

## ***Installing the eDIN NPU Emulator / Simulator***

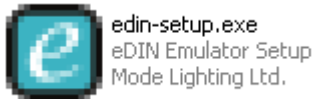
The eDIN Emulator provides the full eDIN NPU functionality on a PC, without requiring any actual eDIN hardware modules.

The eDIN Emulator makes extensive use of your computer's network adapter, and therefore has to be configured according to the hardware installed on your specific computer. Your computer is likely to have more than one network adapter (e.g. cable connection, WiFi), and so we have to select the right one, as shown in Step 2, below.

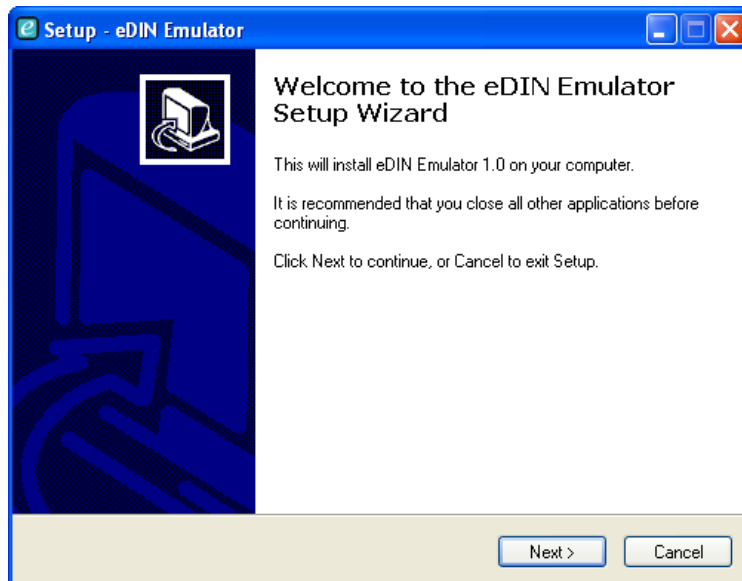
The eDIN emulator software is also locked to your computer's network card MAC address. You will need to contact Mode Lighting to obtain an unlocking key, as part of the installation process, as shown in Step 3, below.

### **Step 1: Software Installation**

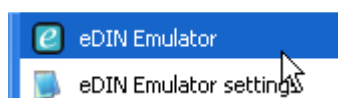
Run the setup application, by double-clicking on the icon.



And follow the on-screen instructions.

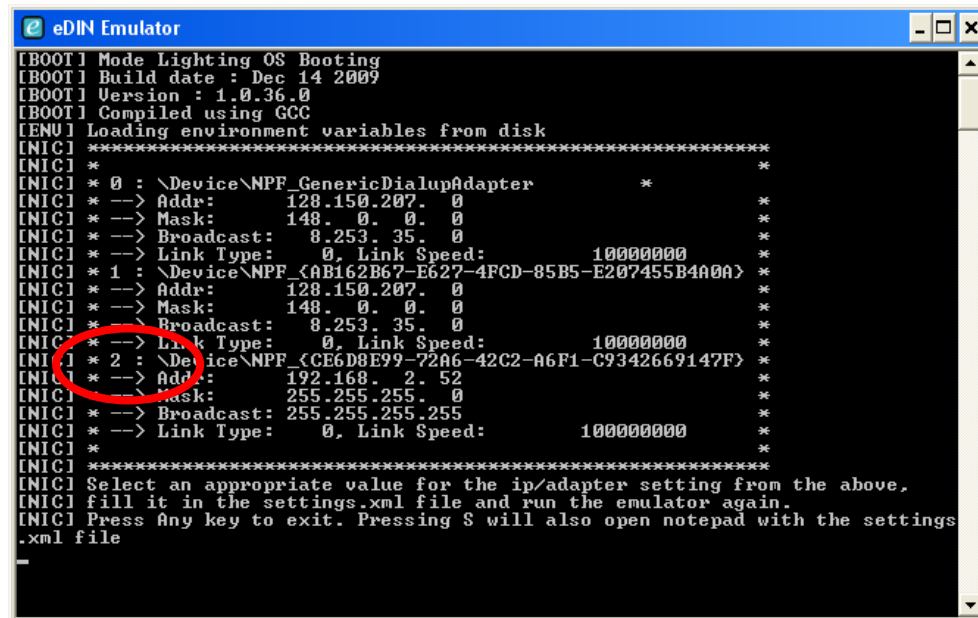
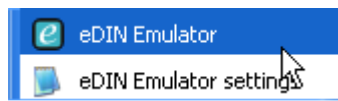


Once the installation has completed you will see a new icon in your Start menu, as follows:



## Step 2: Network Adapter Identification and Setup

Run the eDIN Emulator software:

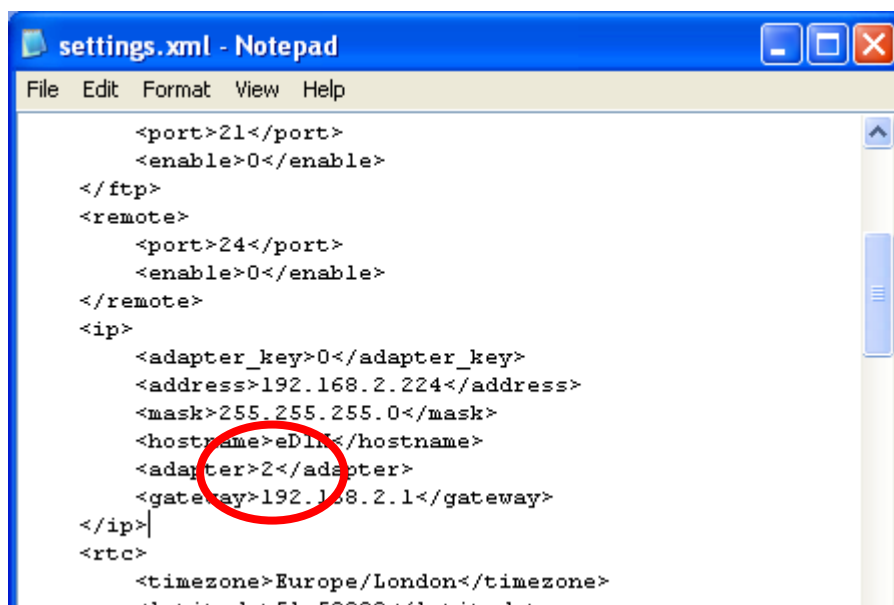
A screenshot of the eDIN Emulator boot screen. The text shows the boot process, including loading environment variables and listing network adapters. Two adapters are listed: adapter 0 with IP 128.150.207.0 and adapter 2 with IP 192.168.2.52. The number '2' is circled in red. The screen prompts the user to select an appropriate value for the ip/adapter setting from the above and fill it in the settings.xml file.

```
[BOOT] Mode Lighting OS Booting
[BOOT] Build date : Dec 14 2009
[BOOT] Version : 1.0.36.0
[BOOT] Compiled using GCC
[EMU] Loading environment variables from disk
[NIC] *****
[NIC] * 0 : \Device\NPF_GenericDialupAdapter *
[NIC] * --> Addr: 128.150.207.0
[NIC] * --> Mask: 148.0.0.0
[NIC] * --> Broadcast: 8.253.35.0
[NIC] * --> Link Type: 0, Link Speed: 10000000
[NIC] * 1 : \Device\NPF_{AB162B67-E627-4FCD-85B5-E207455B4A0A}
[NIC] * --> Addr: 128.150.207.0
[NIC] * --> Mask: 148.0.0.0
[NIC] * --> Broadcast: 8.253.35.0
[NIC] * --> Link Type: 0, Link Speed: 10000000
[NIC] * 2 : \Device\NPF_{CE6D8E99-72A6-42C2-A6F1-C9342669147F}
[NIC] * --> Addr: 192.168.2.52
[NIC] * --> Mask: 255.255.255.0
[NIC] * --> Broadcast: 255.255.255.255
[NIC] * --> Link Type: 0, Link Speed: 10000000
[NIC] *****
[NIC] Select an appropriate value for the ip/adapter setting from the above,
[NIC] fill it in the settings.xml file and run the emulator again.
[NIC] Press Any key to exit. Pressing S will also open notepad with the settings
.xml file
```

From the information displayed, find the network adapter that has a valid IP address on your LAN. In the example above, it's number 2.

*NB if you are not connected to a LAN then please see the instructions at the end.*

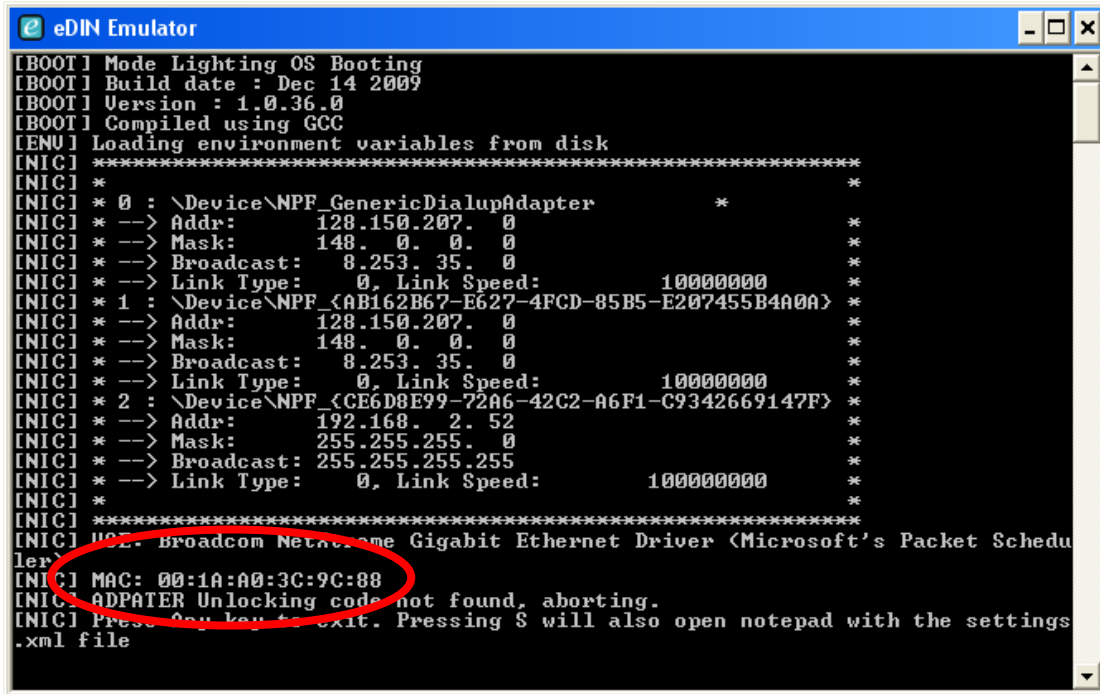
Open the *eDIN Simulator Settings XML* file, and edit the value for *adapter* to match this:

A screenshot of the 'settings.xml' file in Notepad. The XML content includes configuration for port, remote, ip, and rtc. The 'ip' section contains 'adapter\_key', 'address', 'mask', 'hostname', 'adapter', and 'gateway'. The value '2' for the 'adapter' tag is circled in red.

```
<port>21</port>
<enable>0</enable>
</ftp>
<remote>
  <port>24</port>
  <enable>0</enable>
</remote>
<ip>
  <adapter_key>0</adapter_key>
  <address>192.168.2.224</address>
  <mask>255.255.255.0</mask>
  <hostname>eDIN</hostname>
  <adapter>2</adapter>
  <gateway>192.168.2.1</gateway>
</ip>
<rtc>
  <timezone>Europe/London</timezone>
  <latitude>51.50833</latitude>
```

### Step 3: Unlocking the eDIN software to run on your computer

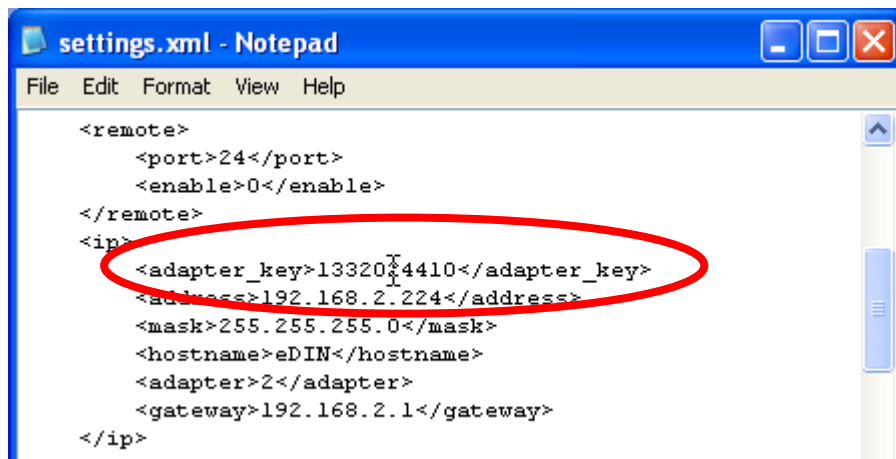
Close and re-start the *eDIN Emulator* again.



```
[BOOT] Mode Lighting OS Booting
[BOOT] Build date : Dec 14 2009
[BOOT] Version : 1.0.36.0
[BOOT] Compiled using GCC
[MENU] Loading environment variables from disk
[NIC1] *****
[NIC1] *
[NIC1] * 0 : \Device\NPF_GenericDialupAdapter *
[NIC1] * --> Addr: 128.150.207. 0 *
[NIC1] * --> Mask: 148. 0. 0. 0 *
[NIC1] * --> Broadcast: 8.253. 35. 0 *
[NIC1] * --> Link Type: 0, Link Speed: 10000000 *
[NIC1] * 1 : \Device\NPF_{A8162B67-E627-4FCD-85B5-E207455B4A0A} *
[NIC1] * --> Addr: 128.150.207. 0 *
[NIC1] * --> Mask: 148. 0. 0. 0 *
[NIC1] * --> Broadcast: 8.253. 35. 0 *
[NIC1] * --> Link Type: 0, Link Speed: 10000000 *
[NIC1] * 2 : \Device\NPF_{CE6D8E99-72A6-42C2-A6F1-C9342669147F} *
[NIC1] * --> Addr: 192.168. 2. 52 *
[NIC1] * --> Mask: 255.255.255. 0 *
[NIC1] * --> Broadcast: 255.255.255.255 *
[NIC1] * --> Link Type: 0, Link Speed: 10000000 *
[NIC1] *
[NIC1] *****
[NIC1] USB: Broadcom NetXtreme Gigabit Ethernet Driver (Microsoft's Packet Scheduler
ler
[NIC1] MAC: 00:1A:A0:3C:9C:88
[NIC1] ADPATER Unlocking code not found, aborting.
[NIC1] Press any key to exit. Pressing S will also open notepad with the settings
.xml file
```

Make a note of the MAC address, and contact Mode Lighting (tel. +44 1920 462121) for an unlocking code. Please be sure to specify that this is a request for unlocking of an eDIN system.

Enter the unlocking key into the *adapter\_key* section of the file:



```
settings.xml - Notepad
File Edit Format View Help
<remote>
  <port>24</port>
  <enable>0</enable>
</remote>
<ip>
  <adapter_key>1332034410</adapter_key>
  <address>192.168.2.224</address>
  <mask>255.255.255.0</mask>
  <hostname>eDIN</hostname>
  <adapter>2</adapter>
  <gateway>192.168.2.1</gateway>
</ip>
-----
```

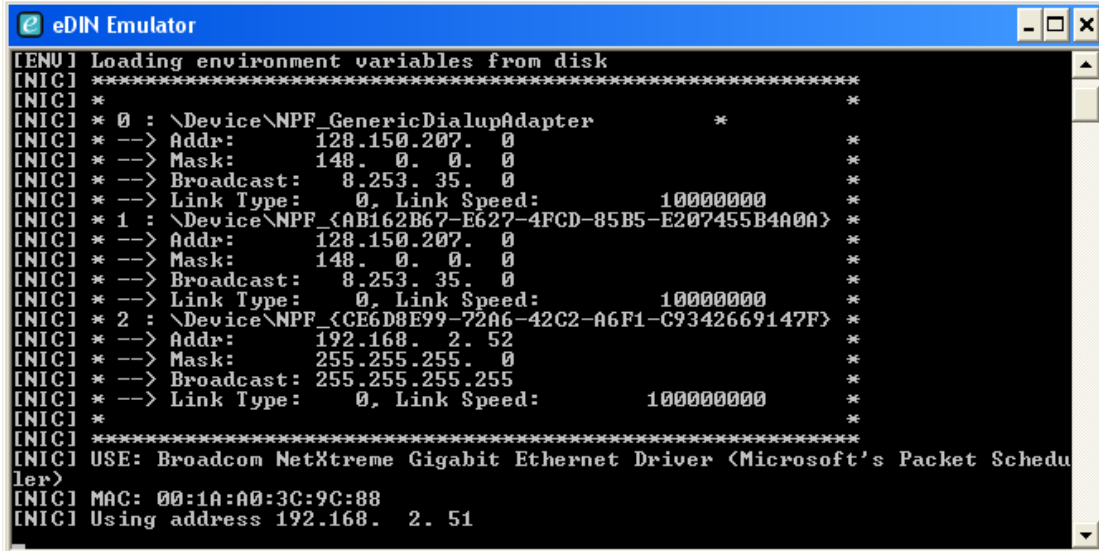
Installation is now complete.

## Using the Emulator

You can now use the eDIN Emulator, via your web-browser.

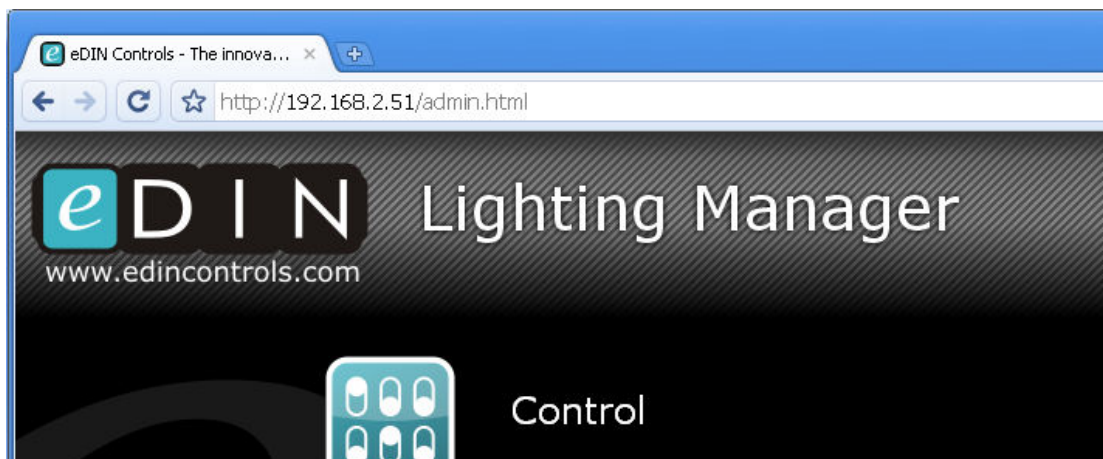
Close, and re-start the eDIN Emulator software.

The IP address being used is shown at the bottom of the window:



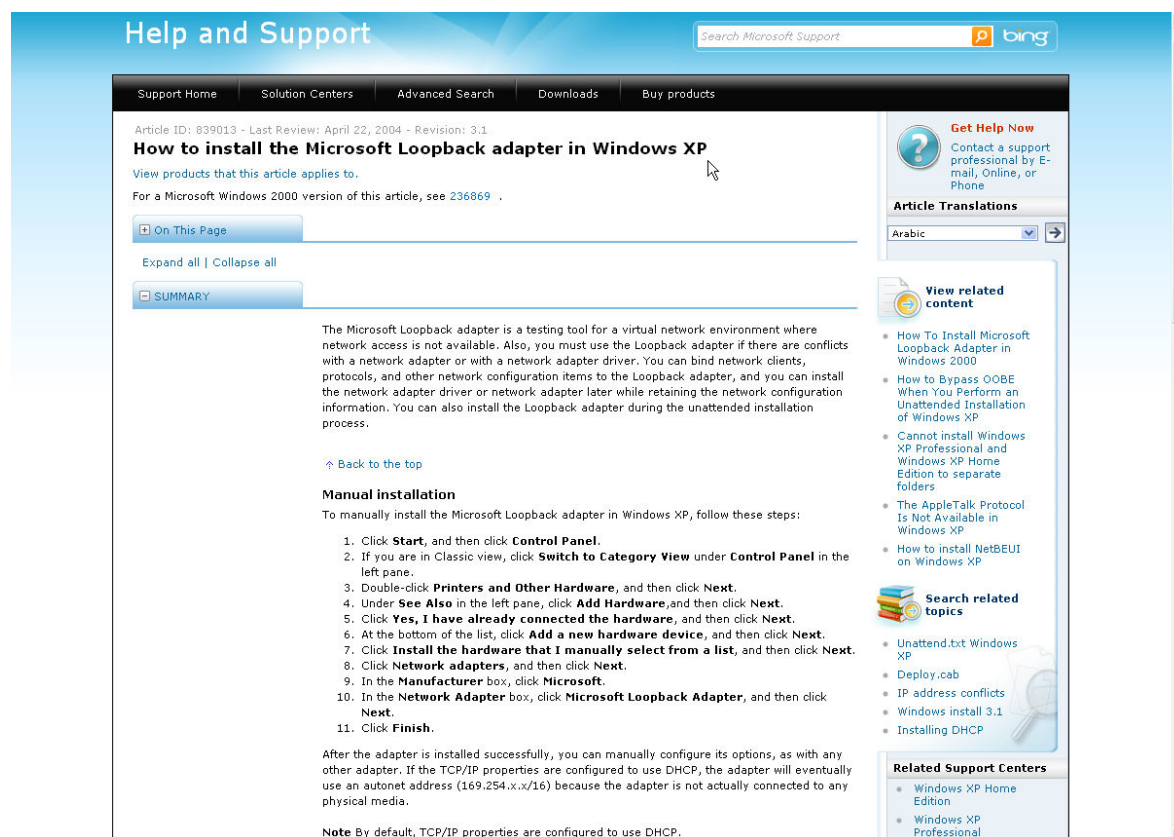
```
[ENU] Loading environment variables from disk
[NIC1] *****
[NIC1] *
[NIC1] * 0 : \Device\NPF_GenericDialupAdapter *
[NIC1] * --> Addr: 128.150.207. 0 *
[NIC1] * --> Mask: 148. 0. 0. 0 *
[NIC1] * --> Broadcast: 8.253. 35. 0 *
[NIC1] * --> Link Type: 0, Link Speed: 10000000 *
[NIC1] * 1 : \Device\NPF_{AB162B67-E627-4FCD-85B5-E207455B4A0A} *
[NIC1] * --> Addr: 128.150.207. 0 *
[NIC1] * --> Mask: 148. 0. 0. 0 *
[NIC1] * --> Broadcast: 8.253. 35. 0 *
[NIC1] * --> Link Type: 0, Link Speed: 10000000 *
[NIC1] * 2 : \Device\NPF_{CE6D8E99-72A6-42C2-A6F1-C9342669147F} *
[NIC1] * --> Addr: 192.168. 2. 52 *
[NIC1] * --> Mask: 255.255.255. 0 *
[NIC1] * --> Broadcast: 255.255.255.255 *
[NIC1] * --> Link Type: 0, Link Speed: 10000000 *
[NIC1] *
[NIC1] *****
[NIC1] USE: Broadcom NetXtreme Gigabit Ethernet Driver (Microsoft's Packet Scheduler)
[NIC1] MAC: 00:1A:A0:3C:9C:88
[NIC1] Using address 192.168. 2. 51
```

You can then enter this into your web-browser.



## If you are not connected to a Network

If you are not connected to a network, then you'll need to install the *Microsoft TCP/IP Loopback Network Adapter*. Instructions for installation on your version of Windows can be found online. For example, for WindowsXP the details are found at the following address: <http://support.microsoft.com/kb/839013>



The screenshot shows a Microsoft Support article page. The main heading is "How to install the Microsoft Loopback adapter in Windows XP". Below the heading, there is a "SUMMARY" section. The summary text reads: "The Microsoft Loopback adapter is a testing tool for a virtual network environment where network access is not available. Also, you must use the Loopback adapter if there are conflicts with a network adapter or with a network adapter driver. You can bind network clients, protocols, and other network configuration items to the Loopback adapter, and you can install the network adapter driver or network adapter later while retaining the network configuration information. You can also install the Loopback adapter during the unattended installation process." Below the summary, there is a "Manual installation" section with a list of 11 steps. The steps are: 1. Click **Start**, and then click **Control Panel**. 2. If you are in Classic view, click **Switch to Category View** under **Control Panel** in the left pane. 3. Double-click **Printers and Other Hardware**, and then click **Next**. 4. Under **See Also** in the left pane, click **Add Hardware**, and then click **Next**. 5. Click **Yes, I have already connected the hardware**, and then click **Next**. 6. At the bottom of the list, click **Add a new hardware device**, and then click **Next**. 7. Click **Install the hardware that I manually select from a list**, and then click **Next**. 8. Click **Network adapters**, and then click **Next**. 9. In the **Manufacturer** box, click **Microsoft**. 10. In the **Network Adapter** box, click **Microsoft Loopback Adapter**, and then click **Next**. 11. Click **Finish**. Below the steps, there is a note: "After the adapter is installed successfully, you can manually configure its options, as with any other adapter. If the TCP/IP properties are configured to use DHCP, the adapter will eventually use an autonet address (169.254.x.x/16) because the adapter is not actually connected to any physical media." At the bottom of the article, there is a "Note" that says: "By default, TCP/IP properties are configured to use DHCP." The right sidebar contains several sections: "Get Help Now" with a question mark icon and text "Contact a support professional by E-mail, Online, or Phone"; "Article Translations" with a dropdown menu set to "Arabic"; "View related content" with a list of links including "How To Install Microsoft Loopback Adapter in Windows 2000", "How to Bypass OOBE When You Perform an Unattended Installation of Windows XP", "Cannot install Windows XP Professional and Windows XP Home Edition to separate folders", "The AppleTalk Protocol Is Not Available in Windows XP", and "How to install NetBEUI on Windows XP"; "Search related topics" with a list of links including "Unattend.txt Windows XP", "Deploy.cab", "IP address conflicts", "Windows install 3.1", and "Installing DHCP"; and "Related Support Centers" with a list of links including "Windows XP Home Edition" and "Windows XP Professional".

Once this is installed, run the eDIN application, and examine the list of network adapters (as above) to find the new adapter, which probably has an IP address beginning 168.258.nnn.nnn, and use those details in the *settings.xml* file, as described above.