

RTI Limited Bandwidth Plugins

Installation Guide

Version 6.1.1



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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).

Notice

Any deprecations noted in this document serve as notice under the Real-Time Innovations, Inc. Maintenance Policy #4220.

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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-6.1.1
- Linux systems, non-*root* user:
/home/<your user name>/rti_connex_dds-6.1.1
- Linux systems, *root* user:
/opt/rti_connex_dds-6.1.1
- Windows® systems, user without Administrator privileges:
<your home directory>\rti_connex_dds-6.1.1
- Windows systems, user with Administrator privileges:
C:\Program Files\rti_connex_dds-6.1.1

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-6.1.1\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/6.1.1/examples**
- Linux systems: **/home/<your user name>/rti_workspace/6.1.1/examples**
- Windows systems: **<your Windows documents folder>\rti_workspace\6.1.1\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*.