



LEMUR NETWORK CONFIGURATION

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The Lemur control surface is a Network device and uses the Ethernet protocol to connect and communicate with others Network devices: Computer, router, DHCP servers....

Thus you may have to setup your Lemur and your networks devices properly. Generally, a device can have multiple network adapters, like Ethernet, Wifi, Airport, USB Network Adapters, Firewire and others. Each adapter can have its own IP settings but it is highly recommended to set different sub-networks to avoid network problems.

Different types of connections

Glossary

- IP Address** a unique sequence of 4 numbers witch identify each device on a network. An IP address can be setup in static mode or attributed dynamically by a DHCP server. An IP address is composed by 4 numbers between 0 and 255 as follows: 192.168.2.2 or 10.0.0.35.
- Network Mask** an IP like sequence witch define a sub-network of compatible IP addresses, mainly we use 255.255.255.0 or 255.255.0.0 witch mean that only the 3 or 2 first IP numbers should be equal to be compatible.
- Gateway** the IP Address of the machine witch give you access to IPs not compatible with the sub-network. Mainly a Gateway allows you to access Internet from an Intranet.
- MAC Address** a unique sequence of 6 numbers witch identify each network adapter on a network, the MAC Address is unique and constant for each device while the IP can be changed whenever.

Computer directly connected to a Lemur (as known as P2P)

Using a simple cross-over RJ45 cable, you can directly connect your Lemur to any computer.

Computer configured as a DHCP Server – Connection Sharing

If your computer is configured as a DHCP Server, it will attribute dynamically an IP address to the Lemur. Most of the time your computer force its IP address to 192.168.X.1 and the Lemur will obtain an IP like 192.168.X.X.

Computer and Lemur using DHCP

When Lemur and Computer are setup as DHCP clients, they both wait for a DHCP server until the OS give a default IP address like 169.254.X.X. You can use the Lemur using these default settings as they are compatible.

Computer and Lemur using Static IP

The most common way to setup a Network when you don't have a DHCP server, is to setup each device with different but compatible IP using the same network mask. Most people use IP addresses like 192.168.0.X or 10.0.0.X.

!!! Eventually when using a Connection Sharing, the computer can share its internet connection and give the Lemur access to another sub-network by using the Gateway Address. !!!

Computers and Lemur connected to a Network

Network providing a DHCP Server

Most network sharing devices allow multiple connections and manage the attribution of IP addresses through the DHCP protocol, it include Wifi/Ethernet Router, Airport Base Station and ADSL/Cable Modems with routers.

You only need to setup all of your devices including the Lemur to use the DHCP mode.

Network without DHCP Server

If you have multiple devices connected though a Hub or a Switch, you may have to setup them individually with a unique static IP sharing the same network mask.

IPs like	192.168.0.X or 10.0.0.X
Mask	255.255.0.0

Lemur Network Setup

DHCP IP Configuration:

1. Select "Automatic using DHCP".
2. If a DHCP server is available, the Lemur will use a DHCP IP address. If there's no DHCP server available, the Lemur will switch to Static IP configuration.



The screenshot shows the "Settings" window of the Lemur interface. At the top, there are four icons: "Load / Save" (floppy disk), "Display" (eye), "Network" (network diagram), and "Settings" (gear). The "Network" icon is highlighted in green. Below the icons is the "Lemur IP Setup" section. It contains two radio buttons: "Automatic using DHCP" (checked) and "Static IP" (unchecked). To the right of these buttons is a numeric keypad with buttons for digits 0-9, a decimal point, and a "DEL" key. Below the radio buttons are four text input fields: "IP : 10.0.0.5", "NetMask : 255.255.255.0", "Gateway : 10.0.0.1", and "MAC : 00:1F:20:21:12:34". At the bottom left, there is an "Ok" button. The "Media" setting is shown as "100 MBits/s".

Settings

Load / Save Display Network Settings

Lemur IP Setup

Automatic using DHCP
 Static IP

IP : 10.0.0.5
NetMask : 255.255.255.0
Gateway : 10.0.0.1
MAC : 00:1F:20:21:12:34
Media : 100 MBits/s

Ok

Static IP Configuration

1. Select "Static IP configuration".
2. Enter assigned static IP address.
3. Enter Subnet Mask (255.255.255.0)



The screenshot shows the 'Settings' application window. At the top, there are four icons: 'Load / Save', 'Display', 'Network', and 'Settings'. The 'Network' icon is highlighted. Below the icons is the 'Lemur IP Setup' section. It contains two radio buttons: 'Automatic using DHCP' (unselected) and 'Static IP' (selected). To the right of these buttons is a numeric keypad with buttons for digits 0-9, a decimal point, and a 'DEL' key. Below the radio buttons are four text input fields: 'IP : 192.168.0.3', 'NetMask : 255.255.255.0', 'Gateway : 192.168.0.1', and 'MAC : 00:1F:20:21:12:34'. At the bottom left, there is an 'Ok' button. The 'Media' field is set to '100 MBits/s'.

Settings

Load / Save Display Network Settings

Lemur IP Setup

Automatic using DHCP

Static IP

IP : 192.168.0.3

NetMask : 255.255.255.0

Gateway : 192.168.0.1

MAC : 00:1F:20:21:12:34

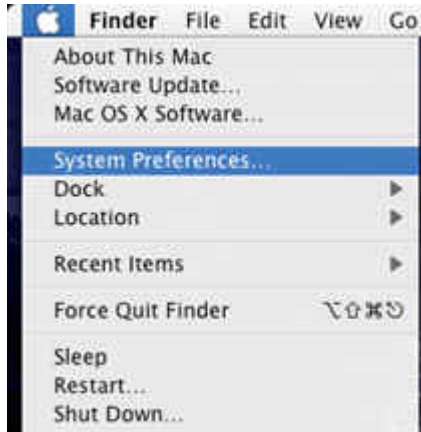
Media : 100 MBits/s

Ok

MacOS Network Setup

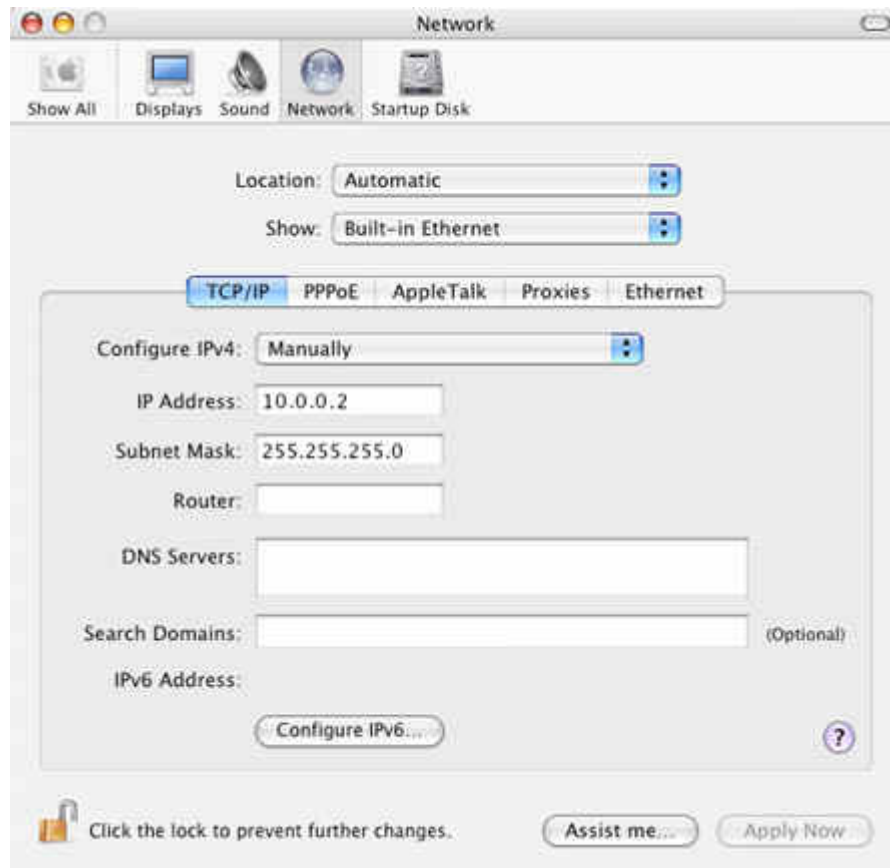
Static IP Configuration using Mac OS X

3. Go to the Apple menu and select System Preferences.



4. Under Internet and Network, select Network.

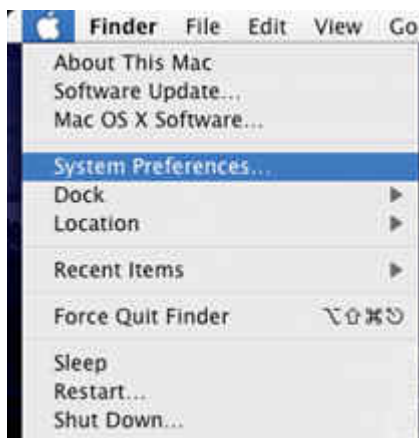




5. Change the Show pop-up option to Built-in Ethernet.
6. For Location, choose Automatic (or give this connection a name).
7. For Show, Select Built-in Ethernet.
8. Select the TCP/IP tab.
9. Set Configure to Manually.
10. Enter assigned static IP address.
11. Enter Subnet Mask 255.255.255.0
12. Click the Apply Now button, then quit the System Preferences application.

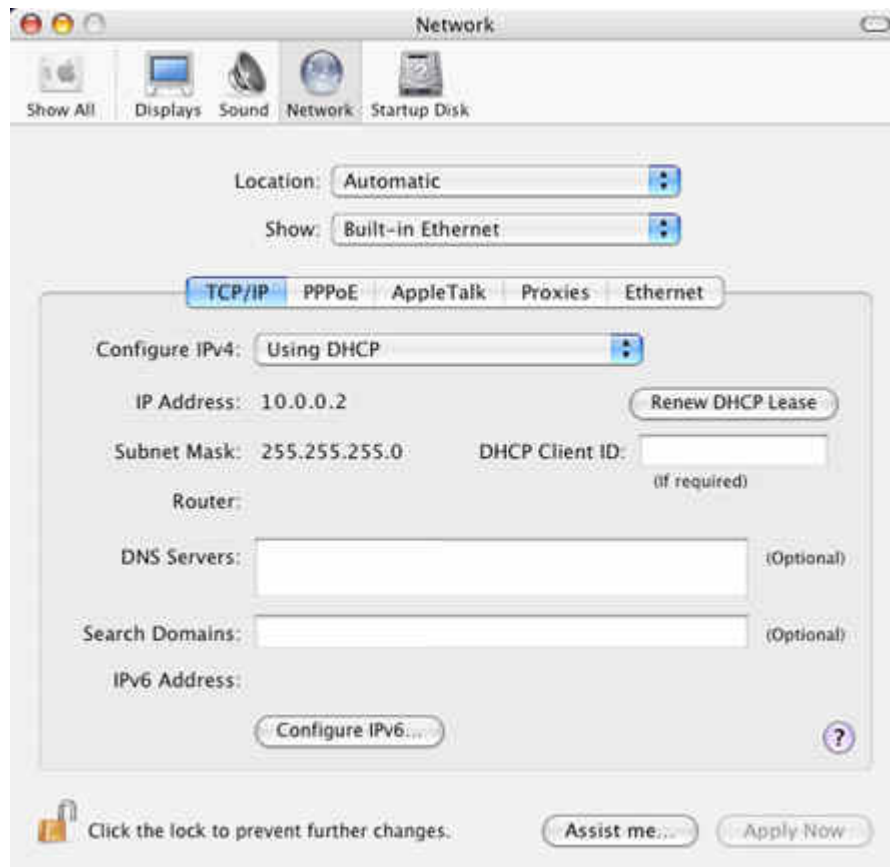
DHCP Configuration using Mac OS X

1. Go to the Apple menu and select System Preferences.



2. Under Internet and Network, select Network.





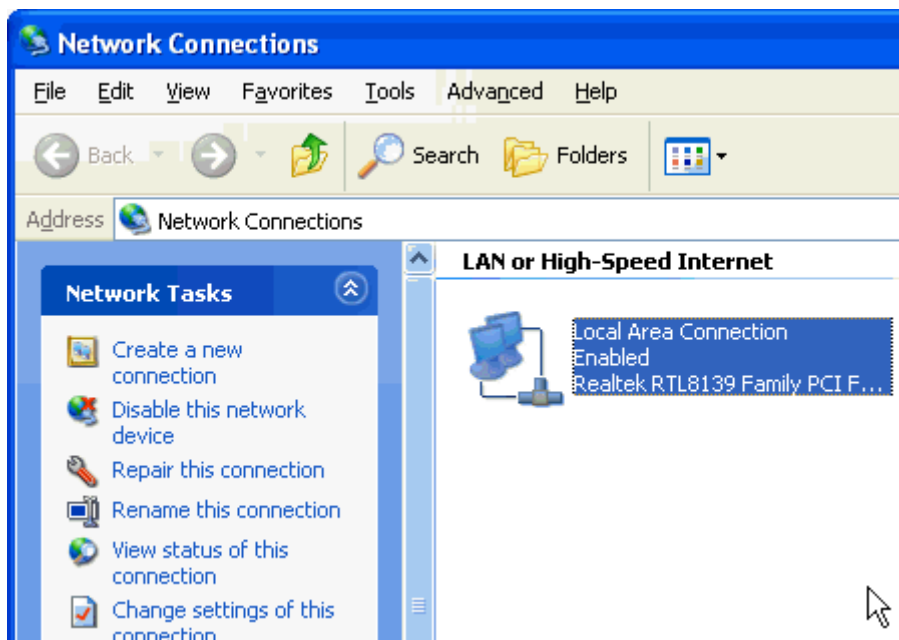
3. Change the Show pop-up option to Built-in Ethernet.
4. For Location, choose Automatic (or give this connection a name)
5. For Show, Select Built-in Ethernet
6. Select the TCP/IP tab
7. Set Configure to Using DHCP.
8. Click the Apply Now button, then quit the System Preferences application.

MS Windows Network Setup

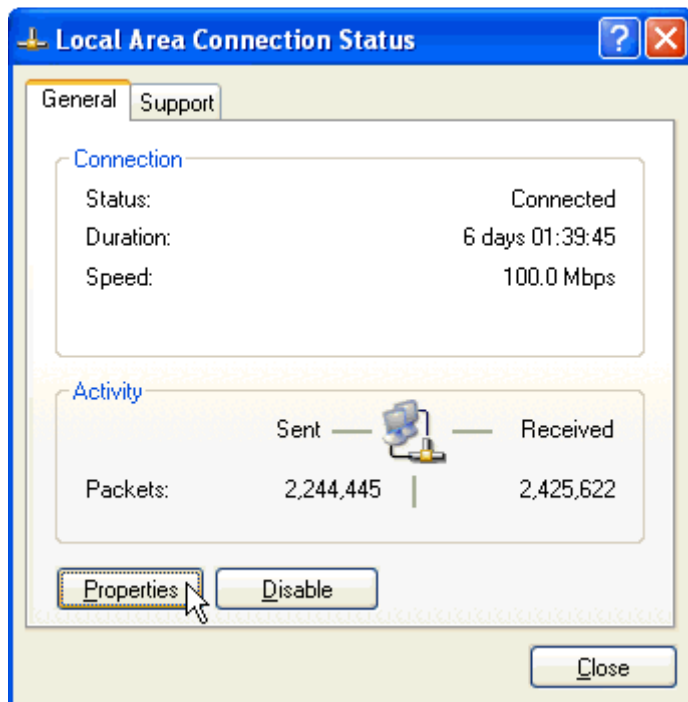
On the Desktop, click right on the "My Network Places" icon and select "Properties".



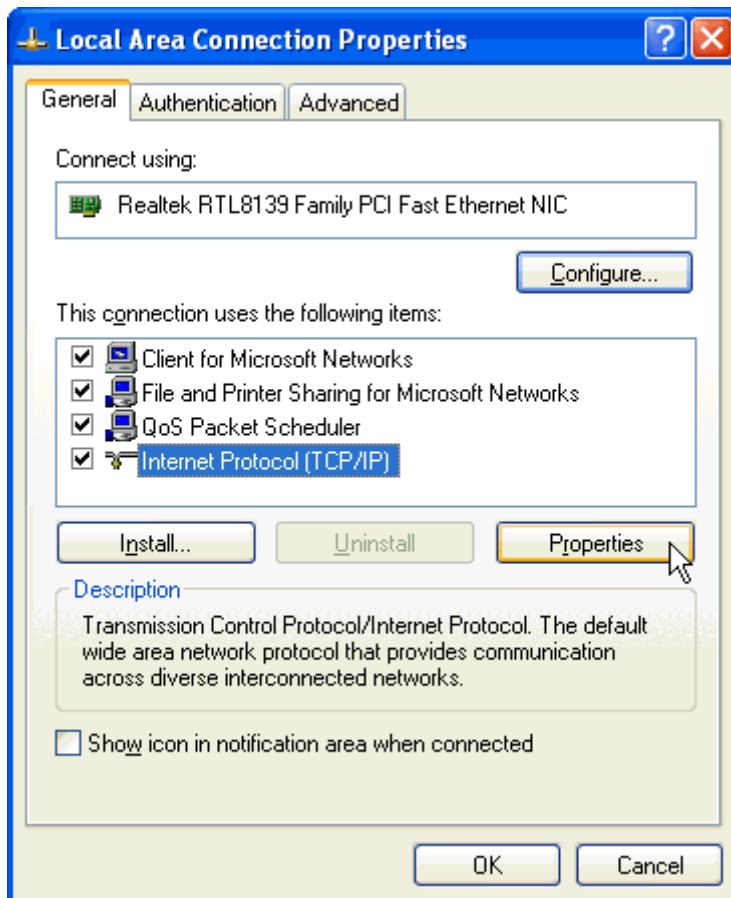
Select your LAN connection and double-click on it.

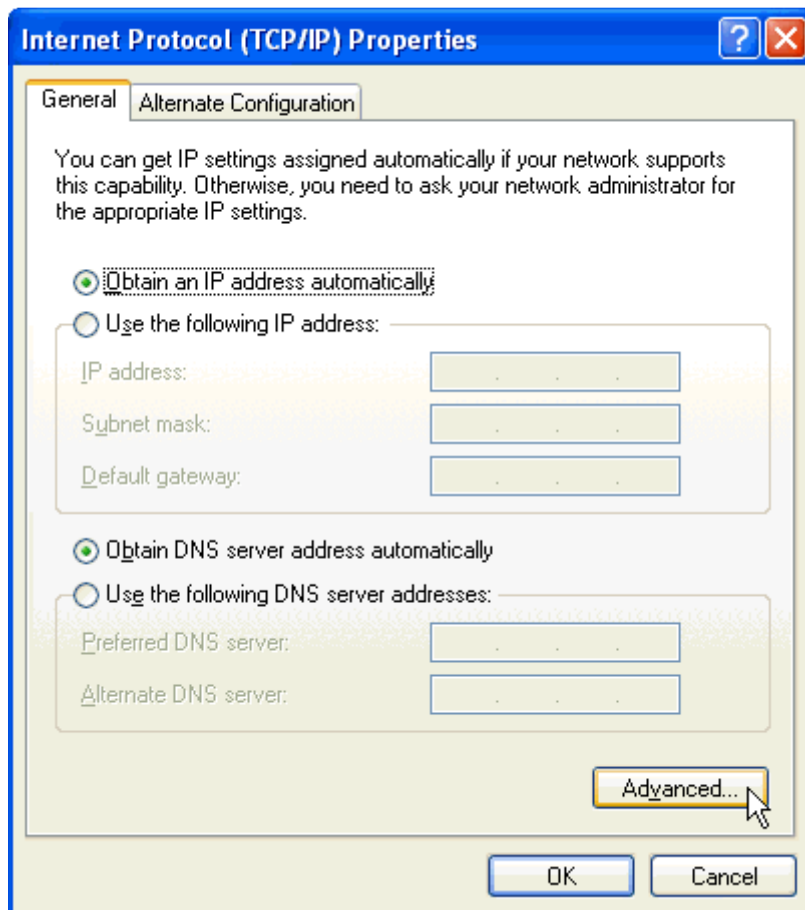


Click on the properties button



Select "Internet Protocol (TCP/IP)" and click the "Properties" button





Now, select "Obtain an IP address automatically" to use DHCP configuration or select "Use the following IP address" to use static IP configuration. Enter assigned static IP address and Subnet Mask.

Click OK to confirm changes

Lemur – Computer network communication:

To confirm that your network setup is correct, power on the Lemur and open the JazzEditor.

Click the “Connect” button. You must see the Lemur on the list.

