



User's Manual

Welcome to Extramon	1
How It Works	1
Installing the Software	2
Video Driver	6
TCP/IP Port	7
Using Extramon Through a Firewall	8
Using Extramon	8
The Extramon Icon on the Task Bar	9
Licensing	10
Security	10
Troubleshooting	11
Some Known Issues	11
Reinstalling or Upgrading Extramon	11
Uninstalling Extramon	12

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Version 3.0

Welcome to Extramon

Extramon is an innovative software utility that lets you make the most of your computer hardware. With Extramon, you can link two monitors, from two separate PCs, so that both computers appear to have dual monitors.

Extramon is very useful for people who use both a laptop and a desktop. You can set your laptop down beside your desktop's monitor, join the monitors using Extramon, and suddenly you have twice the desktop area to work with.

Extramon is useful for anyone who has two computers (with two monitors) on their desk.

How It Works

Extramon works by transferring video data across the network and displaying it on the other computer. It's just like plugging a second monitor into your computer except that you connect them with an Ethernet connection instead of a standard monitor cable.

Extramon installs a video driver on each of your computers that makes Windows think that it has a second monitor attached. Windows expands the desktop, allowing you to place windows and icons anywhere on the two screens. Extramon takes care of transferring the video across the network and displaying it on the other computer's screen.

Installing the Software

You must install Extramon on both of your computers.

On each computer you need:

- Windows® 2000, 2000 Server, XP, or Server 2003
- A user account with Administrator privileges¹
- 3 MB of free disk space

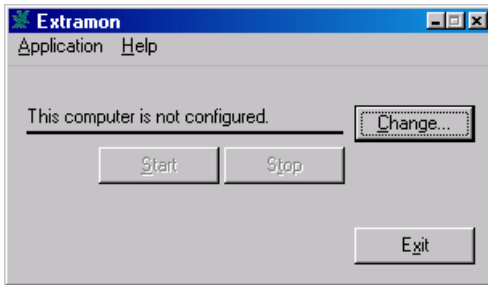
You must also have an Ethernet network connecting the computers.

Follow this procedure on each computer:

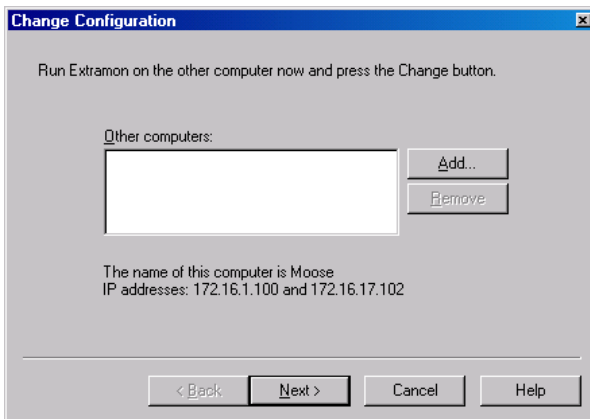
1. Log on to Windows using an account that has Administrator privileges. You will normally have Administrator privileges on your own computer; if you do not, the setup program will inform you that setup cannot continue.
2. Double-click on Extramon3.0_Setup.exe. (This is the file you downloaded from the Extramon website. The version number might be different, if you downloaded a newer version.) You can run it from the same location where you saved it—there is no need to copy it to the computer. Follow the instructional prompts that appear.

¹ Administrator privileges are needed during installation so that uninstallation information can be stored in the registry. They are also needed the first time that the software is run so that a Windows service can be installed. Thereafter, administrator privileges are not required until the software is uninstalled.

3. Start the software. The setup program can do this for you automatically, or you can press the Windows **Start** button and select **Extramon** from the **Programs** list. The main Extramon window will appear:

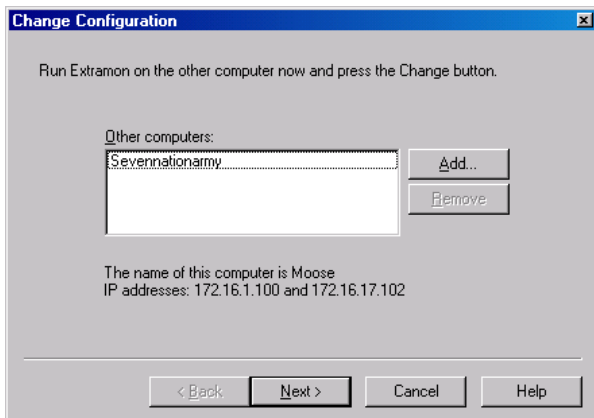


4. Press the **Change** button.
5. You'll see the following dialog.



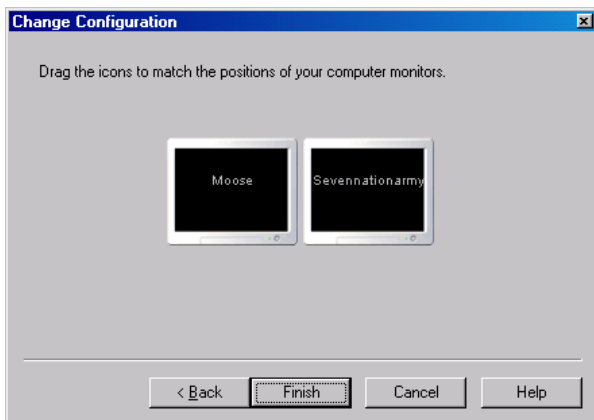
Now go the other computer and install the software as per steps 1 through 4 above.

- Once Extramon is installed and running on both computers, the other computer's name will appear in the box, as shown below.



Press **Next**.

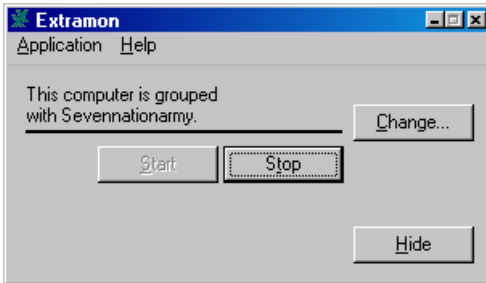
- You will see:



Drag the monitor icons to match the physical arrangement of your monitors. Press the **Finish** button.

8. The screen on your other computer will now be showing your wallpaper. If you move your mouse around you'll see that your two monitors are now part of the same computer.

You are now finished installing and configuring Extramon. On each computer, the main window shows the name of the other computer.



9. Look on the other monitor and you will see a Switch window with the names of the two computers.



This Switch window controls that particular monitor. It allows you to choose which computer you want to see.

10. To convert your other computer into a dual-monitor computer, use the Switch window to switch to it, then press the Start button on the Extramon main window.

You will then see a Switch window on each monitor, giving you independent control over which computer you are looking at on each monitor.

Video Driver

[This section contains optional information. If you are not interested in learning more about the video driver, you may skip to the next section.]

Extramon uses a video driver to simulate the presence of a second physical monitor. The video driver captures video information and sends it across the network to the other computer. The video driver is installed the first time that you configure the computer. (You are notified when the video driver is about to be installed.).

To see whether the video driver is installed:

1. Right-click on the "My Computer" icon on your desktop and select **Manage**.
2. Double-click on **Device Manager**, then double-click on **Display adapters**. If the video driver is installed, you will see an entry called "Extramon Video Driver."

The video driver is automatically uninstalled when you uninstall the software. You should never need to uninstall the driver manually; the following instructions are provided simply for your information.

To uninstall the driver manually on Windows 2000:

1. Delete extramond.dll and extramond2.dll from the \Winnt\System32 directory.
2. Delete extramond.sys from \Winnt\System32\Drivers.
3. Restart the computer.
4. Go to the Device Manager, right-click on **Extramon Video Driver**, and select **Uninstall**.

To uninstall the driver manually on Windows XP:

1. Go to the Device Manager, right-click on **Extramon Video Driver**, and select **Uninstall**.
2. Restart the computer.

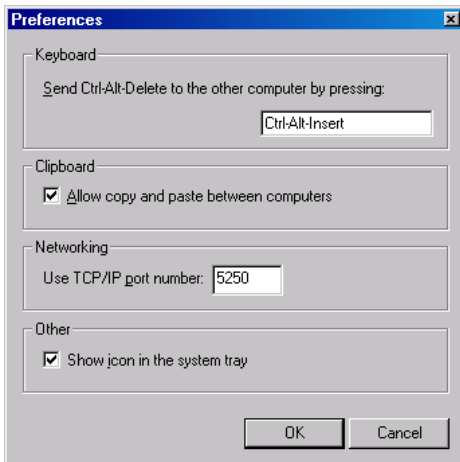
TCP/IP Port

[This section contains technical information that is not normally needed to successfully install and use Extramon.]

The TCP/IP port is the channel through which the computers communicate with each other. Both computers must use the same port number, otherwise the Extramon software will not be able to connect.

By default, Extramon uses port number 5250. The only reason to change these numbers is if another program on your computer uses the same port number, or if the port is blocked by some other networking software (for example, a firewall).

To change the TCP/IP port number, select **Preferences** from Extramon's **Application** menu and enter the desired number.



Using Extramon Through a Firewall

[This section contains technical information that is not normally needed to successfully install and use Extramon.]

Since Extramon is designed for computers that are sitting side-by-side, external firewalls are usually not a problem. However, if you are running personal firewall software on your computer, then it may interfere with Extramon.

Personal firewall programs monitor and control how your computer accesses the Internet. They can prevent unauthorized computers from gaining access to your computer, and they can also prevent your own computer from connecting to other computers without your permission.

Personal firewall software can interfere with Extramon because Extramon needs to create a network connection between your computers. Specifically, the program *Extramon.exe* must have access to the network.

To ensure proper operation, you must setup your firewall to allow *Extramon.exe* to act as both a "server" and a "client." Consult your firewall user manual for more information.

If your firewall lets you configure individual TCP/IP ports, be aware that Extramon uses port number 5250 by default. See *TCP/IP Port* on page 7 for more information.

See *Troubleshooting* on page 11 for specific information about using Extramon with the Zone Alarm personal firewall.

Using Extramon

Once you have configured Extramon on each of your computers, you are ready to start using it to expand your desktop across two monitors.

Press the **Start** button on the main window. Extramon activates the video driver, which creates your expanded

desktop, and then it starts displaying the expanded desktop on the other computer.

If the secondary computer becomes unavailable for some reason (perhaps you restarted it) then Extramon will not be able to show your extended desktop until the computer becomes available again. In the meantime, you will not be able to see any of your windows that were placed on that portion of your desktop. If this is a problem, you can press the **Stop** button to disable Extramon. All the windows that were on the extended desktop will be moved back onto your main monitor.

The Extramon Icon on the Task Bar

On the Windows task bar is a notification area (beside the clock) with icons for the various programs that are running on your computer. The Extramon icon (a green "XX") appears in the notification area once the software has been installed.



Right-click on the Extramon icon to show the Extramon menu:



Click the **Setup** option to see the main window and change the computer configuration (or double-click on the green "XX" icon).

Any change you make to the configuration or preferences on one computer is immediately applied to the other computer. There is no need to make the same change on each computer.

If you do not wish to see the Extramon icon on the task bar, you can turn it off. Select **Preferences** from Extramon's **Application** menu and uncheck the box that says "Show icon in the task bar notification area."

Licensing

Before you purchase Extramon you may install the software on your computer for evaluation purposes. Once you have made a decision to buy, select **Licensing** from the **Application** menu and follow the prompts.

A Extramon license permits you to operate the software on two computers of your choice. You may move the license from one pair of computers to another at any time by first unlicensing the software on the original pair and then relicensing the software on the new pair. An Internet connection is required during the licensing procedure so the software can contact the KaVoom Software corporate license server. Once the software is successfully licensed, the Internet connection is no longer required.

Security

By design, Extramon is not remote-control software, so a person with Extramon installed on their own computer cannot control your computer.

However, please be aware that video and keystroke information is transmitted on the network in an unencrypted format. This means that if a person gained physical access to your network, s/he could potentially reconstruct the video or keystroke data.

Troubleshooting

If you encounter a problem that you cannot solve, please email help@kavoom.biz for assistance.

If the problem is technical in nature, a better option is to select **Report a Problem** from Extramon's **Help** menu. A report will be emailed to KaVoom Software along with some technical information about your computer that we can use to solve the problem. We will respond to you by email once we have assessed the problem.

Some Known Issues

DirectX (DirectDraw)

Some applications that do high-performance video rendering using the DirectX API may not work with Extramon since the Extramon video driver is not a DirectX-compatible video device.

Reinstalling or Upgrading Extramon

To reinstall or upgrade Extramon, you usually do not need to uninstall the previous version. Consult the release notes (available on the Download page of the website) to be sure. It's better to upgrade over top of the existing version because this avoids uninstalling/re-installing the video driver.

If the Extramon setup program detects an old version, it will ask you if you want to uninstall the old version before reinstalling.

If you uninstall the video driver on a Windows 2000 computer, you can reinstall immediately. However, on a Windows XP or newer computer you need to restart the computer before the new video driver can be reinstalled.

If you are reinstalling Extramon due to a software problem, we recommend that you uninstall first and then restart the computer before reinstalling.

Uninstalling Extramon

To remove Extramon from your computer, uninstall it in the usual way that Windows software is uninstalled:

1. Log on to Windows using an account that has Administrator privileges.
2. Click **Start - Control Panel** then select **Add/Remove Programs**.
3. Find Extramon in the list of programs installed on your computer and click the **Remove** button.

The video driver will not be completely removed until the next time you restart your computer.