 CPUs listed in the <i>RTI Connex® DDS Core Libraries Release Notes</i> for the same version number, except Red Hat® Enterprise Linux 6.x and CentOS™ 6.x. |
| macOS®           | All macOS platforms listed in the <i>RTI Connex DDS Core Libraries Release Notes</i> for the same version number.  |
| Windows®         | All Windows platforms on x64 CPUs listed in the <i>RTI Connex DDS Core Libraries Release Notes</i> for the same version number.  |

**Note:** When running on a VMWare Virtual Machine, *Admin Console's* user interface for *Routing Service* may not display correctly. This is because *Admin Console* uses JavaFX, which is not officially supported on VMWare virtualization systems. For more information on supported JavaFX 2 Certified System Configurations, please see: <https://www.oracle.com/technetwork/java/javafx/downloads/supportedconfigurations-1506746.html>.

# Chapter 2 Compatibility

*Admin Console* is compatible with these components:

- *RTI Database Integration Service*
- *RTI Distributed Logger*
- *RTI Persistence Service*
- *RTI Queuing Service*
- *RTI Recording Service* (including its *Replay* and *Record* tools)
- *RTI Routing Service*

For backward compatibility information between 6.1.0 and previous releases for these components, see the *Migration Guide* on the RTI Community Portal (<https://community.rti.com/documentation>).

*Admin Console* has been tested with OpenJDK JDK 11, which is included in the installation package.

To run *Admin Console* on a Linux platform: *Admin Console* requires at least GTK™ 3 version 3.20.0 and its dependencies.

# Chapter 3 What's New 6.1.0

## 3.1 New Platforms

This release adds support for these platforms:

- macOS 10.15 (x64)
- Red Hat Enterprise Linux 7.6 (x64)
- Ubuntu 20.04 LTS (x64)

## 3.2 Removed Platforms

These platforms are no longer supported:

- 32-bit (x86) Linux and Windows platforms
- CentOS 6.x
- macOS 10.12
- Red Hat Enterprise Linux 6.x
- RedHawk™ Linux 6.5 (x86) (custom-supported target platform)
- SUSE Linux Enterprise Server 11
- Ubuntu 12.04 LTS

## 3.3 Admin Console now Remembers Information Used to Subscribe to Topics

*Admin Console* will now remember the last file used to subscribe to each specific topic and the data type that was used to create the subscription that specific topic. This information will be used to preload the information in the Subscription panel.

Additionally, *Admin Console* will remember the last XML file selected in the **Load Data Types** dialog. That XML file will be selected by default and the path to that XML file will be used when opening the selection file dialog.

### 3.4 Simplified QoS Profile

This release reduces the number of QoS profiles that Admin Console uses from four to one. Previously, there were separate QoS profiles for administration and data visualization, and two identical profiles that supported 5.1.0 and earlier versions.

This release combines the administration and data visualization profiles into a single profile and eliminates the 5.1.0-compatible profiles. There are [instructions on the RTI Community portal](#) to get 5.1.0 compatibility with this new profile if needed.

### 3.5 Added Filter for Data Types when Creating Subscriptions

In the Create Subscription dialog, there is a new filter for the Data Type combo box. This filter allows you to type in any text and the Data Type combo box will only show the data types that contain that text.

### 3.6 Ability to Copy QoS Values from DDS QoS Tab

On the **DDS QoS** tab, there is a new popup that allows you to copy QoS values.

| QoS Name                       | Value                     |
|--------------------------------|---------------------------|
| ▶ Parent DomainParticipant QoS |                           |
| ▼ Parent Publisher QoS         |                           |
| ▼ <u>group data</u>            |                           |
| as decimal                     | {empty}                   |
| as string                      | {empty}                   |
| partition                      | {empty}                   |
| ▼ <u>presentation</u>          |                           |
| access_scope                   | INSTANCE_PRESENTATION_QOS |
| coherent_access                | false                     |
| ordered_access                 | false                     |
| drop_incomplete_coherent_set   | true                      |

Pressing Ctrl + C (on Windows and Linux systems) or Command + C (on macOS systems) with a row selected will achieve the same result.





## 3.7 Support for Loading Data Types from Multiple XML Files

*Admin Console* now supports loading multiple XML files. This allows subscribing to data types defined in different XML files.

## 3.8 Notification when using Non-Default QoS Profile for Administration

*Admin Console* will show a warning message in a pop-up window when a non-default QoS profile is selected for Administration. In the pop-up window, you can disable the message so that it does not show up again.

## 3.9 New Button to Switch to Administration Perspective

The Data Visualization menu has a new button  to switch to the Administration Perspective. The button is only enabled when a view other than Administration Perspective is open. It is next to the Data Visualization button .



## 3.10 Match Analyses Table Rows are now Sorted

In the Match Analyses view, the second-level rows in the tree view are now sorted alphabetically. This makes it easier to find matching criteria.

## 3.11 Updated Visualization System

*Admin Console's* visualization system can now show you how a system is configured in terms of the DDS Entities that were discovered by *Admin Console*, including how are those entities are connected and the match analysis for those entities.

This new system includes visualization of the full DDS system discovered by *Admin Console*, visualization of all the entities that are connected with the different domains, views for the entities connected with each specific topic, and a view of all the entities related to a specific process.

# Chapter 4 What's Fixed in 6.1.0

This section describes bugs fixed in 6.1.0. These fixes have been made since 6.0.1 was released.

## 4.1 Exported Discovery Data was Missing RTI Service Information

Discovery data exported from *Admin Console* was missing information about the Service QoS. After importing this data into *Admin Console*, the missing data caused *Admin Console* to display a generic process view instead of an RTI service-specific view. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-775]

## 4.2 Data Representation Mismatch in Matching Graph for Routing Service Builtin Topics

*Admin Console* could not correctly subscribe to administration and monitoring topics from *Routing Service*. As a result, when *Admin Console* created subscriptions to Topics whose name started with "rti/service/admin/" from *Routing Service*, there was a data representation error in the match graph. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-795]

## 4.3 RTI Topics were not Checked for Request/Offered Mismatches

Topics created by RTI products such as *Routing Service* and other services were not checked by *Admin Console* for their request/offered state. While this was previously intentional, this release reverses that decision in order to help debug use cases involving these Topics. Now *Admin Console* will check for mismatches in the request/offered state of these Topics.

[RTI Issue ID ADMINCONSOLE-796]

## 4.4 DDS Domains in DDS Logical View were not Sorted

DDS Domains appearing in the DDS Logical view were not properly sorted by their Domain ID. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-801]

## 4.5 Routing Service User Interface Missing Data

In certain circumstances, the user interface shown for *Routing Service* may have been incomplete. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-803]

## 4.6 Rows in Distributed Log View not Correctly Colorized on Windows Systems

Rows in the Distributed Log view were not correctly colorized on Windows systems. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-805]

## 4.7 Multiple Log tabs could Appear

The Process showed multiple Log tabs under certain circumstances. This could have happened when the DomainParticipant containing the Distributed Logger information was deleted and quickly recreated. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-806]

## 4.8 Recording and Replay Service Interface Anomalies

The information and configuration tabs of both the *Recording* and *Replay* services sometimes did not show accurate and up-to-date information. This happened if the interface was opened very shortly after the service was discovered by *Admin Console*. These issues have been resolved.

[RTI Issue ID ADMINCONSOLE-813]

## 4.9 Extra DomainParticipants Created when Subscribing to Topics

Starting with 6.0.0, *Admin Console* created a new DomainParticipant every time a Topic was subscribed to/visualized. Normally, *Admin Console* attempts to reuse existing DomainParticipants wherever possible. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-814]

## 4.10 Incorrect Display of a Data Structure that used a Non-Keyed Structure as its Key

This issue happened when you had this situation:

```
struct A { long field; }; // no key
  struct B {
    @key
    A a;
  };
```

Struct B indicated that struct A should be used as its key, but A didn't identify any of its fields as a key. This should cause all the fields in A to be treated as keys. However, *Admin Console* failed to identify this case and marked none of A's fields as keys. This resulted in a display that indicated no key fields were found, or presented other confusing information.

This problem has been resolved. Now in this situation, when *Admin Console* displays struct B, it will show that all the fields in A are keys.

[RTI Issue ID ADMINCONSOLE-817]

## 4.11 Host IP Address Appeared as 0.0.0.0

When using IPv4, the host's address was displayed as 0.0.0.0. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-819]

## 4.12 Incorrect Process Information Shown for Local Subscriptions after Restart

When subscribing to Topics, *Admin Console* displays its own process in the Physical view. Previously, upon restart, the process information shown was that of the original process (such as the ID) and not the current process. Because of that, the process name did not contain "This Admin Console" as it should (this is done to make it easier to understand if the current *Admin Console* is the one subscribing or another instance of *Admin Console*). This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-876]

## 4.13 Typo in Admin Console Log

The *Admin Console* log contained a misspelling, "associtaed." This typographical error has been fixed.

[RTI Issue ID ADMINCONSOLE-882]

## 4.14 Security Log Level "critical" was not Usable

When configuring the log level for the security logger in *Admin Console*, the level "critical" was not usable due to a typo. This issue has been resolved.

[RTI Issue ID ADMINCONSOLE-930]

## 4.15 Admin Console Showed Wrong Maximum Annotation for unsigned long long

If you used an 'unsigned long long' in your type, such as:

```
struct foo{
    unsigned long long u64;
};
```

*Admin Console* displayed the following IDL:

```
struct foo {
    @max(-1)
    unsigned long long u64; //@ID 0
};
//@Extensibility EXTENSIBLE_EXTENSIBILITY
```

The maximum annotation was not correct in this display. This issue only affected the IDL display in *Admin Console*.

This issue has been fixed; now the IDL for this type will look like this:

```
struct foo {
    unsigned long long u64; //@ID 0
};
//@Extensibility EXTENSIBLE_EXTENSIBILITY
```

[RTI Issue ID CORE-9846]

# Chapter 5 Known Issues

## 5.1 Admin Console may Fail on Linux Platforms when Closing Windows with Embedded Web Content

*Admin Console* may fail when closing windows that have embedded web content. The windows that are affected by this issue are the Help Contents and the Welcome Screen. This situation only happens on Linux systems and will cause the application to be blocked.

The problem with the Help Contents windows happens when the help is not open in the browser but in a new *Admin Console* window. The problem with the Welcome Screen happens when closing an *Admin Console* window with the Welcome Screen tab open. This problem can also happen when closing *Admin Console* while the Entity Info tab is open.

[RTI Issue ID ADMINCONSOLE-909]

## 5.2 Admin Console may Require Installing Legacy Java SE 6 Runtime on macOS Platforms

On some macOS systems, you may see this message:

```
To open Admin Console you need to install the legacy Java SE 6 runtime.
```

This may also cause the right-click menu for the Routing Service graph to not appear.

This happens because *Admin Console* may require the legacy Java 6 SE provided by Apple to work correctly; installing it from the Apple support portal should fix the issue. You can find the Java 6 runtime provided by Apple here: [https://support.apple.com/kb/DL1572?locale=en\\_US](https://support.apple.com/kb/DL1572?locale=en_US).

[RTI Issue ID ADMINCONSOLE-911]

## 5.3 Preferences Dialog Shows Error Message

The Preferences dialog will show an error message when viewing the preference for XML -> XML Files -> Editor:

```
"org.eclipse.wst.sse.ui.preferences.editor not found."
```

This error message has no affect on functionality and will be removed in a future release.

[RTI Issue ID ADMINCONSOLE-199]

## 5.4 Limited to Single Instance of Admin Console on macOS Platforms

On macOS platforms, only one instance of *Admin Console* can be run at a time. This limitation is not present on other platforms.

[RTI Issue ID ADMINCONSOLE-403]

## 5.5 Limited Support for Keyed, Unbounded Sequences

There is limited support when using a data type that contains a field that is an unbounded sequence and that field participates in the key. The limitation is that only a subset of the total possible (2,147,483,647) sequence elements can be used. This limitation protects against high memory and CPU consumption by the application.

The limited number of fields chosen to represent the key can be seen in the Topic Data tab and when selecting data instances for the Time Chart.

[RTI Issue ID ADMINCONSOLE-399]

## 5.6

## 5.7 Interaction between Admin Console and RTI Recording Console

This issue only applies if you are using any version of *Admin Console* and *Recording Console* (which only exists before 6.0.0) at the same time, and you have configured *Admin Console* to join domain ID 99. In this scenario, do not use *Admin Console* to pause or disable any *Recording Console* services (their names begin with "RTI-Recorder-" or "RTI-Replay-"). Doing so may cause an error in *Recording Console*.

[RTI Issue ID RECORD-253]

## 5.8 Admin Console Incompatible with RTI Routing Service Configurations that use DomainParticipant Name QoS

This issue only occurs when using *Admin Console* with *RTI Routing Service* 5.2 or older.

*Admin Console* will not correctly display or administer instances of *RTI Routing Service* that have overridden the default DomainParticipant QoS participant\_name. These names are used to identify the process as *RTI Routing Service*. You may see error messages in *Admin Console's* log such as:

```
expecting process model : RoutingService : corresponding to instance handle : {X} : to be a
Routing Service instance when it is not
cannot add monitoring capabilities for the RoutingService since the model was not found for
instance handle : {X}
unable to find a DomainRoute named : {Domain Route name} : associated with RoutingService :
{Routing Service name}
unable to find a Session named : {Session name} : associated with RoutingService : {Routing
Service name} : and DomainRoute : {Domain Route name}
unable to find an AutoRoute named : {Auto Route name} : associated with RoutingService :
{Routing Service name} : and DomainRoute : {Domain Route name} : and Session : {Session name}
unable to find a Route named : {Route name} : associated with RoutingService : {Routing Service
name} : and DomainRoute : {Domain Route name} : and Session : {Session name}
```

[RTI Issue ID ADMINCONSOLE-270]

## 5.9 Admin Console Views Restored when Admin Console is Restarted

*Admin Console* will restore views (such as the Health view) each time the application is restarted. For example, if you closed the DDS Data Type view during the previous session, then it will be re-opened the next time you open *Admin Console*. (Previously, it would remain closed.) This behavior is a workaround for an issue *Admin Console* is experiencing: without restoring the views, some of them would be hidden behind each other.

## 5.10 Admin Console Potential Crash on Linux Systems when Security is Enabled

Applications using the *RTI Security Plugins* may fail in systems with a default OpenSSL version prior to 1.1.1 (such as SUSE Linux Enterprise Server 12 SP2). This happens, for example, with *Admin Console*.

A workaround for this issue is to set the LD\_PRELOAD environment variable to:

```
export LD_
PRELOAD=$NDDSHOME/resource/app/lib/x64Linux2.6gcc4.4.5/libcrypto.so.1.1:$NDDSHOME/resource/app
/lib/x64Linux2.6gcc4.4.5/libssl.so.1.1:$LD_PRELOAD
```

See Section "9.1.1, Dynamic Linking" in the *RTI Security Plugins User's Manual* for more information.

[RTI Issue ID HERCULES-481]