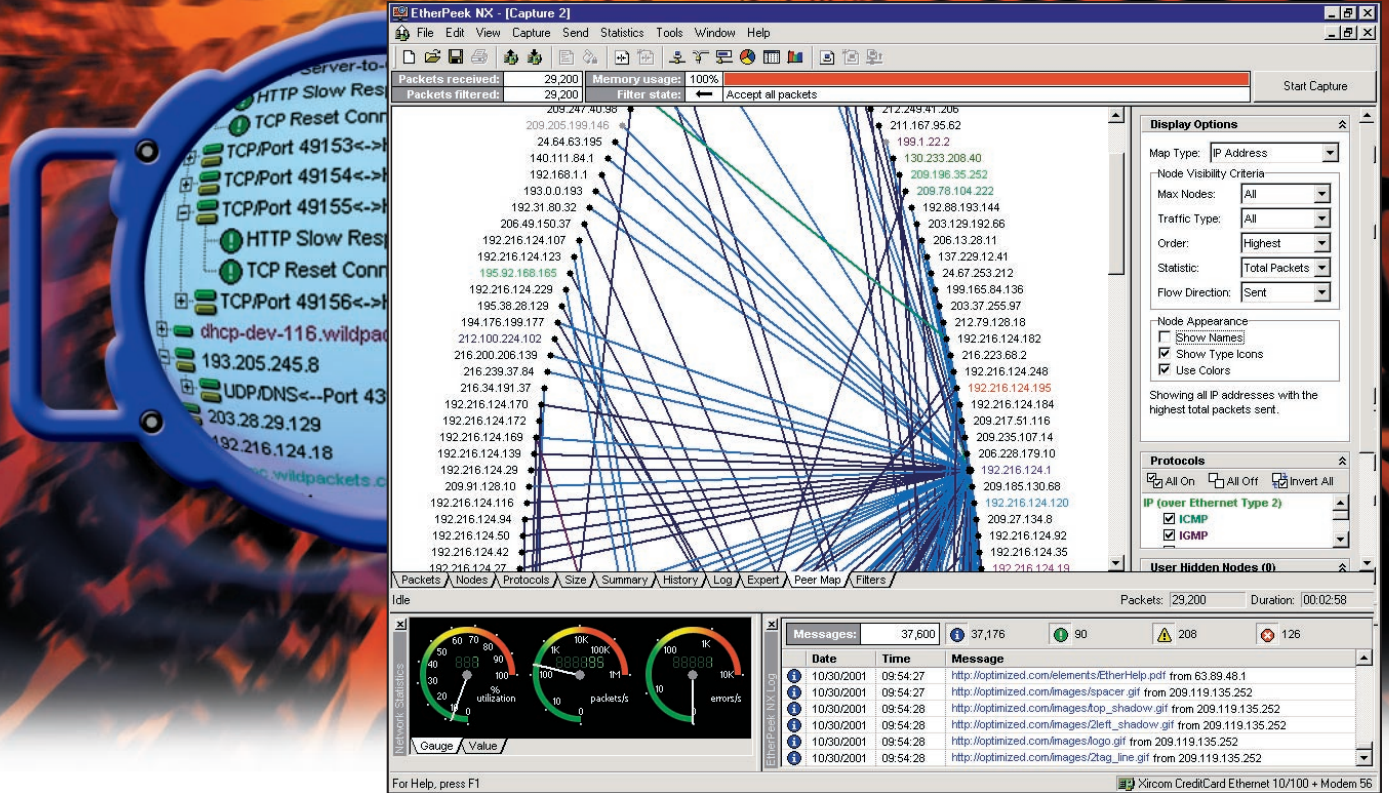


# EtherPeek NX™

with NetSense™ expert technology



The EtherPeek NX Peer Map plots network nodes on an expanding ellipse and connects all communicating peers by physical or IP address.

## Introducing EtherPeek NX™

EtherPeek NX brings the power of NetSense Expert Analysis to WildPackets' award-winning EtherPeek technology.

As networks converge media and new technologies into increasingly diverse and complex infrastructures, IT Professionals look to Expert Systems to sort through, analyze, diagnose, and isolate network data. Expert Systems need to be precise in pinpointing problems, relevant for current networks and topologies, able to accurately detect real symptoms and diagnose real problems.

EtherPeek NX has been designed to excel at all of these requirements, incorporating industry-leading expert technology to provide

precise, contemporary analysis of today's complex networks. Combining EtherPeek's familiar feature set and award-winning UI with heuristics developed by experienced packet analysis professionals, WildPackets delivers another powerful, affordable tool to help you manage your network.

## Real-time Expert Analysis

EtherPeek NX is the first and only protocol analyzer to offer both expert diagnostics and frame decoding in real-time, during capture. The Expert view, pictured above, provides expert analysis of latency, throughput, and over three dozen network problems in a conversation-centered view of traffic. Many of

the test elements have user-defined settings and thresholds, allowing you to fine-tune the Expert System to precisely fit your network.

## Expert System developed by networking experts

The Expert System represented by NX has been created with the assistance of network engineers, professional consultants and high-level packet analysis instructors with many collective years of experience and training. The intelligence brought to bear on NX's expert system provides you with real-time, realistic indications of traffic conditions and problems on your network, rendered in an intuitive display.



Your network has evolved.  
Has your network  
management tool?

EtherPeek NX provides pre-  
cise, contemporary analysis  
of a wide variety of problems  
facing today's networks.

EtherPeek NX is the first and  
only protocol analyzer to  
offer both expert diagnostics  
and frame decoding in real-  
time, during capture.

High-end analyzer,  
low-end cost.

**Capture 2**  
Packets received: 7,113 | Memory usage: 54%  
Packets filtered: 7,113 | Filter state: Accept all packets | Stop Capture

Conversations Analyzed: 326  
Problems Detected: 695

Net Node 1 (Client)	Net Node 2 (Server)	Packets	Duration	Problems	TCP Status	Ave Resp Time
ftp4.aggroup.com	161.6.17.134	812		1		
TCP:Port 32850<->Port 1497		809	00:00:33.788	78	Closed	
TCP Transport Retransmission						
TCP Slow Acknowledgement						
TCP Too Many Retransmissions						
Low Server-to-Client Throughput						
TCP:Port 1495<->FTP Control		3	00:00:01.412	1	Open	
ftp4.aggroup.com	203.197.94.145	973		390		
TCP:Port 32812<->Port 1141		973	00:02:49.653	380	Open	
TCP Slow Acknowledgement						

Problem Summary | Problem Log | Node Details  
Entries: 695

Date/Time	Description	Net Node
09/24/2001 13:20:22	TCP Slow Acknowledgement (5.408 sec: ftp4.aggroup.com)	
09/24/2001 13:20:23	TCP Slow Acknowledgement (5.708 sec: ftp4.aggroup.com)	
09/24/2001 13:20:22	TCP Transport Retransmission (470 ms: ftp4.aggroup.com)	
09/24/2001 13:20:22	TCP Transport Retransmission (640 ms: ftp4.aggroup.com)	

The Expert  
Problem-  
Finder™  
below,  
describes  
possible  
causes and  
remedies for  
your network.

EtherPeek NX places the expert  
analysis information into a  
conversation-centered, simple  
spreadsheet format, shown  
above.

**Expert ProblemFinder Settings**

Enable	Category	Description	Severity	Setting Value
<input checked="" type="checkbox"/>	Application	NCP Server Busy Reply	Minor	150 milliseconds
<input checked="" type="checkbox"/>	Application	POP3 Slow Response Time	Minor	
<input checked="" type="checkbox"/>	Application	SMTP Slow Response Time	Minor	
<input checked="" type="checkbox"/>	Transport	NCP Fast Retransmission	Minor	
<input checked="" type="checkbox"/>	Transport	NCP Packet Burst Retransmit Request	Minor	
<input checked="" type="checkbox"/>	Transport	NCP Too Many Retransmissions	Minor	
<input checked="" type="checkbox"/>	Transport	NCP Transport Retransmission	Minor	
<input checked="" type="checkbox"/>	Transport	SPX/SPX II Fast Retransmission	Minor	

Threshold Assistant: Dial-up--Internet--LAN--Fast LAN

**POP3 Slow Response Time**

Description: The average response time from the server is equal to or higher than the threshold.

Possible Causes: Busy server, network segments with low bandwidth, high round trip delay due to distance or highly latent networks such as frame relay.

Possible Remedies: Optimize application usage on the server or upgrade server platform, upgrade low bandwidth segments between the client and server, consider point-to-point or cell relay for WANs.

OK Cancel

### Expert Mapping

The EtherPeek NX Peer Map is drawn as a vertically-oriented ellipse, able to grow to the size necessary to show all communicating nodes within your network. Reading the peer map is easy: the thicker the line between nodes, the greater the traffic; the bigger the dot, the more traffic through that node. The number of nodes displayed can also be limited to the busiest and/or active nodes, or to any EtherPeek NX filters that may be in use. Protocols in use by nodes show up in a protocol legend at the side of the peer map. Nodes can be displayed by physical, IP, or IPX address; selecting the type of address also determines which protocol stacks are displayed in the map and in the protocol legend. Nodes can also be hidden to increase focus on a few problem nodes.

### Application level analysis

The EtherPeek NX Expert ProblemFinder, shown above, analyzes application layer client/server problems including busy networks and servers, inefficient clients, low throughput and latency. In order to quickly assess overall network performance, and easily identify application problems or client/server communications problems, EtherPeek NX calculates the send/receive statistics for all stations, including averages and ratios. Each individual conversation is analyzed independently for response time (latency) and throughput.

### Custom Expert Settings

Each of the thirty-nine Expert ProblemFinder settings in NX can be enabled or disabled at will. Many of the settings have additional metrics that can be invoked, such as an absolute threshold or sensitivity option. The Threshold Assistant™ helps to easily determine settings that are right for your network environment and the Expert Memory™ allows you to set the amount of memory available to Expert Analysis functions. The Expert Problem Finder also includes information describing the networks or application issues at hand, possible causes, and possible remedies.

### Multiple, simultaneous capture windows

As with all WildPackets™ "Peek" products, EtherPeek NX has the ability to open multiple live capture windows simultaneously. This means that new capture windows can be created in real-time to focus on specific traffic elements discovered in an overall traffic capture window. In addition, EtherPeek NX's NetSense Technology provides independent expert and Peer Map analysis of all open capture windows. You can also easily replay existing trace files for NX analysis. This is a great way for network engineers to examine shared traces...even those from other protocol analyzers!



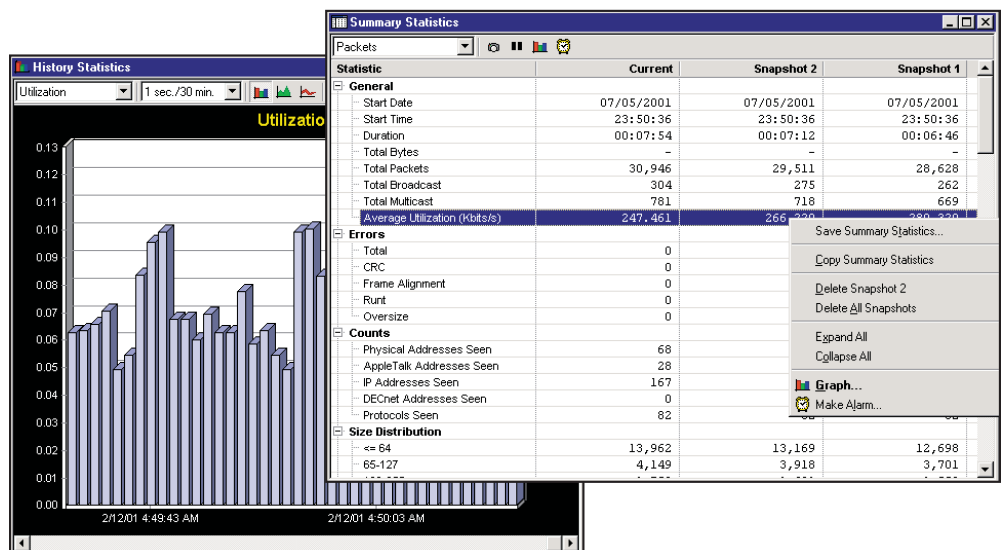
## EtherPeek NX Features

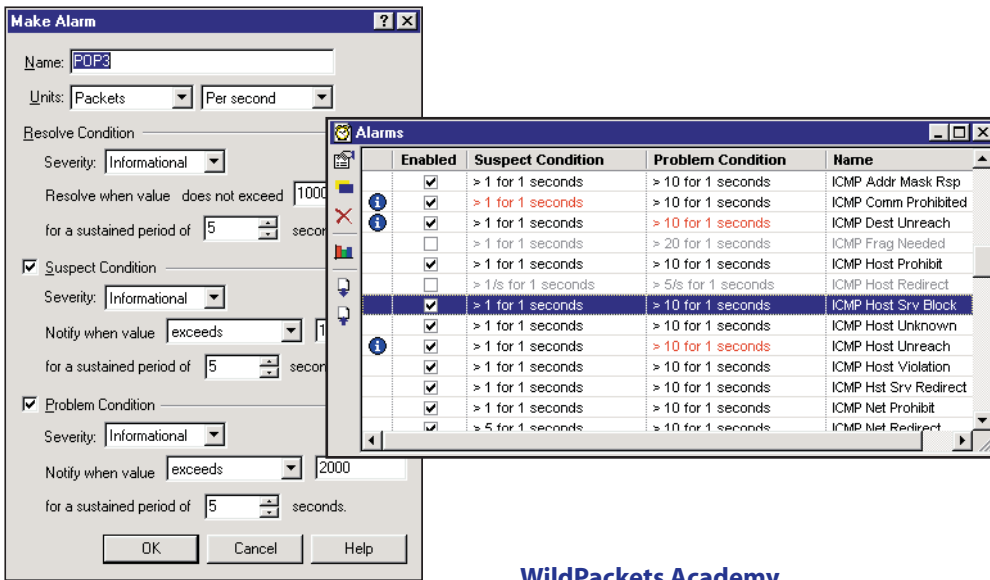
## EtherPeek NX Benefits

Expert Analysis	Provides Automated Problem Identification on your network. Evaluates and analyzes all 7 layers of OSI model, separates packets into independent conversations and displays them in an intuitive tree structure, analyzes device by device to isolate problem behavior, describes behaviors indicative of network, client, server, router, or infrastructure problems.
Expert ProblemFinder	Allows user to customize behavior of expert system in order to tailor it to the characteristics of his or her own network. ProblemFinder also provides descriptions, causes, and remedies for each of the problem conditions the expert system encounters.
Threshold Assistant	Allows the user to quickly adjust problem solver values by choosing network speed, and using built-in real world networking experience algorithms.
Peer Map	Provides a visual display of all conversations seen on the network, allowing the user to quickly breakdown network traffic, identify top talkers, and drill down into protocols and packet transmission statistics.
Multiple capture windows	Each capture window can have its own filters, expert analysis, peer map, etc. Useful for monitoring different application servers, comparing traces for client and server, and starting new captures to isolate problem devices while maintaining network capture buffer simultaneously.
Enhanced Alarms	EP NX provides over 100 real-time conditions tracked by the alarm system. NX has added the ability to set 3 conditions - Suspect, Problem, and Resolved - providing finer control over when a particular condition should be considered informational, minor, major, or severe.
Analysis Modules	EP NX was designed from the ground to be both extensible and modular. This allows the user to actually modify the behavior of EP NX, in order to, for instance, add new analysis capabilities for specific protocols and applications, optimize application performance, and disable undesired modules.
"Select Related" filtering	This exclusive feature provides a one-click means of extracting the precise packets the user is looking for. The user can quickly select the packets corresponding to specific hosts, protocols, conversations, and even expert problem reports.
Standard and Extensible Protocol Decoders	EtherPeek NX can accurately decode hundreds of network, transport, application and device control protocols, displaying both the commands and their meaning in English. With these clearly presented displays of packet contents, a user can more readily troubleshoot a network, track down a security breach, or simply gain a better knowledge of protocols and network services. Standard protocols can be customized or extended with the Decoder SDK that accompanies every NX purchase.
Customizable, multi-view display	Network engineers work differently. EtherPeek NX provides the user with the ability to customize the display to fit his or her preferences.
Summary Statistics	This window provides a real time tally of all the statistics collected by EP NX. This allows the user to quickly see and graph everything that is happening on the network, including the output of the Expert analysis.
Enhanced Report Generation	HTML and XML output provides the user a real-time view of global or capture-specific statistics. Useful for remote monitoring and management reports.
Developer's Kit	Includes a "plug-in wizard" to enable you to create custom analysis modules and the tools necessary to develop specialized decodes.

## Analyze network trends

Sophisticated graphing and trending features allow collecting, displaying, saving and analyzing any node, protocol, network or summary statistic available over a user-specified period of time. View trends through a variety of graph options from within the program. Output data in enhanced XML format for web access, or save statistics in tab-delimited form that can be exported to an external charting application.





## Suspects detected, problems diagnosed

The advanced alarm threshold notification options in EtherPeek NX include over 50 real-time or post-capture conditions tracked by the alarm notification system. These include bandwidth usage and error rate as well as specific numeric assessments such as, "How many times per second were ARP requests unresolved?" The advanced alarm threshold notification system comes pre-configured (with user-configuration easily performed) to identify not only the typical metrics and sophisticated threshold events, but to assess the significance of the expert system output as well. You will be notified (in a log, via email, or on your pager) that a Suspect Condition or a Problem Condition is occurring.

## Ordering Information

WildPackets products are available from our Channel Partners; by calling (800) 466-2447; directly from sales@wildpackets.com; or from the electronic purchase area at: www.wildpackets.com.

## Download a Demo!

Demos are available for all of our products at: www.wildpackets.com/demos.

## WildPackets Academy

WildPackets Academy offers comprehensive network analysis training, meeting the professional requirements of network managers at all levels. All course offerings are available in public venues and as customizable on-site programs. Course offerings include:

- Foundations of Network Protocol Analysis
- Network Troubleshooting Methods Using EtherPeek
- Full-Duplex and Switched Ethernet Analysis
- TCP/IP Protocol Analysis
- 802.11 Wireless Network Analysis Using AiroPeek
- LAN/WAN Special Topics

For complete course outlines and schedules, visit [www.wildpacketsacademy.com](http://www.wildpacketsacademy.com).

## EtherPeek NX Product Maintenance

When you purchase EtherPeek NX, one year of Level I Maintenance is included in the purchase price. WildPackets' Maintenance Program provides enhanced levels of service and extends the benefits and product update period (Level II and Level III Maintenance). Please visit [www.wildpackets.com/support](http://www.wildpackets.com/support) for details about our maintenance offerings.

## System Requirements

EtherPeek NX requires Windows 98, Windows ME, Windows NT 4.0 (service pack 3, or later), Windows 2000, or Windows XP.

To minimize the chance of NX's capture loss and to optimize EtherPeek's overall performance, a 400 MHz processor with 128 MB RAM is the minimum system requirement for 10 Mbit Ethernet, and a 600 MHz processor with 256 MB RAM or better is the recommended configuration.

## WildPackets, Inc.

Since 1990, WildPackets has been developing powerful, affordable tools designed to simplify the complex tasks associated with designing, maintaining, troubleshooting and optimizing computer networks. Our award-winning products include:

<b>EtherPeek NX</b>	<b>Expert analyzer with NetSense technology</b>
<b>AiroPeek</b>	<b>Wireless protocol analyzer</b>
<b>EtherPeek</b>	<b>Ethernet analyzer</b>
<b>EtherHelp</b>	<b>FREE, distributed remote capture application</b>
<b>TokenPeek</b>	<b>Token ring analyzer</b>
<b>TokenHelp</b>	<b>FREE, distributed remote capture application</b>
<b>WatchPoint</b>	<b>Real-time web monitoring</b>
<b>WebStats</b>	<b>Intelligent website management tool for EtherPeek</b>
<b>iNetTools</b>	<b>IP test utility suite</b>
<b>NetSense</b>	<b>Expert packet trace analyzer</b>
<b>ProConvert</b>	<b>Packet file converter</b>
<b>NetDoppler</b>	<b>Remote host route discovery, latency and throughput utility</b>
<b>PacketScrubber</b>	<b>Removes confidential data from packet traces</b>
<b>NetworkCalculator</b>	<b>IP address computing utility suite</b>

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