Using Wireshark™
with
RTI Data Distribution Service

Release Notes

Version 1.2.3.20111031

The Global Leader in DDS

Printed in U.S.A. First printing.
October 2011.

Trademarks

Copy and Use Restrictions

Technical Support

Real-Time Innovations, Inc.
385 Moffett Park Drive
Sunnyvale, CA 94089
Phone: (408) 990-7444
Email: support@rti.com
Website: https://support.rti.com/

Release Notes

1 System Requirements

RTI's distribution of *Wireshark* is compatible with *RTI® Data Distribution Service* 4.0 and higher; it is supported on these operating systems:

Operating System		CPU	Compiler	RTI Architecture Abbreviation
Linux	CentOS 5.4, 5.5 (2.6 kernel)	x86	gcc 4.1.2	i86Linux2.6gcc4.1.2
		x64	gcc 4.1.2	x64Linux2.6gcc4.1.2
	Fedora 12 (2.6 kernel)	x64	gcc 4.4.4	x64Linux2.6gcc4.4.4
	Red Hat Enterprise Linux 4.0 (2.6 kernel)	x86	gcc 3.4.3	i86Linux2.6gcc3.4.3
		x64	gcc 3.4.5	x64Linux2.6gcc3.4.5
	Red Hat Enterprise Linux 5.0 (2.6 kernel)	x86	gcc 4.1.1	i86Linux2.6gcc4.1.1
		x64	gcc 4.1.1	x64Linux2.6gcc4.1.1
	Red Hat Enterprise Linux 5.1, 5.2, 5.4, 5.5 (2.6 kernel)	x86	gcc 4.1.2	i86Linux2.6gcc4.1.2
		x64	gcc 4.1.2	x64Linux2.6gcc4.1.2
	Red Hat Enterprise Linux 6.0, 6.1 (2.6 kernel)	x86	gcc 4.4.5	i86Linux2.6gcc4.4.5
		x64	gcc 4.4.5	x64Linux2.6gcc4.4.5
	Ubuntu Server 10.04 (2.6 kernel)	x86	gcc 4.4.3	i86Linux2.6gcc4.4.3
		x64	gcc 4.4.3	x64Linux2.6gcc4.4.3

Operating System		CPU	Compiler	RTI Architecture Abbreviation
Solaris	Solaris 2.9	UltraSPARC	CC 5.4 (Forte Dev 7, Sun One Studio 7)	sparcSol2.9cc5.4
			gcc 3.2	sparcSol2.9gcc3.2
			Sun Java Platform Standard Edition JDK 1.5 and 1.6	sparcSol2.9jdk
	Solaris 2.10	UltraSPARC	gcc3.4.2	sparcSol2.10gcc3.4.2
			Sun Java Platform Standard Edition JDK 1.5 or 1.6	sparcSol2.10jdk
		UltraSPARC (with native 64-bit support)	gcc3.4.2	sparc64Sol2.10gcc3.4.2
			Sun Java Platform Standard Edition JDK 1.5 or 1.6	sparc64Sol2.10jdk
Windows	All Windows platforms described in the *RTI Data Distribution Service Release Notes* for 4.5e			

1.1 Additional Libraries for Solaris Systems

On Solaris systems, you need the files listed in Table 1.1 and Table 1.2. These packages are available at no cost from http://www.sunfreeware.com. These are the minimum required packages (higher versions are acceptable).

After installing these files, see Rebuilding the Cache Configuration File (Section 1.1.1).

Table 1.1 **Required Packages for Solaris 2.9**

atk-1.18	libiconv-1.11
cairo-1.4.10	libintl-3.4.0
expat-2.0.1	libpcap-1.0.0
fontconfig-2.7.0	libpng-1.2.40
freetype-2.3.9	pango-1.18.2
gcc-3.4.6 (glibc-3.4.6 is sufficient)	pcre-7.9

Table 1.1 **Required Packages for Solaris 2.9**

glib-2.20.4	render-0.8
gmp-4.2.1	renderproto-0.9.3
gtk+-2.12.0	tiff-3.9.1
jpeg-7	xrender-0.8.3
krb5-1.7	zlib-1.2.3

Table 1.2 **Required Packages for Solaris 2.10**

atk-1.18.0-sol10-sparc-local	libgpgerror-1.5-sol10-sparc-local
cairo-1.4.10-sol10-sparc-local	libiconv-1.11-sol10-sparc-local
expat-2.0.1-sol10-sparc-local	libintl-3.4.0-sol10-sparc-local
fontconfig-2.4.2-sol10-sparc-local	libpcap-1.0.0-sol10-sparc-local
freetype-2.3.9-sol10-sparc-local	libpng-1.2.40-sol10-sparc-local
glib-2.14.1-sol10-sparc-local	pango-1.18.2-sol10-sparc-local
gnutls-1.4.1-sol10-sparc-local	pcre-7.9-sol10-sparc-local
gtk+-2.12.0-sol10-sparc-local	render-0.8-sol10-sparc-local
intltool-0.40.3-sol10-sparc-local	renderproto-0.9.3-sol10-sparc-local
jpeg-7-sol10-sparc-local	tiff-3.9.1-sol10-sparc-local
krb5-1.7-sol10-sparc-local	xrender-0.8.3-sol10-sparc-local
libgcrypt-1.2.4-sol10-sparc-local	zlib-1.2.3-sol10-sparc-local

1.1.1 Rebuilding the Cache Configuration File

Once you've installed the required packages, modify the font cache configuration file and rebuild the font cache as described below:

Important: Run these steps as root.

1. Edit the file **/usr/local/etc/fonts/fonts.conf**.
2. Make sure that the following directories are in the section "Font directory list". If they are missing, add them:
   - **<dir>/usr/share/fonts</dir>**
   - **<dir>/usr/openwin/lib/X11/fonts</dir>** (This one in particular is normally missing from the existing installation)
   - **<dir>~/.fonts</dir>**

3. Rebuild the cache with this command:

```
/usr/local/bin/fc-cache -f -v
```

1.2 Additional Debian packages for Linux (Ubuntu) Systems

For Linux (Ubuntu) systems, the Debian package `snmp-mibs-downloader` is required.

1.3 System Hardware

To minimize the chance of packet capture loss and to optimize the overall performance of *Wireshark*, you should have a 1.7-GHz (or better) processor with at least 512 MB RAM. (The minimum values are 600-MHz and 256 MB RAM.)

1.4 Network Adapters

For information on the network adapters supported by *Wireshark*, see Wireshark's FAQ page (www.wireshark.org/faq.html).

2 What's New in Version 1.2.3.20111031

- This version adds support for Fedora 12 (2.6.32 kernel) and Red Hat Enterprise Linux 6.0 and 6.1 platforms (described in the *RTI Data Distribution Service Platform Notes)*.
- The packet dissector parses the new vendor-specific RTPS submessage, HEARTBEAT_VIRTUAL. This submessage has been introduced to support ordered access when **PresentationQosPolicy.access_scope** is set to GROUP_PRESENTATION_QOS.

3 Available Documentation

- *RTI Wireshark Getting Started Guide.* Please see **RTI_Wireshark_GettingStarted.pdf** to learn how to install and use *Wireshark* to analyze *RTI Data Distribution Service* applications.
- *Wireshark online help.* There is extensive online help included with Wireshark. Select **Help, Contents** from the menubar for a detailed user's guide in HTML format.
- *Wireshark User's Guide.* This PDF document describes how to use *Wireshark*'s features. It is not included in the installation, but can be downloaded from *Wireshark's* website (www.wireshark.org/docs). Note that it may pertain to a slightly different version of *Wireshark*.
- *RTI Data Distribution Service User's Manual*. This document provides details on the *RTI Data Distribution Service* API and describes how RTPS packets are used by *RTI Data Distribution Service*-based applications. In particular, you should review the Discovery chapter. Open **<NDDSHOME>/doc/pdf/RTI_DDS_UsersManual.pdf**, where <NDDSHOME> is where you installed *RTI Data Distribution Service*.

4 Custom Supported Platforms

Wireshark is also supported on the platforms listed in Table 4.1; 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 4.1 **Custom Supported Platforms**

Operating System		CPU	Compiler	RTI Architecture Abbreviation
Linux	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