IPNetMonitorX ReadMe
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Product Page: <http://www.sustworks.com/site/prod_ipmx_overview.html>
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1.   Introduction

IPNetMonitorX is a powerful Internet tool kit featuring 19 integrated tools
designed to help you quickly identify problems, locate where the problem is,
and gather data which can be used to solve the problem either directly or
through your Internet Service Provider. The tools included at this time are:

    Address Scan
    AirPort Signal
    Connection List
    DHCP Lease
    DHCP Test

    Finger
    Interface Info
    Link Rate
    Lookup
    Monitor

    Name Server Query
    Ping
    Port Scan
    Server Scan
    Subnet Calculator

    TCP Info
    TCP Dump
    Trace Route

Who is

With IPNetMonitorX, you can see how the Internet is working, giving you the information to both optimize service and diagnose problems.

As with all of our Macintosh software products, IPNetMonitorX features a fully functional 21 day trial period. Once you are certain that our software is right for the job, a registration key can be purchased for $40 (see our registration page for educational and bundled package discounts).

Even after the trial period has expired, you may continue using a restricted subset of the software known as "IPNetMonitorX Lite" which consists of Ping, Monitor, and AirPort Signal.
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2.   Features

 * A complete basic Internet toolkit (ping, traceroute, nslookup, whois).
 * Full Macintosh user interface makes these tools more accessible.
 * Advanced multithreaded design saves time.
 * Superior integration.
    Automatically transfers corresponding data from one tool to another.

The well organized displays and integrated design allow both new
and experienced Internet users to see how the net is working, and
quickly identify and report common problems.
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3.   IPNetMonitorX System requirements

   Version 1.0.3 MacOS X 10.1 or later.
   Version 1.3.x Mac OS X 10.2 or later including Panther.
   BSD subsystem installed

4.   Installation and Removal

To install or remove the software, simply drag a copy to your hard drive. The first time IPNetMonitorX is run it will ask you to authenticate to complete the installation process.   Notice you must copy the software to your hard drive and then authorize it.   It will not work from a Read Only disk image since it requires unix file permissions.

Under unix operating systems including Mac OS X, certain operations require special permission or privileges to prevent unauthorized users from disrupting or spying on other users.   While well intentioned, these

conventions are often inappropriate for a "personal" computer where a single user owns and administers the system.   Among the operations that require such privileges are sending raw datagrams for Ping and TraceRoute as well as monitoring network traffic.

IPNetMonitorX takes the personal computer view that the user should normally be in control of their computer, so tries to minimize the disruption of asking the user to prove they are authorized to perform the requested operation.

To open ICMP endpoints for Ping and TraceRoute, IPNetMonitorX includes a tiny server application named "OpenICMP" that must run as suid root. When IPNetMonitorX is first run after being copied to a new location, it checks to see if the OpenICMP tool is present and set to suid root.   The same process is repeated for "ConfigDHCP", "RunTCPDump", and "LoadNKE". If any of these tools are not authorized, it asks you to authenticate so it can configure them to run as suid root. You might think of this as completing the installation process.   From that point on, no further authentication is necessary to perform any of the restricted operations IPNetMonitorX supports.

Normally allowing small programs to execute as root is not a problem unless the program seeks to compromise your system or is exploited by another program to carry out such an attack.   The best defense against such exploits at this time is to only run software from reputable developers.   Future versions of Mac OS X will hopefully offer finer control over software privileges so it will no longer be necessary to open your entire system (by granting root privileges) to programs that need to perform legitimate specialized tasks.

When copying the IPNetMonitorX application, you may see a warning message like this:

```
One or more items can't be copied. Do you want to skip them and
copy the remaining items?
```

This message appears because the user performing the copy operation does not have sufficient privileges to retain the root ownership of items that have been set to suid root. Instead of creating new copies belonging to the user performing the copy, Apple chose to issue a warning message and not copy them at all.   Under Mac OS X 10.1, IPNetMonitorX is self repairing so you can simply press "continue" and re-authorize the copied version the next time it is run.   Under Mac OS X 10.2 the entire IPNetMonitorX application may fail to copy.   In this case you can select "Unauthorize Tools..." under the IPNetMonitorX menu to restore the file permissions to allow copying.

If you have trouble running IPNetMonitorX from another hard disk volume, make sure you have not disabled privileges on this volume.   Select the

volume and do a "Get Info" (cmd-I).   Choose "Privileges" from the popup menu and make sure "Ignore privileges on this volume" is unchecked. IPNetMonitorX requires unix privileges for many of the tools to work.

IPNetMonitorX uses a probe module (IPNetKernel NKE) to intercepts network traffic while monitoring is in progress.   When the Monitor tool(s) for a given interface stop monitoring, the probe module is automatically removed from the corresponding data stream. The NKE normally remains loaded until you restart your system since other applications might be using it.   You can try forcing the NKE to unload by selecting "Unload NKE" from the IPNetMonitorX application menu. This feature allows you to load a newer version of the NKE without restarting your system.   The NKE will only unload when all monitoring connections to it have been stopped.

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5.   How to Get Started

IPNetMonitorX provides a wealth of tools you can open from the Tool menu.

Help is available on each of the various tools from the Help menu.
This is probably the best way to familiarize yourself with the more
advanced features of the software since you can experiment
with the window while you read the description.

You can bypass the splash screen at application launch by holding the command   key.

For the latest up to date information, refer to the IPNetMonitorX product page at:

<http://www.sustworks.com/site/prod_ipmx_overview.html>

A User Guide and Tutorial is available under the Help menu or from our website at:

<http://www.sustworks.com/site/prod_ipmx_help/NMTitle.html>
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6.   IPNetMonitorX Version History

See "Release Notes" under IPNetMonitorX Help for version history including the latest features and additions.
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7.   Registration and Licensing

IPNetMonitorX is commercial software subject to the terms of the accompanying License Agreement. You may use a demo version of the software during a single trial period of up to 21 days. You must then register the software if you wish to continue using it beyond the trial period.

Notice the trial is designed to expire after 21 days.   If the software reports it has expired the first time you launch it, this usually means someone ran a previous version of the program on your computer.   Please contact us directly for information on how to reset the trial period.

Once you have downloaded the application, there are 3 basic ways to register:

(1) Register on-line at <https://www.sustworks.com/cgi-bin/nr1.pl>

(2) For additional payment options, you may register via Kagi at <https://order.kagi.com/cgi-bin/store.cgi?storeID=HQ&&>

(3) For site license registrations or other special requirements, we can fax your company a proforma invoice or quote.   Please contact us directly at <mailto:admin@sustworks.com> .

The XML registration key that unlocks the demo startup screen and expiration will be sent to you by email once your registration information is received. You should simply paste the ENTIRE XML Key into the Registration Key field and click the "Accept" button. Your program is now registered. Thank You!

Pricing
   Single User $60
   Upgrade from IPNetMonitor classic $30
   Site License $2400 (unlimited users within 100 miles of your site)

Additional payment details are available on our registration web page at

<http://www.sustworks.com/site/reg.html>
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8.   Thank You!

We hope you find our IPNetMonitorX software useful and look forward to your comments and suggestions.

support help   <http://www.sustworks.com/site/sup.html>

registration issues   <mailto:admin@sustworks.com>

other questions   <mailto:info@sustworks.com>

or mail us at:

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   13 Fieldside DR
   Cumberland, RI 02864 USA

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