Contents

1 Release Notes for WaveSnoop 1.0c ................................................................. 1-1
1.1 What is New in WaveSnoop 1.0c.................................................................1-1
1.2 What Changed in WaveSnoop 1.0b .............................................................1-1

2 Welcome to WaveSnoop .............................................................................. 2-1
2.1 Package Contents and Available Documentation ....................................2-1
2.2 Reading Guide ..........................................................................................2-2
2.3 System Requirements .............................................................................2-3
  2.3.1 Network Adapters ............................................................................2-3
  2.3.2 Operating Systems ...........................................................................2-3
  2.3.3 Hardware .......................................................................................2-3
2.4 How to Get Support....................................................................................2-3

3 Download and Installation ......................................................................... 3-1
3.1 Download Instructions .............................................................................3-1
3.2 Installation Instructions ...........................................................................3-2
  3.2.1 Installing EtherPeek .........................................................................3-2
  3.2.2 Installing WaveSnoop .......................................................................3-2
  3.2.3 What Happens During WaveSnoop Installation ..............................3-3
3.3 Uninstalling WaveSnoop .........................................................................3-4
3.4 Get Started!...............................................................................................3-5
Chapter 1

Release Notes for WaveSnoop 1.0c

This chapter identifies changes in the latest version of WaveSnoop®, release 1.0c.

1.1 What is New in WaveSnoop 1.0c

This release is strictly an update for compatibility with EtherPeek 5.0. WaveSnoop 1.0c is not compatible with earlier versions of EtherPeek.

1.2 What Changed in WaveSnoop 1.0b

Changes introduced in the previous release, WaveSnoop 1.0b, included the ability to:

- Identify and decode RTI vendor-specific client/server request and reply submessages.
- Identify (but not decode) RTI's internal submessages, submessages from other vendors, and unknown submessages.
Chapter 2

Welcome to WaveSnoop

WaveSnoop is a combination of:

- WildPackets’ EtherPeek™ software and documentation.
- RTI’s WaveSnoop software and documentation.

EtherPeek is a network packet and traffic analyzer from WildPackets, Inc. Network packet and traffic analyzers are used during application development and distributed system configuration to monitor the packets over the network. You can use filters to capture specific types of packets, then analyze the captured packets.

RTI’s WaveSnoop adds software to EtherPeek so that you can capture and analyze RTPS packets. RTPS is the Real-Time Publish-Subscribe protocol used by RTI’s NDDS® (Network Data Delivery Service) middleware.

2.1 Package Contents and Available Documentation

The WaveSnoop package includes:

- A CD from WildPackets which contains the EtherPeek software.
- This WaveSnoop Getting Started Guide, which will help you download the WaveSnoop software.
A password to use for downloading the WaveSnoop software.

Software License Agreements from RTI and WildPackets.

You can also access the following documentation:

- WildPackets’ EtherPeek Quick Tour. This document describes how to use EtherPeek’s features. You can view this document from EtherPeek’s start-up screen or Help menu, or open QuickTour.pdf in the Documents subdirectory of your EtherPeek installation.

- RTI’s RTPS Analysis Guide. This document describes how to analyze RTPS packets. Open WaveSnoop.pdf in the Documents subdirectory of your EtherPeek installation.


- WildPackets’ Peek Software Development Kit (SDK). This document describes how to extend EtherPeek’s capabilities. Open Readme.html in the Documents/Peek SDK subdirectory of your EtherPeek installation.

### 2.2 Reading Guide

We suggest that you read the documentation in the following order:

- Read this chapter to become familiar with the contents of your WaveSnoop package and system requirements.

- Read the instructions in Chapter 3 to download and install the software.

- Read the EtherPeek Quick Tour document to become familiar with EtherPeek.

- Read the RTPS Analysis Guide to learn how to:
  - use the provided basic filter to capture RTPS packets,
  - create more refined filters,
  - analyze each type of RTPS packet by looking at a sample file of captured RTPS packets.

- Read the EtherPeek User’s Manual as needed for more in-depth information on EtherPeek’s features.
2.3 System Requirements

2.3.1 Network Adapters

*WaveSnoop* runs with an NDIS 3 (or higher) compatible Ethernet or Fast Ethernet promiscuous mode network adapter.

*Promiscuous mode* operation allows EtherPeek to take over the driver so that it passively captures all packets on an Ethernet wire, regardless of the address to which the packets are being sent or received. Most newer network cards can operate in this mode; consult your card manufacturer for details. For example, *WaveSnoop* can be used with adapters from 3Com, Intel, Xircom, SMC, and many others.

2.3.2 Operating Systems

*WaveSnoop* requires that you have one of the following operating systems:

- Microsoft® Windows® XP (Service Pack 1 or later)
- Microsoft Windows 2000 (Service Pack 3 or later)
- Microsoft Windows NT® 4.0 (Service Pack 6a)

Microsoft Internet Explorer 5.5 or later is also required.

2.3.3 Hardware

To minimize the chance of packet capture loss and to optimize *WaveSnoop*’s overall performance, you should have at least a 600-MHz processor with 256 MB RAM.

For gigabit Ethernet environments, you should have at least a 1-GHz processor with 1 GB of RAM. This environment requires a 64-bit PCI bus.

2.4 How to Get Support

Technical support for both EtherPeek and *WaveSnoop* is provided by RTI; send e-mail to support@rti.com.
Chapter 3

Download and Installation

This chapter provides instructions on how to download and install WaveSnoop.

3.1 Download Instructions

You need two sets of software to use WaveSnoop: the EtherPeek CD and the WaveSnoop distribution which you will download from RTI’s website. The WaveSnoop distribution contains the RTPS analysis module and other supplemental files and documentation.

To download WaveSnoop:

2. Click Downloads on the top of the page.
3. Select WaveSnoop at the left of the page.
4. Enter your web shipping user name and password when prompted. (If you do not have this information, send e-mail to info@rti.com).
5. Save the file, wavesnoop10x.exe, to a temporary location on your computer, for example, C:\Temp. (Where x is replaced with a release-specific letter.)
3.2 Installation Instructions

First install EtherPeek from the CD, then install WaveSnoop using the following instructions.

3.2.1 Installing EtherPeek

The EtherPeek installation program should start automatically when you insert the CD; if it doesn’t, click Start, Run... and then type D:\Setup, where D: is the drive letter for your CD-ROM.

The installation wizard will prompt you for basic customer information and a serial number, which can be found on the EtherPeek box or inside the cover of the EtherPeek User’s Manual.

You will also be asked where EtherPeek should be installed on your hard disk. We will refer to this path as <ETHERPEEK_DIR>. If you choose the default, it is C:\Program Files\WildPackets\EtherPeek.

At the end of the installation, the wizard will ask if you want to start EtherPeek—we suggest you install WaveSnoop first.

3.2.2 Installing WaveSnoop

To install WaveSnoop, simply run the executable file that you downloaded, wavesnoop10x.exe (where x is replaced with a release-specific letter). It will launch a wizard that automatically installs the required files. You can run it by using the Start, Run... command or by double-clicking the file in a Windows File Explorer window.

Note to prior EtherPeek users only: If you have created user-defined filters that you want to use while WaveSnoop is installed, export the filters list before installing WaveSnoop, then import it again afterwards.¹ The Export and Import buttons are on the Filters List tool bar (View, Filters).

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¹. When WaveSnoop is installed, user-created filters are moved to a backup file, see Section 3.2.3.
3.2.3 What Happens During WaveSnoop Installation

You may find it useful to know what the WaveSnoop installation wizard does:

- Installs the RTPS analysis module: `<ETHERPEEK_DIR>\Plugins\PeekRtps.dll`
- Installs the RTPS decoder: `<ETHERPEEK_DIR>\Decodes\RTPS.dcd`
- Installs a sample capture which consists of two files in `<ETHERPEEK_DIR>\Samples`: RTPS.pkt and RTPS.ann.

These files contain a sample set of captured RTPS packets for demonstration purposes. Chapter 2 in the RTPS Analysis Guide describes how to load and analyze the contents.

- Installs RTI's documentation in `<ETHERPEEK_DIR>\Documents`:
  - WaveSnoop Getting Started Guide (`GettingStarted.pdf`)
  - RTPS Analysis Guide (`WaveSnoop.pdf`)

- Replaces these EtherPeek files with RTI's versions; the originals are moved to `<ETHERPEEK_DIR>\Backup`:
  - `<ETHERPEEK_DIR>\Decodes\IETF.dcd`
  - `<ETHERPEEK_DIR>\Filters\Default.flt`
  - `<ETHERPEEK_DIR>\Samples\Readme.htm`
  - `<ETHERPEEK_DIR>\PSpecs.bin`
  - `<ETHERPEEK_DIR>\PSpecs.xml`
  - `<ETHERPEEK_DIR>\Splash.bmp`
  - `<OS-dependent path>\WildPackets\EtherPeek\Filters.flt` (contains all user-created filters)

  where `<OS-dependent path>` varies by operating system. For instance, on Windows NT systems, it is `C:\WINNT\Profiles<user-name>\Application Data`; on Windows 2000 systems it is `C:\Documents and Settings<user-name>\Application Data`.

- Adds an uninstaller program (`<ETHERPEEK_DIR>\UNWISE.EXE`). See Section 3.3 for more information.

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1. Filters.flt is created the first time you run EtherPeek.
3.3 Uninstalling WaveSnoop

To remove WaveSnoop and EtherPeek:

1. Click Start, Settings, Control Panel.
2. Double-click Add/Remove Programs.
3. Scroll through the list of installed programs to select WaveSnoop.
4. Click Change/Remove.
5. Scroll through the list of installed programs to select WildPackets EtherPeek.
6. Click Change/Remove.

To remove WaveSnoop but keep EtherPeek:

Note: Any filters created while WaveSnoop was installed will be removed. The set of filters (and all other files) that existed prior to installing WaveSnoop will be restored. To preserve any filters you created while WaveSnoop was installed, export them prior to uninstalling WaveSnoop and then import them again later. The Export and Import buttons are on the Filters List tool bar (View, Filters).

1. Click Start, Settings, Control Panel.
2. Double-click Add/Remove Programs.
3. Scroll through the list of installed programs to select WaveSnoop.
4. Click Change/Remove.

Another way to remove WaveSnoop but keep EtherPeek is to run <ETHERPEEK_DIR>\UNWISE.EXE. If you use this method, be sure to choose Automatic for the Uninstall Method and Yes for the Perform RollBack option.
3.4 Get Started!

Once you have installed EtherPeek and WaveSnoop, take the EtherPeek Quick Tour. Then you are ready to capture and analyze RTPS packets.

After installing WaveSnoop:

1. Start EtherPeek from the Windows Start menu. If you chose the default location during installation, the shortcut is in Start, Programs, WildPackets EtherPeek.

2. When you start EtherPeek for the first time, you will be prompted to choose a network adapter. Choose an adaptor from the list (you can always change it later). For more information about adaptors, see the Quick Tour document’s section titled Getting Started.

3. From EtherPeek’s Start screen, select Take the Quick Tour... This will help you become familiar with EtherPeek’s features and terminology.

4. Read the RTPS Analysis Guide (<ETHERPEEK_DIR>\Documents\WaveSnoop.pdf) to learn how to:
   - Capture RTPS packets and analyze their contents.
   - Take a look at the sample captured packets. (To capture and analyze RTPS packets, you need an RTPS application running across the network. Since this may not be the case when you first run EtherPeek, we provide a sample file for demonstration purposes.)

Note: Please be aware that you are bound by the terms and conditions set forth in the EtherPeek and RTI Software License Agreements.