
Credit: **Kyle Lai, CISSP, CISA KLC Consulting, Inc.** <u>www.klcconsulting.net</u> Artical URL: HYPERLINK "<u>http://www.klcconsulting.net/change_mac_w2k.htm</u>" ------

Changing the MAC address in W2K and XP

(this page stolen from http://www.klcconsulting.net/change_mac_w2k.htm because I wanted a copy in my notes here so I wouldn't lose it)

Method 1:

This is depending on the type of Network Interface Card (NIC) you have. If you have a card that doesn't support Clone MAC address, then you have to go to second method.

- a. Go to Start->Settings->Control Panel and double click on Network and Dial-up Connections.
- b. Right click on the NIC you want to change the MAC address and click on properties.
- c. Under "General" tab, click on the "Configure" button
- d. Click on "Advanced" tab
- e. Under "Property section", you should see an item called "Network Address" or "Locally Administered Address", click on it.
- f. On the right side, under "Value", type in the New MAC address you want to assign to your NIC. Usually this value is entered without the "-" between the MAC address numbers.
- g. Goto command prompt and type in "ipconfig /all" or "net config rdr" to verify the changes. If the changes are not materialized, then use the second method.
- h. If successful, reboot your systems.

Method 2:

This method requires some knowledge on the Windows Registry. If you are not familiar with Windows Registry, just use the <u>SMAC tool</u> to change the MAC addresses, or consult with a technical person before you attempt on the following steps. Also, make sure you have a good backup of your registry.

- a. Goto command prompt and type "ipconfig /all", and
 - I. Record the **Description** for the NIC you want to change.
 - II. Record the Physical Address for the NIC you want to change. Physical Address is the MAC Address

🖭 E:\WINNT\System32\cmd.exe	×
Ethernet adapter Local Area Connection: Connection-specific DNS Suffix .: Description Intel 21040 Based PCI Ethernet Adapter Physical Address 00-C0-95-EC-B7-98 DHCP Enabled	•
	11

figure 1.

b. Goto command prompt and type "net config rdr", and you should see something like

C:\>net config rdr Computer name Full Computer name User name	\\win2k win2k.kylelai.com superuser
Workstation active on NetbiosSmb (000000000 NetBT_Tcpip_{1C9324AD	000) -ADB7-4920-B02D-AB281838637A} (00C095ECB793)
Software version	Windows 2000
Workstation domain Workstation Domain DNS Name Logon domain	KYLELAI e kylelai.com KYLELAI
COM Open Timeout (sec) COM Send Count (byte) COM Send Timeout (msec) The command completed succe	0 16 250 ssfully.

figure 2.

c. Remember the number between the long number (GUID) inside the { }. For example, in the above "net config rdr" output, for MAC address "00C095ECB793," you should remember {1C9324AD-ADB7-4920-B02D-AB281838637A}. You can copy and paste it to the Notepad, that's probably the easiest way. (See figure 2.)

- d. Go to Start -> Run, type "regedt32" to start registry editor. Do not use "Regedit."
- e. Do a BACKUP of your registry in case you screw up the following steps. To do this
 - I. Click on "HKEY_LOCAL_MACHINE on Local Machine" sub-window
 - II. Click on the root key "HKEY_LOCAL_MACHINE".

III. Click on the drop-down menu "Registry -> Save Subtree As" and save the backup registry in to a file. Keep this file in a safe place.

f. Go to "HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Class\{4D36E972-E325-11CE-BFC1-08002BE10318}. Double click on it to expand the tree. The subkeys are 4-digit numbers, which represent particular network adapters. You should see it starts with 0000, then 0001, 0002, 0003 and so on. (See figure 3.)

HKEY_LOCAL_MACHINE on Local Machine	
BootVerificationProgram Class Class (40 36E 965-E 325-11CE-8FC1-080028E10318) (7) (40 36E 966-E 325-11CE-8FC1-080028E10318) (7) (40 36E 968-E 325-11CE-8FC1-080028E10318) (7) (40 36E 968-E 325-11CE-8FC1-080028E10318) (7) (40 36E 968-E 325-11CE-8FC1-080028E10318) (7) (40 36E 960-E 325-11CE-8FC1-080028E10318) (40 36E 960-E 325-11CE-8FC1-080028E10318) (40 36E 960-E 325-11CE-8FC1-080028E10318) (40 36E 960-E 325-11CE-8FC1-080028E10318) (40 36E 967-E 325-11CE-8FC1-080028E10318) (40 36E 970-E 325-11CE-8FC1-080028E10318) (40 36E 971-E 325-11CE-8FC1-080028E10318) (40 36E 972-E 325-11CE-8FC1-080028E10318) (40	 AdapterCFID: REG_SZ: 00021011 AdapterType: REG_SZ: 5 BurstLength: REG_SZ: 5 Characteristics: REG_DWORD: 0x84 ComponentId: REG_SZ: pci/ven_1011&dev_0002 ConnectionType: REG_SZ: 0 DriverDate: REG_SZ: 1013-1999 DriverDate: REG_SZ: 1013-1999 DriverDate: REG_SZ: Intel 21040 Based PCI Ethernet Adapter DriverDesc: REG_SZ: 5.5.0.0 ExtraReceiveBuffers: REG_SZ: 10 ExtraReceivePackets: REG_SZ: 64 InfPath: REG_SZ: net21x4.inf InfSection: REG_SZ: 21040.ndi MatchingDeviceId: REG_SZ: 62: 10 NetGrgInstanceId: REG_SZ: 10 NetGrgInstanceId: REG_SZ: 10 ProcessT ransmitFirst: REG_SZ: 10 ProviderName: REG_SZ: 10 ProviderName: REG_SZ: 10 ProviderName: REG_SZ: 10 ProviderName: REG_SZ: 10 ProviderName: REG_SZ: 10 ProviderName: REG_SZ: 10 DriverDesc ReG_SZ: 20 DriverDesc REG_SZ: 20 DriverDesc R

Figure 3.

g. Go through each subkey that starts with 0000. Click on 0000, check **DriverDesc** keyword on the right to see if that's the NIC you want to change the MAC address. The **DriveDesc** should match the **Description** you recorded from step (a.-I.). If you are not 100% sure about the DriverDesc, then you can verify by checking if the **NetCfgInstanceID** keyword value matches the GUID from step (c). If there is no match, then move on to 0001, 0002, 0003, and so on, until you find the one you want. Usually 0000 contains the first NIC you installed on the computer.

In this demonstration, 0000 is the NIC I selected. (See figure 3.)

h. Once you selected the subkey (i.e. 0000), check if there is a keyword "NetworkAddress" exist in the right side of the window. (See figure 3.)

- I. If "NetworkAddress" keyword does not exist, then create this new keyword:
 - i. Click on the drop down menu "Edit -> Add Value".
 - ii. In the Add Value window, enter the following value then click OK. (See figure 4.)
 Value Name: = NetworkAddress
 Data Type: = REG_SZ

	المالية والمتكفية		NetworkAddress		Value Name:
Data Type: REG_SZ		REG_SZ			Data Type:

Figure 4.

iii. String Editor window will pop up at this time (see figure 5.)

iv. Enter the new MAC address you want to modify. Then click OK.

(There should not be any "-" in this address. Your entry should only consist of 12 digits as seen in the figure 5.)

II. If "NetworkAddress" keyword exists, make sure it shows the keyword type is REG_SZ, and it should show as NetworkAddress: REG_SZ: . This keyword might not have a value at this time.

i. Double click on the keyword NetworkAddress and the String Editor window will pop up. (See Figure 5.)

ii. Enter the new MAC address you want to modify. Then click OK.

(There should not be any "-" in this address. Your entry should only consist of 12 digits as seen in the figure 5.)

			X
	2000 S.C.C.		
OK	Cancel	Help	
	ОК	OK Cancel	OK Cancel <u>H</u> elp

Figure 5.

j. There are 2 ways to make the new MAC address active. Method I does not require a system reboot:

I. Goto Start->Setting->Control Panel, and double click on "Network Neighborhood".

WARNING: Make sure you understand that you WILL lose the network connection after completing step "ii." below, and if you have a DHCP client, you will get a new IP address after completing step "iii."

i. Select the Network Adaptor you just changed the MAC address.

ii. Right click on the selected Network Adaptor and click "Disable." Verify the status column for this adaptor changes to "Disabled"

iii. Right click on the selected Network Adaptor and click "Enable." Verify the status column for this adaptor changes to "Enabled"

iv. If for any reason it cannot be disabled or re-enabled, you have to reboot your system to make the changes effective.

II. Reboot your Windows system.

k. Once completing step j (if rebooting the system, wait until the reboot is completed), go to command prompt, type "ipconfig /all" to confirm the new MAC address.

Restore The TRUE Hardware burned-in MAC Address:

- a. Remove the entry you added:
 - I. If you followed Method 1, then go back to the advanced properties window and remove the entry you add.
 - II. If you followed Method 2, then remove the "NetworkAddress" keyword you added in the registry.
- b. Use step (j) above to activate the change you make.
- c. Once rebooted, go to command prompt, type "ipconfig /all" to confirm the original MAC address.

If MAC Address changes does not work:

If for whatever reason the MAC address cannot be changed using method 2, make sure you restore the registry setting by following the "Restore The TRUE Hardware burned-in MAC Address" instruction above. If necessary, restore the registry you just backed-up to get your system back to the original state. You can do this by clicking on the drop-down menu "Registry->Restore," and restore your backup registry file.

or use **<u>SMAC</u>**