

RTI Persistence Service

Installation Guide

Version 5.1.0



Your systems. Working as one.



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Installation

This document describes how to download and install *RTI® Persistence Service* and other required components.

1 Optional Database Components

When *Persistence Service* is used in PERSISTENT mode, you can configure it to store DDS samples into a relational database, such as MySQL.

In principle, you can use any database that provides an ODBC driver, since ODBC is a standard. However, not all ODBC databases support the same feature set. Therefore, there is no guarantee that the persistent durability features will work with an arbitrary ODBC driver.

RTI has tested *Persistence Service* with MySQL 5.1.44 with MySQL ODBC 5.1.6.

The usage of MySQL requires the separate installation of the MySQL ODBC 5.1.6 (or higher) driver. For non-Windows platforms, the installation of UnixODBC 2.2.12 (or higher) is also required.

❑ To use MYSQL, you will need:

- MySQL 5.1.44 or higher (download from <http://www.mysql.com>)
- MySQL ODBC 5.1.6 driver or higher (download from <http://dev.mysql.com/downloads/connector/odbc>)
- UnixODBC 2.2.12 or higher (download from <http://www.unixodbc.org>.)

The Durable Writer History and Durable Reader State features in *RTI ConnexT™* (formerly *RTI Data Distribution Service*) also use a relational database. Therefore, the installation instructions for MySQL are provided in the *RTI Core Libraries and Utilities Getting Started Guide Addendum for Database Setup*.

If you need help with the download or installation process, contact support@rti.com.

2 Installation Instructions

Persistence Service is included with *RTI ConnexT Messaging*. Use the instructions in this section only if you are installing *Persistence Service* independently (not part of *RTI ConnexT Messaging*).

2.1 AIX, Linux, and Solaris Systems

You do not need administrator privileges to install *Persistence Service*.

Install *Persistence Service* on top of *Connext* (with the same version number). After installation, the **rtipersistenceservice** application will be located in the `<NDDSHOME>/scripts` directory (the same place where you will find *rtiddsgen*, *rtiddsping*, etc.).

Follow the instructions below. All directory locations in this document are meant as examples only; adjust them to suit your site.

1. Make sure you have GNU's version of the tar utility, **gtar** (which handles long file names), and GNU's version of the unzip utility, **gunzip**.
2. Move the downloaded file to the *same* directory where you installed *Connext* 5.x.y (where *x* and *y* represent version numbers for the current release). For instance, if you already have `/local/rti/ndds.5.x.y`, move the downloaded file to `/local/rti` and change to that directory:

```
> cd /local/rti
```

3. Use **gunzip** to uncompress the file. For example (your filename will be different):

```
> gunzip RTI_Persistence_Service-5.x.y-sparcSol2.10gcc3.4.2.tar.gz
```

4. Use **gtar** to extract the distribution from the uncompressed file. For example:

```
> gtar xvf RTI_Persistence_Service-5.x.y-sparcSol2.10gcc3.4.2.tar
```

This will extract files into the existing **ndds.5.x.y** directory; including placement of the **rtipersistenceservice** application in `/local/rti/ndds.5.x.y/scripts`.

5. Include `$NDDSHOME/scripts` in your **PATH** if it is not already included:

```
> setenv PATH $NDDSHOME/scripts:$PATH
```

6. If you have a licensed version of *Persistence Service*, please see [Installing the License File \(Section 2.3\)](#).

7. To verify your installation, enter:

```
> rtipersistenceservice -help
```

You should see a response similar to:

```
RTI Persistence Service v5.x.y
Usage: rtipersistenceservice [options]
Options:
-cfgFile          <file> Configuration file. This parameter is
                  optional since the configuration can
                  be loaded from other locations
-cfgName          <name> Configuration name. This parameter is
                  required and it is used to find a
                  <persistence_service>
                  matching tag in the configuration
                  files
-appName          <name> Application name
                  Used to identify this execution for
                  remote administration and to name the
                  domain participants
                  Default: -cfgName
-identifyExecution Appends the host name and process ID
                  to the appName to help ensure unique
                  names
```

-domainId	<int>	domain ID for the domain participants created by the service Default: Use XML value
-remoteAdministrationDomainId	<int>	Enables remote administration and sets the domain ID for the communication Default: Use XML value
-restore	<0 1>	Indicates whether or not Persistence Service must restore its state from the persistent storage Default: Use XML value
-noAutoStart		Use this option if you plan to start RTI Persistence Service remotely
-infoDir	<dir>	The info directory of the running persistence service. The service writes a ps.pid file into this directory when started. When the service finalizes the file is deleted Default: None
-maxObjectsPerThread	<int>	Sets the maximum number of objects that can be stored per thread for a DomainParticipantFactory Default: Connexxt default
-serviceStackSize	<int>	Service thread stack size Default: OS default
-verbosity	[0-6]	RTI Persistence Service verbosity * 0 - silent * 1 - exceptions (Core Libraries and service) * 2 - warnings (service) * 3 - information (service) * 4 - warnings (Core Libraries and service) * 5 - tracing (service) * 6 - tracing (Core Libraries and service) Default: 1 (exceptions)
-version		Prints the RTI Persistence Service version
-licenseFile	<file>	License file. This parameter is optional
-help		Displays this information

2.2 Windows Systems

You do not need administrator privileges to install *Persistence Service*.

Install *Persistence Service* on top of *Connexxt*. After installation, the **rtipersistenceservice** application will be located in the <NDDSHOME>\scripts directory (the same place where you will find **rtiddsgen**, **rtiddsping**, etc.).

Follow the instructions below. All directory locations in this document are meant as examples only; adjust them to suit your site.

1. Right-click the distribution file and extract the contents in the *same* directory where you installed *Connexxt*. For instance, if you already have **c:\Program Files\RTI\ndds.5.x.y**, then extract to **c:\Program Files\RTI**.

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2. Add *Persistence Service's* **scripts** directory to your **Path** environment variable if it is not already included: `%NDDSHOME%\scripts`. (If you need help with this process, please see the *RTI Core Libraries and Utilities Getting Started Guide*.)
 3. If you have a licensed version of *Persistence Service*, please see [Installing the License File \(Section 2.3\)](#).
 4. To verify your installation, open a command prompt and enter the following:

```
> c:\Program Files\RTI\ndds.5.x.y\scripts\rtipersistenceservice -help
```

You should see a response similar to what is shown in the Linux section above.

2.3 Installing the License File

If your *Persistence Service* distribution requires a license file, you will receive one in an email from RTI.

If you have *Connex* Messaging and you want to use *RTI Launcher*¹ to start *Persistence Service*:

By default, *RTI Launcher* looks for the license file **rti_license.dat** in the top-level directory where you installed *Connex* Messaging. If you choose to save the license file elsewhere, you can configure *RTI Launcher* to look in a different location by using its Configuration tab.

Otherwise:

Save the license file in any location of your choice. When *Persistence Service* starts, it will look in these locations until it finds a valid license:

1. The file specified with the **-licenseFile** option when you start *Persistence Service* from the command-line.
2. The file specified in the environment variable `RTI_LICENSE_FILE`, which you may set to point to the full path of the license file, including the filename (for example, `C:\RTI\my_rti_license.dat`).
3. The file **rti_license.dat** in the current working directory.
4. The file **rti_license.dat** in the directory specified by the environment variable `NDDSHOME`.

If you have any questions about license file installation, please contact support@rti.com.

3 Available Documentation

The following documentation is provided with the *Persistence Service* distribution. (The paths show where the files are located after *Persistence Service* has been installed in `<NDDSHOME>`):

- Persistence Service Release Notes*
(`<NDDSHOME>/doc/pdf/RTI_Persistence_Service_ReleaseNotes.pdf`)
- General information on *Persistence Service*:
Open `<NDDSHOME>/ReadMe.html`, then select **RTI Persistence Service**.
- Example code: `<NDDSHOME>/example/<language>/helloWorldPersistence`.

1. *RTI Launcher* is a convenient GUI-based tool that can start and configure all of your *Connex* Messaging components, including *Persistence Service*.

Additional documentation is provided with *Connex*:

- ❑ Configuration, use cases, and execution of *Persistence Service*:
RTI Core Libraries and Utilities User's Manual
(<NDDSHOME>/doc/pdf/RTI_CoreLibrariesAndUtilities_UsersManual.pdf)
- ❑ Overview of persistence and durability features:
Open <NDDSHOME>/ReadMe.html, choose your desired API, then select **Modules**,
Connex API Reference, **Durability and Persistence**.