RTI Launcher

Getting Started Guide

Version 5.1.0

Your systems. Working as one.

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Chapter 1 Installing RTI Launcher

If you have *RTI Connext DDS Professional*: *Launcher* is automatically installed by the *Connext DDS Professional* installer. The instructions in this chapter assume you have downloaded *RTI Launcher* separately and are installing it as a standalone component—that is, you are not using the *Connext DDS Professional* installer.

For a list of supported system architectures, see the *Launcher Release Notes*.

1.1 Where to Install Launcher

RTI Launcher is a graphical application that allows you to run and configure *RTI Connext* components. It automatically detects which RTI components are installed and enables their launch buttons.

To detect *RTI Connext* components, *Launcher* must be installed in a directory parallel to those components and all the *RTI Connext* components are assumed to have the default top-level directory name (typically <PRODUCT_NAME><VERSION_NUMBER>). There is one exception to this rule: *Wireshark* does not have to be in a parallel directory or use the default top-level directory name.

For example, if the *RTI Connext Core Libraries and Utilities* are installed in **C:\Program Files\RTI\ndds.<*version*>** on a Windows system, you should install *Launcher* in **C:\Program Files\RTI\RTI_Launcher.<*version*>**.

1.2 Installing on a UNIX-Based System

The distribution is packaged in a **.tar.gz** file. Unpack it as described below. You do not need to be logged in as root during installation.

1. Make sure you have GNU's version of the **tar** utility (which handles long file names). On Linux systems, this is the default **tar** executable. On Solaris systems, use **gtar**.
2. Create a directory for *Launcher* (see Where to Install Launcher (Section 1.1)). We will assume that you want to install under **/opt/rti/** (you may replace references to **/opt/rti/** with the directory of your choice).

3. Move the downloaded file into your newly created directory. In these instructions, we assume your distribution file is named **RTI_Launcher-5.*x.y*-i86Linux2.6gcc4.4.5.tar.gz** (where *x* and *y* represent part of the version number). Your filename will be different depending on your version and architecture.
4. Extract the distribution from the compressed files. For example:

   ```
   gunzip RTI_Launcher-5.x.y-i86Linux2.6gcc4.4.5.tar.gz
   gtar xvf RTI_Launcher-5.x.y-i86Linux2.6gcc4.4.5.tar
   ```

   The names of these files will differ based on the name of your version and target platform.

   Using our example path, you will end up with **/opt/rti/RTI_Launcher_5.*x.y*.**

1.3 Installing on a Windows System

The distribution is packaged in a **.zip** file. Unpack it as described below. Depending on your version of Windows and where you want to expand these files, your user account may or may not require administrator privileges.

1. Create a directory for *Launcher* (see Where to Install Launcher (Section 1.1)). We will assume that you want to install under **C:\Program Files\RTI** (you may replace references to **C:\Program Files\RTI** with the directory of your choice).
2. Move the downloaded file into your newly created directory.
3. Extract the distribution from the compressed files. You will need a zip-file utility such as WinZip® to help you.

   Using our example path, you will end up with **C:\Program Files\RTI\RTI_Launcher_5.*x.y*** (where *x* and *y* represent part of the version number).

1.4 Uninstalling

To uninstall *Launcher*, simply remove the directory in which you installed the files.

Chapter 2 Using RTI Launcher

Launcher is a graphical application that allows you to run and configure RTI components. It automatically detects which RTI components are installed and enables their launch buttons.

2.1 Starting Launcher

Launcher itself does not require a license file. However, some of the components that you can start by using *Launcher* may require a license file. If you have a license-managed version of *RTI Connext DDS* or *RTI Connext DDS Messaging* installed parallel to *Launcher*, then by default at start up, *Launcher* will look for the license file named **rti_license.dat** in the top-level directory where you installed *Launcher*.

For example, if *Launcher* is installed in **C:\Program Files\RTI\RTI_Launcher_<*version*>** on a Windows system, *Launcher* will look for **C:\Program Files\RTI\rti_license.dat**. You can configure *Launcher* to look for the license file in a different location by using *Launcher's* Configuration Tab (Section 2.2.4).

On a Linux system:

- ❏ You must have a graphical environment (such as X11, GNOME or KDE) running.
- ❏ Open a command prompt and navigate to the *Launcher* installation directory. Run the script **RTI_Launcher_<*version*>/scripts/rtilauncher**.
- ❏ Or, use your browser to navigate to your *Launcher* installation directory and double click **RTI_Launcher_<*version*>/scripts/rtilauncher**.

On a Windows system:

1. Use Windows Explorer to navigate to **<*Launcher installation directory*>\scripts**. For example, **C:\Program Files\RTI\RTI_Launcher_<*version*>\scripts**.
2. Double-click **rtilauncher.bat** to start *Launcher*.

2.2 A Tour of Launcher

Launcher's main window includes four tabs:

- ❏ Tools Tab (Section 2.2.1)
- ❏ Services Tab (Section 2.2.2)

- ❏ Utilities Tab (Section 2.2.3)
- ❏ Configuration Tab (Section 2.2.4)

To start one of the tools, left-click the tool's button. Right-clicking a button will give you additional options.

If a tool is not installed or cannot be used (such as due to an expired license), its button will be gray and will not work.

Not all tools are available on all platforms. For example, *Spreadsheet Add-in for Microsoft Excel* is only available on Windows systems.

Launcher detects RTI components by examining the registry on Windows systems or the PATH on Linux systems.

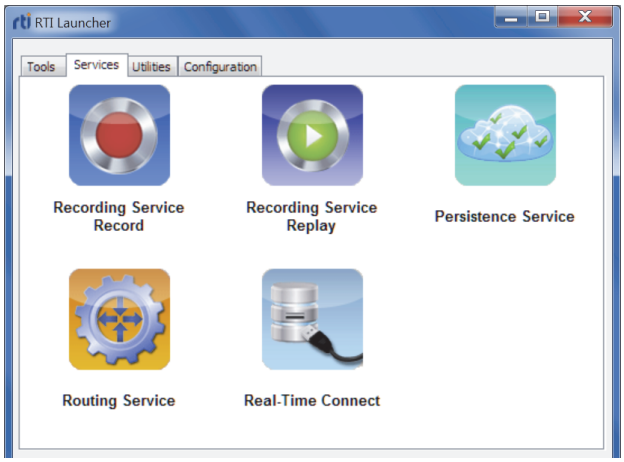
2.2.1 Tools Tab

The **Tools** tab includes buttons for:

- ❏ **Admin Console**—provides a centralized tool for monitoring and administering your distributed system.
- ❏ **Analyzer**—displays *Connext* objects and their communication parameters.
- ❏ **Monitor**—provides a graphical view into your entire *Connext* application, including QoS and detailed statistics on connections, traffic, errors, and resource usage.
- ❏ **Recording Console**—can record real-time data without having prior knowledge of the data-types or topics in the system; can also replay that data back into the cloud.
- ❏ **Wireshark**—captures RTPS packets, shows their contents, and analyzes network usage.
- ❏ **Spreadsheet Add-in for Microsoft Excel™**—integrates *Connext* with Microsoft® Excel. You can use Excel cell functions to subscribe to topic data and then use the data in real-time for formulas, graphs and other Excel features. You can also publish data from a spreadsheet.

2.2.2 Services Tab

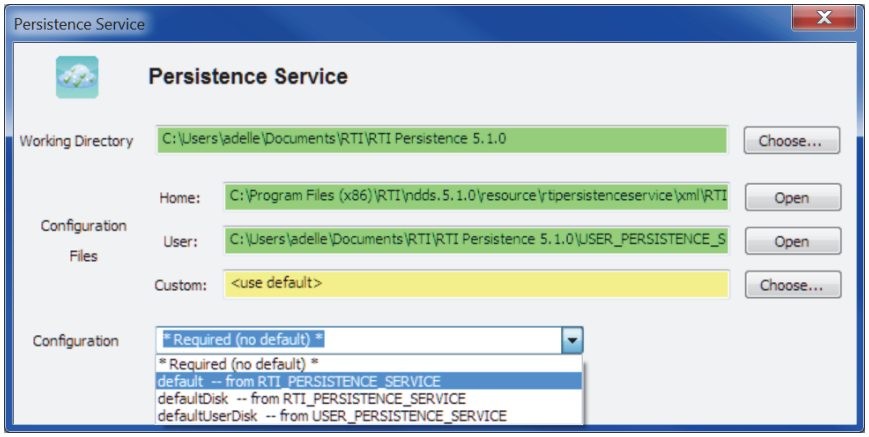
The **Services** tab includes buttons to launch:



- **Recording Service Record**—records real-time data without having prior knowledge of the data-types or topics in the system. (This service is also available by using *Recording Console* in the Tools tab.)
- **Recording Service Replay**—replays recorded data by injecting it back into the cloud. You can change data rates and QoS settings. (This service is also available by using *Recording Console* in the **Tools** tab.)
- **Persistence Service**—saves data from *Connext* publishing applications to memory or permanent storage, so it can be delivered to subscribing applications that join the system at a later time—even if the publishing application has already terminated. Data can be persisted to files or an external database.
- **Routing Service**—integrates disparate and geographically dispersed systems. It scales *Connext* applications across domains, LANs and WANs, including firewall and NAT traversal. It also supports *Connext*-to-*Connext* bridging by allowing you to make transformations in the data along the way.
- **Real-Time Connect**—provides bidirectional integration between RTI Data Distribution Service and a database (Oracle Database, Oracle TimesTen In-Memory Database, or MySQL).

To start one of the services, left-click the appropriate button, use the resulting dialog to configure the service, then click **Run** at the bottom of the configuration dialog. The service will start in a separate command window.

The configuration dialog is similar for all the services. For example, the configuration dialog for *RTI Persistence Service* looks like this:



Notice that you must make a selection from the Configuration drop-down list.

Some fields are highlighted in colors.

- ❏ Green indicates a field has a valid entry.
- ❏ Yellow indicates an entry is missing but it is not a required field.
- ❏ Red indicates a field that must be filled in or corrected.

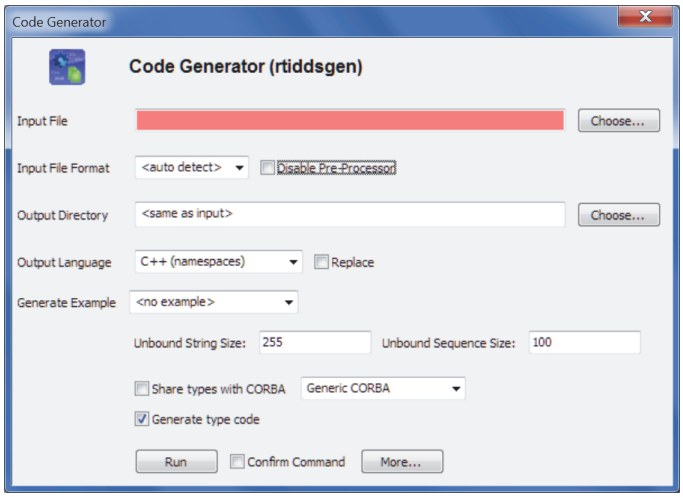
2.2.3 Utilities Tab

The **Utilities** tab includes buttons for:

- ❏ **Code Generator**—Also known as *rtiddsgen;* generates example code and makefiles/project files for your data types.
- ❏ **Type Converter**—converts data type formats between XML, IDL, and XSD.
- ❏ **Recording Service Convert**—converts to commonly accepted formats for export to data analysis tools.
- ❏ **Shapes Demo**—demonstrates *Connext* capabilities by publishing and subscribing to colored moving shapes.
- ❏ **DDS Spy**—Also known as *rtiddsspy;* subscribes to any DDS data.
- ❏ **DDS Ping**—Also known as *rtiddsping;* publishes DDS ping messages to test system connectivity.

Each utility's configuration dialog is different; some have required parameters.

For example, in the Code Generator's (*rtiddsgen's)* configuration dialog, you must specify an input file, as indicated by the red field shown in the dialog to the right:

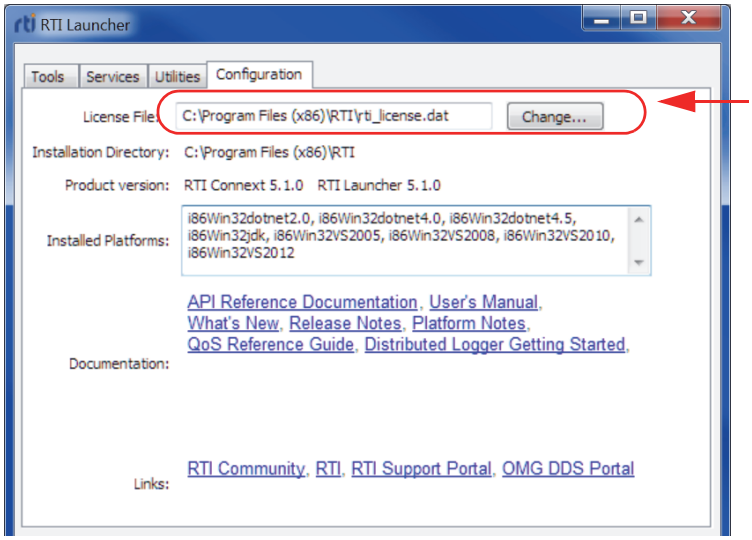


2.2.4 Configuration Tab

The **Configuration** tab:

- ❏ Displays the installation directory in which *Launcher* will look for components.
- ❏ For license-managed distributions only: Displays and allows changes to the license file location—it must point to a valid license file (see Starting Launcher (Section 2.1)).

- Displays the *Launcher* version number, as well as the version number for *Connext DDS Messaging* or *Connext DDS*, depending on what is installed.
- Displays installed platforms.
- Provides links to documentation and other resources.



With a license-managed distribution, you can change the license file location here.