

eProsima RPC over DDS

Installation Manual
Version 0.4.0



The Middleware Experts
eProsima © 2014

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1 Basic Requirements

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

1.1 Windows 7 32-bit and 64-bit

1.1.1 RTI Connex DDS 5.1.0

eProxima RPC over DDS uses the types defined in RTI Connex DDS 5.1.0, so it must be installed. Install RTI Connex 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 Connex DDS installation folder. An example is shown below:

```
set NDDSHOME=C:\Program Files\RTI\ndds.5.1.0
```

The PATH environment variable should also contain the location of the RTI Connex 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

eProxima RPC requires Visual C++ Redistributable package. This distribution checks if it is present in the system. If the package is not present, this distribution prompts the user to install it.

1.2 Fedora 20 32-bit and 64-bit

1.2.1 RTI Connex DDS 5.1.0

eProxima RPC over DDS uses RTI Connex DDS 5.1.0 as the communication engine. Its libraries and tools must be installed. Install RTI Connex DDS for Linux platform *i86Linux2.6gcc4.4.5* with the corresponding installer.

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

```
export NDDSHOME=/opt/RTI/ndds.5.1.0
```

Also the environment variable `PATH` and `LD_LIBRARY_PATH` have to contain the location of the RTI Connex 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 Connex DDS 5.1.0

eProsima RPC over DDS uses RTI Connex DDS 5.1.0 as its communications engine. Its libraries and tools should be installed. Install RTI Connex DDS for Linux platform *i86Linux2.6gcc4.4.5* with the corresponding installer.

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

```
export NDDSHOME=/opt/RTI/ndds.5.1.0
```

Also the environment variable `PATH` and `LD_LIBRARY_PATH` have to contain the location of the RTI Connex 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 corresponding package manager.

2 Installation

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

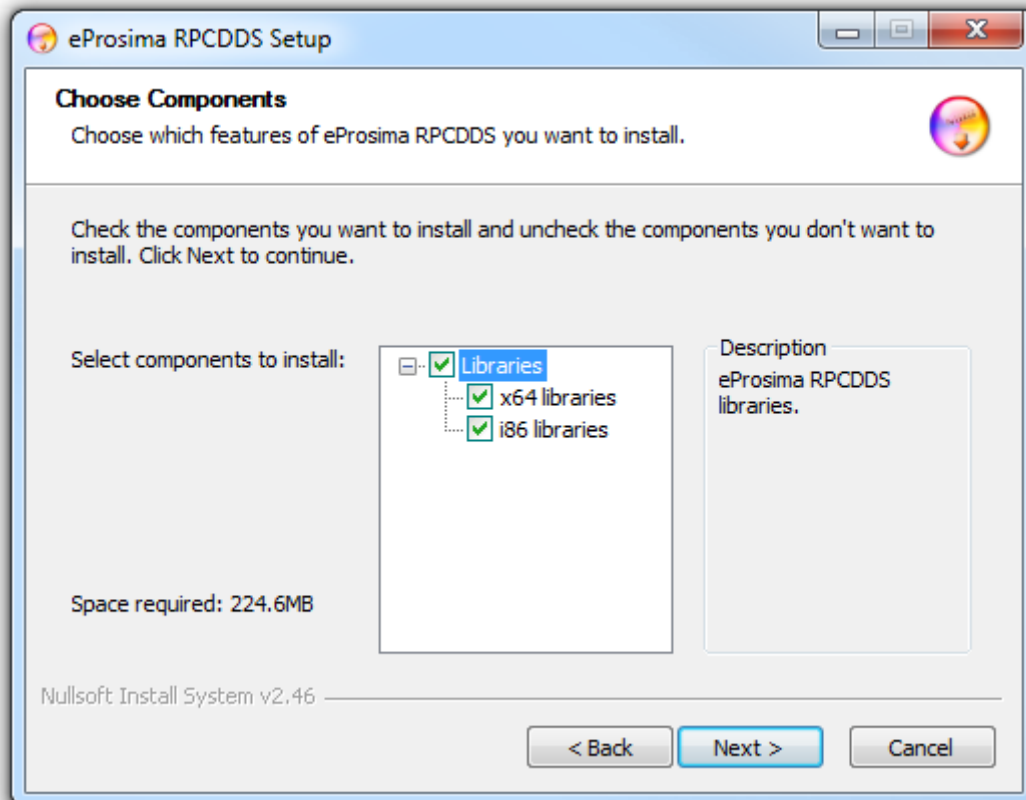
2.1 Windows 7 32-bit and 64-bit

Download the installation package for your system.

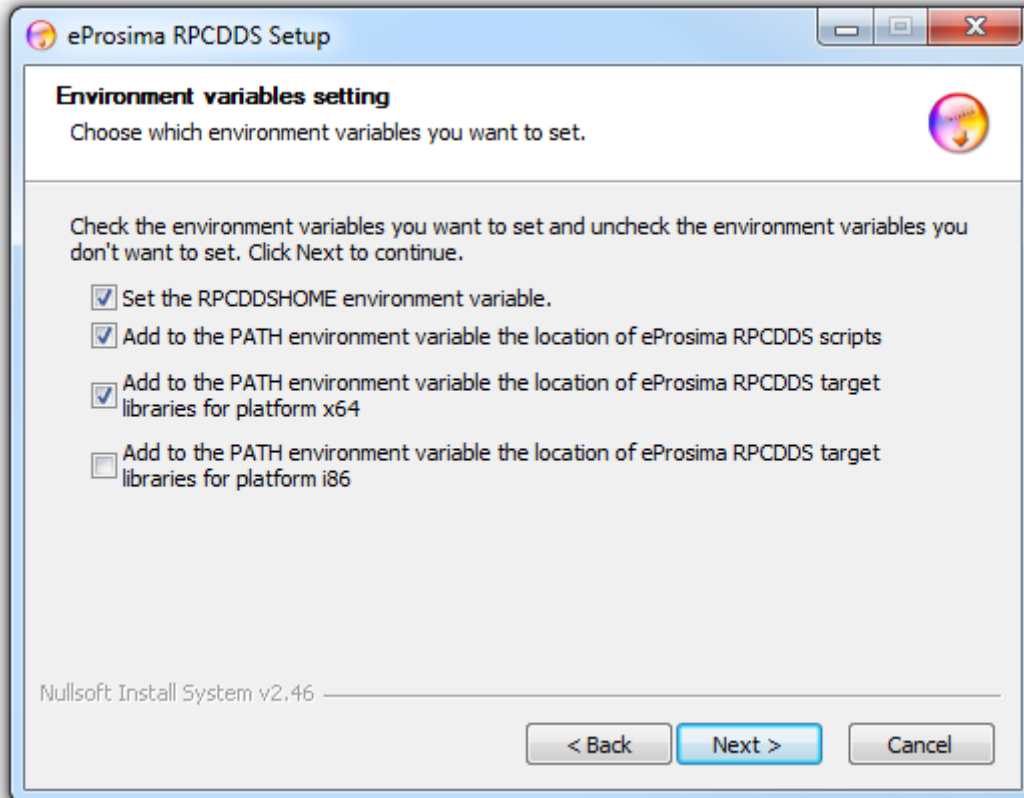
eProsimas_RPCDDS-0.4.0-Windows-RTIDDS_5.1.0.exe

Execute the installer and follow the instructions. You will be asked for some basic information, such as the installation location or the Start Menu folder.

You should make sure that at least one component is selected in the *Choose Components* step:



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 *eProsimas RPC over DDS* installation folder. Make sure this option 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. 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.

```
eProsimas_RPCDDS-0.4.0-Fedora20-RTIDDS_5.1.0.tar.gz
```

Extract its content.

Install the *eProsimas RPC over DDS* repository with one of these commands, depending on your operating system architecture. These commands install *eProsimas 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-0.2.4-1.fc20.i686.rpm
```

```
yum localinstall i686/rpcdds-0.4.0-1.fc20.i686.rpm
```

```
yum localinstall x86_64/fastcdr-0.2.4-1.fc20.x86_64.rpm  
yum localinstall x86_64/rpcdds-0.4.0-1.fc20.x86_64.rpm
```

2.3 Other Linux distribution 32-bit and 64-bit

Download the installation packages for your system.

```
fastcdr_0.2.4.tar.gz  
eProsimarPCDDS-0.4.0-Linux-RTIDDS_5.1.0.tar.gz
```

Extract its content. First, install the *eProsimar FastCdr* library needed by *eProsimar 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
```

Now, install the *eProsimar 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
```