RTI CORBA Compatibility Kit

Installation Guide

Version 5.1.0

Your systems. Working as one.

Printed in U.S.A. First printing.
December 2013.

Trademarks

Real-Time Innovations, RTI, and Connext are trademarks or 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

Technical Support

Real-Time Innovations, Inc.
232 E. Java Drive
Sunnyvale 94089
Phone: (408) 990-7444
Email: support@rti.com
Website: https://support.rti.com/

Chapter 1 Installation

This document describes how to download and install *RTI® CORBA Compatibility Kit*, and compile OCI's distribution of TAO. It assumes that you have already installed *RTI Connext™* (formerly *RTI Data Distribution Service*).

CORBA Compatibility Kit is an optional product. If you choose to use it, it must be installed on top of *Connext*.

To use *CORBA Compatibility Kit,* you will need *Connext* (with the same version number), and:

- For C++ development: OCI's distribution of TAO

  OCI's TAO is provided in source and must be compiled for your architecture.

- For Java development: JacORB

  JacORB is provided in source-version only from the RTI Support Portal, accessible from https://support.rti.com/. A binary version is also available from the JacORB download website, http://www.jacorb.org/download.html.

1.1 Download Instructions

Download the *CORBA Compatibility Kit* and OCI's distribution of TAO or JacORB distributions from the RTI Support Portal, accessible from https://support.rti.com/.

You will need your username and password to log into the RTI Support Portal; these are included in the letter confirming your purchase or evaluation copy. If you do not have this letter, please contact **license@rti.com**.

Once you have logged into the Portal, select the **Downloads** link, then select the *CORBA Compatibility Kit* and either OCI's distribution of TAO or JacORB:

- *CORBA Compatibility Kit*, select **RTI_CORBA_Kit-<*version*>.tar.gz**
- For C++ development, select **ACE+TAO-1.6a.tar.gz** or **ACE+TAO+CIAO-6.0.1.tar.gz**
- For Java, select JacORB 2.2.4: **JacORB-2.2.4-source.zip**

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

1.2 Installing OCI's Distribution of TAO

1. Download OCI's ACE 5.6a - TAO 1.6a or ACE 6.0.1 - TAO 2.0., from the RTI Support Portal (https://support.rti.com/) as described in the Download Instructions (Section 1.1).
2. Extract the archive to the desired location. For example, the following will extract TAO 1.6a under **/opt/ACE_wrappers**:

   ```
   tar -xzvf ACE+TAO-1.6a.tar.gz -C /opt/
   ```

3. To compile and install TAO, please see the instructions provided in the installation directory or online at www.theaceorb.com.

1.3 Installing DOC's Distribution of TAO

TAO can also be obtained from the Distributed Object Computing (DOC) Group:

1. Download ACE 6.0.1-TAO 2.0.1 from http://download.dre.vanderbilt.edu/previous_versions/.
2. Install ACE+TAO using the installation instructions in the *TAO Programmers Guide* at http://download.theaceorb.nl/TPG/TPG.pdf.

1.4 Installing JacORB

1. Download JacORB 2.2.4 source code from the RTI Support Portal as described in the Download Instructions (Section 1.1).
2. Extract the archive to the desired location. This will generate a new directory, **JacORB-2.2.4**.
3. To compile and install JacORB-2.2.4, refer the installation instructions in the file **JacORB-2.2.4/doc/INSTALL**.

If you do not want to compile the JacORB distribution: you can download the binaries from the official JacORB download website, http://www.jacorb.org/download.html. These binaries were compiled with JDK 1.5. You may get a 'java.lang.UnsupportedClassVersionError' exception if you try to use these binaries with an older JRE version. In this case, you should compile the JacORB distribution for the specific JRE version that you want to use.

1.5 Installing CORBA Compatibility Kit

The distribution file should be extracted *over* your *Connext* installation. That is, install *Connext* first, then install *CORBA Compatibility Kit*. Use the same version for each—if you have *Connext* 5.*x.y*, then install *CORBA Compatibility Kit* 5.*x.y*.

- UNIX-based systems:

  If your *Connext* installation is in **/local/rti/ndds.5.x.y**, enter:

  ```
  tar -xzvf RTI_CORBA_Kit-5.x.y.tar.gz -C /local/rti/
  ```

  To verify that the files have been properly installed, enter the following (adjust the path to suite your site):

  ```
  /local/rti/ndds.5.x.y/scripts/rtiddsgen -corba
  ```

  You should see the syntax for *rtiddsgen*. If the patch is not installed correctly, you will see an error message that **-corba** is not supported.

- Windows systems:

  Right-click the distribution file and extract the contents. If *Connext* is installed in **C:\rti\ndds.5.x.y**, you should extract to **C:\rti**.

  To verify that the files have been properly installed, open a command prompt and enter the following (adjust the path to suite your site):

  ```
  C:\rti\ndds.5.x.y\scripts\rtiddsgen -corba
  ```

  You should see the syntax for *rtiddsgen*. If the patch is not installed correctly, you will see an error message that **-corba** is not supported.

Chapter 2 The Next Steps

Start exploring! We recommend the following starting points:

1. CORBA Example Applications

   Run the C++ or Java CORBA examples, which are installed in the ***<your installation directory>*/example/*<language>*/corba** folder.

   Start by reading **Instructions.pdf**, which will guide you through the steps to create a CORBA-DDS publisher and subscriber, based on an IDL file. The example shows you how to create applications that use CORBA and *Connext*, with a common set of types for both APIs.

2. CORBA Latency and Throughout Examples

   To measure the performance of C++ CORBA types generated by *CORBA Compatibility Kit*, you can run the CORBA performance examples that are provided in the ***<your installation directory>*/example/CPP/performance/latencyCCK** and ***<your installation directory>*/example/CPP/performance/throughputCCK** folders.

   Details are in the **README.txt** file in the examples.

3. *RTI Core Libraries and Utilities User's Manual*

   See the *RTI Core Libraries and Utilities User's Manual* for an introduction to *CORBA Compatibility Kit*, instructions on generating CORBA-compatible code with *rtiddsgen*, and supported IDL types. You can access the manual directly in ***<your installation directory>*/doc/pdf/RTI_CoreLibrariesAndUtilities_UsersManual.pdf**, or through a link in the online documentation's main page.

4. Online Documentation

   Open ***<your installation directory>*/ndds.html**, scroll down to **Optional Products** and select **RTI CORBA Compatibility Kit**. The online documentation contains instructions on how to generate code with *rtiddsgen* and describes the supported IDL types.

5. Community Portal

   Visit the RTI Community Portal, community.rti.com, then select the Knowledge Base, which includes articles on best practices, solutions, code examples, and a glossary.