

RTI Monitor

Release Notes

Version 5.0.0



Your systems. Working as one.



© 2012 Real-Time Innovations, Inc.
All rights reserved.
Printed in U.S.A. First printing.
August 2012.

Trademarks

Real-Time Innovations, RTI, and Connexx 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

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form (including electronic, mechanical, photocopy, and facsimile) without the prior written permission of Real-Time Innovations, Inc. The software described in this document is furnished under and subject to the RTI software license agreement. The software may be used or copied only under the terms of the license agreement.

Technical Support

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

Release Notes

1 Dependencies, Supported Architectures, Compatibility

Dependencies:

To use *RTI Monitor* 5.0.0, you also need:

- RTI® Connex™ Core Libraries and Utilities* (formerly *RTI Data Distribution Service*) 5.0.0 (already included in the bundle)
- JAVA 1.6 update 10 or later is suggested (already included in the bundle)
- For Windows systems: the Microsoft Visual C++ 2005 SP1 Redistribution libraries (already included in the Windows bundle)

Compatibility:

RTI Monitor can be used to monitor applications built with *Connex* that also use *Monitoring Library*. Use the same version number for all three components.

Supported Architectures:

Operating System	CPU	Compiler	RTI Architecture Abbreviation
Linux	CentOS 5.4, 5.5 (2.6 kernel)	Pentium class	gcc 4.1.2 Sun Java Platform Standard Edition JDK 1.6
		x64	gcc 4.1.2 Sun Java Platform Standard Edition JDK 1.6
	Fedora 12 (2.6.32 kernel)	x64	gcc 4.4.4
	i86Linux2.6gcc4.1.2 i86Linux2.6gcc4.1.2jdk x64Linux2.6gcc4.1.2 x64Linux2.6gcc4.1.2jdk x64Linux2.6gcc4.4.4		

Operating System	CPU	Compiler	RTI Architecture Abbreviation	
Linux (cont'd)	Red Hat Enterprise Linux 5.0 (2.6 kernel)	Pentium class	gcc 4.1.1	i86Linux2.6gcc4.1.1
			Sun Java Platform Standard Edition JDK 1.5 and 1.6	i86Linux2.6gcc4.1.1jdk
		x86_64 and AMD64	gcc 4.1.1	x64Linux2.6gcc4.1.1
			Sun Java Platform Standard Edition JDK 1.5 and 1.6	x64Linux2.6gcc4.1.1jdk
	Red Hat Enterprise Linux 5.1, 5.2, 5.4, 5.5 (2.6 kernel)	Pentium class	gcc 4.1.2	i86Linux2.6gcc4.1.2
			Sun Java Platform Standard Edition JDK 1.6	i86Linux2.6gcc4.1.2jdk
		x86_64 and AMD64	gcc 4.1.2	x64Linux2.6gcc4.1.2
			Sun Java Platform Standard Edition JDK 1.6	x64Linux2.6gcc4.1.2jdk
	Red Hat Enterprise Linux 6.1 (2.6 kernel)	Pentium class	gcc 4.4.5	i86Linux2.6gcc4.4.5
			Sun Java Platform Standard Edition JDK 1.6	i86Linux2.6gcc4.4.5jdk
		x64	gcc 4.4.5	x64Linux2.6gcc4.4.5
			Sun Java Platform Standard Edition JDK 1.6	x64Linux2.6gcc4.4.5jdk
Windows	Ubuntu Server 10.04 (2.6 kernel)	Pentium class	gcc 4.4.3	i86Linux2.6gcc4.4.3
			Sun Java Platform Standard Edition JDK 1.5 and 1.6	i86Linux2.6gcc4.4.3jdk
	x64	gcc 4.4.3	x64Linux2.6gcc4.4.3	
			Sun Java Platform Standard Edition JDK 1.5 and 1.6	x64Linux2.6gcc4.4.3jdk
Windows	All Windows platforms listed in the <i>RTI Core Libraries and Utilities Release Notes</i> for 4.5f			

2 What's New in 5.0.0

2.1 Severity of Notifications for Inactive DataReaders Reduced

Previously, *Monitor* treated the presence of inactive *DataReaders* as errors. However, there are valid use cases where this condition is part of normal operations of a system.

Consequently, the severity of this condition has been reduced from an error to a warning.

2.2 Support for Extensible Types

Monitor includes partial support for the “Extensible and Dynamic Topic Types for DDS” specification from the Object Management Group (OMG). See Section 3.3.4.2, *Understanding Type Consistency*, in the *Monitor User’s Manual* for details.

3 What's Fixed in 5.0.0

3.1 Version Compatibility is Now Checked

When running *Monitor* with applications built with a different version of *Connext*, there were communication issues. To address this problem, *Monitor* will issue a notification that the remote application is incompatible with the *Monitor* version and the remote application’s data will be ignored.

[RTI Issue ID MONITOR-104]

3.2 Failure to Communicate if Partitions in Use

Monitor did not receive data from instances of *Monitoring Library* that used the Partition-QoS Policy. This problem has been resolved.

[RTI Issue ID MONITOR-106]

3.3 Builtintopic Data Now Available in Saved Files

In previous releases, the builtin topic data (for DomainParticipants, Publishers, and Subscribers) was not available when loading data from a saved file. Most of this data is now available, with the exception of the typecode (which is used to display the equivalent IDL and provides some metrics).

[RTI Issue ID MONITOR-110]

3.4 Possible Segmentation Fault when Using Monitoring Library Release Mode

On some 64-bit architectures, using the release mode of *RTI Monitoring Library* could cause a segmentation fault. This problem has been resolved.

[RTI Issue ID MONITOR-114]

4 Known Issues

- Monitor* will show monitoring information for an application properly only if all the monitoring Description topics are published and not filtered (this is the default setting). See the *Monitoring Library Getting Started Guide* for details about monitoring topic filters.

The ***Description** topics are needed to properly place objects in the tree views. The per-matched and per-locator topics are needed for the System Overview panel's **Matches** option to work properly.

- The aggregation capability will not work correctly with applications that publish monitoring data at a rate that is different than the aggregation rate used in *Monitor*.
 - Monitor* does not support DomainParticipants which use WireProtocolQosPolicyAutoKind RTPS_AUTO_ID_FROM_MAC.
 - The internal DomainParticipant (1) and DataWriters (13) created by *Monitor* are incorrectly included in the counts for remote participants or remote writers in the Status panel, even though the monitoring library has been configured to exclude internally created entities in the count.
-

5 Custom Supported Platforms

Monitor is also supported on the platforms listed in [Table 5.1](#); these are target platforms for which RTI offers custom support. If you are interested in these platforms, please contact your local RTI representative or email sales@rti.com.

Table 5.1 **Custom Supported Platforms**

Operating System	CPU	Compiler	RTI Architecture Abbreviation
Red Hat Enterprise Linux 5.2 (2.6 kernel)	Pentium class	gcc 4.2.1	i86Linux2.6gcc4.2.1
		Sun Java Platform Standard Edition JDK 1.6	i86Linux2.6gcc4.2.1jdk
RedHawk Linux 5.4 (2.6 kernel)	Pentium class	gcc 4.2.1	i86RedHawk5.4gcc4.2.1
		Sun Java Platform Standard Edition JDK 1.6	i86RedHawk5.4gcc4.2.1jdk

6 Third-Party Licenses

Portions of *RTI Monitor* were developed using:

- Apache log4j** from the Apache Software Foundation (<http://logging.apache.org/log4j/>)
- JCommon**, licensed under the terms of the GNU Lesser General Public Licence (LGPL) version 2.1 or later (<http://www.jfree.org/jcommon/>)
- JFreeChart** from Object Refinery Ltd. (<http://www.jfree.org/jfreechart/>), licensed under the terms of the GNU Lesser General Public Licence (LGPL) version 2.1 or later
- SwingX** from SwingLabs (<https://swingx.dev.java.net/>), licensed under the terms of the GNU Lesser General Public Licence (LGPL) version 2.1 or later

6.1 Apache Software License Version 2.0

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document. "Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this

License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 - (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and
 - (b) You must cause any modified files to carry prominent notices stating that You changed the files; and
 - (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 - (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distrib-

uted as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS