RTI Limited Bandwidth Plugins

Installation Guide

Version 5.3.1

rti

Your systems. Working as one.

Trademarks

Real-Time Innovations, RTI, NDDS, RTI Data Distribution Service, DataBus, Connext, Micro DDS, the RTI logo, 1RTI and the phrase, "Your Systems. Working as one," are registered trademarks, trademarks or service marks of Real-Time Innovations, Inc. All other trademarks belong to 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.
232 E. Java Drive
Sunnyvale, CA 94089
Phone: (408) 990-7444
Email: support@rti.com
Website: https://support.rti.com/

Installation

This document provides instructions on how to install the *RTI® Limited Bandwidth Plugin*.

You do not need root/administrator privileges.

1   Paths Mentioned in Documentation

The documentation refers to:

- **<NDDSHOME>**

    This refers to the installation directory for *RTI Connext® DDS*.

    The default installation paths are:

    - Mac® OS X® systems:

        /Applications/rti_connext_dds-*version*

    - UNIX-based systems, non-*root* user:

        /home/*your user name*/rti_connext_dds-*version*

    - UNIX-based systems, *root* user:

        /opt/rti_connext_dds-*version*

    - Windows® systems, user without Administrator privileges:

        <*your home directory*>\rti_connext_dds-*version*

    - Windows systems, user with Administrator privileges:

        C:\Program Files\rti_connext_dds-*version* (for 64-bits machines) or
        C:\Program Files (x86)\rti_connext_dds-*version* (for 32-bit machines)

    You may also see $NDDSHOME or %NDDSHOME%, which refers to an environment variable set to the installation path.

    Wherever you see <NDDSHOME> used in a path, replace it with your installation path.

    Note for Windows Users: When using a command prompt to enter a command that includes the path **C:\Program Files** (or any directory name that has a space), enclose the path in quotation marks. For example:

    ```
    "C:\Program Files\rti_connext_dds-version\bin\rtiddsgen"
    ```

or if you have defined the NDDSHOME environment variable:

```
"%NDDSHOME%\bin\rtiddsgen"
```

- **RTI Workspace directory, rti_workspace**

  The RTI Workspace is where all configuration files for the applications and example files are located. All configuration files and examples are copied here the first time you run *RTI Launcher* or any script in **<NDDSHOME>/bin**. The default path to the RTI Workspace directory is:

  - Mac OS X systems:

    /Users/*your user name***/rti_workspace**

  - UNIX-based systems:

    /home/*your user name***/rti_workspace**

  - Windows systems:

    *your Windows documents folder***\rti_workspace**

    Note: '*your Windows documents folder*' depends on your version of Windows.
    For example, on Windows 7, the folder is **C:\Users\your user name\Documents**.

  You can specify a different location for the **rti_workspace** directory. See the *RTI Connext DDS Core Libraries Getting Started Guide* for instructions.

- **<path to examples>**

  Examples are copied into your home directory the first time you run *RTI Launcher* or any script in **<NDDSHOME>/bin**. This document refers to the location of these examples as **<path to examples>.** Wherever you see <path to examples>, replace it with the appropriate path.

  By default, the examples are copied to **rti_workspace/***version***/examples**

  So the paths are:

  - Mac OS X systems:

    /Users/*your user name***/rti_workspace/***version***/examples**

  - UNIX-based systems:

    /home/*your user name***/rti_workspace/***version***/examples**

  - Windows systems:

    *your Windows documents folder***\rti_workspace***version***\examples**

    Note: '*your Windows documents folder*' is described above.

  You can specify that you do not want the examples copied to the workspace. See the *RTI Connext DDS Core Libraries Getting Started Guide* for instructions.

2   Installing

Make sure you have a compatible version of *RTI Connext DDS*, as described in the *RTI Limited Bandwidth Plugins Release Notes*.

Note: These instructions use forward slashes (/) in directory paths. If you are on a Windows machine, use backwards slashes instead (\).

1. Install *RTI Limited Bandwidth Plugins* on top of *RTI Connext DDS*:

    Use the **<NDDSHOME**[1]**>/bin/rtipkginstall** batch file to install *Limited Bandwidth Plugins*:

    ```
    cd <NDDSHOME>
    bin/rtipkginstall <path to file>
    ```

2. Add **<NDDSHOME>/lib/<architecture>** to your **PATH** and **LD_LIBRARY_PATH** (on UNIX-based systems) or **Path** (on Windows systems) environment variable (replacing <architecture> with the appropriate string for your system architecture[2]).

    For example, on a UNIX-based system:

    ```
    > setenv PATH \
     /home/your name/rti_connext_dds-5.x.y/lib/i86Linux2.6gcc4.1.2:$PATH
    > setenv LD_LIBRARY_PATH \
     /home/your name/rti_connext_dds-5.x.y/lib/i86Linux2.6gcc4.1.2:${LD_LIBRARY_PATH}
    ```

    If you need help with this process, please see the *RTI Connext DDS Core Libraries Getting Started Guide*.

Notes:

-   If you are using Visual Studio:

    You must have an appropriate version of Visual Studio Redistributable Package installed on the machine where you are *running* an application built with the dynamic libraries. For details, see the *RTI Connext DDS Core Libraries Platform Notes.*

3   After Installation

-   **See the *User's Manual* in <NDDSHOME>/doc/manuals/connext_dds/limited_bandwidth_plugins for an overview of each plugin's capabilities and configuration instructions.**

-   See these examples in the **<path to examples>/connext_dds/c/limited_bandwidth_plugins** directory:

    -   dil-stacking
    -   lbediscovery
    -   lbpdiscovery
    -   lbrtps
    -   lbsm
    -   lbst

---

1. See Paths Mentioned in Documentation (Section 1)

2. Architecture strings are listed in the *RTI Limited Bandwidth Plugins Release Notes*.

- zrtps