RTI Distributed Logger

Release Notes

Version 5.1.0

Your systems. Working as one.

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Release Notes

1 Supported Platforms

RTI® Distributed Logger 5.1.0 is supported on the platforms in described in Table 1.1 through Table 1.3. For details on these platforms, please see the *RTI Core Libraries and Utilities Platform Notes*.

Table 1.4 lists additional target libraries available with *Distributed Logger*, for which RTI offers custom support. If you are interested in using one of these platforms, please contact your local RTI representative or email **sales@rti.com**.

Table 1.1 **Supported Linux Platforms**

Operating System	CPU	Compiler	RTI Architecture Abbreviation
CentOS 5.4, 5.5 (2.6 kernel)	x86	gcc 4.1.2	i86Linux2.6gcc4.1.2
		Java Platform, Standard Edition JDK 1.7	i86Linux2.6gcc4.1.2jdk
	x64	gcc 4.1.2	x64Linux2.6gcc4.1.2
		Java Platform, Standard Edition JDK 1.7	x64Linux2.6gcc4.1.2jdk
CentOS 6.0, 6.2-6.4 (2.6 kernel)	x86	gcc 4.4.5	i86Linux2.6gcc4.4.5
		Java Platform, Standard Edition JDK 1.7	i86Linux2.6gcc4.4.5jdk
	x64	gcc 4.4.5	x64Linux2.6gcc4.4.5
		Java Platform, Standard Edition JDK 1.7	x64Linux2.6gcc4.4.5jdk
Raspbian Wheezy 7.0 (3.x kernel)	ARMv6	gcc 4.7.2[1]	armv6vfphLinux3.xgcc4.7.2
		Java Platform, Standard Edition JDK 1.7	armv6vfphLinux3.xgcc4.7.2jdk
Red Hat® Enterprise Linux® 5.0 (2.6 kernel)	x86	gcc 4.1.1	i86Linux2.6gcc4.1.1
		Java Platform, Standard Edition JDK 1.7	i86Linux2.6gcc4.1.1jdk
	x64	gcc 4.1.1	x64Linux2.6gcc4.1.1
		Java Platform, Standard Edition JDK 1.7	x64Linux2.6gcc4.1.1jdk
Red Hat Enterprise Linux 5.1, 5.2, 5.4, 5.5 (2.6 kernel)	x86	gcc 4.1.2	i86Linux2.6gcc4.1.2
		Java Platform, Standard Edition JDK 1.7	i86Linux2.6gcc4.1.2jdk
	x64	gcc 4.1.2	x64Linux2.6gcc4.1.2
		Java Platform, Standard Edition JDK 1.7	x64Linux2.6gcc4.1.2jdk
Red Hat Enterprise Linux 6.0-6.4 (2.6 kernel)	x86	gcc 4.4.5	i86Linux2.6gcc4.4.5
		Java Platform, Standard Edition JDK 1.7	i86Linux2.6gcc4.4.5jdk
	x64	gcc 4.4.5	x64Linux2.6gcc4.4.5
		Java Platform, Standard Edition JDK 1.7	x64Linux2.6gcc4.4.5jdk

Table 1.1 **Supported Linux Platforms**

Operating System	CPU	Compiler	RTI Architecture Abbreviation
SUSE® Linux Enterprise Server 11 SP2 (3.x kernel)	x86	gcc 4.3.4	i86Linux3gcc4.3.4
		Java Platform, Standard Edition JDK 1.7	i86Linux3gcc4.3.4jdk
SUSE Linux Enterprise Server 11 SP2 (2.6 kernel)	x64	gcc 4.3.4	x64Linux2.6gcc4.3.4
		Java Platform, Standard Edition JDK 1.7	x64Linux2.6gcc4.3.4jdk
Ubuntu® Server 12.04 LTS (3.x kernel)	x86	gcc 4.6.3	i86Linux3.xgcc4.6.3
		Java Platform, Standard Edition JDK 1.7	i86Linux3.xgcc4.6.3jdk
	x64	gcc 4.6.3	x64Linux3.xgcc4.6.3
		Java Platform, Standard Edition JDK 1.7	x64Linux3.xgcc4.6.3jdk

1. Requires Linaro Gnueabihf Cross Compiler

Table 1.2 **Supported VxWorks Platforms**

Operating System	CPU	Compiler	RTI Architecture
VxWorks® 6.7	Any Wind River® PPC32 CPU with floating point hardware[1]	gcc 4.1.2	For Kernel Modules: ppc604Vx6.7gcc4.1.2 For Real Time Processes on non-SMP systems: ppc604Vx6.7gcc4.1.2_rtp For Real Time Processes on SMP systems: ppc604Vx6.7gcc4.1.2_smp
VxWorks 6.8	Any Wind River PPC32 CPU with floating point hardware[1]	gcc 4.1.2	For Kernel Modules: ppc604Vx6.8gcc4.1.2 For Real Time Processes on non-SMP systems: ppc604Vx6.8gcc4.1.2_rtp

1. Libraries should be suitable for PowerPC cores that are backwards-compatible with PPC 604. Some cores are not fully backwards compatible with PPC 604, such as the e500v2 core.

Table 1.3 **Supported Windows Platforms**

Operating System	CPU	Compiler or Software Development Kit	RTI Architecture
Windows® 7 32-bit Edition	x86	Visual Studio® 2010	i86Win32VS2010
		Java™ Platform, Standard Edition JDK 1.7	i86Win32jdk
Windows 7 64-bit Edition	x64	Visual Studio 2010	x64Win64VS2010
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows 8 32-bit Edition	x86	Visual Studio 2012	x64Win64VS2012
		Visual Studio 2012 (C++/CLI, C# 8.0 or 9.0)	i86Win32dotnet4.5
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows 8 64-bit Edition	x64	Visual Studio 2012	x64Win64VS2012
		Visual Studio 2012 (C++/CLI, C# 8.0 or 9.0)	x64Win64dotnet4.5
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows 2000	x86	Visual Studio 2005 SP1	i86Win32VS2005
		Java Platform, Standard Edition JDK 1.7	i86Win32jdk
Windows 2003	x86	Visual Studio 2005 SP 1	i86Win32VS2005
		Visual Studio 2008 SP1	i86Win32VS2008
		Java Platform, Standard Edition JDK 1.7	i86Win32jdk

Table 1.3 **Supported Windows Platforms**

Operating System	CPU	Compiler or Software Development Kit	RTI Architecture
Windows 2003 x64 Edition	x64	Visual Studio 2005 SP 1	x64Win64VS2005
		Visual Studio 2008 SP 1	x64Win64VS2008
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows Server 2008 R2 64-bit Edition	x64	Visual Studio 2010	x64Win64VS2010
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows Server 2012 R2 32-bit Edition	x86	Visual Studio 2012	x64Win64VS2012
		Visual Studio 2012 (C++/CLI, C# 8.0 or 9.0)	i86Win32dotnet4.5
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows Server 2012 R2 64-bit Edition	x64	Visual Studio 2012	x64Win64VS2012
		Visual Studio 2012 (C++/CLI, C# 8.0 or 9.0)	x64Win64dotnet4.5
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows Vista®	x86	Visual Studio 2005 SP 1	i86Win32VS2005
		Visual Studio 2008 SP 1	i86Win32VS2008
		Java Platform, Standard Edition JDK 1.7	i86Win32jdk
Windows Vista 64-bit Edition	x64	Visual Studio 2005 SP 1	x64Win64VS2005
		Visual Studio 2008 SP1	x64Win64VS2008
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk
Windows XP Professional	x86	Visual Studio 2005 SP 1	i86Win32VS2005
		Visual Studio 2008 SP 1	i86Win32VS2008
		Java Platform, Standard Edition JDK 1.7	i86Win32jdk
Windows XP Professional 64-bit Edition	x64	Visual Studio 2005 SP 1	x64Win64VS2005
		Visual Studio 2008 SP 1	x64Win64VS2008
		Java Platform, Standard Edition JDK 1.7	x64Win64jdk

Table 1.4 **Custom Supported Platforms**

Operating System	CPU	Compiler	RTI Architecture Abbreviation
VxWorks 6.7	Any PowerPC® CPU with floating-point hardware that is backwards-compatible with 32-bit PowerPC 604	JamaicaVM 6.2.1 with gcc 4.1.2	For Kernel Modules: ppc604Vx6.7gcc4.1.2jdk
VxWorks 6.8			For Kernel Modules: ppc604Vx6.8gcc4.1.2jdk

❑ **If you are using Visual Studio® 2005:**

You must have the Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package MFC Security Update installed on the machine where you are *running* an application built with the release or debug libraries of the following RTI architecture packages:

- i86Win32VS2005 and x64Win64VS2005, built with dynamic libraries
- i86Win32jdk and x64Win64jdk
- i86Win32dotnet2.0 and x64Win64dotnet2.0

The Microsoft Visual C++ 2005 Service Pack 1 Redistributable Package MFC Security Update can be obtained from the following Microsoft website:

- http://www.microsoft.com/download/en/details.aspx?id=26347

❑ **If you are using Visual Studio 2008:**

You must have Visual Studio 2008 Service Pack 1 or the Microsoft Visual C++ 2008 SP1 Redistribution Package installed on the machine where you are *running* an application built with the following RTI architecture packages:

- x64Win64VS2008 built with dynamic libraries
- i86Win32VS2008 built with dynamic libraries

The Microsoft Visual C++ 2008 SP1 Redistribution Package can be downloaded from the following Microsoft website:

- For x86 architectures: http://www.microsoft.com/downloads/details.aspx?familyid=A5C84275-3B97-4AB7-A40D-3802B2AF5FC2&displaylang=en
- For x64 architectures: http://www.microsoft.com/downloads/details.aspx?FamilyID=ba9257ca-337f-4b40-8c14-157cfdffee4e&displaylang=en

❑ **If you are using Visual Studio 2010:**

You must have Visual Studio 2010 Service Pack 1 or the Microsoft Visual C++ 2010 SP1 Redistribution Package installed on the machine where you are *running* an application built with the release libraries of the following RTI architecture packages:

- i86Win32VS2010 built with dynamic libraries
- x64Win64VS2010 built with dynamic libraries
- i86Win32dotnet4.0 and x64Win64dotnet4.0

To run an application built with *debug* libraries of the above RTI architecture packages, you must have Visual Studio 2010 Service Pack 1 installed.

The Microsoft Visual C++ 2010 Service Pack 1 Redistribution Package can be obtained from the following Microsoft website:

- For x86 architectures:

  http://www.microsoft.com/download/en/details.aspx?id=5555
- For x64 architectures:

  http://www.microsoft.com/download/en/details.aspx?id=14632

❑ **If you are using Visual Studio 2012:**

You must have Visual C++ Redistributable for Visual Studio 2012 Update 3 installed on the machine where you are *running* a C++ application built the release libraries of the following RTI architecture packages:

- i86Win32VS2012 built with dynamic libraries
- x64Win64VS2012 built with dynamic libraries
- i86Win32dotnet4.5 and x64Win64dotnet4.5

You can download Visual C++ Redistributable for Visual Studio 2012 Update 3 from this Microsoft website: http://www.microsoft.com/en-ca/download/details.aspx?id=30679

2 Compatibility

RTI Distributed Logger 5.1.0 is compatible with *RTI Connext*™ and *RTI Tools*[1] with the same version number.

RTI Distributed Logger 5.1.0 is not compatible with any previously written customer code developed to work with *Distributed Logger's* Topics. See Changes to Support Mutable Types Introduces Backwards Incompatibility (Section 3.2). If you have developed software to work with previous versions of *Distributed Logger*, you will need to regenerate your code using the IDL provided in 5.1.0 (see Section 3.6 in the *Getting Started Guide*).

3 What's New in 5.1.0

3.1 New Platforms

This release adds support for the following platforms:

- ❏ CentOS and Red Hat Enterprise Linux 6.2 - 6.4 (2.6 kernel)
- ❏ Raspbian Wheezy 7.0 (3.x kernel)
- ❏ SUSE Linux Enterprise Server 11 SP2 (3.x kernel) on x86 CPUs
- ❏ Ubuntu Server 12.04 LTS (3.x kernel)
- ❏ VxWorks 6.7 and 6.8 for JamaicaVM 6.2.1 with gcc 4.1.2 (*custom target libraries*, see Table 1.4)
- ❏ Windows 8 32-bit and 64-bit Editions
- ❏ Windows Server 2012 R2 64-bit Edition

3.2 Changes to Support Mutable Types Introduces Backwards Incompatibility

The Topics created by *Distributed Logger* now take advantage of recent improvements to the type-mutability capabilities in *RTI Connext*. Specifically, *Distributed Logger's* Topics now include mutability and extensibility attributes. This change is intended to provide compatibility with future versions, but it does so at the expense of backwards compatibility with previous versions.

This version, 5.1.0, is not wire compatible with previous versions of *RTI Distributed Logger, RTI Connext*, RTI tools such as *RTI Monitor* and *RTI Administration Console*, or any previously written customer code developed to work with *Distributed Logger's* Topics.

3.3 APIs for Setting Distributed Logger Options Now Return Error Codes

The APIs for setting RTI_DL_Options now return a DDS_ReturnCode_t value indicating the result of the action.

1. Distributed Logger is not compatible with RTI Spreadsheet Add-in for Microsoft® Excel®, RTI DDS Toolkit for LabVIEW™, or RTI's distribution of Wireshark.

3.4 Removed Warning Messages when Linking on Windows Platforms

You may have seen some messages about missing PDB files when linking in Debug mode on a Windows platform. This problem has been resolved.

3.5 C++ Function setDomainParticipant() now Receives C++ DomainParticipant

You may have noticed that the function **setDomainParticipant()** from the C++ class RTI_DLOptions received a C DomainParticipant. We have modified it to receive a C++ DomainParticipant instead.

3.6 Distributed Logger Documentation Available from RTI Launcher

The *Distributed Logger Getting Started Guide* is now accessible from *RTI Launcher's* Configuration tab (when *Distributed Logger* is installed).

3.7 Some QoS Settings cannot be Modified

To ensure the correct behavior of *Distributed Logger*, some QoS settings have been hard-coded and will not be modified even if a profile is provided. See Section 3.9 in the *Distributed Logger Getting Started Guide* for more details.

4 What's Fixed in 5.1.0

4.1 When Saving XML Configuration, New Filter Level not Saved if Modified Remotely

When saving *Routing Service's* XML configuration, the *Distributed Logger* configuration was saved, but if the filter level had been modified this was not reflected in the saved XML configuration. Instead, the initial parsed value was used.

[RTI Issue ID DISTLOG-19]

4.2 C++ Example used Incorrect QoS Profile and Library

There was an error in the C++ example provided with the previous release. The example referred to a nonexistent QoS library and profile. The example has been corrected.

[RTI Issue ID DISTLOG-22]

4.3 Possible Segmentation Fault while Shutting Down

Distributed Logger may have crashed when shutting down if there were messages pending to be logged.

[RTI Issue ID DISTLOG-27]

4.4 Possible Deadlock at Start Up

Distributed Logger became enabled before it was completely initialized. This caused a deadlock situation if a message was logged during that time. Now *Distributed Logger* remains disabled until all of its components are fully initialized.

[RTI Issue ID DISTLOG-33]

4.5 Possible Segmentation Fault when Deleting Distributed Logger Instance While in Use by Different Thread

If an instance of *Distributed Logger* was deleted by calling **RTI_DL_DistLogger_finalizeInstance()** while it was still being used from a different thread, the application may have issued a segmentation fault.

[RTI Issue ID DISTLOG-84]

4.6 Calling finalizeInstance() with External DomainParticipant Caused Segmentation Fault—C++ API Only

Calling the C++ **RTI_DLDistLogger::finalizeInstance()** method caused a segmentation fault if you provided an external DomainParticipant by using **RTI_DLOptions::setDomainParticipant()**. This issue has been resolved.

[RTI Issue ID DISTLOG-88]