

RTI Limited Bandwidth Plugins

Installation Guide

Version 6.1.0



© 2021 Real-Time Innovations, Inc.
All rights reserved.
Printed in U.S.A. First printing.
April 2021.

Trademarks

RTI, Real-Time Innovations, Connex, NDDS, 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.

This is an independent publication and is neither affiliated with, nor authorized, sponsored, or approved by, Microsoft Corporation.

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).

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/>

Contents

Chapter 1 Installing	1
Chapter 2 Paths Mentioned in Documentation	3

Chapter 1 Installing

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

Notes:

- These instructions use forward slashes (/) in directory paths. If you are on a Windows® machine, use backwards slashes instead (\).
- NDDSHOME is described in [Chapter 2 Paths Mentioned in Documentation on page 3](#).
- You do not need root/administrator privileges.

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

Use the `<NDDSHOME>/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 Linux systems) or **Path** (on Windows systems) environment variable (replacing `<architecture>` with the appropriate string for your system architecture^a). For example, on a Linux system:

```
>export PATH=/home/your name/rti_connex_dds-6.x.y/lib/armv8Linux4gcc7.3.0:$PATH
>export LD_LIBRARY_PATH=/home/your name/rti_connex_dds-
6.x.y/lib/armv8Linux4gcc7.3.0:${LD_LIBRARY_PATH}
```

Or, run the `rtisetenv` script. This script adds the location of the SDK libraries (`<NDDSHOME>/lib/<architecture>`) to your library path, sets the `<NDDSHOME>` environment variable (see [Chapter 2 Paths Mentioned in Documentation on page 3](#)), and puts the *RTI Code Generator* tool in your path. For example, on a Linux system:

^aArchitecture strings are listed in the *RTI Limited Bandwidth Plugins Release Notes*.

```
$ source <NDDSHOME>/resource/scripts/rtisetenv_armv8Linux4gcc7.3.0.bash
```

For more information, see Set Up Environment Variables (rtisetenv), in "Hands-On 1" of *Introduction to Publish/Subscribe*, in the [RTI Connex DDS Getting Started Guide](#).

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 Windows section of the [RTI Connex DDS Core Libraries Platform Notes](#).

3. After Installation:

- See the *User's Manual* in <NDDSHOME>/doc/manuals/addon_products/limited_bandwidth_plugins/users_manual for an overview of each plug-in's capabilities and configuration instructions.
- See these examples in the <path to examples>/connex_dds/c/limited_bandwidth_plugins directory:
 - dil-stacking
 - lbediscovery
 - lbpdiscovery
 - lbrtps
 - zrtps

Chapter 2 Paths Mentioned in Documentation

The documentation refers to:

- **<NDDSHOME>**

This refers to the installation directory for *RTI® Connex® DDS*. The default installation paths are:

- macOS® systems:
/Applications/rti_connex_dds-6.1.0
- Linux systems, non-*root* user:
/home/<your user name>/rti_connex_dds-6.1.0
- Linux systems, *root* user:
/opt/rti_connex_dds-6.1.0
- Windows® systems, user without Administrator privileges:
<your home directory>\rti_connex_dds-6.1.0
- Windows systems, user with Administrator privileges:
C:\Program Files\rti_connex_dds-6.1.0

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_connex_tdds-6.1.0\bin\rtiddsgen"
```

Or if you have defined the **NDDSHOME** environment variable:

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

- *<path to examples>*

By default, 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 the copied examples as *<path to examples>*.

Wherever you see *<path to examples>*, replace it with the appropriate path.

Default path to the examples:

- macOS systems: **/Users/<your user name>/rti_workspace/6.1.0/examples**
- Linux systems: **/home/<your user name>/rti_workspace/6.1.0/examples**
- Windows systems: **<your Windows documents folder>\rti_workspace\6.1.0\examples**

Where 'your Windows documents folder' depends on your version of Windows. For example, on Windows 10, the folder is **C:\Users\<your user name>\Documents**.

Note: You can specify a different location for **rti_workspace**. You can also specify that you do not want the examples copied to the workspace. For details, see *Controlling Location for RTI Workspace and Copying of Examples* in the *RTI ConnexT DDS Installation Guide*.