

WOOWEB V2

User's Guide
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PROSUM

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Chapter 1

Introduction

1.1. Terminology

Internet Server	Computer on which WOOWEB is installed, running on Windows and owning an Internet physical connection such as analog modem, ISDN modem, cable modem, and xDSL modem. The Internet Server may but need not be a Windows NT/2000/XP File server.
Internet client	Machine that get an Internet access via the Internet Server. A client can be any machine running any operating system.
Local user	Machine accessing the Internet via WOOWEB. This notion covers the Internet Server and Clients. CAUTION! Do not make the confusion with users as defined in Microsoft, Novel or UNIX operating systems. For WOOWEB, a local user is a machine identified by its IP or Ethernet network address. WOOWEB does not make the difference between John and Kevin working on the same computer.
Remote User	Remote machine accessing over the Internet a local server installed on your LAN.
Internet Applications	Software applications carrying out the Internet access and running as well in the Internet Clients as in the Internet Server: navigators, FTP, Emails, etc.
ISP	Internet Service Provider
Firewall	Router that prevents all or part of the internet traffic to reach your local area network.

1.2. What is WOOWEB V2?

WOOWEB V2 is a software router and firewall running on Windows. It enables up to four users on a local network to share a single connection to the Internet. It enables out-going connections as well as in-going connections. Non-Windows client machines such as Macintosh and Unix workstations can access the Internet via WOOWEB V2 as well. The high-level embedded firewall ensures that your network remains private and well protected.

WOOWEB V2 runs on Windows 98/ME and Windows NT4/2000/XP. It supports the most popular Internet connection ways such as analog and ISDN modems, cable, DSL, etc. It provides a rich set of management functions that lets you control and monitor users, outgoing and incoming connections, access time, sites, etc.

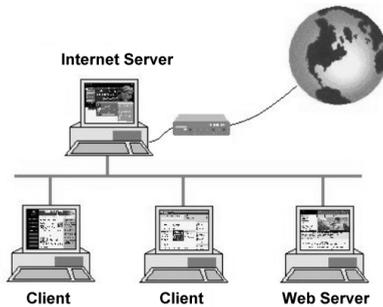


Figure 1: Internet Networking with WOOWEB V2

1.3. Principle of Operation

WOOWEB V2 is a router that needs its own IP address **different from that of the computer on which it is installed**. The Internet applications must be configured to use WOOWEB as the gateway.

WOOWEB is based on the Network Address Translation (NAT) technology. It analyses and modifies all outgoing and incoming IP packets. Basically WOOWEB substitutes the public IP address for your local IP address in outgoing packets. In a reverse way, in incoming packets the public IP address is replaced with your local address. The public IP address is obtained from the ISP at connection time.

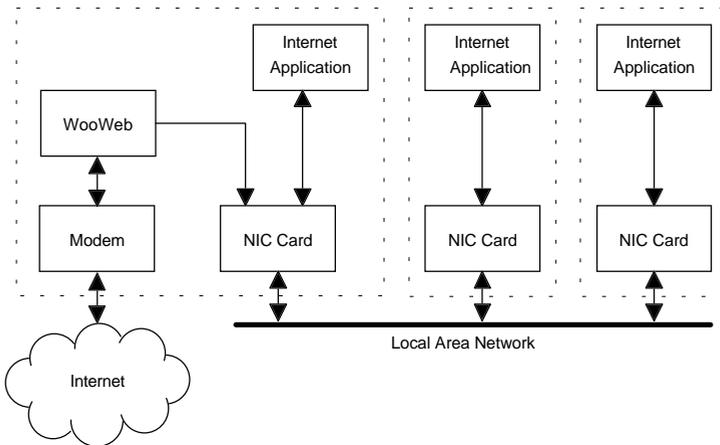


Figure 2: Data Flow

1.4. System Requirements

The Internet Server and the Internet Clients communicate through a local area network (LAN).

The Internet Server is a Pentium® based personal computer having a direct access to the Internet. On the Internet Clients, no particular software is needed.

Before installing WOOWEB make sure that you have at least the following minimum hardware on the Internet Server:

- Pentium® based PC (200 MHz minimum) with 32 MB of RAM
- Ethernet attachment
- Internal or external modem (33 KBPS minimum)

You need an operating system from among: Windows 95/98/Me or Windows NT4/2000/XP.

1.5. WOOWEB V2 Benefits

- WOOWEB uses the NAT, which is a simple and efficient mechanism worked out by the IETF (Internet Engineering Task force, RFC 1631). Thanks to the NAT and to its LAN connectivity, WOOWEB offers several advantages compared to proxy servers. The NAT allows an entire private LAN to connect to the public Internet network without modifying its internal address allocation scheme.
- With WOOWEB, you get for a moderate price **an effective protection against the intrusions** coming from the Internet. It acts by nature as a very powerful Firewall and your local IP addresses are invisible and cannot be accessed from the outside. The structure of your LAN cannot be discovered.
- **WOOWEB provides a cost-effective and reliable solution:** no additional external device required, only one modem, a simple individual subscription to connect a whole local area network to the Internet.
- WOOWEB let's you share local Internet resources such as Web servers, FTP servers or storage resources. Remote users can access these resources over the Internet. WOOWEB maintains strict control over access to local resources from remote users.
- The processing speed is very high thanks to modern personal computers powerfulness.
- Only one installation is needed on a single computer on your private LAN. In other computers of the network, PC, MAC or workstations, no particular hardware or software is necessary.
- Internet connections can be established not only through analog or ISDN modems but also with cables or ADSL routers, VPN servers.
- **The advanced management functions** make it possible to define for each user which sites or services can be accessed, as well as time periods of use.
- WOOWEB has been designed with **ease of use** in mind: WOOWEB installs in a few minutes and requires little additional configuration to meet your personal needs in Web Site Access Control or Firewall parameters. From then, users on the LAN can transparently share the connection to the Internet.

Chapter 2

Licensing

2.1. Trying WOOWEB V2

By installing WOOWEB V2 you get a 30-day free trial period. During the trial period, WOOWEB opens a "Welcome" window whenever it starts. Just click *Try* to start. After this 30-day trial period, the product must be registered and purchased in order to keep on using it. When the product is registered, the "Welcome" window doesn't open anymore.

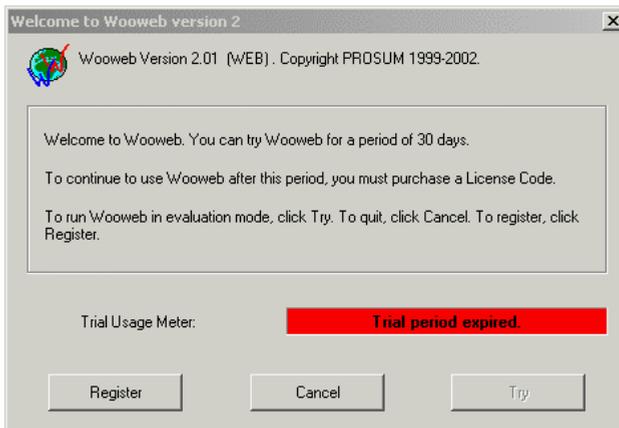


Figure 3: Trial Period

2.2. Registering WOOWEB V2

WOOWEB V2 can optionally include the Cobion Orange Filter plug-in for WOOWEB (see chapter 6.2.2). This module is licenced individually.

2.2.1 Registering WOOWEB V2 Licence

To register the product, click *Register* in the main window, the *Register* box opens.

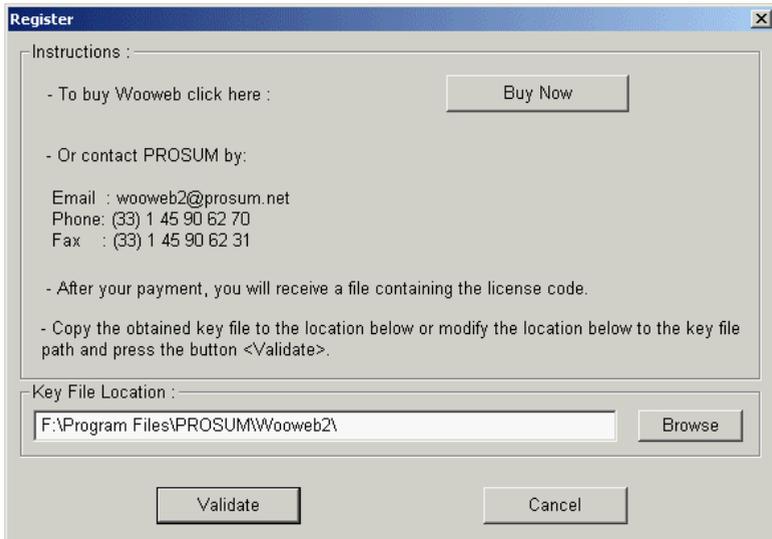


Figure 4: Registering WOOWEB V2

Click *Buy Now*. You are connected to the purchasing page of our web site.

You can buy the product on-line with a credit card or contact a distributor in your country.

After receipt of your payment Prosum emails you a file (WWEB2KEY.TXT) containing the License Code.

Copy WWEB2KEY.TXT into the installation directory (by default: \Program Files\PROSUM\WOOWEB V2).

In the *Register* box click *Validate* to finish the registration process.



The right to use the Software is granted by PROSUM for a single installation of WOOWEB on a single personal computer at the same time. This computer becomes the WOOWEB Server and is the gateway for the concurrent users in the LAN.

2.2.2 Registering the Cobion OrangeFilter License

The OrangeFilter option provides an efficient protection of children and minors from offensive Internet content. This option permits to forbid access to all sites referenced into the Cobion filter list and classified into pornography and/or violence categories (sects, illegal activities, crime, hate, discrimination, extreme, weapons). When trying to access one of these web sites, the user receives a message saying that the site has been blocked by WOOWEB.

Up to 60 million new sites are analyzed monthly by Cobion and classified into a 58-category filter list of 14 million entries.

You need to buy only one Cobion OrangeFilter ticket for the complete LAN protection.

To subscribe on to the plug-in, click *Register* in the main window, the *Register* box opens. Click *Buy Now*. You are connected to the purchasing page of our web site.

You can buy the ticket on-line with a credit card or contact a distributor in your country. After receipt of your payment Prosum emails you a file containing the Cobion OrangeFilter license code (ticket).

Copy this file into the installation directory (by default:

`\Program Files\PROSUM\WOOWEB V2`).

From the *Start* menu click *Activate Cobion*, then click *Validate*.

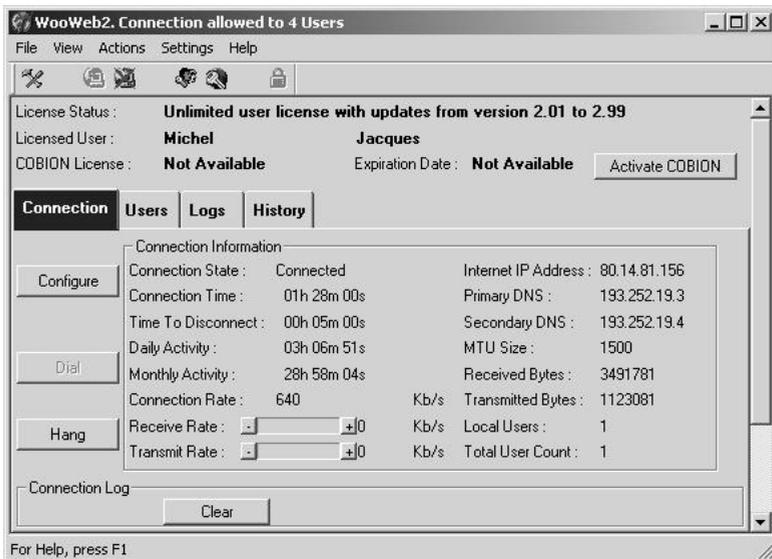


Figure 5: Registering the Cobion OrangeFilter License

Then check the ticket file location and click *OK* to finish the registration process.

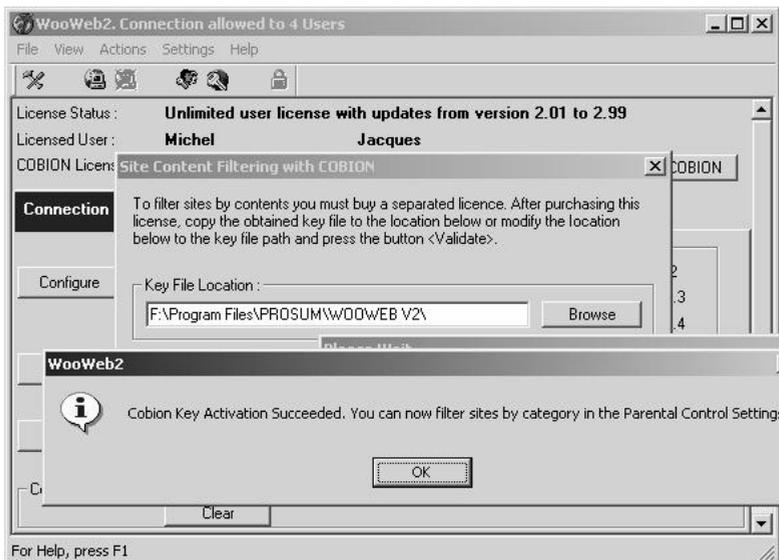


Figure 6: Installing the Cobion OrangeFilter Ticket

WOOWEB shows in the main window the expiration date of the Cobion license. After this date, the content-filtering option will stop working. Follow the same procedure to renew your subscription.

2.3. WOOWEB V2 Version

Whenever you need, you can get information about your software version and license code. From the *Start* menu, choose *Help >> About WOOWEB*.

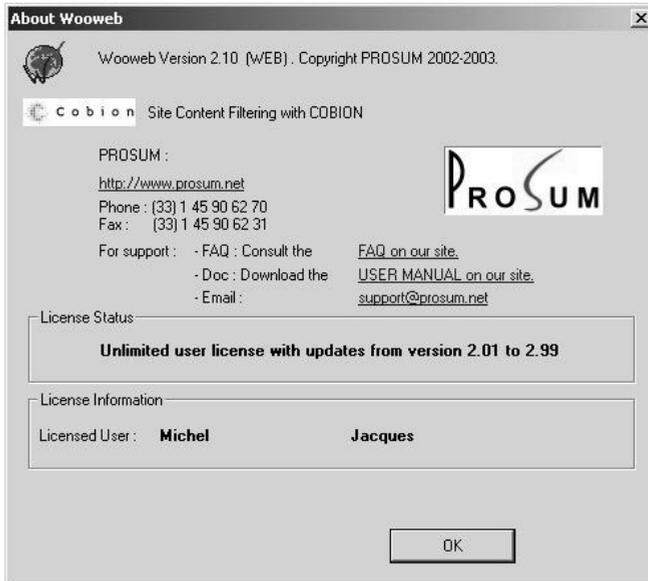


Figure 7: About WOOWEB V2

Chapter 3

Installation and Setup

3.1. Preliminaries

WOOWEB V2 runs on a computer that connects to the Internet. This computer is referred to as the Internet Server.

You need to be able to successfully connect to your ISP with a valid user-name/password. Never begin your installation before you are sure your Internet connection runs. If it is not so, obtain assistance from our ISP to get connected.

If your DSL modem or your cable modem needs to be installed with an Ethernet card (PPPoE), two network adapters have to be setup in the Internet Server, one for the Internet connection and one for the local connection. If you need to buy a second adapter, you don't have to get the same model or the same brand card. Two cards of different brands will avoid any confusion when configuring the Internet Server.

All Clients computers must have a network card installed in order to be able to access the LAN. Just verify that your LAN works properly.

Before proceeding to the installation, you should better uninstall any other Internet sharing or proxy server software such as Microsoft Internet Connection Sharing. Uninstall them properly and entirely. WOOWEB may run into problems or not at all if it is installed on a system along with other Internet sharing software.

3.2. Installing WOOWEB V2

Run Setup.exe and follow the indications.

3.3. Quick Setup

The *Quick Setup* dialog box should open automatically when running WOOWEB V2 for the first time.

Otherwise, click  or from the main menu select *Settings >> Quick Setup*.

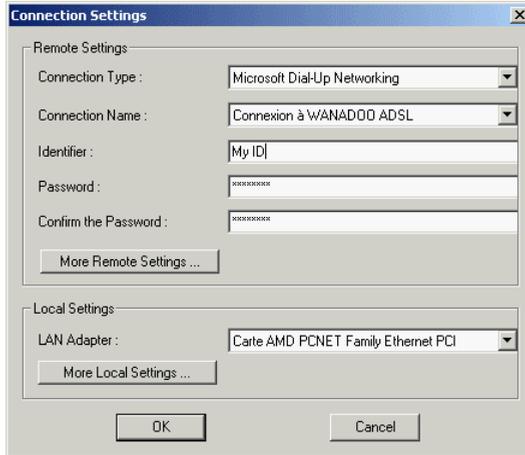


Figure 8: Quick Setup Box

Most often, a configuration made from this dialog box is enough to carry out the installation. Refer to chapter 3.5 for further details.

Specify in *Connection Type* which type of modem or router you intend to use. Refer to the HELP (F1) if you have difficulties in filling in the fields.

- Choose *Modem using PPPoE* for cable modem or DSL modem using an Ethernet connection.
- Choose *Modem using DHCP* for an older cable modem with a built-in DHCP server.
- In all other cases choose *Microsoft Dial Up Networking*. Do not modify any of the *Internet Remote Access Connection* properties. Except your password, WOOWEB discovers and copies the parameters of your existing Internet access automatically.

Enter the ID name and password you normally use to connect to your ISP.

In *Local Parameters*, select the Ethernet card in use for the local network connection (and not which one used for the PPPoE modem, if any). Then press OK.

3.4. Advanced LAN Settings

The following window opens when you click *More Local Settings*.

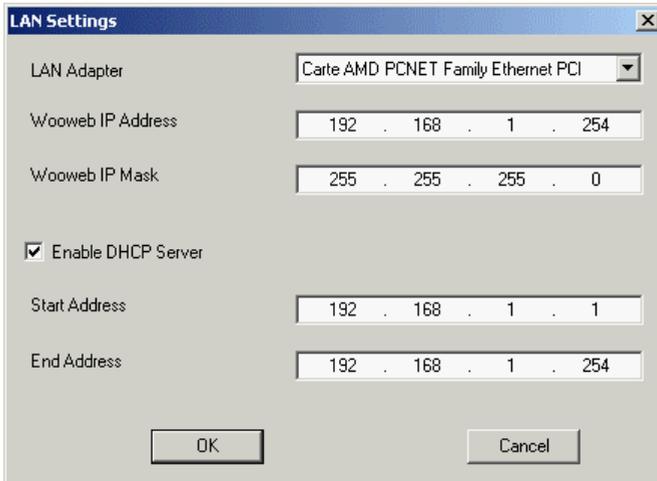


Figure 9: WOOWEB IP Address

If you are not familiar with IP addressing, we recommend that you don't change the values that are automatically set. Please note that on the contrary of most competitor products, WOOWEB behaves like a hardware router and thus its IP address must be different from that of the computer itself.

When *Enable DHCP Server* is checked, the built-in DHCP Server assigns the IP address of client machines automatically in the range *Start Address* to *End Address*.

Turn the DHCP Server off by clearing *Enable DHCP Server* if you wish to set the IP addresses by yourself. Please refer to section 8.3 for further details on assigning the IP addresses depending on the operating system.

Let's do some sanity checks now. In the Windows *Control Panel*, click the *Internet Options* icon.

In the *Internet Properties* click the *Connections* tab. Select *Never dial a connection*.

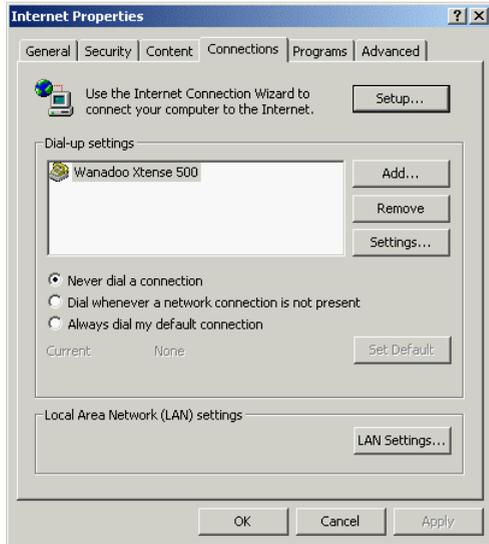


Figure 10: Internet Properties

Click *LAN Settings...*, ensure that *Use a Proxy Server* is **NOT** checked.

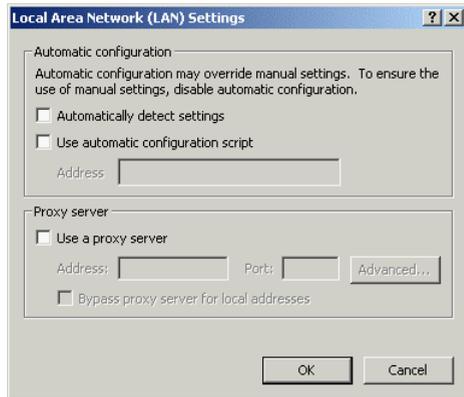


Figure 11: LAN Settings

Chapter 4

Setting up the TCP/IP

4.1. Using the WOOWEB V2 DHCP Server

Each computer on your LAN must have the TCP/IP protocol installed and configured for using WOOWEB as gateway. Modern operating systems install the TCP/IP by default.

WOOWEB includes a DHCP server that by default assigns the computer IP addresses automatically. However, if you wish, you can set them manually.

If you checked *Active DHCP Server* in *WOOWEB Settings*>>*Local Network* (default option), configure the TCP/IP of your client machines to obtain an IP address automatically. See Figure 12

Note that this is the default option on Windows OS.

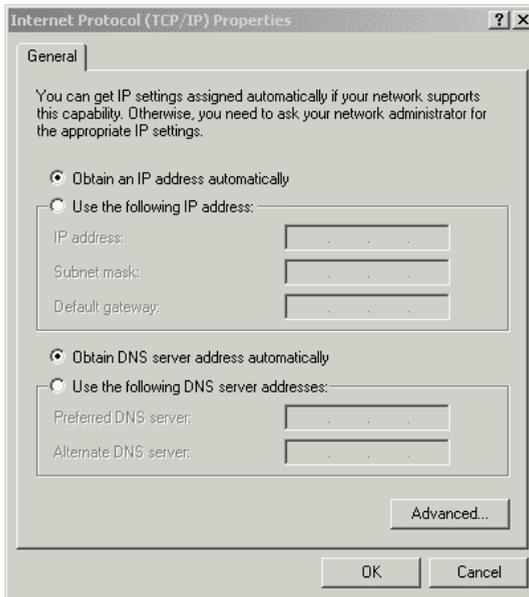


Figure 12: TCP/IP properties when using the DHCP server

4.2. Setting the TCP/IP Properties Manually

If you choose not to select the WOOWEB *Active DHCP Server* option, whatever the operating system is, you should configure on each computer the TCP/IP protocol manually. Refer to the OS documentation.

Each computer must refer to WOOWEB as gateway.

All IP addresses **must be** different. We strongly recommend using IP addresses from the private IP address class C: 192.168.00.XX. The last number can range from 1 to 253, 254 being reserved for WOOWEB.

Please use in each computer the following pattern:

IP Address	192.168.0.XXX (XXX between 1 and 253)
Subnet Mask	255.255.255.0
Gateway IP Address	192.168.0.254 (WOOWEB IP Address)
DNS	192.168.0.254 (WOOWEB IP Address)

You must configure the Internet applications (browser, email, etc.) so that they work over the LAN and no longer over the direct remote access.

You can find further details in section 9.3 if the computer runs Windows.

4.3. *Setting up the MTU*

This section applies only to ADSL or cable modems that use the PPPoE protocol and are connected to the computer by means of an Ethernet card. It does not apply to modems connected to a USB port.

When using a PPPoE modem you need to change the value for the TCP/IP parameter fixing the maximum length of transmitted packets. This must be done on every machine of the local area network (Clients and Internet Server). This parameter may be called MTU or MaxMTU depending on your OS. The MTU value must be set below or equal to **1492**.



On the WOOWEB Server do NOT modify the MTU value of the Ethernet card that is used to connect the modem. Modify the MTU value of the Ethernet card that connects the computer to the LAN.

On Windows use the **SETMTU.EXE** software that is provided in the WOOWEB package.

On UNIX OS use the **ifconfig tool**: `ifconfig eth0 mtu 1492`

On Macintosh machines you may use IPNetTuner software from Sustainable Soft-works (www.sustworks.com).

In all other cases please refer to the OS documentation.

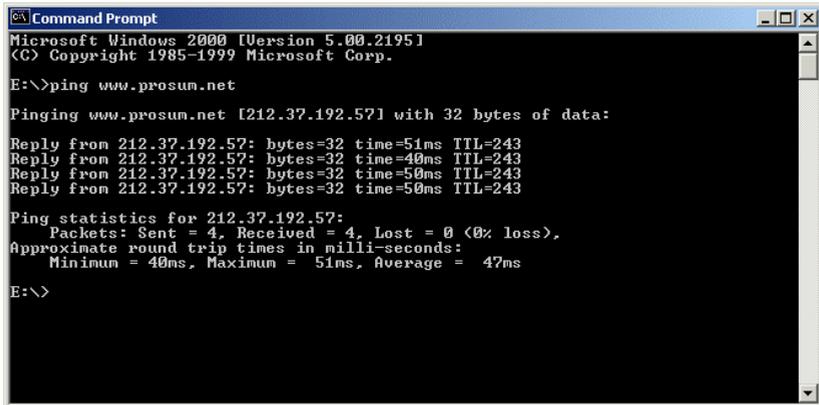
4.4. Testing the installation

It's fairly easy to ensure that the installation has been made successfully. On the Internet Server and then on a Client computer, open a DOS window. (Click Start, select run and type "command")

In the black window, at the command prompt type:

```
C:\ping www.prosum.net.
```

If everything is correct you should see something like Figure 13.



```
CA Command Prompt
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-1999 Microsoft Corp.

E:\>ping www.prosum.net

Pinging www.prosum.net [212.37.192.57] with 32 bytes of data:

Reply from 212.37.192.57: bytes=32 time=51ms TTL=243
Reply from 212.37.192.57: bytes=32 time=40ms TTL=243
Reply from 212.37.192.57: bytes=32 time=50ms TTL=243
Reply from 212.37.192.57: bytes=32 time=50ms TTL=243

Ping statistics for 212.37.192.57:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 40ms, Maximum = 51ms, Average = 47ms

E:\>
```

Figure 13: Testing the Installation

Congratulations! At this step your Internet Server and your Client are ready for Internet access. You should be able to use any Internet application on any computer on your LAN.

We recommend however you to have a look at next sections to understand the multiple ways for customizing WOOWEB and making the specific Internet connection that best fits your needs.

If there is no reply, check WOOWEB settings and your client /server TCP/IP settings again. If you are using the built-in DHCP server, make sure you rebooted your client machine. In case of multiple failures, do not hesitate to contact the PROSUM technical support at support@prosum.net.

Chapter 5

Customizing the Internet Connection

5.1. WOOWEB V2 Server Features

Here is the WOOWEB V2 main window. It provides general information about the connection. This is the starting point for configuration and control.

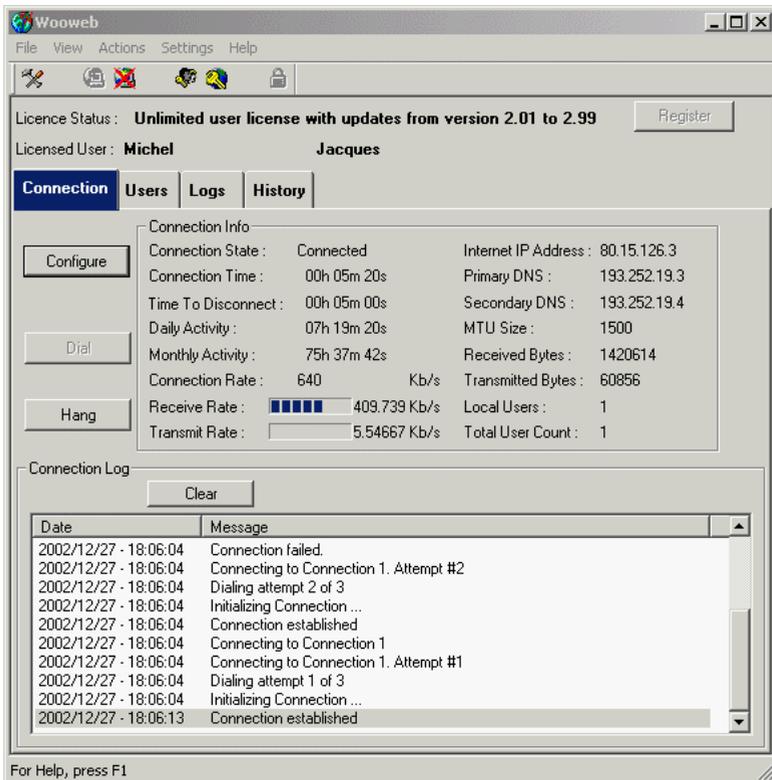


Figure 14: WOOWEB V2 Main Window

The window can be resized by dragging the bottom right corner. Internal elements can be resized as well.

The Main Panel provides licensing and current activity information. It exhibits four tabs:

Connection	shows the current connection state, the LAN traffic and a detailed connection current log that can be useful to detect incidents such as modem errors.
Users	gives detailed information about the day activity of each user
Logs	displays a sum up of events that occurred on the Internet connection all the daylong.
History	gives access to the history records per date and per user

The **Toolbar** provides a quick access to most commonly used functions. Buttons corresponding to unavailable options are grayed out.



Quick Setup



Dials and starts routing



Stops routing and hangs up.



Shows the client access rules



Shows the Internet application access rules (NetMeeting, VPN, etc.)



Locks and Unlocks the user interface (available only when a password has been set up by the administrator)

The WOOWEB V2 **main menu** lists five entries:

File

Enable Internet Sharing Starts the Internet sharing.

Disable Internet Sharing Stops the Internet sharing.

View

Toolbar Displays the tool bar when checked.

Status bar Displays the status bar when checked.

Actions

<i>Dial</i>	Dials and starts routing.
<i>Hang</i>	Stops routing and hangs up.
<i>Lock WOOWEB Console</i>	Locks and unlocks the user interface (available only when a password has been set up by the administrator).

Settings

<i>Quick Config</i>	Permits a fast Internet-connection setup.
<i>Local Network</i>	Permits to configure the LAN parameters (WOOWEB IP address, DHCP Server, etc.)
Remote Connection	Enables optimization of Internet access by configuring some technical parameters (Persistent connection, Dial on Internet Activity, etc.)
<i>Parental Control</i>	Gives access to user controls such as undesirable sites and time limits.
<i>Internet Applications</i>	Permits to create rules to allow Internet applications and incoming connections.
<i>Advanced Functions</i>	Permits to choose the language, to change the administrator password and to activate the debug mode.

Help

<i>Help Topics</i>	Displays the WOOWEB user guide.
<i>About WOOWEB</i>	Displays the WOOWEB software version, connects to the FAQ or registering web page.

5.2. Customizing the Internet Connection

To customize your Internet connection, select *Settings >> Remote Connection* in the main menu or click *Configure >> More local settings...* under the *Connection* tab.

5.2.1 Auto Dial and Auto Disconnect

WOOWEB supports the most popular Internet connections. It is able to automatically dial the ISP when detecting some user activity. It hangs up after a programmable time without network activity.

Proceed as following to set up the automatic connection and disconnection:

- Select *On Activity Detection* in *Connection Method* field,
- Choose your preferred detection method in *Activity Type*, (See section 5.2.2)
- Select *After an Inactivity Period* in the *Disconnection Method* field,
- Fill in the idle time period that will cause the disconnection. For ISDN modem this period can be very short (3 minutes) since reconnection time is very short. For analog modems we recommend at least 10 minutes.

5.2.2 Activity Detection

The activity-detection feature permits WOOWEB to start the connection process as soon as it receives a user request for Internet access.

Detecting user activity is not as simple as it seems to be. This explains spurious connections of some low-end routers that may be very costly when unnoticed. With WOOWEB this cannot happen: each connection is announced by a message and is recorded in the log. Moreover, the activity detection feature is very elaborate and can be configured.

There are three activity-detection modes:

1. **All IP requests:** Most sensitive mode, all requests coming from your local area network for an external access cause a connection to the ISP. This is the regular router mode of operation. The danger is coming from some applications that generate automatically inopportune requests for external accesses, leading to spurious connections to the ISP.
2. **Most common requests** (Default Mode): Fairly secure mode, only requests for Web, FTP, Mail, News and DNS can cause the connection to the ISP. The risk is coming from the possible use of an Intranet. In that case, this sort of requests can be done for local destinations and not bound to the Internet, resulting in useless connections to the ISP.
3. **Only DNS requests:** Less sensitive mode, only DNS requests can cause the connection.
DNS requests are sent each time you use a domain name such as for example `www.prosum.net` or `contact@prosum.net`. The DNS server transforms this name into an IP address that is returned to your navigator or Email, so that you can reach the site you asked for over the Internet.
The inconvenience is that your navigator keeps memory of IP addresses. If you

stay a long time on the same page, WOWEB may disconnect because there was no traffic for a duration equal to that you set for the disconnection. After that, when you try a new access, there is no DNS request and the connection is not restored.

We recommend to increase the disconnection delay when this mode of detection is selected

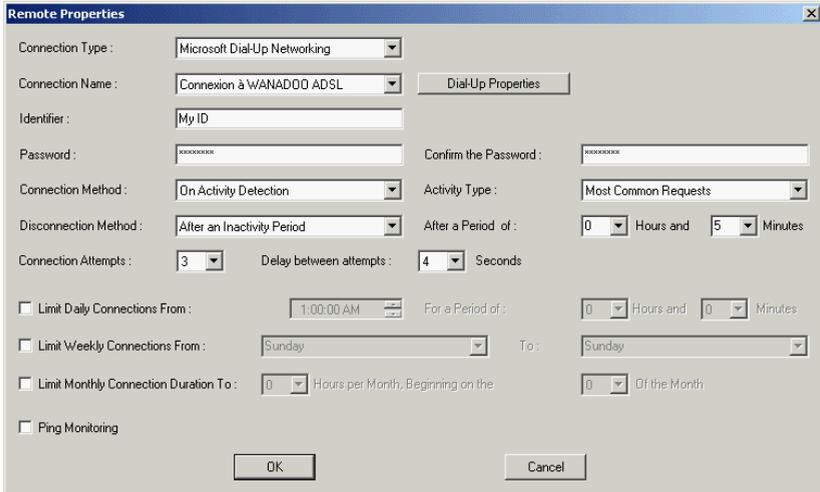


Figure 15: Setup of Activity Detection

5.2.3 Permanent Connection

This option makes WOOWEB dial up at start time. The connection does not expire when WOOWEB detects no activity. WOOWEB tries to reconnect if the connection is stopped for some reason –connection failure or automatic ISP deactivation for example. This option is very useful for maintaining a permanent connection. It is prohibited if you are billed with a time-connection subscription.

To enable a permanent connection, choose *Always connected* in *Connection Method* and *Manually* from the pull-down list in *Disconnection Method*.

5.2.4 Preventing Automatic ISP Disconnections

Some Internet Service Providers use to disconnect you if you stay connected 24 hours without interruption. Unfortunately, your line has not got disconnected at a physical level and WOOWEB cannot know the ISP has disconnected you. That is why you must disconnect and reconnect manually. There are several solutions that permit to overcome this problem.

First solution: Choose *Always On* in *Connection Method* and *After a Fixed Period* in *Disconnection Method*. Then fill in *After a Period of* with a value equal to or less than 24 hours. Every 24 hours WOOWEB proceeds to a proper disconnect-

tion/reconnection sequence in order to satisfy the ISP so that it does not need to force your disconnection any more.

Second solution: Choose *On Activity Detection* in *Connection Method* field and *After a Period Without Activity* from the pull-down list in *Disconnection Method*. Then fill in *After a Period of* with a rather large value. According to your preferences, WOOWEB disconnects when no user is active for the long period of time mentioned. It reconnects at the next Internet access request. This solution is not applicable when users are running periodic auto-connect applications - e-mail loading every 5 minutes for example. There must be a long inactivity period at least once a day – during night for example.

Third solution: WOOWEB can try to check the connection state by auto-pinging its own address every five seconds. If a reply is not received it proceeds to a disconnection/reconnection sequence in order to satisfy the ISP. Unfortunately some ISPs do not support this sort of ping. This makes WOOWEB believe that the connection is always down.

To use this solution, choose *Always On* in *Connection Method* and *Manually* in *Disconnection Method*. Check *Ping Monitoring*.

Caution: WOOWEB keeps on cutting the connection if your ISP does not support the ping. In this case do not use this method and clear the *Ping Monitoring* box.

5.2.5 Login Retries

This is the number of times WOOWEB will try to establish a connection with your ISP. After each unsuccessful attempt, it waits for the specified number of seconds. When the number of retries has run out, it considers the ISP connection is not currently possible and gives up.

To manage the login retries, fill in *Connection Attempts* and *Delay Between Attempts*. We recommend respectively 3 and 5.

5.2.6 Limiting the Connection Time

You may wish to limit your Internet global connection time over a period. This may be of a great use when you signed with your ISP for a time-limited package.

Access rights are set by using the *Edit Properties* Window in *Settings >> Remote Connection Settings*. Keep in mind that WOOWEB will close the connection at time expiration even if there is traffic going on. For example, you could impose the following restrictions (see Figure 16):

1. Users can access the Internet from 9 AM and for 6 hours 30 minutes at the maximum..
2. Users can access the Internet only during weed-ends (saturday and sunday).
3. The monthly total time of connection is limited to 30 hours from the 1st to the 1st of next month.

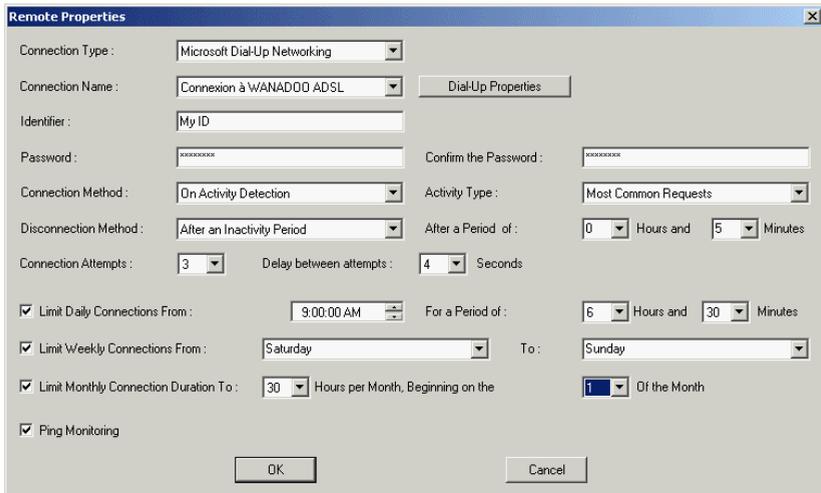


Figure 16: Remote-Connection Properties

5.3. Internet Connection Types

WOOWEB supports the most popular Internet connections in use at home. It cannot connect to hardware routers. Use WOOWEB-PRO for connections behind hardware routers.

5.3.1 Connecting to Analog or ISDN modems

WOOWEB supports almost all ISDN or analog modems. In particular, it supports internal and external ISDN modems that provide a CAPI interface. Use preferably this interface when available.

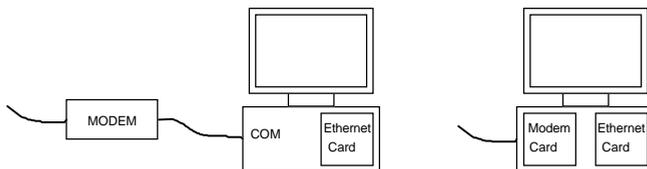


Figure 17: Connecting an Analog or ISDN Modem

5.3.2 Connecting to PPPoE Modems

Some DSL or cable modems using the PPPoE protocols must be attached to an Ethernet card.

To support these PPPoE modems, WOOWEB-PRO needs **two** Ethernet cards. The first Ethernet card is the normal card used for the local area network connection; the second one is reserved to connect the ADSL modem.

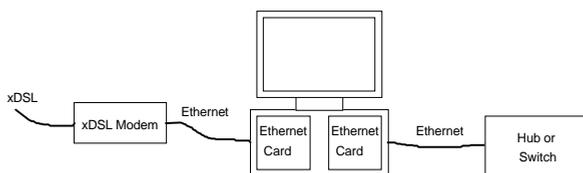


Figure 18: Connecting a Modem Using an Ethernet Link

Usually, single computers are connected by adding a PPPoE client software. With WOOWEB, the PPPoE client is NOT USEFUL any longer and you should better remove it to avoid any modem access conflict. If not removed, the connection through the PPPoE client should never be launched, neither manually nor by the navigator, which must be configured to access the Internet over the local area network exclusively.

Other DSL or cable modems (especially those connected to a USB port) are not driven directly by WOOWEB but rather indirectly by the means of the Microsoft Dial-up Networking. Refer to next section.

5.3.3 Connecting to any Other Modem Type

All connections that are not described in the two previous sections use the Dial-Up Networking service (RAS) provided by Microsoft in Windows. The purpose of this service is to allow your computer to connect to external networks such as the Internet. Using the RAS permits to extend the WOOWEB capability to any connection already supported by Microsoft.

Select *Microsoft Dial-Up Networking* for ADSL and cable modems that connect to a **USB** port

More generally select *Microsoft Dial-Up Networking* for any modem that is not analog, RNIS or PPPoE.

5.4. Firewall

The firewall protects your computers from the intrusions coming from the Internet. The effectiveness of the firewall can be changed by using the configuration boxes related to remote users (see section 7.1).

If remote users are prohibited, the firewall is almost impregnable. It blocks any access attempt that does not result from a request coming from a local user. Packets arriving spontaneously are denied. Only answers to your questions can penetrate in your LAN, what makes it completely opaque from the Internet. The only possible penetration may come from the installation of a Trojan horse, i.e. pirate software that settles in a computer and sends requests and information towards the external world without your knowledge.

When remote users are authorized, the effectiveness of the firewall depends on the way in which you programmed the filters. For more security, validate the TCP/IP ports that are required for the good working of the server only. In any case, the server that is mapped in the list of remote users is the only machine on your LAN that can be reached from the outside.

If *Allow all remote users* is selected, the firewall lets anybody access the server that is mapped in the list of remote users.

The mode of operation of the firewall is underlined by the filtering log (section 8.1.2) that keeps trace of intrusion attempts that have been blocked. Intrusion attempt information is recorded: date and hour of the attempt, IP addresses or name of the pushed back intruder, and port on which the attempt was carried out.

Chapter 6

Managing Local Users

6.1. Building the List of Local Users

WOOWEB V2 allows limiting computers having access to the Internet. In addition, for each computer, it is possible to define filters such as:

- Time periods of use,
- Allowed Internet services, (Email, Web, FTP etc.),
- Authorized and forbidden sites.

To open the local-user filter dialog box, click *Local Users* or select *Settings >> Parental Control* in the main menu.

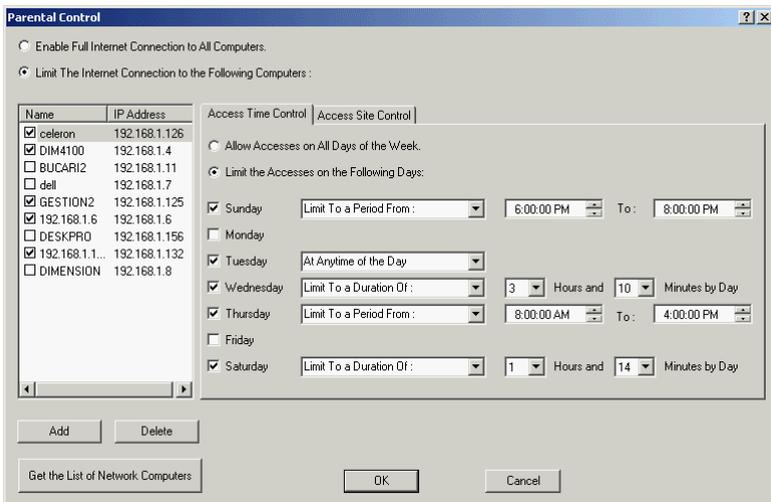


Figure 19: Parental-Control and List of Local Users

WOOWEB discovers the computers and builds the computer list automatically. However, remember that WOOWEB is intended for home use and is limited to **FOUR computers**. We recommend WOOWEB-PRO for larger networks.

- The *Enable Full Internet Connection to All Computers* option gives full access to the four first listed computers. All controls are disabled.
- The *Limit the Internet Connection to the Following Computers* option enables the checked computers only. At most four computers can be checked at the same time. Time and site controls are available.
- You can add/delete or enable/disable computers in the list.
- To add a computer manually, click *Add*, the *Computer definition* window opens. Enter the computer name and IP address. Click OK. Nevertheless it's better to let WOOWEB build the list by itself.
- Press *Get the list of Network Computers* to make WOOWEB search and add the computers currently connected to list.

6.2. Parental Control

From the Main Menu select *Settings>>Parental Control*. Select a checked computer in the computer list.

Two tabs give access to dialog boxes making it possible to specify access time periods and authorized or prohibited sites.

Note: The time-period and site filters work starting from lists of prohibition / authorization. These **lists are defined at the global level** for all the computers. On the other hand each line of these lists starts with a **check box** indicating whether the line applies to the selected computer. Thus, by simple mouse clicks, you can define a **filter subset** associated to a given computer.

6.2.1 Setting up Connection Time Period

The time periods can be defined on a day basis. They specify a maximum duration or a time schedule to be respected. As soon as a computer is outside the time period, it does not have any more access to the Internet.

In this example the workstation named "celeron" is authorized to access the Internet every Sunday but it cannot enjoy it more than 4 hours; it is authorized every Monday and Tuesday from 6 p.m. to 8 p.m.; every Wednesday but less than one hour. If a local computer attempts to access the Internet during a forbidden period the connection is rejected and a message is displayed in the Filters Log.

Remember that WOOWEB combines the local computer control with the Global Time Control that is defined in the *Internet Connection Properties*. Interdictions from both sides have most priority than authorizations.

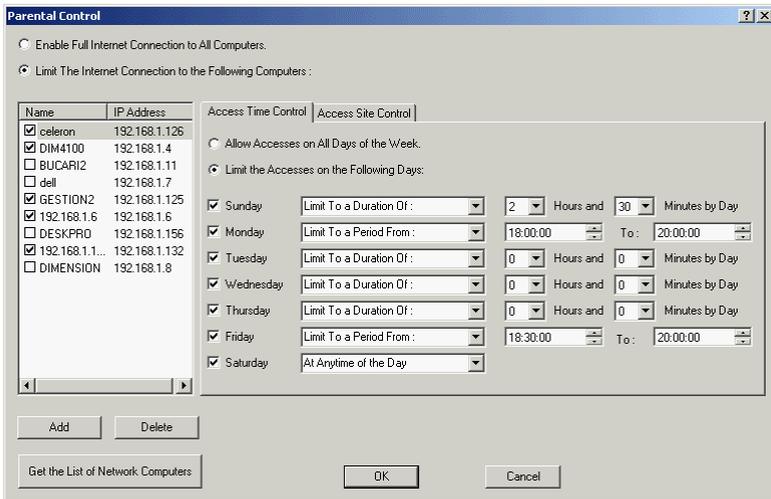


Figure 20: Setting up the Connection Time Period

6.2.2 Forbidding Access to Certain Sites.

You can use WOOWEB V2 to prevent users, such as children, from accessing undesirable sites. In order to ensure superior blocking and filtering WOOWEB V2 offers two ways of filtering:

- A strong filtering by key-words; you build your own list of key-words. So you can disable access to URL addresses containing such strings. This way you can personalize your own filtering.
- A basic filtering by Content Rules; The Cobion Orange Filter plug-in for WOOWEB is optional. It enables WOOWEB to classify Web Content URL by categories. Access to the page will be either permitted or denied according to this classification and your parameters.

Strong Filtering by key-words

There is a unique list of forbidden sites that is composed of all filters that have been defined. It can but does not necessarily apply totally to every computer. For a given computer you can choose the prohibited sites from among the list by checking their corresponding filters.

In order to restrict access, select the appropriate computer in the computer list and press the *Access Site Control* tab. Check *Forbid access to the checked sites* button. Check filters that apply. Click OK to finish.

In Figure 21, the local computer named *celeron* cannot gain access to sites whose domain name contains the character strings <sex> and <guns>.

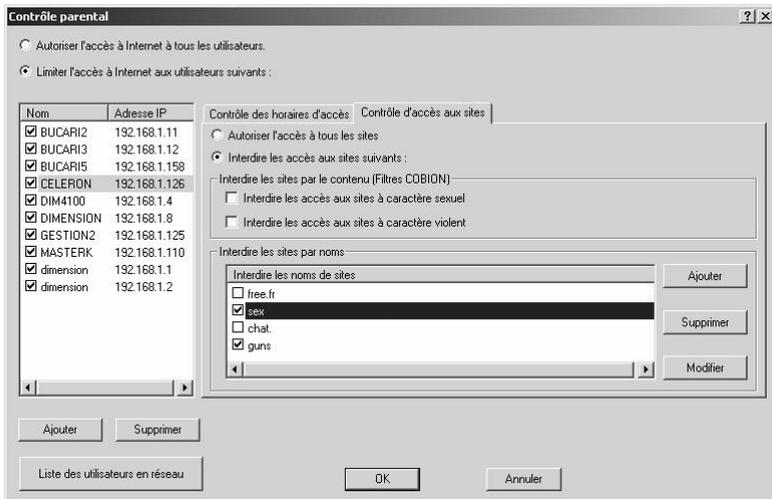


Figure 21: Managing Internet Site Access

To create a new Filter click *Add*. The *Forbid Site Name* window opens.

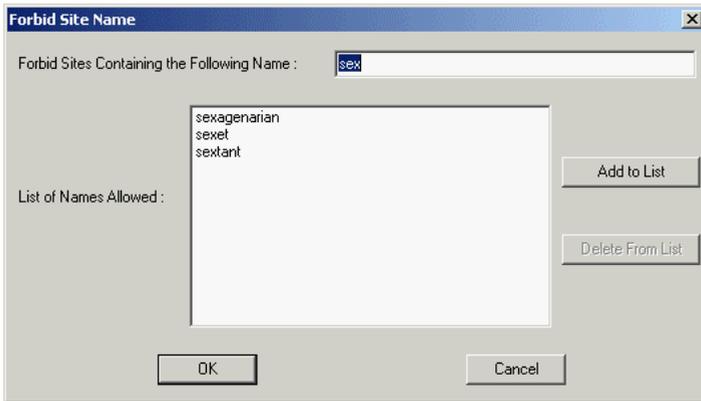


Figure 22: Access Filter

Each filter contains a main forbidden string and a list of exemptions in *List of Names Allowed*. Let us consider Figure 22. In this example, the filter forbids access to sites whose domain name includes the character string "sex", but sites whose domain name includes "sexagenarian" or "sexet" or "sextant" are authorized.

Be aware that strings that are added in *List of Names Allowed* must totally include the main filter string.

In the example, accesses to www.sexo.com are blocked, but accesses to www.sextantavionique.com are authorized.

As soon as a rule is satisfied, subsequent rules are ignored.

Whenever you need, you can add or delete filters. But be aware that access filters are suppressed from the Global Filter Base. So every computer for which this filter was checked will be no longer forbidden and thus will be allowed to visit the sites that were prohibited before.

Press *OK* to close the window, implementing changes. *Cancel* closes the window but leaves all settings unchanged.

By adding and selecting filters with specific restrictions and permissions, you can implement any protection you need. Let us illustrate some typical settings.

Example 1: Forbidding access to one site

Example 1: Forbidding access to any sites but one (www.wanadoo.fr)

Example 3: Giving access to any sites except to which ones whose extension is .guns

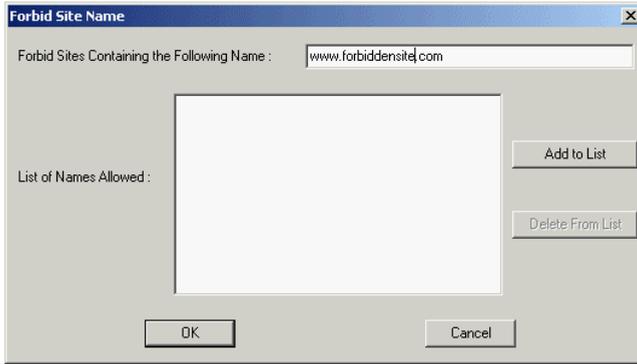


Figure 23: Forbidding Access to One Site

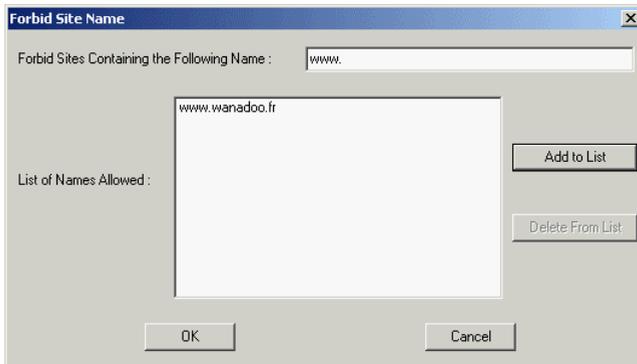


Figure 24: Giving Permission to a Single Site

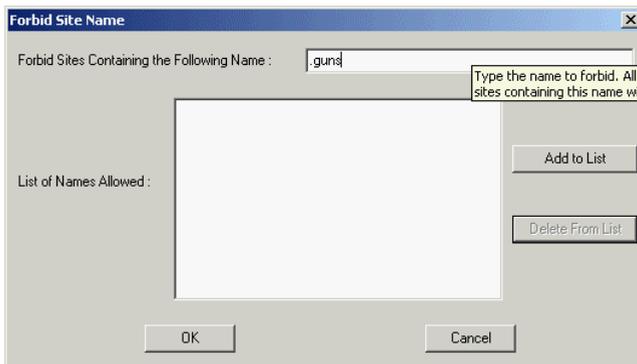


Figure 25: Forbidding Sites whose Name Includes a Designated String

Filtering by Content with Cobion OrangeFilter

The Cobion OrangeFilter is a built-in WOOWEB V2 optional service that can be purchased independently. It enables WOOWEB V2 to rate website content and know which category they belong to.

Whenever a user tries to access a new web site, WOOWEB sends a request to Cobion servers that perform website rating. WOOWEB allows or denies access according to the servers response and to your setup.

NB: Cobion continuously and dynamically crawls, rates and categorizes websites for objectionable content such as pornography or hate. The rejection of objectionable material is very high while the rate of web pages blocked for incorrect classification is very low. The Cobion database is not copied on your computer, but instead is referred to before each new website access. In spite of that, surfing is not noticeably slowed down.

In order to filter access by using Cobion OrangeFilter, select the appropriate local computer in the computer list and press the *Access Site Control* tab. Check *Forbid access to the following sites*. Check one or all of the predetermined content filtering categories you want to apply. Click *OK* to finish.

In the example following, the local computer named DIMENSION cannot gain access to sites rated in SEX category (Pornography, Erotic, Sex) and in VIOLENCE category (Weapons, Extreme, Hacking, Hate, Discrimination).

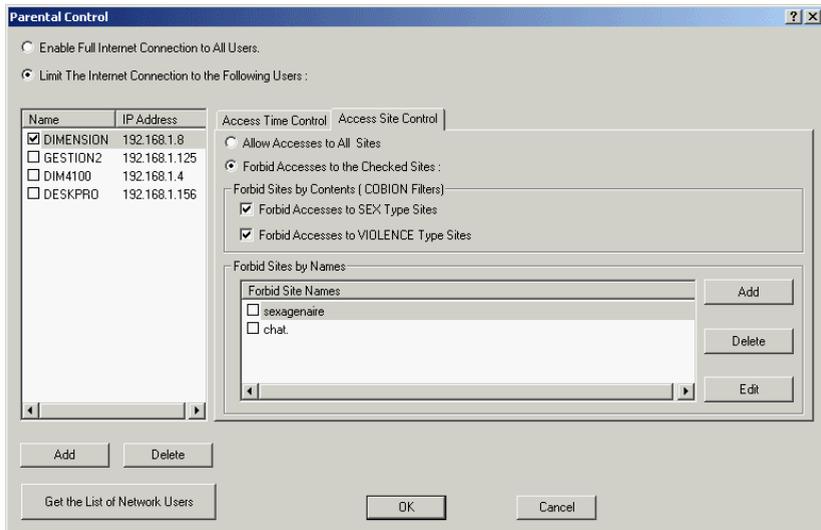


Figure 26: Content Filtering

Whenever the DIMENSION computer will try to access a new website, WOOWEB will sent a request to Cobion servers. Access to any website included in the filter list and matching with a rating category (sex and/or violence) will be denied. The DIMENSION computer user will be notified that access is restricted and denied.

Moreover a new line will appear in the *Filter Log* showing the local computer, the URL and its classification.

Key-points:

- The Cobion OrangeFilter plug-in does not slow surfing down noticeably. To speed up the URL rating, WOOWEB V2 maintains an internal cache of acquired and rated URLs. WOOWEB always consults the URL cache first.
- URL entries stored in the URL cache are automatically cleaned up each time the WOOWEB V2 Engine is restarted.
- The key word filtering has got higher priority than the OrangeFilter. Thus, whatever rating a web site obtains from the Cobion servers, your key-word filters (if any) always override the OrangeFilter classification. This feature allows WOOWEB V2 to unlock (or to block) web sites that could be blocked (or authorized) for incorrect classification from your point of view.

6.3. Supervising Local Users

6.3.1 User Information

WOOWEB tracks all Internet access from the client machines. In the activity log, you can find for each computer:

- The date and time of the today connections
- The IP address and names of hosts visited
- An estimation of daily connection activity

To get this information, click the *Users* Tab, select *Local Users* and select a user in the expanded list. WOOWEB shows the IP address, MAC address, connection time, and current connection state in *User Information*. Below, the right-hand panel *Sessions* summarizes the connections and disconnections all along the day. Highlight one session; WOOWEB displays in the left panel the names of sites that were visited during this session.

Let's look at Figure 27. Celeron began a session at 9:11 and closed it three minutes later. During this session, he visited three sites that are displayed on the right list.

Note: You can press the *Delete User* button to reset the *Daily Activity* counter. This permits to re-authorize a user whose allocated time is exhausted.

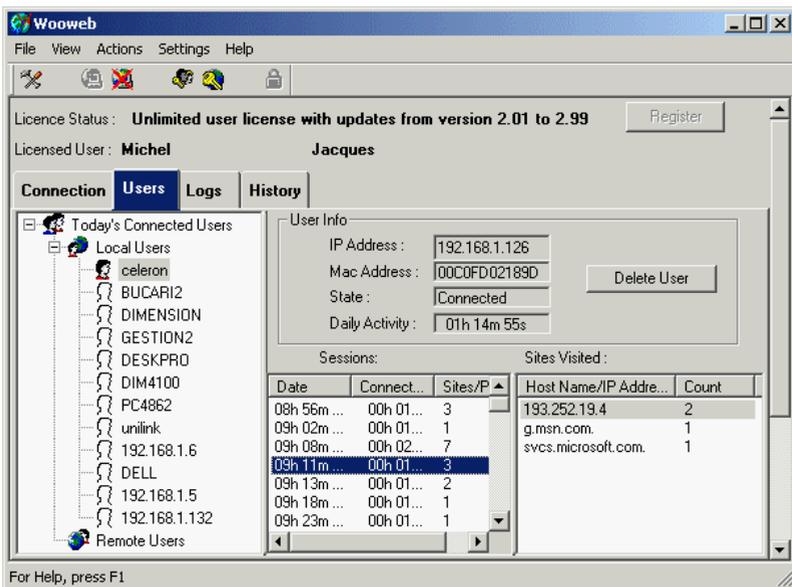


Figure 27: User Connection Information

6.3.2 User History

For each user, WOOWEB keeps trace of date, time and duration of connections as well as visited sites. The data can be presented overall or sorted by user. To display the user history, click the *History* tab from the Main window.

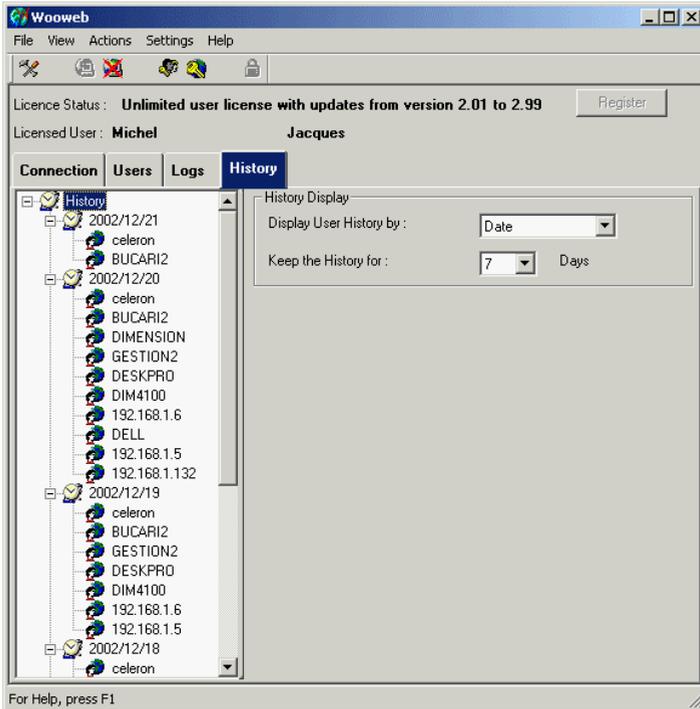


Figure 28: User History

Click *History* on the first line of the left-hand panel.

In the right frame, *Display User History by* makes it possible to choose a history sorted by dates or by users. You can set up the history size from 2 days up to 32 days.

In Figure 29 we can see the detailed list of connections and sites visited by celeron on the 12/20/2002.

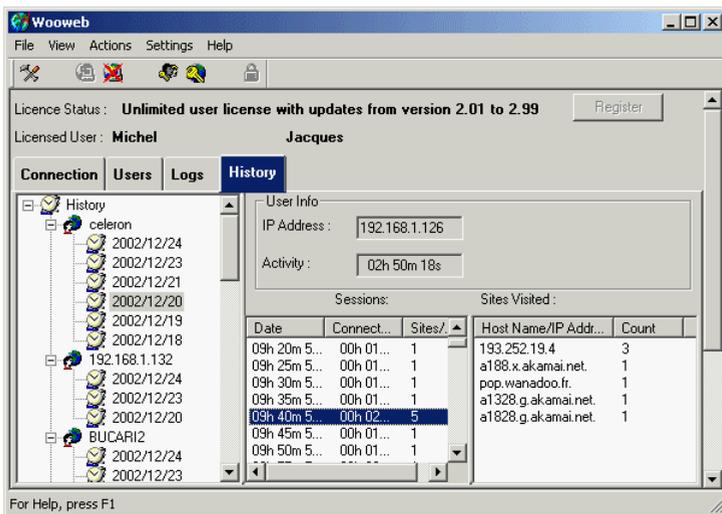


Figure 29: User Detailed History

History Sorted by User

Select a user in the left frame to get the total connection time during the history period of time.

Select a date in the left frame to get the connection detail.

Select a session in the right frame to get the visited sites.

History Sorted by Date

Select a date in the right frame to get the total connection time of all users during this day.

Select a user under a date to get the detail connections during this day.

Chapter 7

Advanced Settings

7.1. Incoming Connections

WOOWEB V2 makes it possible to accept remote users wishing to access a computer on your local area network in order to share its resources. You can, for example, have a WEB or FTP server running on your LAN or allow a remote VNC or PCAnywhere user to take control of a computer on your LAN or allow incoming connections for certain games.

7.1.1 Principles

For each sort of remote users authorized to get over the firewall and penetrate in your LAN, you must create a line in the Internet Application table defining the mode of recognition: application name; range of TCP/IP ports used by the application; local machine on which the application is running. The number of lines is limited to 256. A line must be checked to be active.

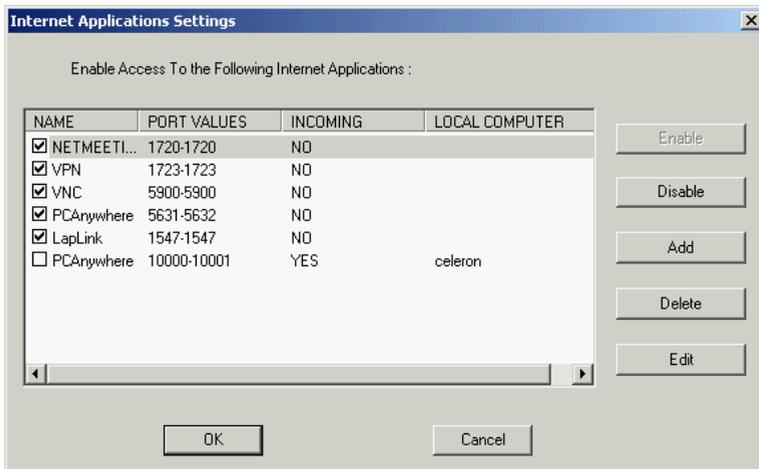


Figure 30: Internet Application Table

Every Internet packet includes a source port number and a destination port number. For each incoming packet that comes spontaneously at WOOWEB entrance, the

Internet Application table is scanned from top to bottom. The first line that matches the packet destination port stops the scanning. If the line authorizes the incoming access, the packet is forwarded to the local computer specified in this line. If the line does not authorize incoming connections or if no line matches, the incoming packet is destroyed and a message is added in the filter log.

To open the Internet Application table, click *Settings*>>*Internet Applications* in the main menu.

You can manage this table directly. For example you can disable a line without deleting it by clearing its check box or by selecting the line and clicking *Disable*.

<i>Name</i>	Character string that identifies an Internet application WOOWEB is provided with a list of some popular Internet Applications (NetMeeting, VNC, etc.)
<i>Specific Ports used</i>	Tells to WOOWEB the range of TCP/IP ports that are used by the application.
<i>Incoming Access Permission</i>	States whether the application is a server (YES) that must accept incoming connections to the specified TCP/IP ports.
<i>Local IP Address</i>	Local IP address of the machine on which the application is running. This field tells to WOOWEB where to forward the incoming packets.
<i>Modify</i>	Click to modify the highlighted line
<i>Add</i>	Click to add a new line. A setup box will open. (See next section)
<i>Delete</i>	Click to delete the highlighted line Note: the pre-programmed Internet applications (NetMeeting, PC Anywhere, etc.) cannot be deleted.

7.1.2 Add a New Line in the Internet Application Table

Open the *Internet Application Settings* window as explained in the previous section. Then click *Add* or *Modify*.

Type the TCP/IP or UDP port number or port range used by the Internet application. The editor should provide this information.

If you plan to setup a server application such as, for example, a web or a file or an email server, click *Allow Incoming Internet Calls* and select the local machine (user) running the server application in *Mapped Local User*.

Clear *Allow Incoming Internet Calls* if you don't wish to setup a server-type application.

Select *OK* to validate the new line.

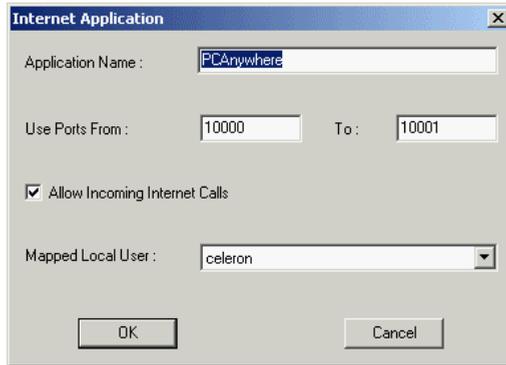


Figure 31: Setting up an Internet application

7.2. Supervising Remote Users

7.2.1 Activity of the Day

For each remote user that connect at least one time during the day, WOOWEB posts various pieces of information such as times and hours, daily and monthly times of connection, names or address of the local server that has been visited.

To get this information, click the *Users* tab and select *Remote Users*. The list of all remote users that get a connected during the day is displayed. Select a remote user.

The right frame shows the remote user name (when available), his IP address and detailed information about the last connection: time, duration, current state - Disconnected, Connected or Inactive if blocked by a filter. A session table shows the time and duration of all sessions involving this remote user. Select a session to see the name or IP address of local machines that have been accessed how many times each machine have been accessed.

7.2.2 Remote User History

WOOWEB logs remote user Internet activity and provides detailed historical reports in the same way as for local users (See section 6.3.2).

Chapter 8

Ancillary Functions

8.1. Activity Log

To open the activity log of the day, click the *Log Display* tab in the main menu. A drop-list allows you to choose one of three logs: General Log, Filtering Log or User Log.

8.1.1 General Log

It records all technical events concerning the connection - pings, message requests, ACK, DHCP, etc.

Click the *Configure* button to open the *Log Configuration* box. Check the events you want to be recorded - DNS, DHCP, remote accesses, etc.

Two buttons makes it possible to print or erase the log.

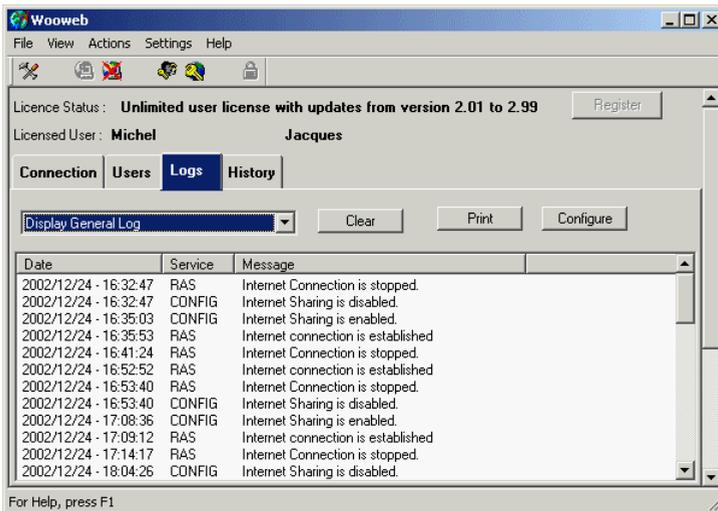


Figure 32: General Log



Don't leave WOOWEB record all events permanently not to slow down the Internet sharing.

8.1.2 Filter Log

It records connection attempts of local or remote users that have been rejected by one or several filters.

For each rejected attempt, it posts the date, the hour, the type of blocked user, its IP address, the type of filter and its value when significant.

The *Firewall*, *Distant* or *Port* type filters correspond to intrusion attempts from the Internet that have been blocked by WOOWEB.

The Local User lines mention the sites trying to be accessed and the category which they belong to.

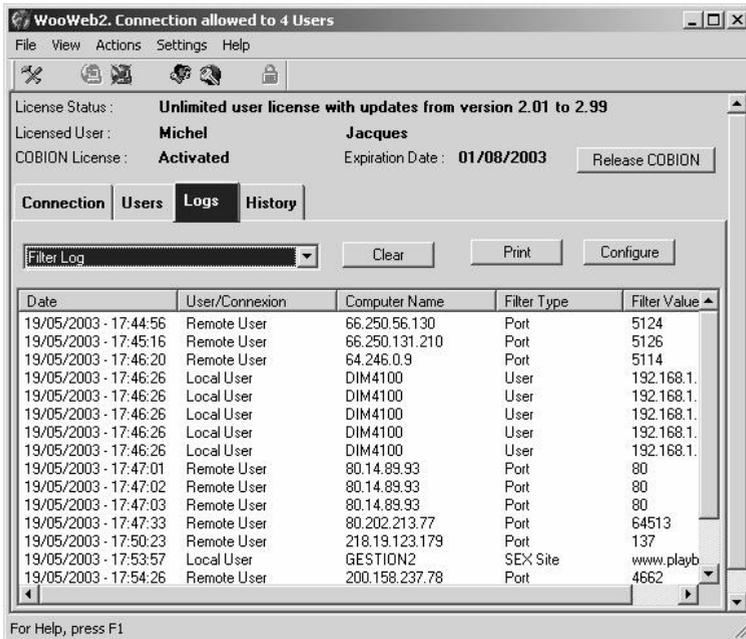


Figure 33: Filter Log

8.1.3 User Log

It records the time of all connections and disconnections of all local and remote users

8.2. Enabling Traces for Debug

Two trace files helping to find problems on the LAN and Internet side connections can be generated continuously by selecting *Setting>>Advanced functions* from the main menu and by checking the *Save debug traces to disk* box. Finally click the *OK* button.

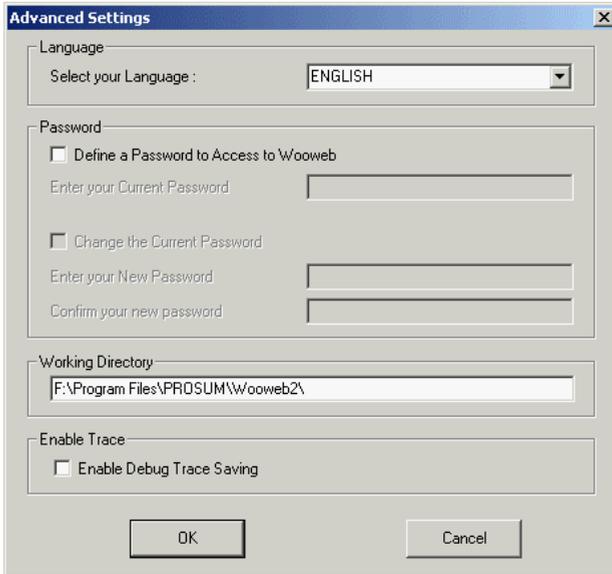


Figure 34: Advanced Settings

These traces are copied in the **TRACEPPP.PVD**, **TRACEN00.PVD** and **TRACEN01.PVD** files located in the **TRACE** sub-directory from the installation directory (Usually C:\Program Files\PROSUM\WOOWEB V2\TRACE).



These traces should be activated only on request of the technical department of Prosum. The trace files are saved in binary format and cannot be read directly.

Don't leave the trace generation enabled too long not to saturate the hard disk.

8.3. *Setting up a Password*

You can define a password to secure the access to the management, configuration and supervision features of WOOWEB.

Select *Settings>>Advanced Functions* from the main menu to open the dialog box. Check *Define a password to access WOOWEB*, fill in your password and confirm. Refer to Figure 34.

The password protects the configuration windows and the histories. On the other hand the Internet access sharing is still carried out normally.

The password does not take effect till the current management session is not closed or till the *Lock* button is not pressed in the tool bar.

If you don't know the password you just have to click *Minimize* to reduce WOOWEB into the Windows tool bar.

When a password has been defined, the *Lock* button becomes active. It makes it possible to rearm the protection after the password has been used to access the management functions. If you do not click the *Lock* button when leaving the management functions, anybody after you will be able to reach the management functions.

To delete the password, simply define a new password that is empty.

Chapter 9

Knowledge Base

9.1. Configuring the Modem

The modem setup does not form part of the software installation. WOOWEB uses modems already installed and recognized by Windows.

On the other hand you can set up the modems for use with WOOWEB. The available settings are those that are dealt with by the modem drivers. Refer to the modem manufacturer documentation.

WOOWEB supports the following modems:

- Analog internal and external modems
- Internal and external ISDN modems that provide the V120 or PPP emulation mode.
- Internal and external ISDN modems that provide the CAPI interface.
Use preferably this interface when available.
When WOOWEB detects this interface, it displays *CAPI Controller 1 – Channel 1* and *CAPI Controller 1 – Channel 2* in the list of modem devices.

9.2. Setting up the Ethernet Network Card

As for modems, the network adapter installation and configuration are not directly related to WOOWEB. The network adapter is supposed to be operational as well as the TCP/IP protocol bound to it.

9.3. Setting up the TCP/IP Protocol

Machines connecting to a TCP/IP network can be configured in two different ways, let's say manually or automatically.

In the former case, each machine uses TCP/IP parameters that have been set up "manually" and that are kept in a local configuration file.

In the later case, the machines have no configuration file. At start time, a machine broadcasts a request on the LAN. The DHCP server responds with the TCP/IP address along with the default gateway, subnet mask and DNS server. The machine acknowledges and sets its configuration with these parameters. This reduces the fastidious work to set-up the TCP/IP in each machine.

The built-in WOOWEB DHCP Server can dynamically assign a TCP/IP configuration to each machine on the LAN.

If you decide NOT to use a DHCP Server, you have to manually change the TCP/IP settings and assign a static IP address, default gateway, subnet mask and DNS server to every machine on your network. In this case, see section 9.3.2.

9.3.1 Typical Set up

If you do NOT use either the WOOWEB built-in DHCP Server or any other DHCP Server:

On each client machine and on the WOOWEB Server (in order to access to the Internet from the PC running WOOWEB, which in this case is a WOOWEB Client as well):

1. Modify TCP/IP protocol properties to use WOOWEB as a gateway.
2. Add WOOWEB IP address *on top* of TCP/IP gateway list to ensure that Internet TCP/IP packets will be sent to WOOWEB.
3. Assign a correct value to the Domain Name Server (DNS) address.

Note 1: If you don't know the DNS r address, you can assign the WOOWEB IP address instead.

Note 2: WOOWEB can answer PING messages, which permits to test your TCP/IP connection from the Server and Client machines.

If you use another DHCP Server than which one provided by WOOWEB:

Do not change the TCP/IP settings on your client machines. Just tell the DHCP server to assign WOOWEB as Gateway and to assign the DNS. Proceed like this:

1. Active global options *Router* (3) and *DNS Servers* (6).
2. Assign WOOWEB IP address to *Router*.
3. Enter in *DNS Servers* fields the IP addresses of the DNS of your ISP.

9.3.2 Setting up the TCP/IP on Windows 2000/XP

Depending on your operating system:

Windows 2000

1. Click *My Computer*.
2. Double click *Control Panel*.
3. Double click *Network & Dial-up Connections*.
4. Double click the desired *Local Area Connection*.
5. Click *Properties*.

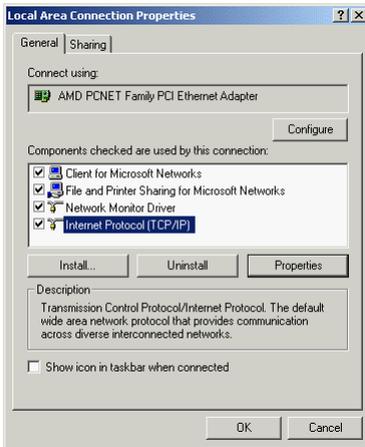


Figure 35: Local Area Connection Properties on Windows 2000

Windows XP

1. Click *My Computer*.
2. In *Other Places* double click *Control Panel*.
3. Click *Network and Internet Connections*.
4. Click *Network Connections*.
5. Select the desired *Local Area Connection*.
6. In *Network Tasks* click *Change Settings on this connection*.

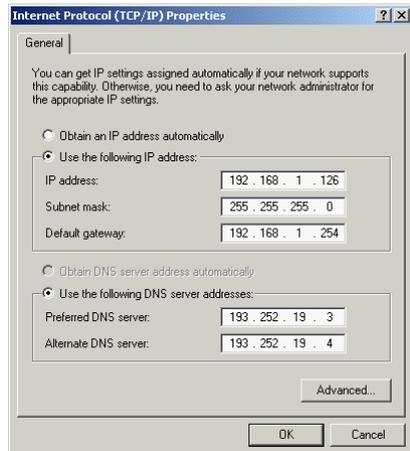


Figure 36: TCP/IP Properties on Windows 2000

In the TCP/IP properties windows (Figure 36), proceed as following:

1. If you are using the WOOWEB DHCP Server or another DHCP Server, click *Obtain an address automatically* and *Obtain DNS address server automatically* radio buttons. Go directly to step 3.

If you are configuring the TCP/IP properties manually, select *Use the following IP address* and fill in the desired IP address, Subnet Mask and Default Gateway. **You need to assign the WOOWEB IP address as Default Gateway.**

2. Click *Use the following DNS server addresses* and fill in the IP addresses of the DNS servers. You can fill in the WOOWEB IP address if you don't know your ISP DNS addresses.

3. Click *OK* to close the IP Properties window and click *OK* again to close the Connection Properties Window.

9.3.3 Setting up the TCP/IP on Windows 98/Me

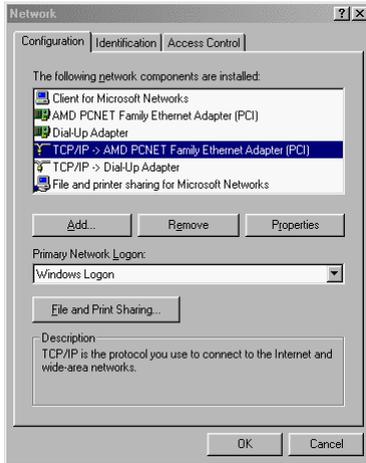


Figure 37: Network on Windows 98

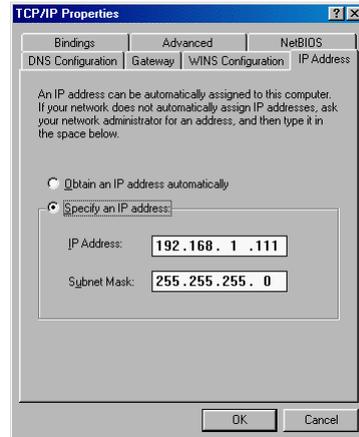


Figure 38: TCP/IP Properties on Windows 98

To open the TCP/IP protocol window:

1. Click *My Computer* and then *Control Panel*.
2. Double click *Network Control Panel*.
3. Under the *Configuration* tab, select the *TCP/IP* line referring to the Ethernet adapter used for your LAN connection. Click *Properties*.

In the *TCP/IP Properties* window,

If you are using the WOOWEB built-in DHCP server or another DHCP server, proceed as following:

1. Click *Obtain an IP Address Automatically*.
If you are assigning the TCP/IP properties manually,
2. If you are assigning the IP address automatically, all gateways should be removed.
3. If you are assigning IP address automatically, the *Disable DNS* radio button should be checked.

If you are assigning the TCP/IP properties manually, proceed as following:

1. Select *Specify an IP address* and enter the desired IP address and subnet mask

2. Click the *Gateway* tab. Fill in the *Default gateway* field with the WOOWEB IP address.
3. Select *DNS Configuration* tab. Select *Enable DNS* and type DNS Server addresses. This could be WOOWEB IP address or DNS Server addresses your ISP assigned.

Click *OK* as many times as needed and restart your computer.