

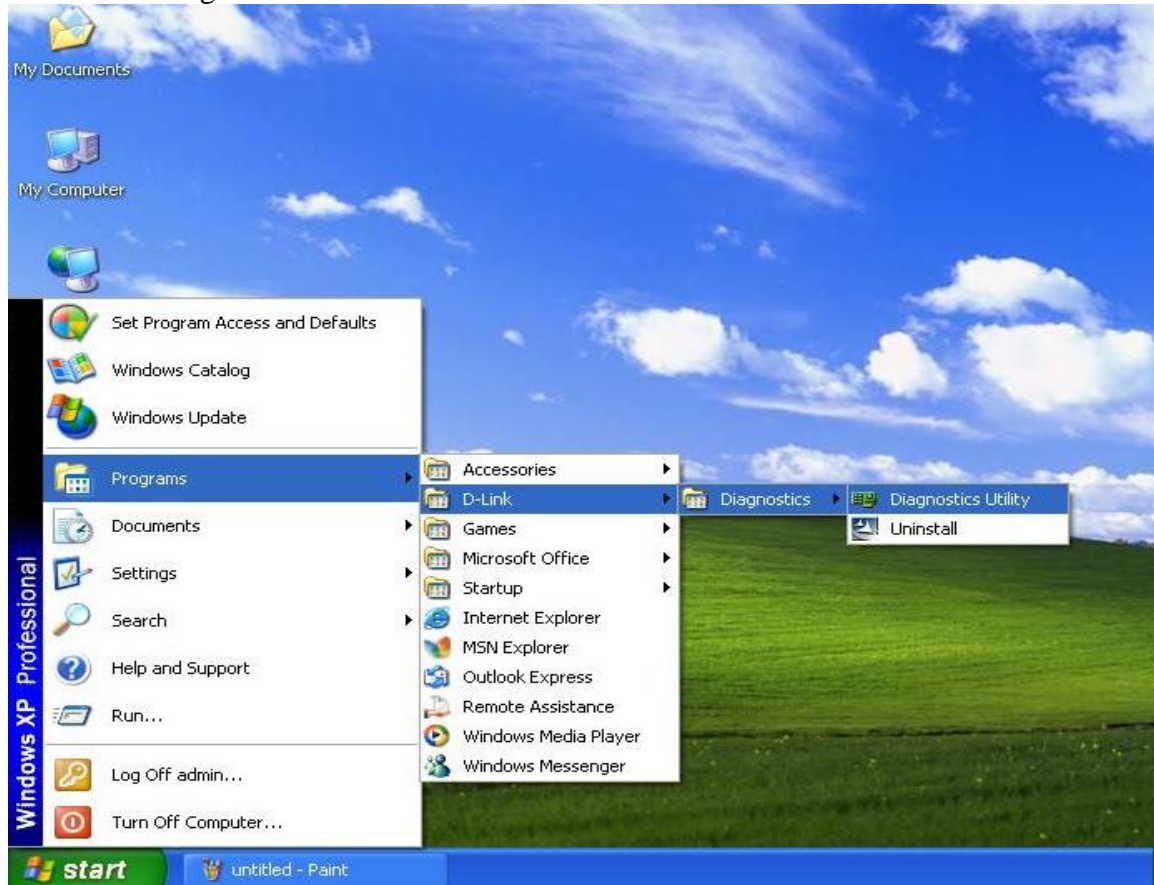
D-Link Diagnostics Utility User Guide

1. Using the Diagnostics Utility software

(Take Windows XP for Example)

1.1 Start the Utility software

From the start up menu, left click the icon in Programs->D-Link->Diagnostics Utility, as shown in the figure below:



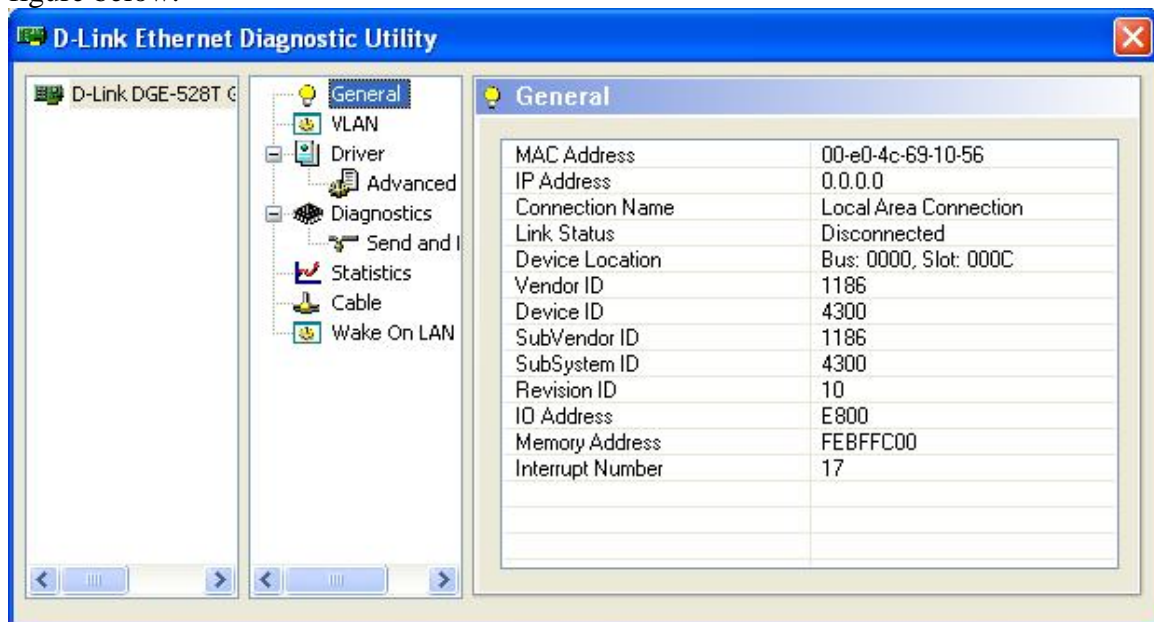
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1.2 Functions

The utility provides 7 main functions, such as “General”, “VLAN”, “Driver”, “Diagnostics”, “Statistics”, “Cable” and “Wake On LAN” which are explained in more details in the following sections.

1.2.1 General

The General section provides the general information about this Ethernet card, including “MAC Address”, “IP Address”, “Connection Name”, “Link Status”, “Device Location”, “Vendor ID”, “Device ID”, “SubVendor ID”, “SubSystem ID”, “Revision ID”, “IO Address”, “Memory Address” and “Interrupt Number”. An example is shown in the figure below:



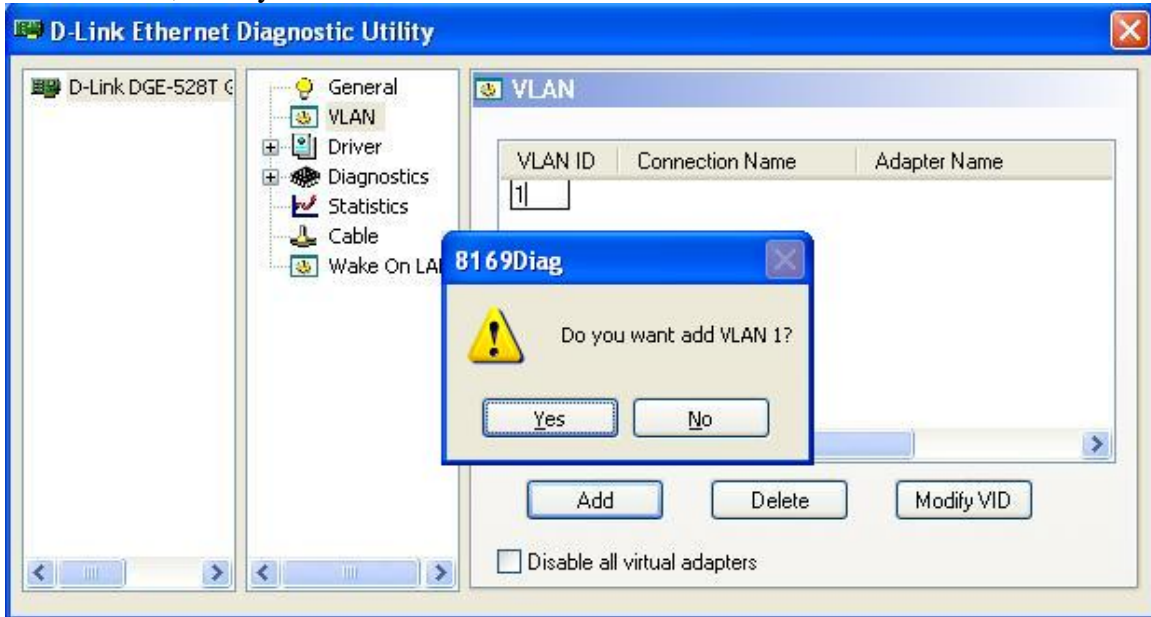
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1.2.2 VLAN

The VLAN section provides the management functions for user to maintain any Virtual Adapters related to this Ethernet card. There are 4 functions: Add, Delete, Modify and Disable all VLAN.

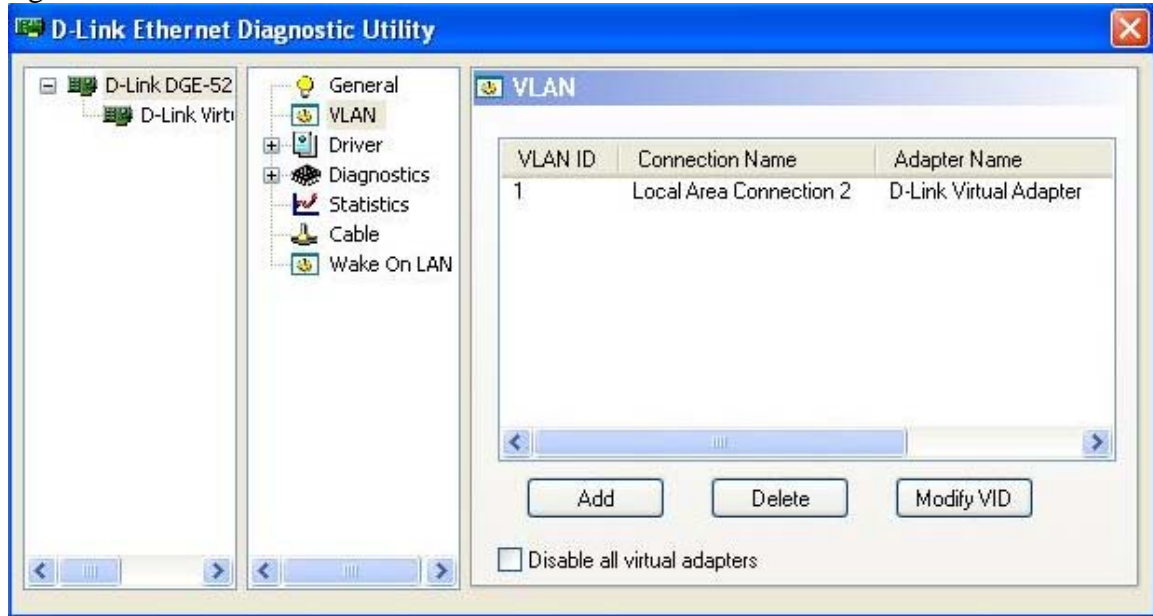
1.2.2.1 Add a new VLAN

Click the Add button, type in the “VLAN ID” and press Enter, a prompt will show for confirmation, click yes.



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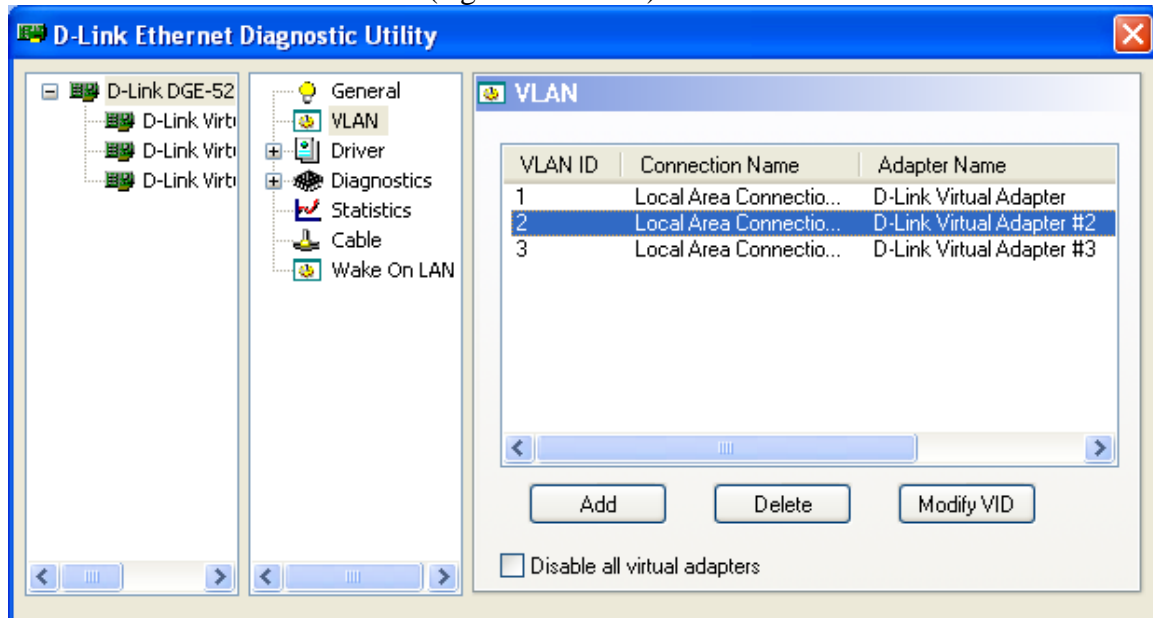
A new Virtual adapter will be installed; the utility display will be refreshed and updated. The new added VLAN will be listed in the VLAN section as shown in the following figures.



- Note: 1. VLAN id must be numbers ranged between 1 and 4096
2. The maximum number of VLAN allowed is 64

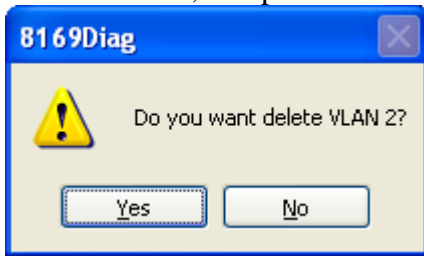
1.2.2.2 Delete an existing VLAN

1. Select the VLAN from the list (e.g. VLAN ID 2)

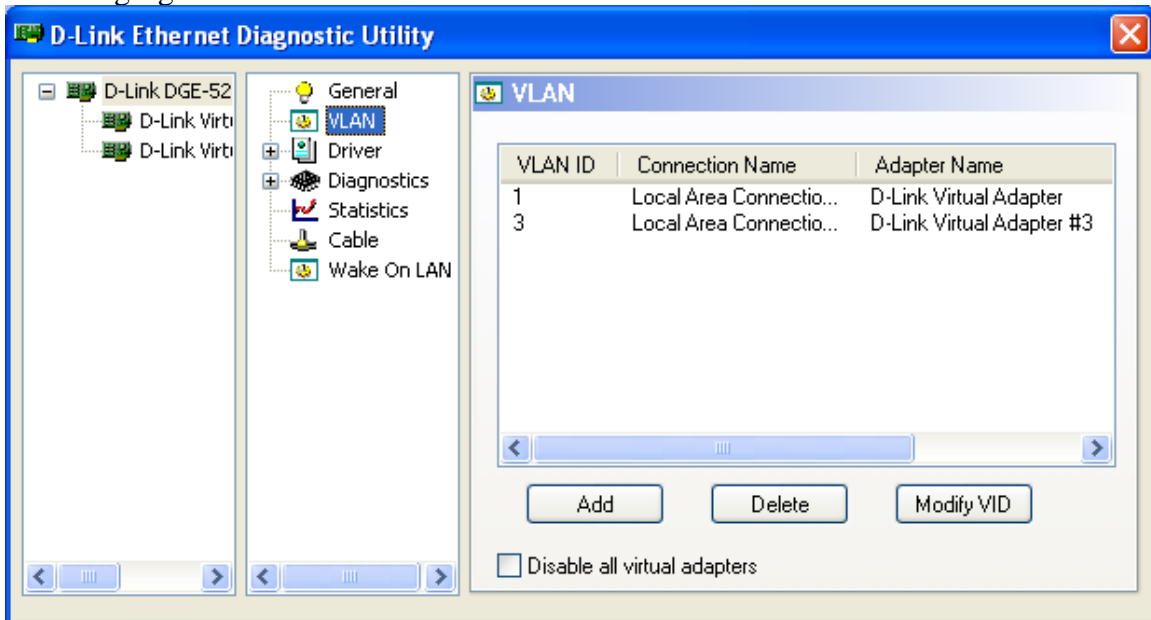


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2. Click Delete, and press Yes in the confirmation prompt.



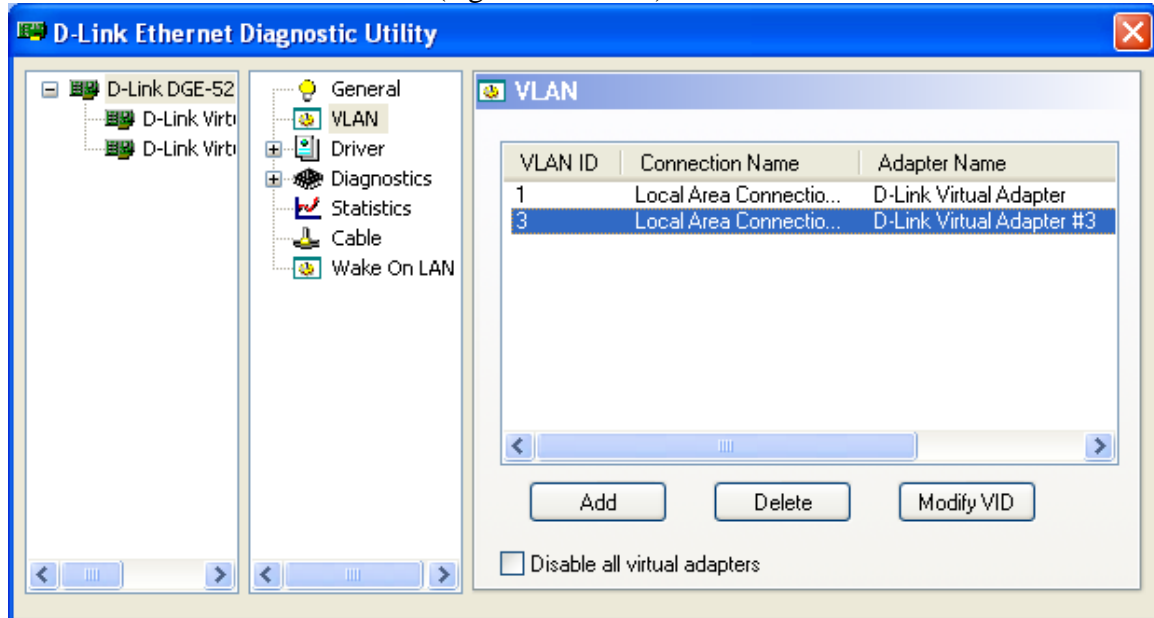
3. The selected Virtual adapter will be removed; the utility display will be refreshed and updated. The remaining VLAN will be listed in the VLAN section as shown in the following figures.



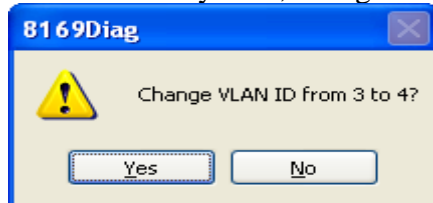
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1.2.2.3 Modifying an existing VLAN

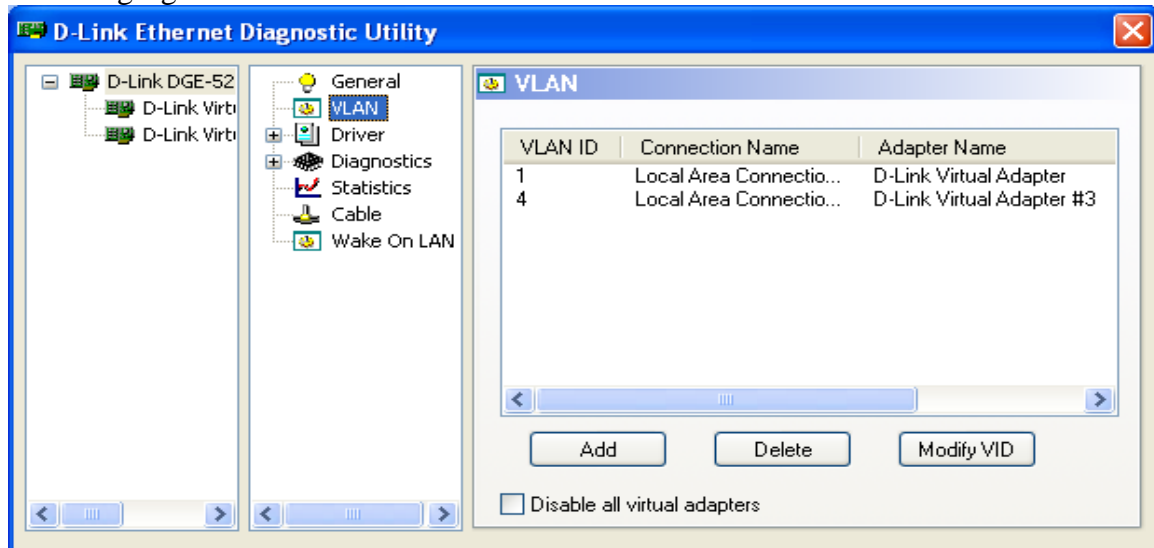
1. Select the VLAN from the list (e.g. VALN ID 3)



2. Click Modify VID, change the VLAN id and press Yes in the confirmation prompt.



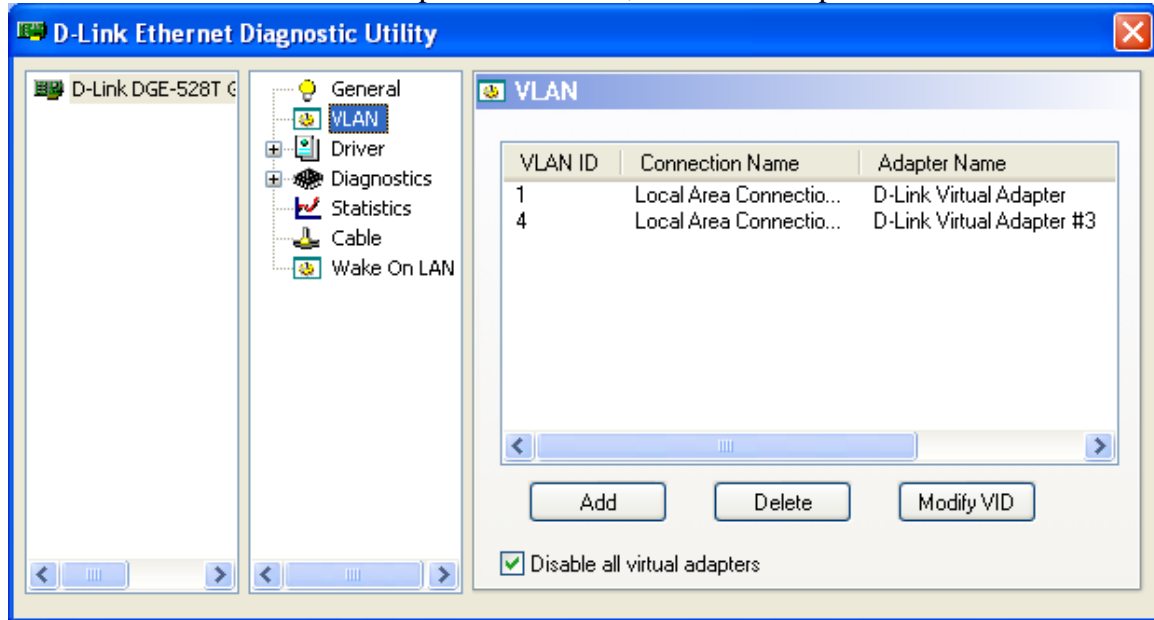
3. The selected VLAN id will be modified; the utility display will be refreshed and updated. The modified VLAN will be listed in the VLAN section as shown in the following figures



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1.2.2.4 Disable all virtual adapters

Tick the “Disable all virtual adapters” checkbox; all virtual adapters will be disabled.

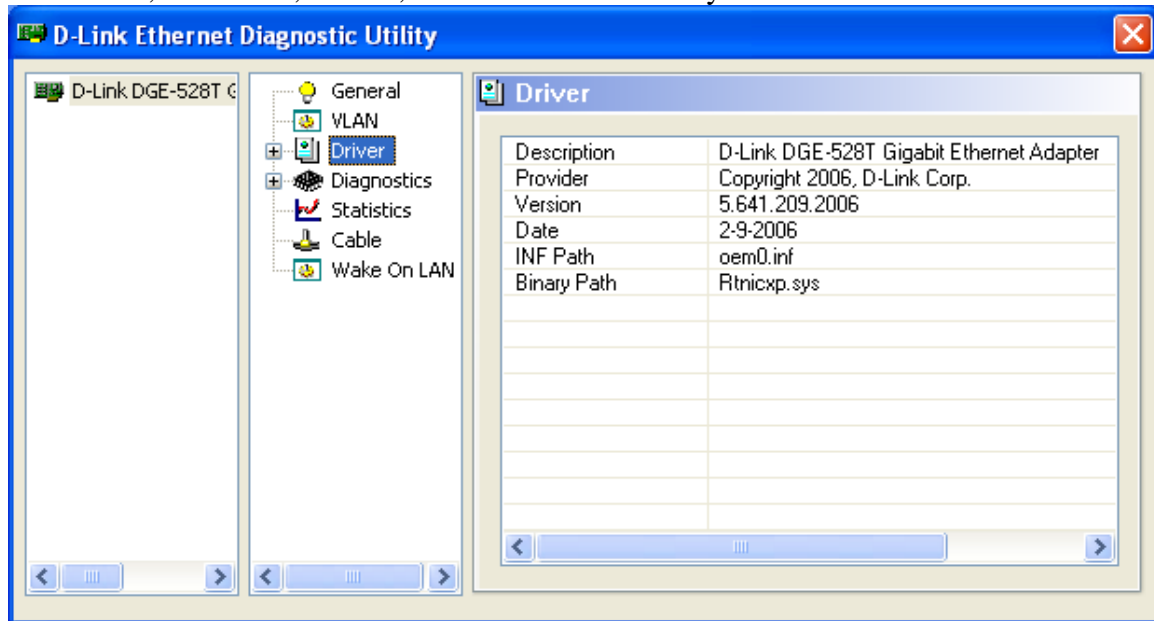


All virtual adapters can be enabled by simply un-tick the checkbox.

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1.2.3 Driver

The Driver section listed the information about the Driver including “Description”, “Provider”, “Version”, “Date”, “INF Path” and “Binary Path”.



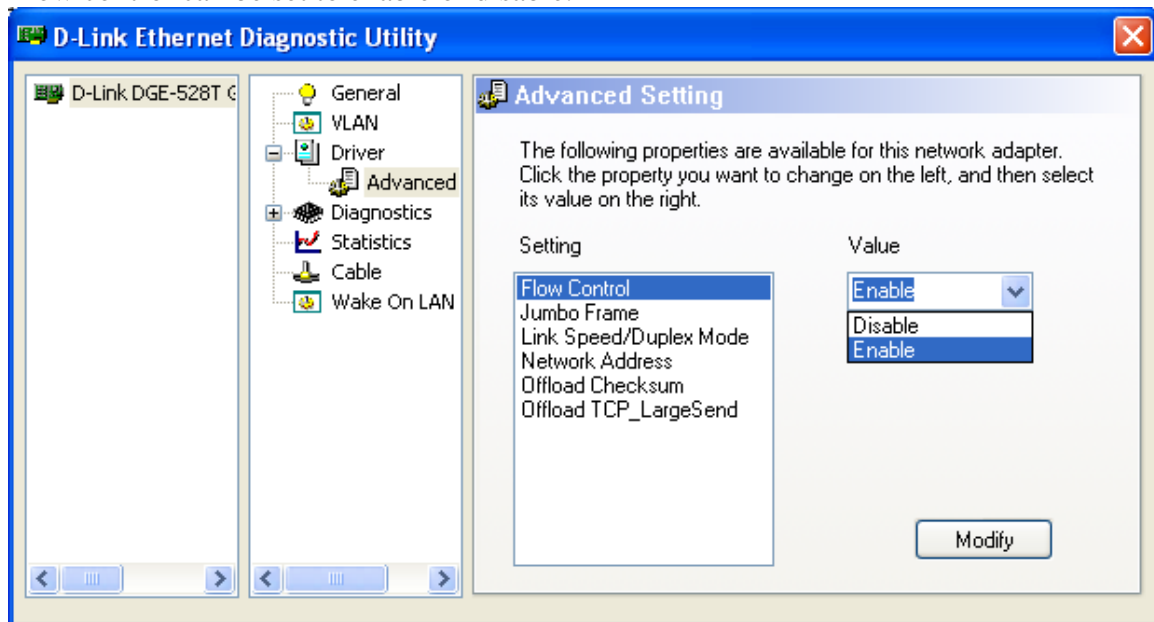
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1.2.3.1 Advanced Setting

Properties available for this network adapter can be changed in the Advanced Setting section. Those properties include “Flow Control”, “Jumbo Frame”, “Link Speed/Duplex Mode”, “Network Address”, “Offload Checksum”, and “Offload TCP_LargeSend”.

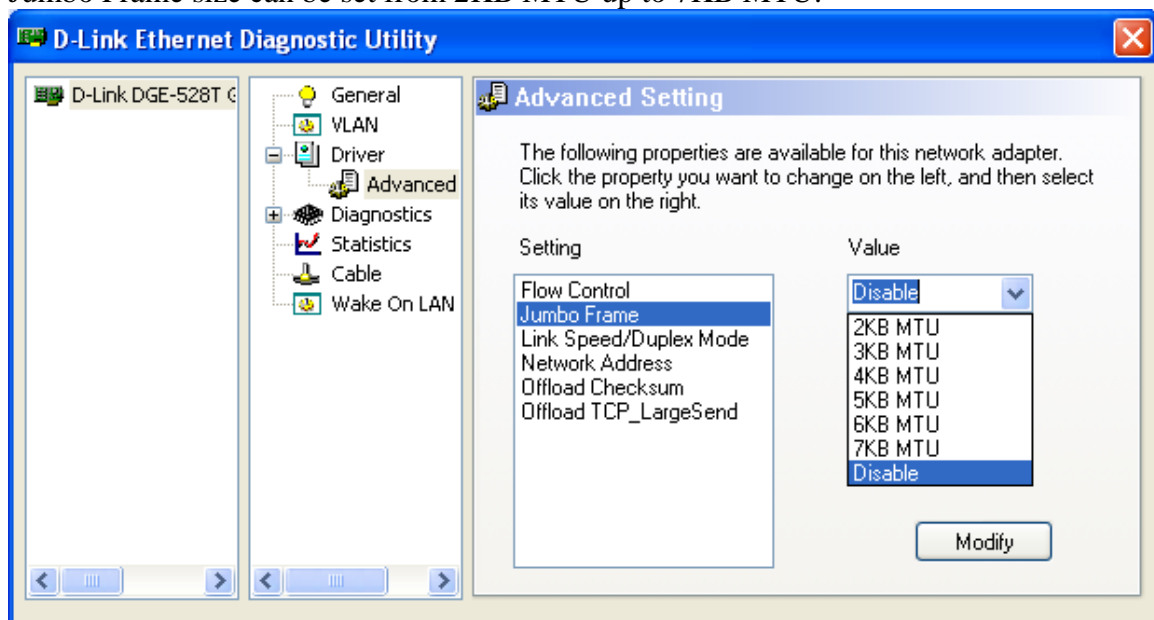
1.2.3.1.1 Flow Control

Flow control can be set to enable or disable.



1.2.3.1.2 Jumbo Frame

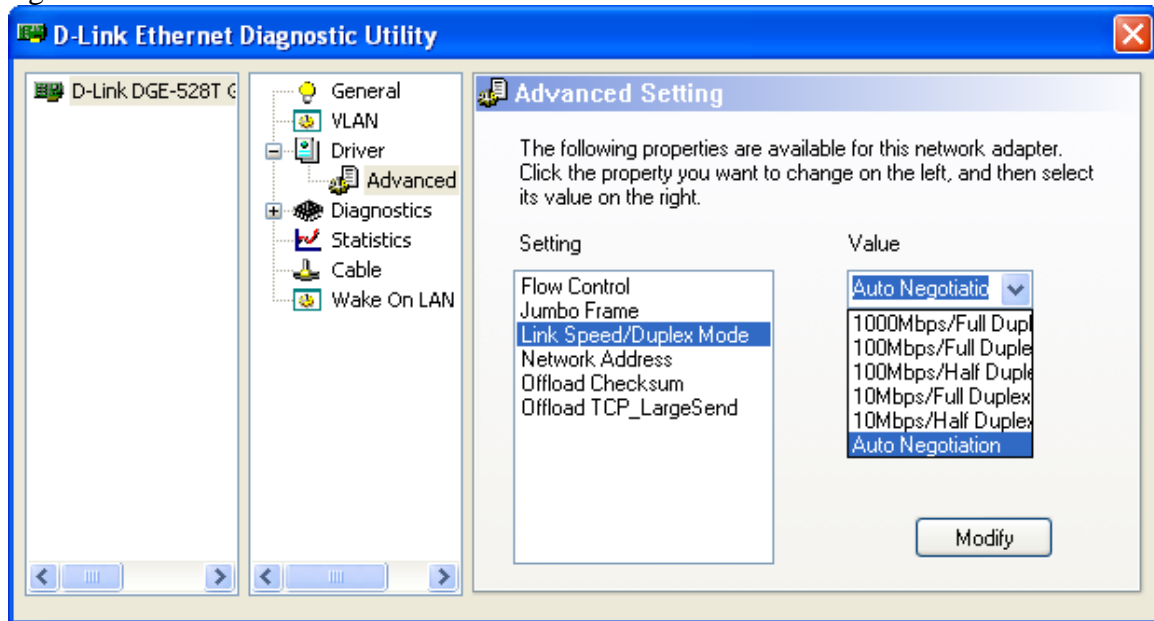
Jumbo Frame size can be set from 2KB MTU up to 7KB MTU.



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1.2.3.1.3 Link Speed / Duplex Mode

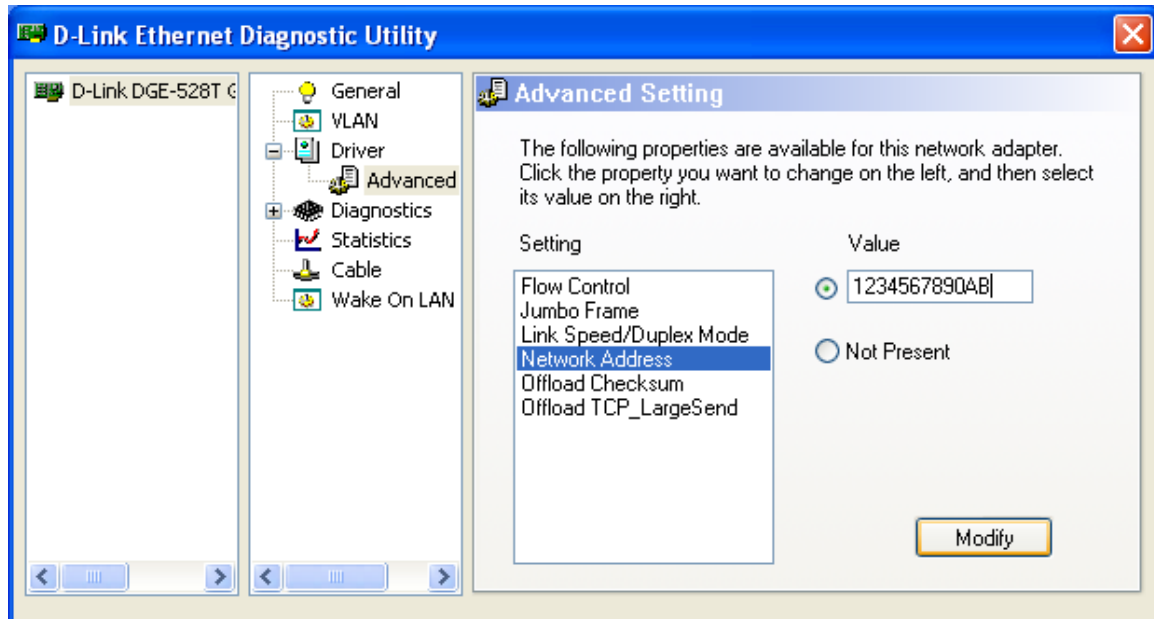
The Link Speed / Duplex Mode can be set to a range of combinations as shown in the figure below:



1.2.3.1.4 Network Address

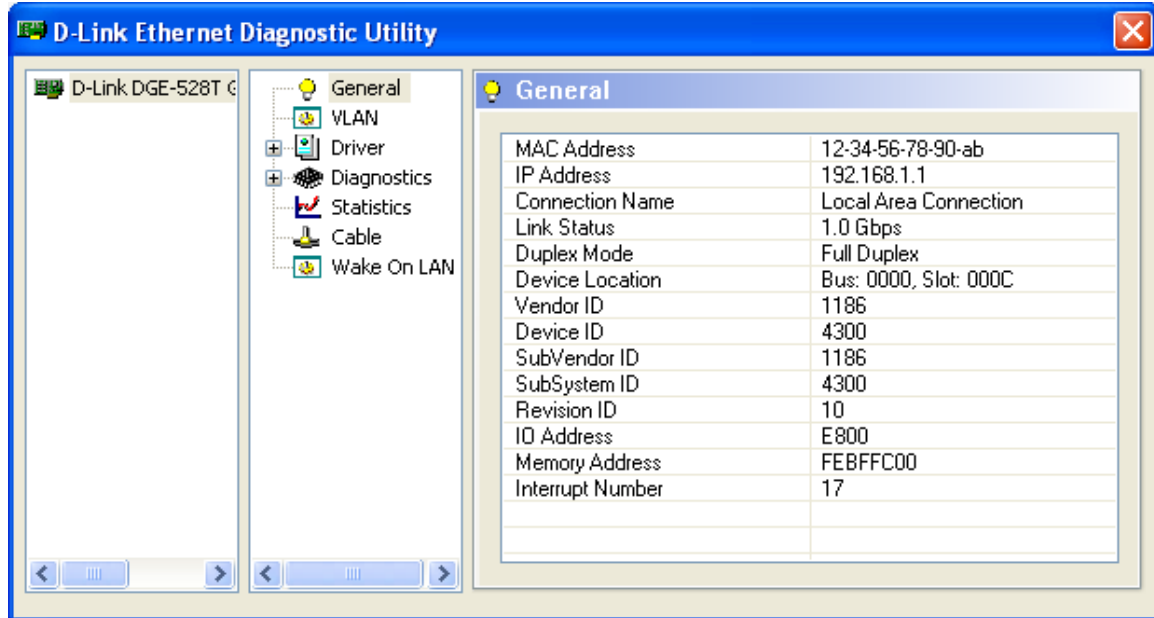
The Network Address can be modified by type in a new network address in the Value field and press Modify.

The following figure demonstrates the modification of the Network Address to “1234567890AB”



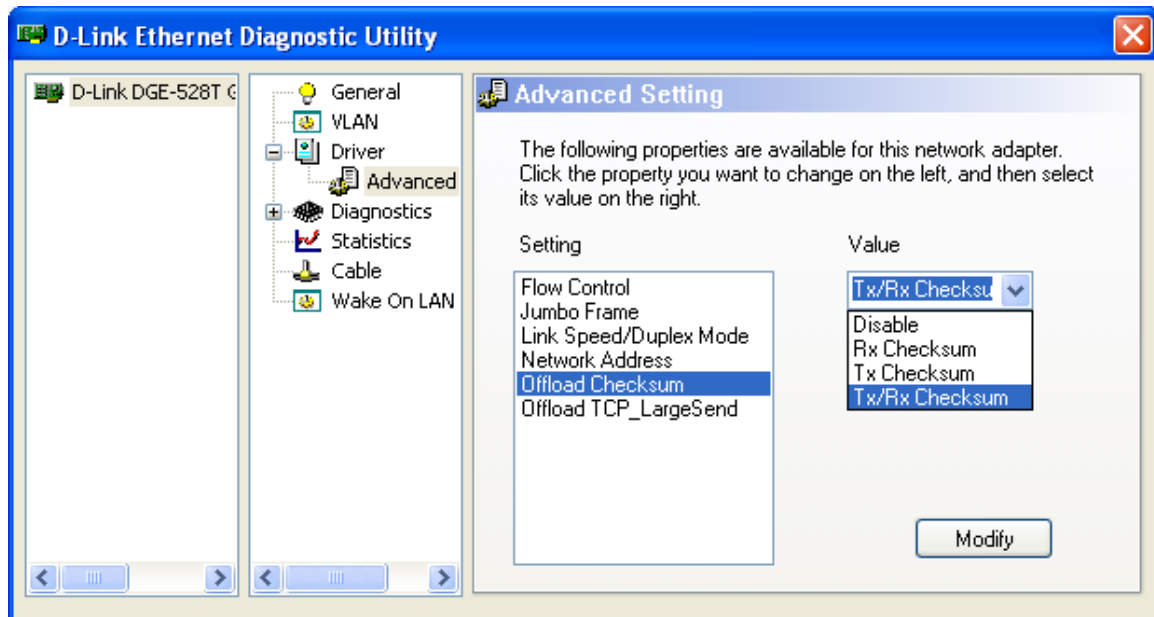
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As shown in the following figure, the MAC Address has been changed to **12-34-56-78-90-ab**



1.2.3.1.5 Offload Checksum

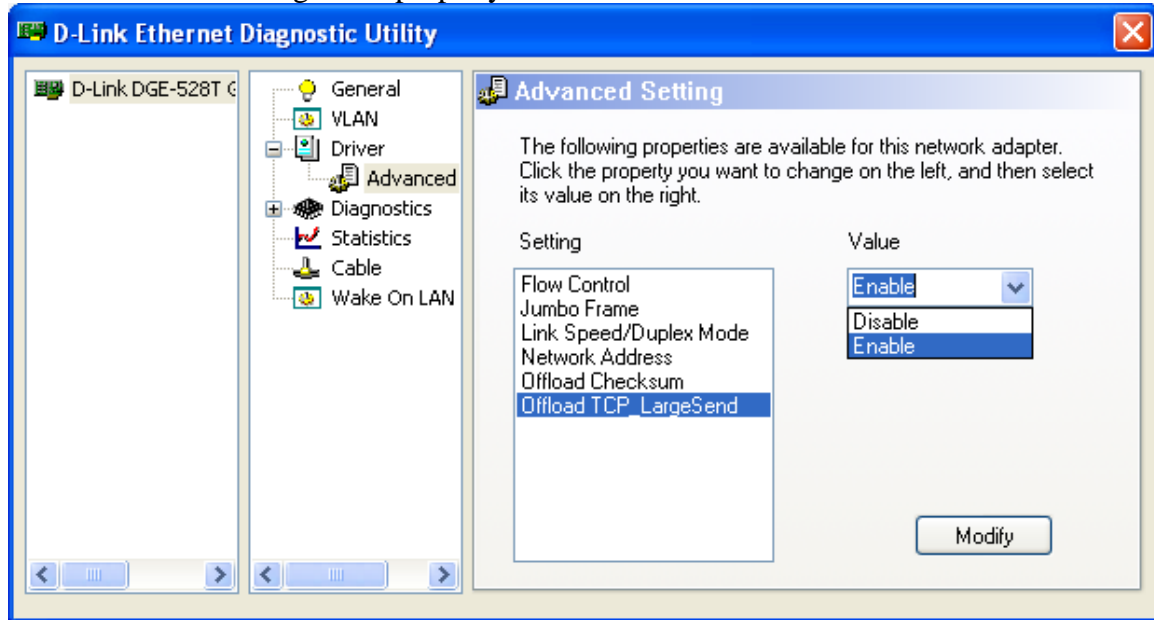
The options available for Offload Checksum are “Tx/Rx Checksum”, “Tx Checksum”, “Rx Checksum” and “Disable”.



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1.2.3.1.6 Offload TCP_LargeSend

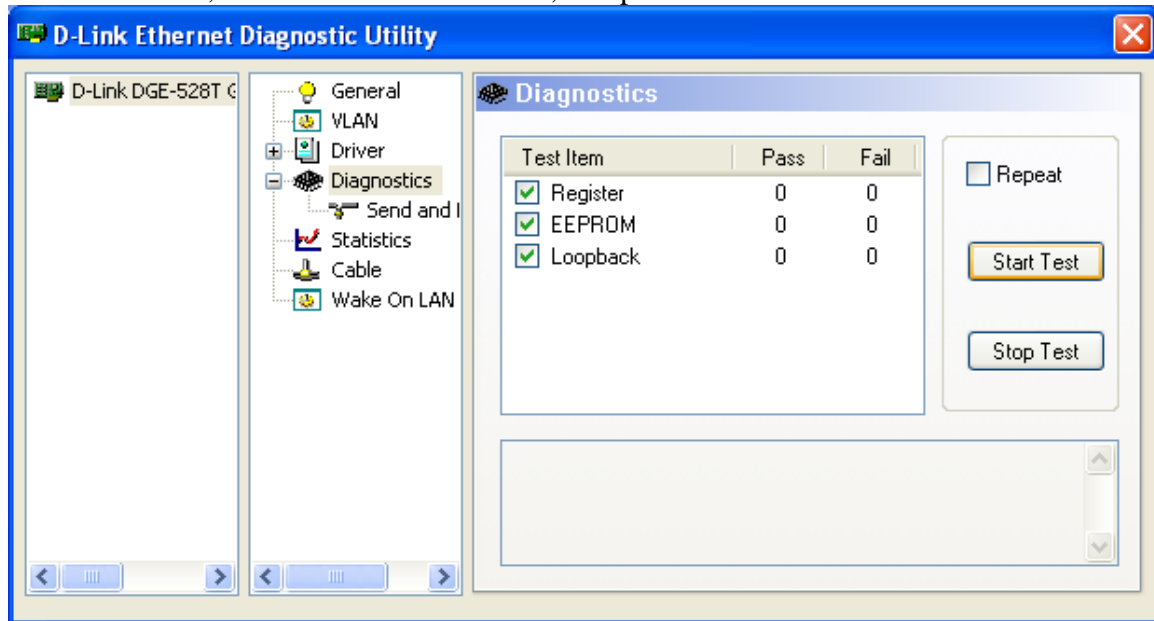
The Offload TCP_LargeSend property can be set to Enable or Disable in this section.



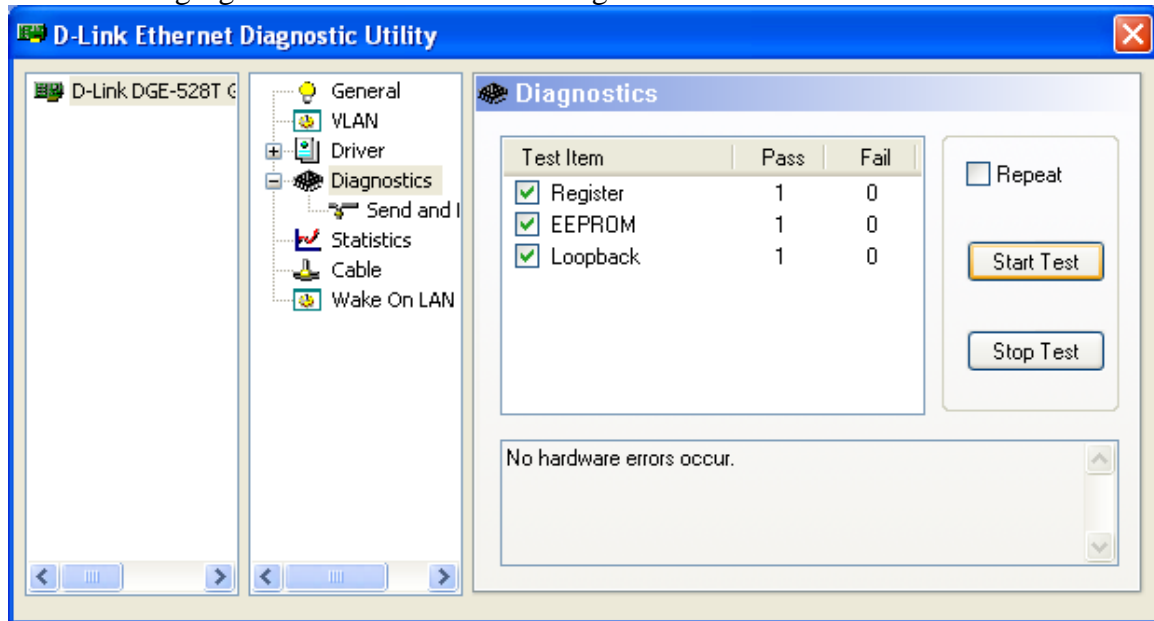
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1.2.4 Diagnostics

The diagnostics tool tests the Register, EEPROM and Loopback functions. To start the test, user should tick the items, and press “Start Test” button.

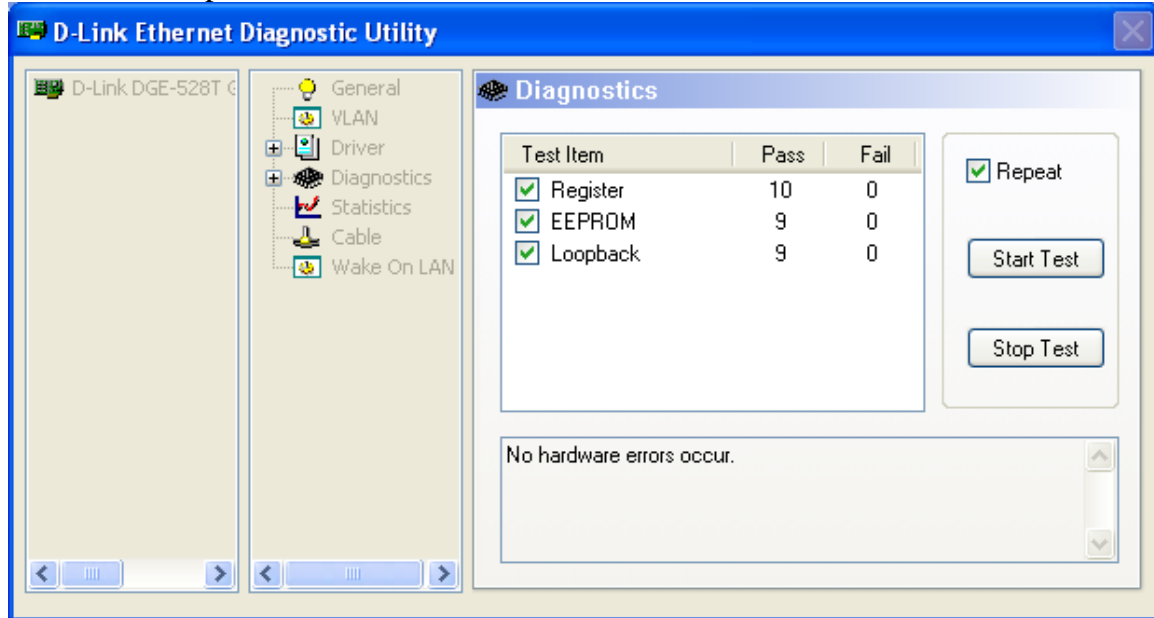


The following figure shows the result of a single test run.



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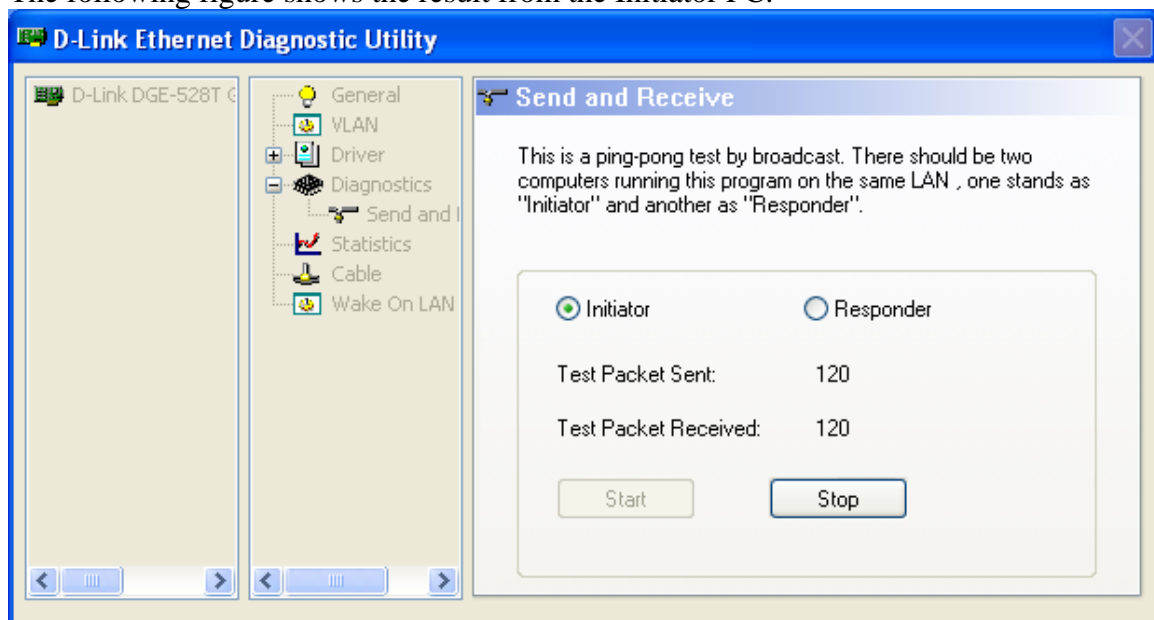
User could also tick the “Repeat” option, which would repeat the tests until the “Stop Test” button is pressed.



1.2.4.1 Send and Receive

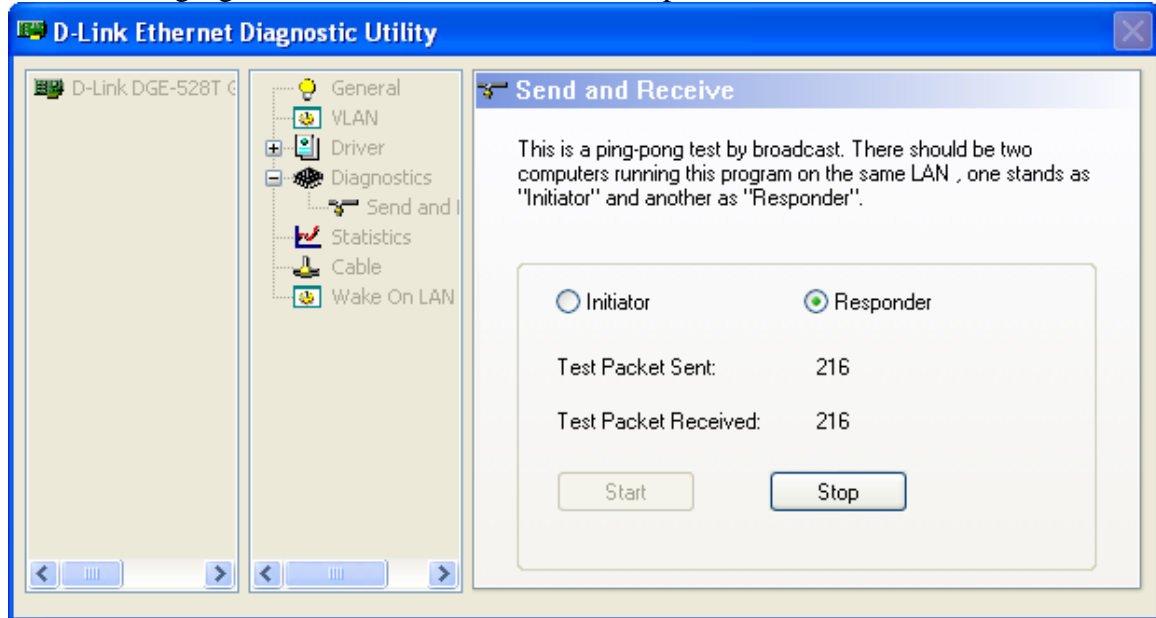
This function tests the send and receive ability of this network adapter, it requires two computer both installed this Utility, one computer should acts as the Initiator by tick the Initiator option, the other computer should tick the Responder option. Then both press the Start button.

The following figure shows the result from the Initiator PC.



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The following figure shows the result from the Responder PC.

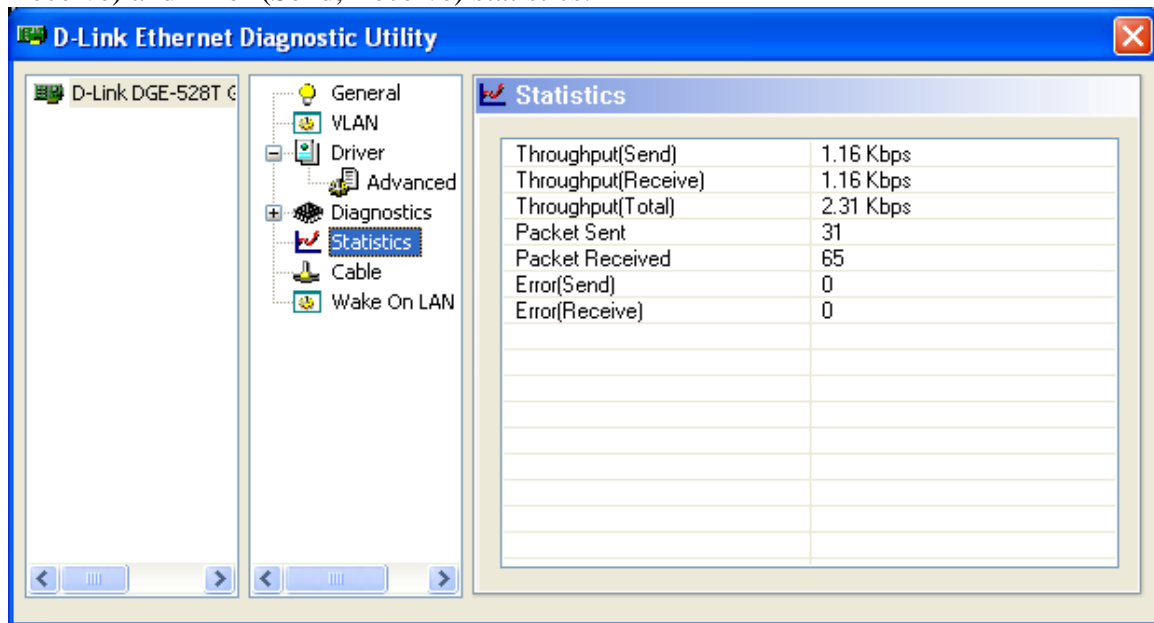


Note: The screen capture of the responder PC is taken later than the Initiator PC, thus the numbers of Packet Sent and Received is greater than in the Initiator PC.

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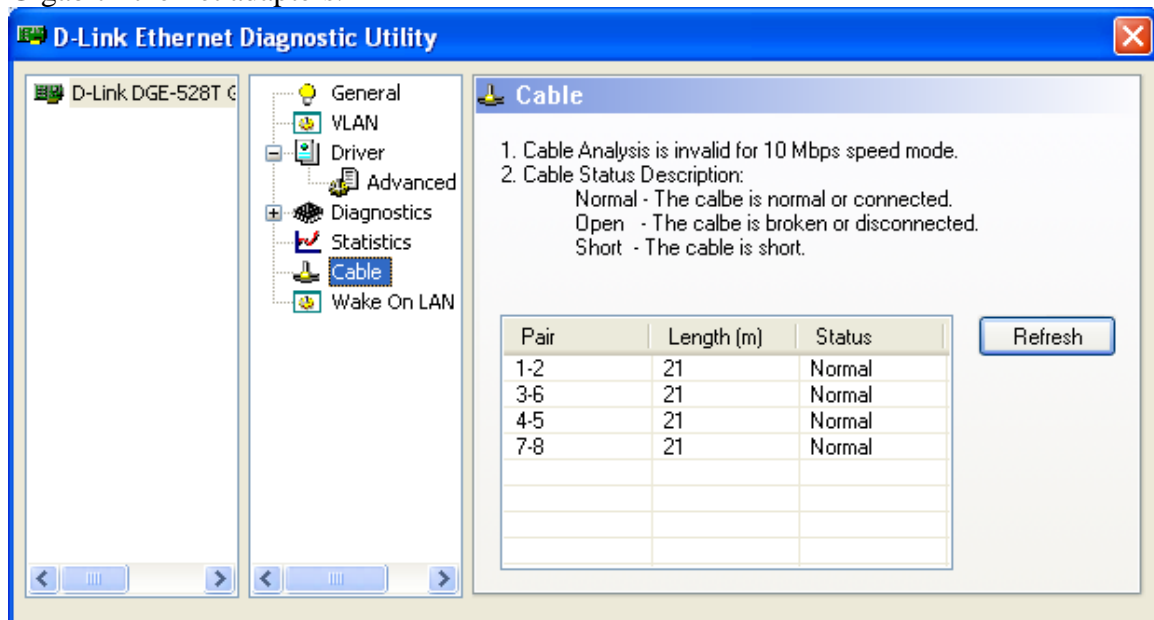
1.2.5 Statistics

This section displays the real-time Throughput (Send, Receive and Total), Packet (Send, Receive) and Error (Send, Receive) statistics.



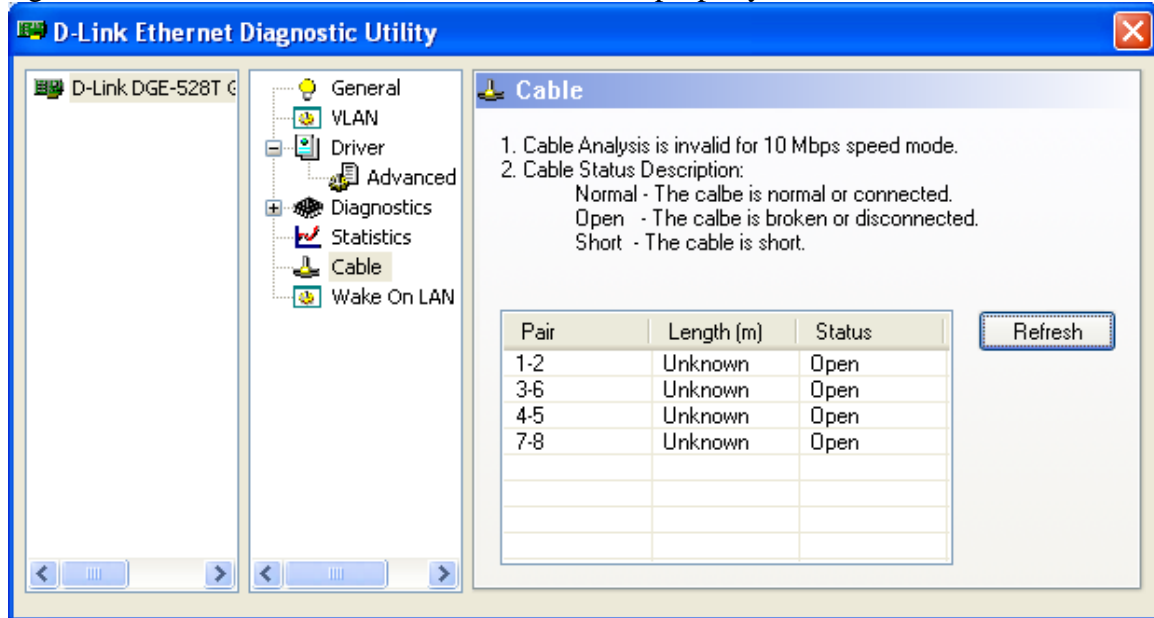
1.2.6 Cable

This section lists the status of the Cable connected to this network adapter. The status for a properly connected cable is displayed as “Normal”, it would also display the length of the cable; The following figure shows the status of the Cable connecting between 2 Gigabit Ethernet adapters.



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If the cable is not properly connected, the “Open” status will be displayed, the following figure shows the status of the Cable when it is not properly connected.

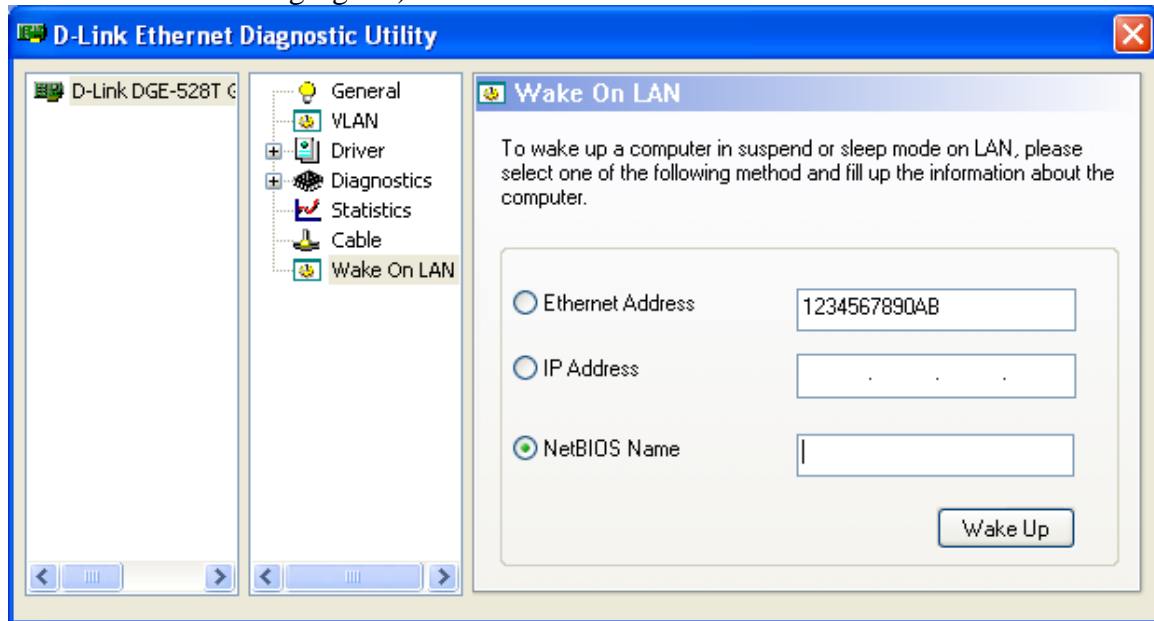


1.2.7 Wake On LAN

This function provides 3 methods to Wake up a computer in the same network. These methods are “Ethernet Address”, “IP Address” and “NetBIOS Name”.

1.2.7.1 Ethernet Address

To Wake up a computer that is in “Standby”/”Hibernate”/”Shutdown” mode, user could type in the Ethernet Address of the computer that needs to be waken, and press “Wake Up” button. (e.g. To wake up a computer with Ethernet Address = 1234567890AB, shown in the following figure)

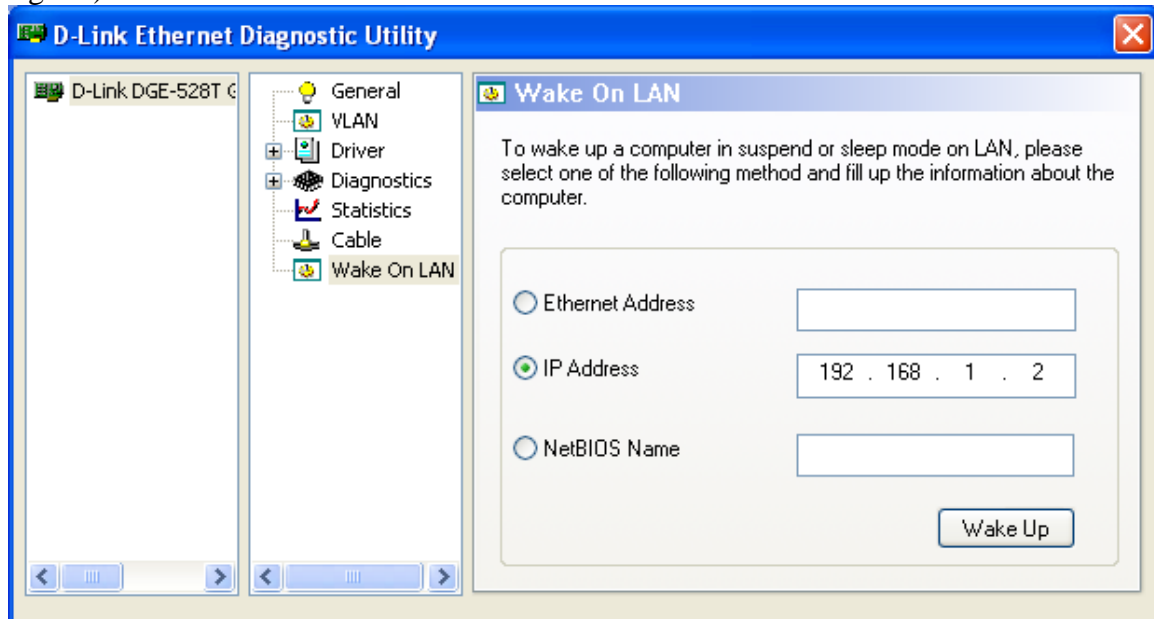


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1.2.7.2 I.P. Address

To Wake up a computer that is in “Standby”/”Hibernate” mode, user could type in the I.P. Address of the computer that needs to be waken, and press “Wake Up” button.

(e.g. To wake up a computer with I.P. Address = 192.168.1.2, shown in the following figure)



1.2.7.3 NetBIOS Name

To Wake up a computer that is in “Standby”/”Hibernate” mode, user could type in the NetBIOS Name of the computer that needs to be waken, and press “Wake Up” button.

(e.g. To wake up a computer with NetBIOS Name = TestPC, shown in the following figure)

