VIA Networking Technologies, Inc.

NICSET User Guide

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VIA Networking Technologies, INC.

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Offices:

USA Office:
940 Mission Court
Fremont, CA 94539
USA
Tel: (510) 683-3300
Fax: (510) 683-3301 -or- (510) 687-4654
Web: http://www.vntek.com

Taipei Office:
8th Floor, No. 533
Chung-Cheng Road, Hsin-Tien
Taipei, Taiwan ROC
Tel: (886-2) 2218-5452
Fax: (886-2) 2218-5453
Web: http://www.vntek.com.tw

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1.00	05/18/04	Initial Release	Checa
1.10	05/18/04	Change Format.	Checa
1.20	05/19/04	Change supported adapter name.	Checa

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1 Introduction

Welcome to the user guide of NICSET.

NICSET is a windows based utility which enables you to monitor, test and configure VIA Rhine Family Fast Ethernet Adapter on desktop systems and servers. It could be run under Microsoft Windows operation systems such as Windows 95/95OSR2/98/98SE/Me/NT 4.0/2000/XP/Server 2003.

2 NICSET Installer

For detail about installing NICSET on various Microsoft Windows platform:

2.1 Install NICSET in Windows 2000/XP/Server 2003

In Microsoft Windows 2000, XP and Server 2003, NICSET installation procedure is listed as the following:

1. In the folder contains NICSET package, there are two version of setup program
2. A Self-Extracting EXE and the NICSET subfolder contains uncompressed setup program.
3. Double Click on the **Self-Extracting EXE** or the **setup.exe** in the NICSET subfolder to launch the setup program,
4. Following the instruction of the setup program, to finish the setup of **NICSET.**

Note:

1. You must be logged in as an administrator or a member of the Administrators group in order to complete this procedure.
2. NICSET could be effect right after installation.
3. The setup program will prompt you to remove previous installation and to update miniport driver of your network adaptor if needed before installation.

2.2 Install NICSET in Windows 95/98/Me/NT 4.0

In Microsoft windows 95/98/Me/NT 4.0, NICSET installation procedure is listed as the following:

1. In the folder contains NICSET package, there are two version of setup program
2. A Self-Extracting EXE and the NICSET subfolder contains uncompressed setup program.
3. Double Click on the **Self-Extracting EXE** or the **setup.exe** in the NICSET subfolder to launch the setup program.
4. Following the instruction of the setup program, to finish the setup of **NICSET.**

Note:

1. NICSET could be effect after system restart.
2. The setup program will prompt you to remove previous installation and to update miniport driver of your network adaptor if needed before installation.

2.3 Update Miniport Driver

In Microsoft windows 95/98/Me/NT 4.0/2000/XP/Server 2003, NICSET installation procedure will automatically update driver in your system if necessary. It will be silent while performing driver update.

2.4 Remove NICSET in Windows platform

In Microsoft windows 95/98/Me/NT 4.0/2000/XP /Server 2003, NICSET installation procedure is listed as the following:

1. Click **Start**, point to **Settings**, and click **Control Panel**. Double-click **Add/Remove Programs.**
2. In the list of installed program, choose **NICSET.**
3. Click Add/Remove button to remove NICSET.

Or

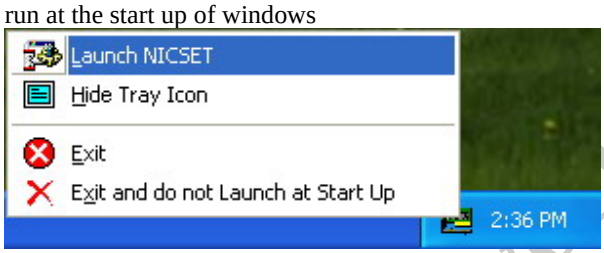
1. Click **Start**, point to **Program Files→NICSET**, and click **NICSET uninstall.**

3 Starting NICSET

While NICSET was installed onto the system, there are several Shortcuts to launch it.

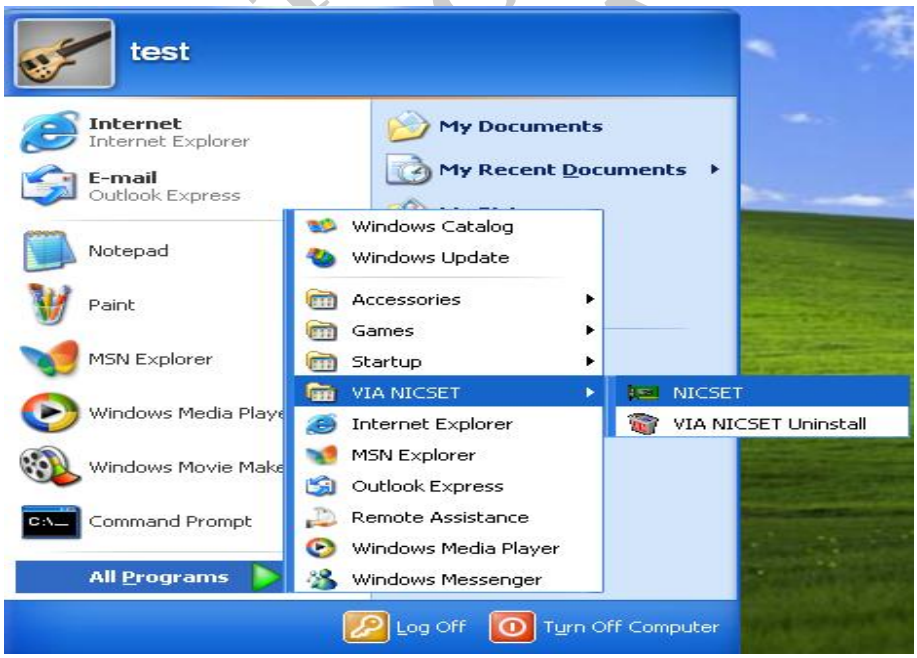
3.1 System Tray Shortcut

Despite of double click on the icon to launch NICSET, NICSET also provide a right click menu to launch itself and to enable auto run at the start up of windows



3.2 Control Panel Shortcut

3.3 Program File Shortcut

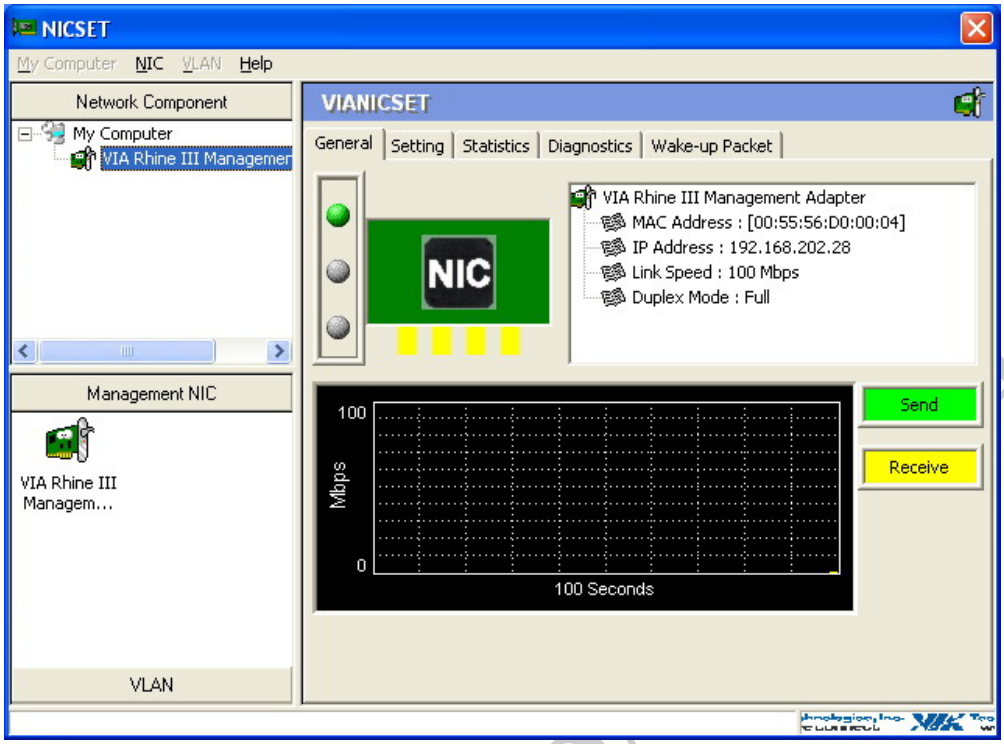


4 Basic Feature

The Basic Feature covered the general information, advance properties setting and historical statistics data of the network adapter.

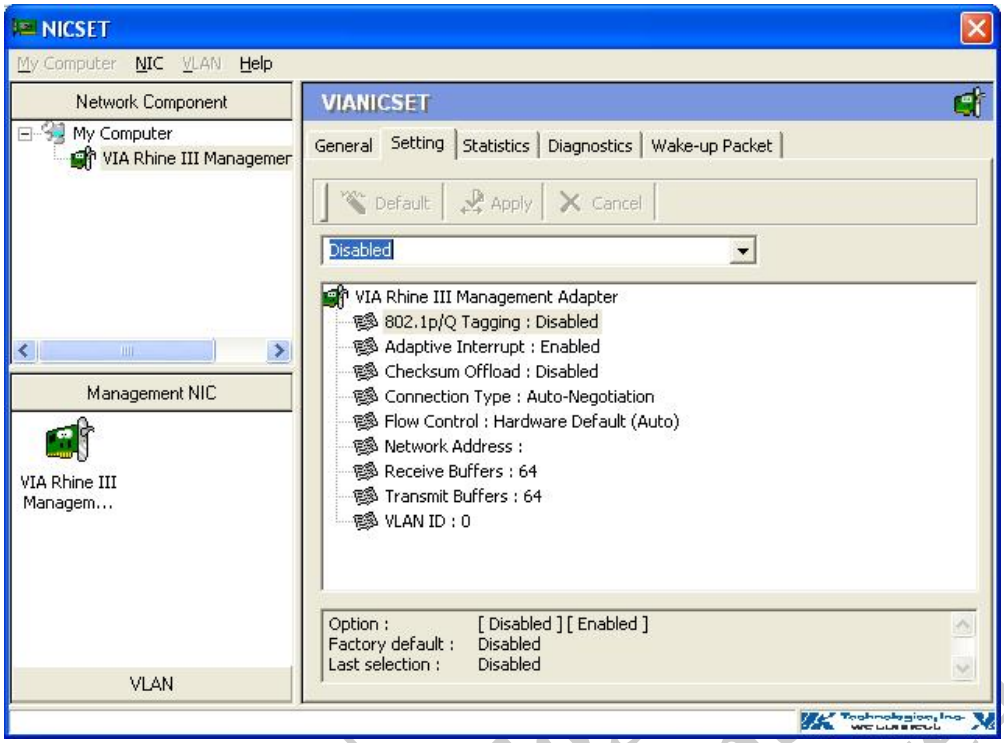
4.1 General Page

The General Page shows the basic information of the adapter such as IP Address/MAC Address/Link Speed/Duplex Mode. And the current/historical network activities as well.



4.2 Setting Page

Instead of using Advance Properties Page embedded in Device Manager of Windows, NICSET provide a more friendly interface to set value of properties of network adapter.
All possible setting will be listed on the bottom of this page. All of the changed could be done through the one click on button “Apply”, and all default setting could be done through button “Default” as well.

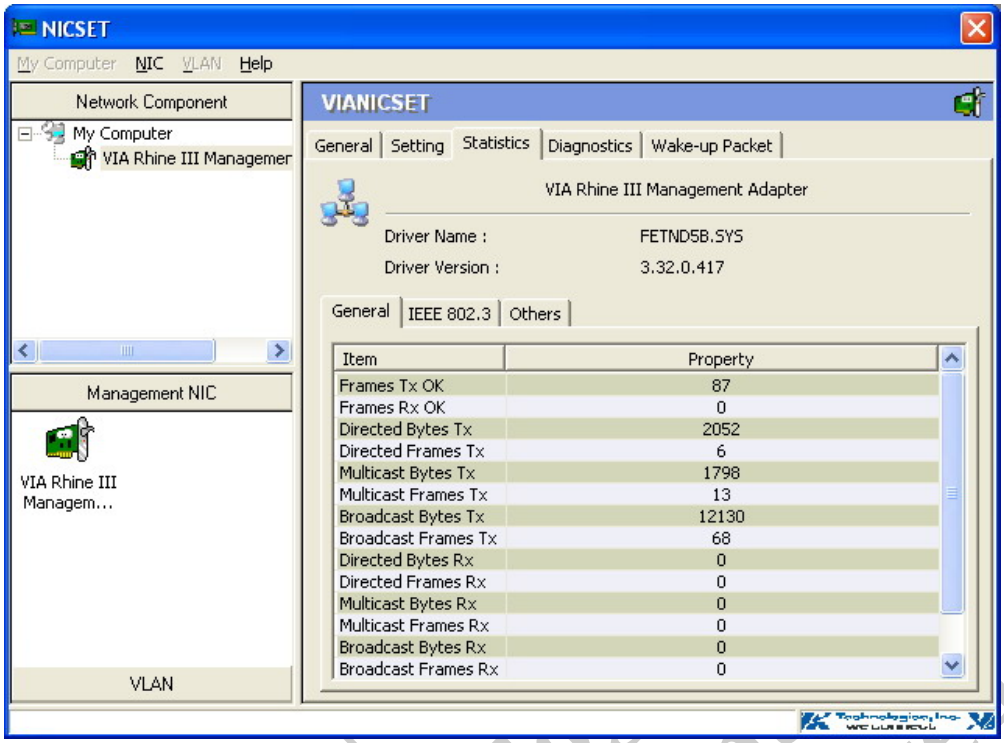


4.3 Statistics Page

Statistics Page contains the information about the current driver loaded for the network adapter. The adapter name, driver name and driver version:
It also contains three set of OID list to store the statistics information of the network adapter.

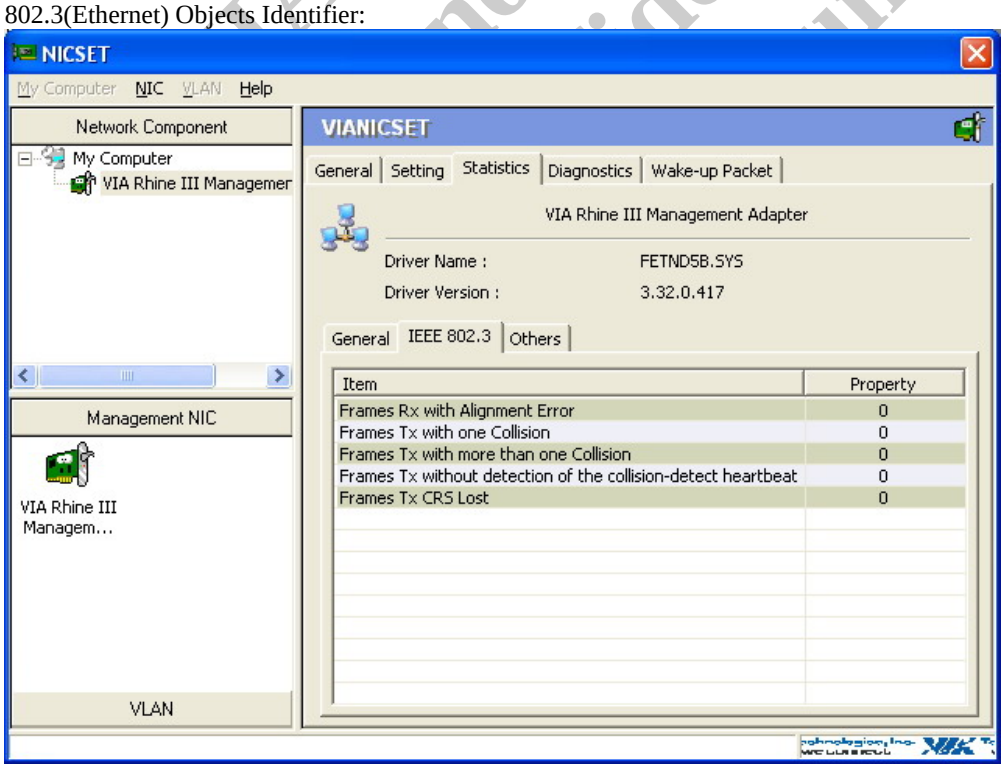
4.3.1 General OID List

General Objects Identifier:



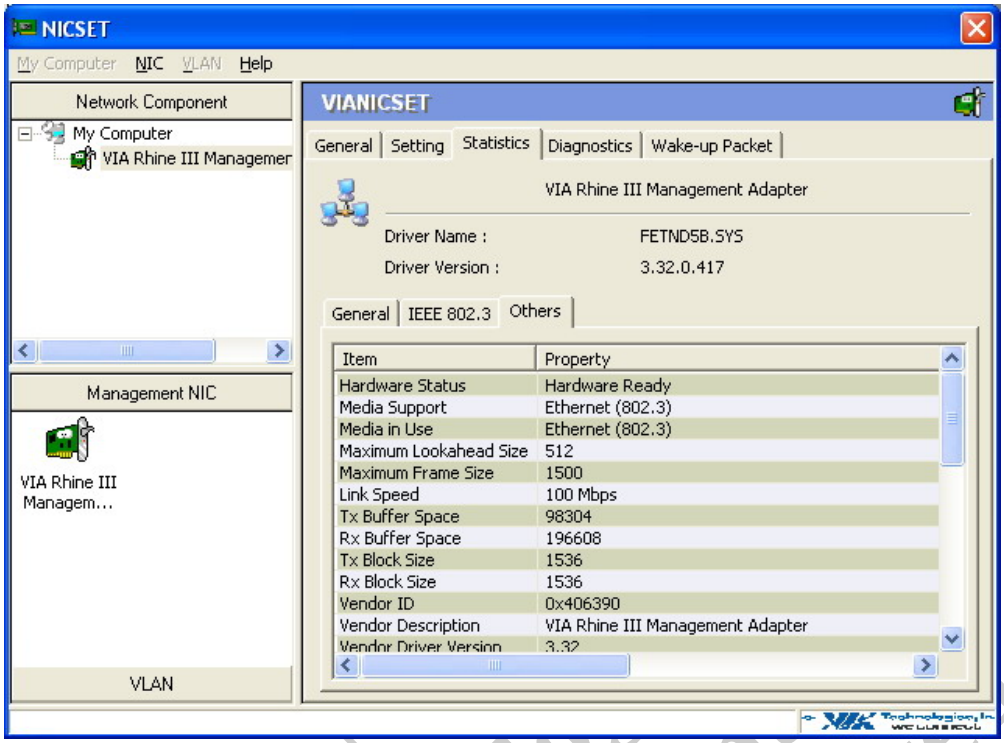
4.3.2 IEEE 802.3 OID List

802.3(Ethernet) Objects Identifier:



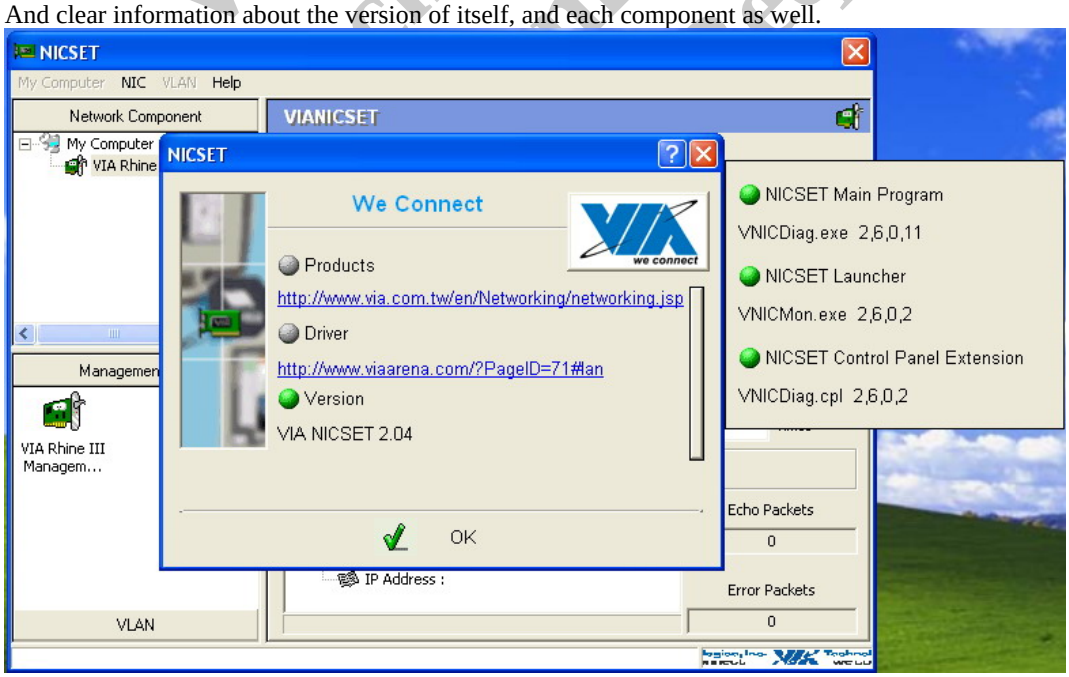
4.3.3 Customized OID List

VIA Rhine Family Fast Ethernet Adapter customized Objects Identifier:



4.4 About Page

NICSET provides information about company, product and driver. The text and bitmap is hyper links to the destination location. And clear information about the version of itself, and each component as well.



5 Advance Feature

The Analytic Feature includes Cable Analysis & Link Analysis to retrieve the status.

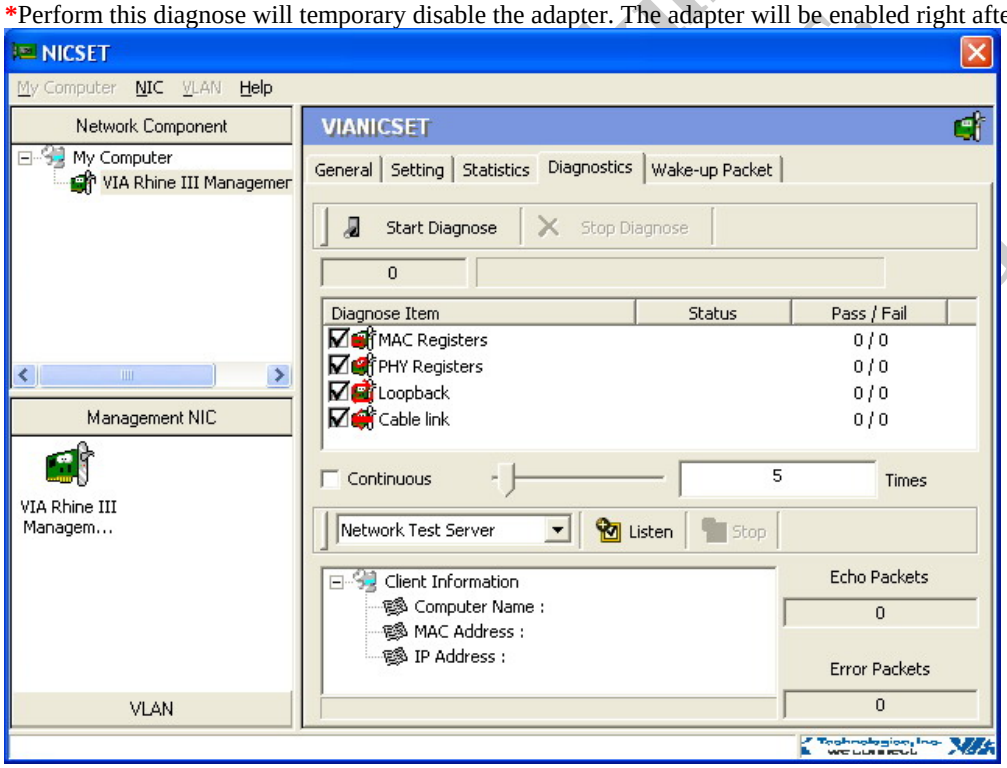
5.1 Diagnostic Page

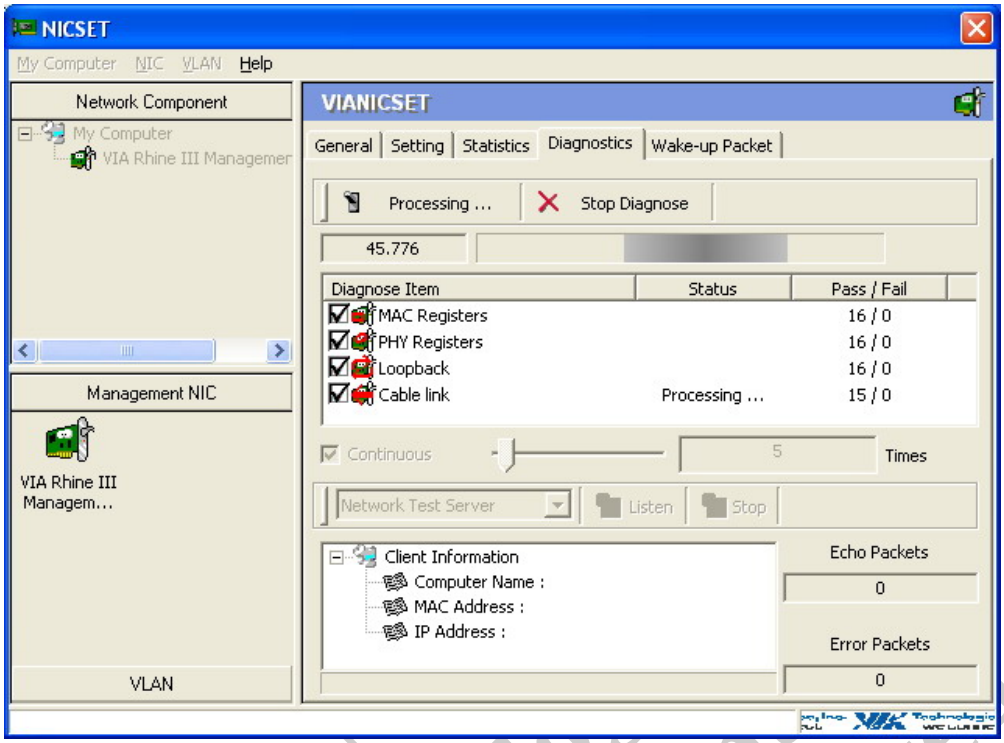
NICSET provides some simple but useful test over the adapter and entire network. It can test the register in the adapter, is cable link or not and whether any two node in the network topology is connected or not.

5.1.1 NIC Diagnostic

This will perform overall simple test on the NIC, the test item covered MAC Registers/PHY Register/Loopback/Cable Link. The Continuous option can be set to do an infinite loop of test.

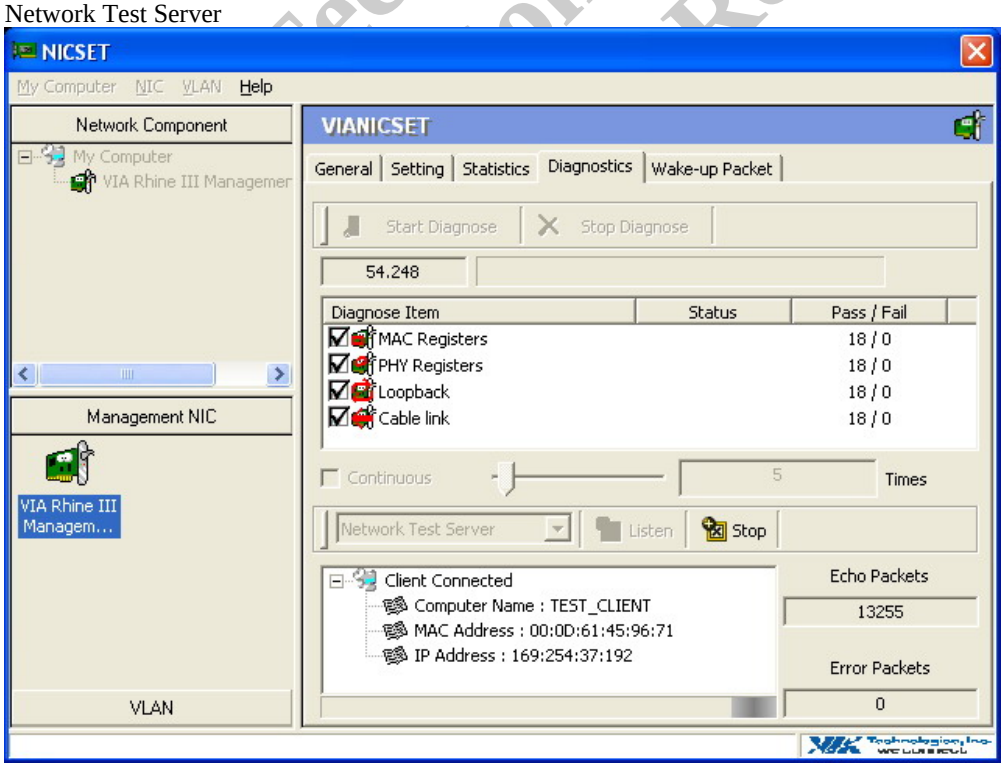
*Perform this diagnose will temporary disable the adapter. The adapter will be enabled right after the test.



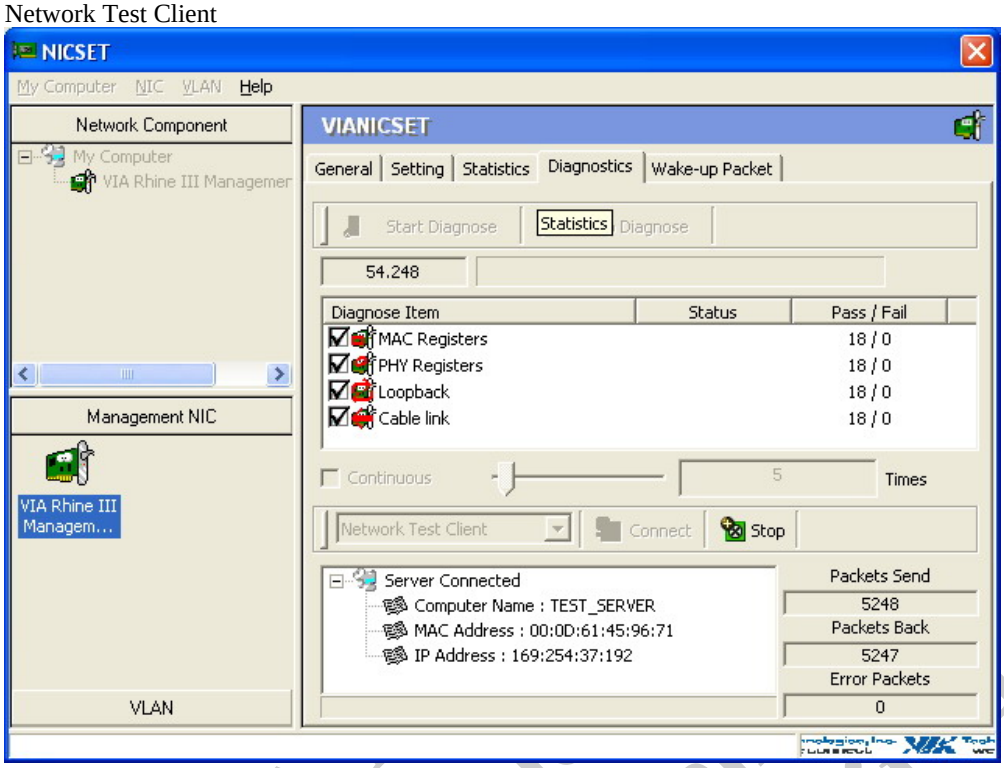


5.1.2 Network Test

For the test of the link status of entire network, any two of computers on the same subnet can be picked to test the link between those two nodes.
To perform Network Test, NICSET should be installed on two machines respectively. Then one played as Server that does listening and another as client that does connecting.
Network Test Server



Network Test Client



5.2 Wake-up Packet Page

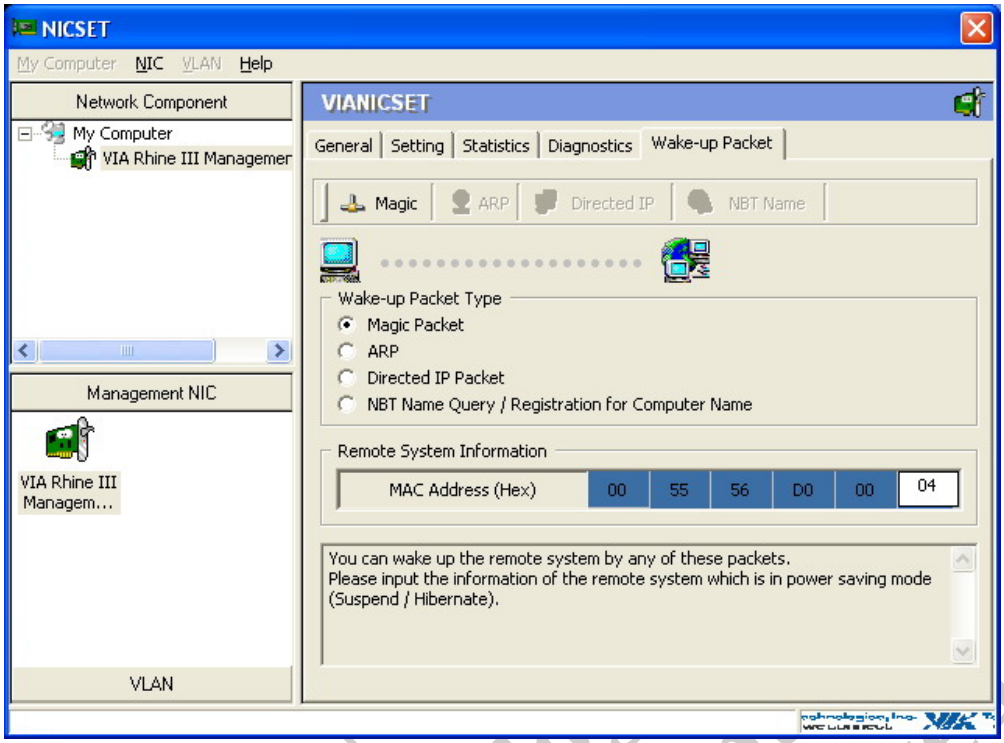
NICSET support 4 kind of Wake on LAN method, each is Magic packet, ARP, Direct IP, NBT. Which can bring remote machine up from suspend/hibernate mode if there is WOL support on remote machine.

*For operation system to support Wake in LAN event, the option on advance property page of network adapter to enable adapter to wake up the system should be open.

Network Adapter→Properties→Power Management→Allow this device to bring this computer out of standby.

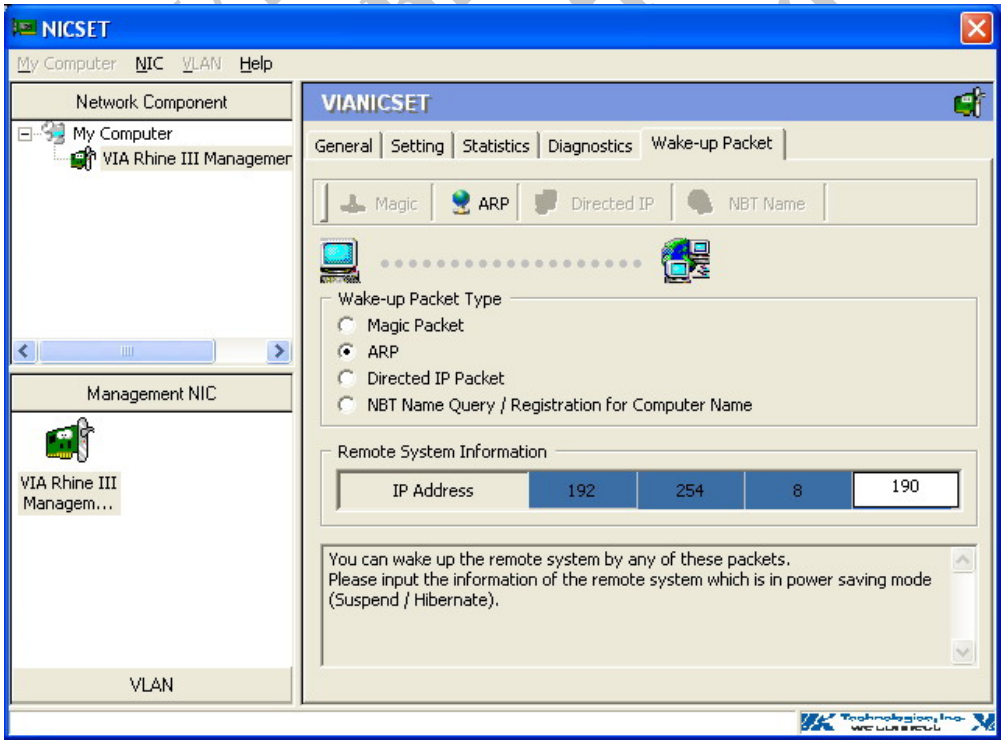
5.2.1 Magic Packet

To wake remote machine by Magic Packet. Click the radio button of Magic Packet, and enter the MAC address of the remote. Then click the button “Magic” to send Magic Packet.



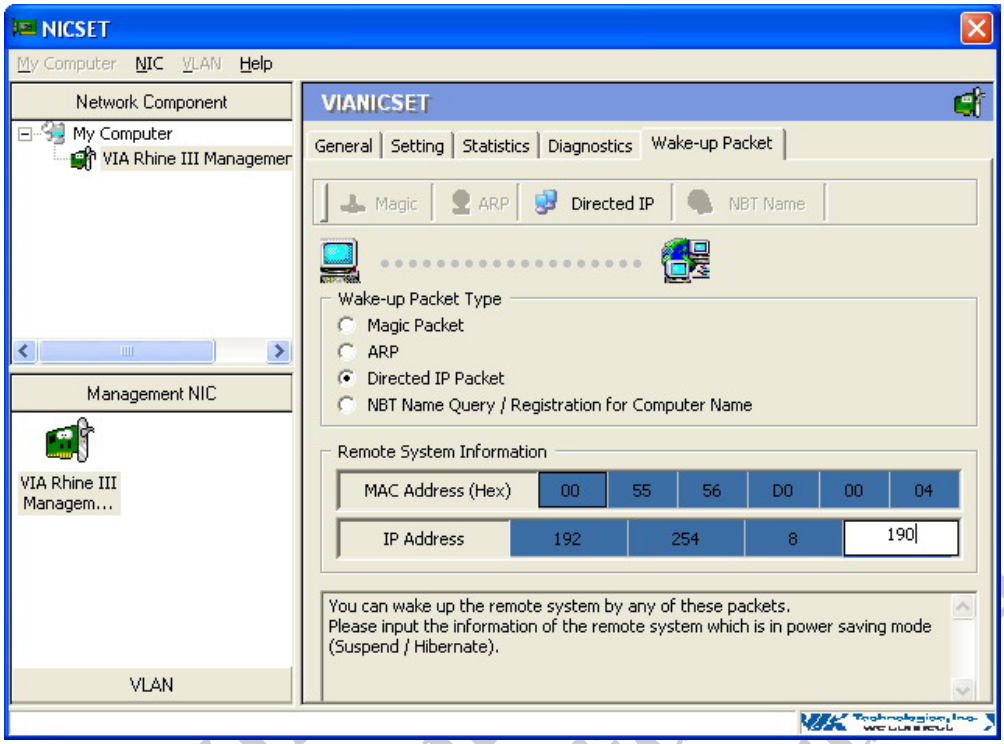
5.2.2 ARP Packet

To wake remote machine by ARP Packet. Click the radio button of ARP, and enter the IP address of the remote. Then click the button “ARP” to send ARP Packet.



5.2.3 Direct IP Packet

To wake remote machine by Direct IP Packet. Click the radio button of Directed IP Packet, and enter the MAC & IP address of the remote. Then click the button “Direct IP Packet” to send Direct IP Packet.



5.2.4 NBT Name Query/Registration for Computer Name

To wake remote machine by NBT Name Packet. Click the radio button of NBT Name Query/Registration for Computer Name, and enter the computer name of the remote. Then click the button “NBT Name” to send NBT Name packet.