

IPNetMonitorX ReadMe  
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<http://www.sustworks.com>  
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### 1. Introduction

IPNetMonitorX is a powerful Internet tool kit featuring 15 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 Lookup, Ping, Trace Route, Name Server Query, Who Is, Finger, Monitor, TCP Info, Connection List, Address Scan, Port Scan, DHCP Lease, Link Rate, TCP Dump, and Subnet Calculator. [We anticipate porting the remaining IPNetMonitor classic tools.]

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).

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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

MacOS X 10.1 or later.  
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.

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. IPNetMonitorX is self repairing so you can simply press "continue" and re-authorize the copied version the next time it is run.

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.

A User Guide and Tutorial is available from our website at:

<[http://www.sustworks.com/site/prod\\_ipm\\_userguide.html](http://www.sustworks.com/site/prod_ipm_userguide.html)>

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## 6. IPNetMonitorX Version History

See the "Release Notes" document accompanying the Readme 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.quicomm2.com/cgi-local/net\\_reg.cgi?m=ssoft](https://www.quicomm2.com/cgi-local/net_reg.cgi?m=ssoft)>

(2) Use the supplied Register application to fill-in a Kagi registration form. Follow the instructions on the form to email, fax, or postal mail your registration to Kagi. Most common forms of payment are acceptable including personal checks.

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

In each case, a program registration code that unlocks the demo startup screen and expiration will be sent to you by email once your payment is received.

The registration code is based on the name you supply in the "Register to" field of the register application. Please enter your name followed by your organization name (if any) exactly as you want them to appear. Although the Register application only provides one line to enter this information, you can split the text between the name and organization lines of the IPNetMonitor registration screen as long as it contains exactly the same sequence of characters including any spaces.

### Pricing

Single User \$40

Upgrade from IPNetMonitor classic \$20

Additional payment details are included below and on our registration web page at

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

## Payment Details (Kagi)

Paying for IPNetMonitor is fairly simple. Open the Register program that accompanies IPNetMonitor. Enter your name, your email address, and the number of single user licenses you desire for each program you wish to purchase (or Site licenses). Save or Copy or Print the data from the Register program and send the data and payment to Kagi. Kagi handles my payment processing.

If paying with Credit Card or First Virtual, you can email or fax the data to Kagi. Their email address is sales@kagi.com and their fax number is +1 510 652-6589. You can either Copy the data from Register and paste into the body of an email message or you can Save the data to a file and you can attach that file to an email message. There is no need to compress the data file, it's already quite small. If you have a fax modem, just Print the data to the Kagi fax number.

Payments sent via email are processed within 3 to 4 days. You will receive an email acknowledgement when it is processed. Payments sent via fax take up to 10 days and if you provide a correct Internet email address you will receive an email acknowledgement.

If you are paying with Cash or USD Check you should print the data using the Register application and send it to the address shown on the form, which is:

Kagi  
1442-A Walnut Street #392-HQ  
Berkeley, California 94709-1405  
USA

You can pay with a wide variety of cash from different countries but at present if you pay via check, it must be a check drawn in US Dollars. Kagi cannot accept checks in other currencies, the conversion rate for non-USD checks is around USD15 per check and that is just not practical.

If you have a purchasing department, you can enter all the data into the Register program and then select Invoice as your payment method. Print three copies of the form and send it to your accounts payable people. You might want to highlight the line that mentions that they must include a copy of the form with their payment. Kagi can not invoice your company, you need to act on my behalf and generate the invoice and handle all the paperwork on your end.

Please do not fax or email payment forms that indicate Cash, Check or Invoice as the payment method. As far as we know, there is still no technology to transfer physical objects via fax or email and without the payment, the form cannot be processed.

Payments sent via postal mail take time to reach Kagi and then up to 10 days for processing. Again, if you include a correct email address, you will hear from Kagi when the form is processed.

The Register application is currently configured to require an email address since this is the preferred mechanism for distributing registration keys. If you need to make other arrangements, please contact the author directly at [info@sustworks.com](mailto:info@sustworks.com).

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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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