

# *RTI Persistence Service*

for

**RTI Data Distribution Service**

## **Installation Guide**

Version 4.5



The Global Leader in DDS



© 2007-2011 Real-Time Innovations, Inc.  
All rights reserved.  
Printed in U.S.A. First printing.  
October 2011.

### **Trademarks**

Real-Time Innovations and RTI are registered trademarks of Real-Time Innovations, Inc. All other trademarks used in this document are the property of their respective owners.

### **Copy and Use Restrictions**

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form (including electronic, mechanical, photocopy, and facsimile) without the prior written permission of Real-Time Innovations, Inc. The software described in this document is furnished under and subject to the RTI software license agreement. The software may be used or copied only under the terms of the license agreement.

### **Technical Support**

Real-Time Innovations, Inc.  
385 Moffett Park Drive  
Sunnyvale, CA 94089  
Phone: (408) 990-7444  
Email: [support@rti.com](mailto:support@rti.com)  
Website: <https://support.rti.com/>

# Installation

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

---

## 1 Optional Database Components

When *RTI 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 *RTI 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 Data Distribution Service* also use a relational database. Therefore, the installation instructions for MySQL

are provided in the *RTI Data Distribution Service Getting Started Guide Addendum for Database Setup*.

If you need help with the download or installation process, contact [support@rti.com](mailto:support@rti.com).

---

## 2 Installation Instructions

*RTI Persistence Service* is included with *RTI Data Distribution Service, Professional Edition* and *RTI Data Distribution Service, Elite Edition*. Use the instructions in this section only if you are installing *RTI Persistence Service* independently (not part of these editions).

### 2.1 AIX, Linux, and Solaris Systems

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

Install *RTI Persistence Service* on top of *RTI Data Distribution Service*. 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 *RTI Data Distribution Service 4.5x*. For instance, if you already have `/local/rti/ndds.4.5x`, then 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 may be different):

```
> gunzip rtidds45x-persistence-sparcSol2.10gcc3.4.2.tar.gz
```

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

```
> gtar xvf rtidds45x-persistence-sparcSol2.10gcc3.4.2.tar
```

This will extract files into the existing **ndds.4.5x** directory; including placement of the **rtipersistenceservice** application in `/local/rti/ndds.4.5x/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 *RTI 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 v4.5x
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 name the DDS domain participants
              Default: -cfgName
-domainId     <int> DDS domain ID for the domain participants
              created by the service
              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
-verbosity    [0-6] RTI Persistence Service verbosity
              * 0 - silent
              * 1 - exceptions (DDS and service)
              * 2 - warnings (service)
              * 3 - information (service)
              * 4 - warnings (DDS and service)
              * 5 - tracing (service)
              * 6 - tracing (DDS 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 *RTI Persistence Service*.

Install *RTI Persistence Service* on top of *RTI Data Distribution Service*. 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 *RTI Data Distribution Service* 4.5x. For instance, if you already have `c:\rti\ndds.4.5x`, then extract to `c:\rti`.
2. Add *RTI 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 Data Distribution Service Getting Started Guide*.)
3. If you have a licensed version of *RTI 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:\rti\ndds.4.5x\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 *RTI Persistence Service* distribution requires a license file, you will receive one in an email from RTI.

**If you have *RTI Data Distribution Service, Professional Edition* and you want to use *RTI Launcher*<sup>1</sup> to start *RTI Persistence Service*:**

By default, *RTI Launcher* looks for the license file **rti\_license.dat** in the top-level directory where you installed *RTI Professional Edition*. 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 *RTI Persistence Service* starts, it will look in these locations until it finds a valid license:

---

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

1. The file specified with the **-licenseFile** option when you start *RTI 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](mailto:support@rti.com).

---

### 3 Available Documentation

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

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

Additional documentation is provided with *RTI Data Distribution Service*:

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

