eProsima RPC over DDS

Installation Manual
Version 0.3.2

The Middleware Experts
eProsima © 2014

Trademarks

eProsima is a trademark of *Proyectos y Sistemas de Mantenimiento SL.* All other trademarks used in this document are the property of their respective owners.

License

eProsima RPC over DDS is licensed under the terms described in the RPCDDS_LICENSE file included in this distribution.

Technical Support

- Phone: +34 91 804 34 48
- Email: Support@eProsima.com

Table of Contents

1 Basic Requirements

This section describes the basic requirements of *eProsima RPC over DDS* and how to install them.

1.1 Windows 7 32-bit and 64-bit

1.1.1 RTI Connext DDS 5.0.0

eProsima RPC over DDS uses the types defined in RTI Connext DDS 5.0.0, so it should be installed. Install RTI Connext DDS for Win32 or Win64 (depending on your Operating System) with the corresponding installer.

The NDDSHOME environment variable needs to be set to the RTI Connext DDS installation folder. An example is shown below:

```
set NDDSHOME=C:\Program Files\RTI\ndds.5.0.0
```

The PATH environment variable should also contain the location of the RTI Connext DDS libraries for platform *i86Win32VS2010* (32-bit machine) or *x64Win64VS2010* (64-bit machine).

```
set PATH=%PATH%;%NDDSHOME%\lib\architecture
```

1.1.2 Visual C++ 2010 Redistributable package installation

eProsima RPC requires Visual C++ Redistributable package. This distribution allows the user to install it if it is not already present in the system.

1.2 Fedora 20 32-bit and 64-bit

1.2.1 RTI Connext DDS 5.0.0

eProsima RPC over DDS uses RTI Connext DDS 5.0.0 as its communications engine, and its libraries and tools should be installed. Install RTI Connext DDS for Linux platform *i86Linux2.6gcc4.4.5* with the corresponding installer.

The environment variable NDDSHOME needs to be set to the RTI Connext DDS installation folder. An example is shown below:

```
export NDDSHOME=/opt/RTI/ndds.5.0.0
```

Also the environment variable PATH and LD_LIBRARY_PATH have to contain the location of the RTI Connext DDS libraries for platform *i86Linux2.6gcc4.4.5*.

```
export PATH=$PATH:$NDDSHOME/lib/i86Linux2.6gcc4.4.5
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$NDDSHOME/lib/i86Linux2.6gcc4.4.5
```

1.2.2   Boost

eProsima RPC over DDS uses Boost libraries. Install them using the Fedora package manager.

```
yum install boost-date-time boost-chrono boost-system boost-thread
```

1.3 Other Linux distribution

1.3.1   RTI Connext DDS 5.0.0

eProsima RPC over DDS uses RTI Connext DDS 5.0.0 as its communications engine, and its libraries and tools should be installed. Install RTI Connext DDS for Linux platform *i86Linux2.6gcc4.4.5* with the corresponding installer.

The environment variable NDDSHOME needs to be set to the RTI Connext DDS installation folder. An example is shown below:

```
export NDDSHOME=/opt/RTI/ndds.5.0.0
```

Also the environment variable PATH and LD_LIBRARY_PATH have to contain the location of the RTI Connext DDS libraries for platform *i86Linux2.6gcc4.4.5*.

```
export PATH=$PATH:$NDDSHOME/lib/i86Linux2.6gcc4.4.5
export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:$NDDSHOME/lib/i86Linux2.6gcc4.4.5
```

1.3.2   Boost

eProsima RPC over DDS uses Boost libraries. Install them using the Linux distribution package manager.

2 Installation

This document describes how to install *eProsima RPC over DDS* in several operating systems. Select your operating system and follow the steps.

2.1 Windows 7 32-bit and 64-bit

Download the installation package for your system.

```
eProsima_RPCDDS-0.3.2-Windows-RTIDDS_5.0.0.exe
```

Execute the installer and follow the instructions. You should make sure that at least one component (*i86* or *x64 libraries)* is selected in the *Choose Components* step.

eProsima RPC over DDS libraries have to be accessible for your system. Once the main components have been selected click *Next,* another page named *Environment variable setting* will be shown.

It is recommended to set the environment variable RPCDDSHOME and to make it point to the *eProsima RPC over DDS* installation folder. The installer provides this option. Make sure it is selected in the *Environment variable setting* step.

It is also convenient to append the *rpcddsgen* executable location directory to the PATH environment variable of the system. The installer offers the possibility of appending the location of the *rpcddsgen* executable to the PATH environment variable. Make sure this option is selected in the *Environment variable setting* step.

The serialization library should also be accessible for your system. The installer offers the possibility of appending the location of the libraries you selected to install to the PATH environment variable. Make sure this option is selected in the *Environment variable setting* step.

2.2 Fedora 20 32-bit and 64-bit

Download the installation package for your system.

```
eProsima_RPCDDS-0.3.2-Fedora20-RTIDDS_5.0.0.tar.gz
```

Extract its content.

Install the *eProsima RPC over DDS* repository with one of these commands, depending on your operating system architecture. These commands install *eProsima RPC over DDS* libraries. The headers will be installed in */usr/include/rpcdds* and the libraries in */usr/lib64* (or */usr/lib* if the library is installed in a 32-bit OS). They also install the *rpcddsgen.sh* script in */usr/bin*, the examples in */usr/share/rpcdds* and the documentation in */usr/share/doc/rpcdds.*

```
yum localinstall i686/fastcdr-0.2.1-1.fc20.i686.rpm
yum localinstall i686/rpcdds-0.3.2-1.fc20.i686.rpm
```

```
yum localinstall x86_64/fastcdr-0.2.1-1.fc20.x86_64.rpm
yum localinstall x86_64/rpcdds-0.3.2-1.fc20.x86_64.rpm
```

2.3 Other Linux distribution 32-bit and 64-bit

Download the installation packages for your system.

```
fastcdr_0.2.1.tar.gz
eProsima_RPCDDS-0.3.2-Linux-RTIDDS_5.0.0.tar.gz
```

Extract its content. First install the *eProsima FastCdr* library needed by *eProsima RPC over DDS*. For 32-bit machines.

```
$ cd fastcdr; ./configure --libdir=/usr/lib; make; make install
```

For 64-bit machines.

```
$ cd fastcdr; ./configure --libdir=/usr/lib64; make; make install
```

Install the *eProsima RPC over DDS* software. For 32-bit machines.

```
$ cd rpcdds; ./configure --libdir=/usr/lib; make; make install
```

For 64-bit machines.

```
$ cd rpcdds; ./configure --libdir=/usr/lib64; make; make install
```