OnScreen Manager™

User Guide

lenovo™

Contents

Overview 1

Installation 2

Getting Started 3

Using *OnScreen Manager* 5

Toolbar 5

Levels Tab 6

Focus Tab 7

Geometry Tab 8

Color Tab 9

Options Tab 10

Information Tab 11

Preferences 12

Operating Modes 13

Notebook Use 14

Advanced Features 15

Managing Profiles 15

Viewing in Landscape/Portrait 16

Keyboard Operation/Hotkeys 17

Network Management and TheftAlert™ 19

Troubleshooting 20

Overview

OnScreen Manager is a software application that will assist you in making adjustments to your monitor and various aspects of your PC's video system to achieve optimal viewing results.

The image you perceive on your monitor can vary based on the video card being used, whether your monitor is being driven by an analog or digital signal, your environment and even your own visual acuity.

OnScreen Manager offers a convenient method to make common image quality adjustments without having to use the buttons on the front of the monitor to navigate the monitor's internal onscreen display (OSD). *OnScreen Manager* also offers visual feedback to aid you when making these image adjustments. A group of adjustments can be saved as a single profile and later restored for a particular purpose, user or environmental condition.

In addition, *OnScreen Manager* provides convenient access to the intelligent features of your new Lenovo monitor. These include rotation of the image content to allow the use of the monitor in landscape or portrait orientations and sophisticated asset management capabilities for corporate users.

OnScreen Manager supports multi-user systems, multi-monitor configurations and provides sophisticated support for notebook users. It can be used in 7 different languages and is completely enabled for keyboard operation in addition to mouse navigation.

OnScreen Manager is based on the industry standard Display Data Channel Command Interface (DDC/CI). Complete features are only available on qualified DDC/CI-compatible display devices.

OnScreen Manager is a lightweight application designed to place minimal impact on your system. It is compatible with most graphics cards and can run on a variety of Windows operating systems from Windows 98SE through Windows Vista 64-bit Edition. The integrated LiveUpdate facility will keep your copy of *OnScreen Manager* up-to-date and ready to use.

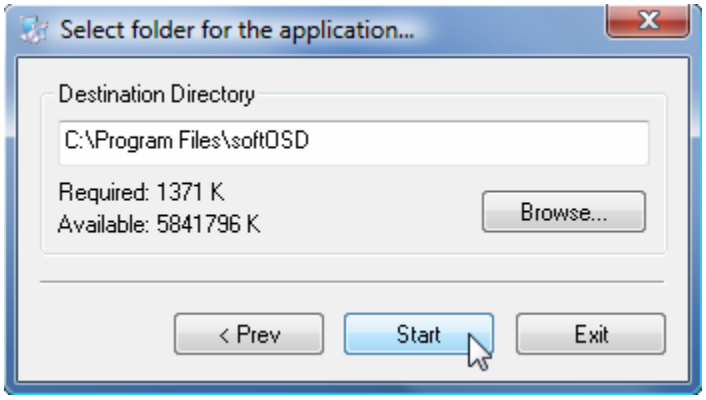
Installation

Installing *OnScreen Manager*
OnScreen Manager is installed using the executable installer provided. The installer will guide you through the simple step-by-step process. Installing *OnScreen Manager* takes only a few minutes, and requires just over 1MB of disk space. At the end of the installation process you will be asked to restart your PC.

You will need administrative privileges on your PC to install *OnScreen Manager*.

Your PC may already have a previous version of *OnScreen Manager* installed. Do not remove this earlier version. *OnScreen Manager*'s installer will simply update an existing version if it exists to provide support for your new Lenovo monitor.

Once installed, *OnScreen Manager* is available in the Windows Start menu in the **softOSM** program folder. By default, *OnScreen Manager* also places its icon in your PC's task tray.



Uninstalling *OnScreen Manager*
You may remove *OnScreen Manager* at any time. To remove *OnScreen Manager* use the appropriate Windows control panel supplied with your operating system. For Windows Vista this is the **Programs and Features** control panel. For Windows XP and earlier operating systems, use the **Add/Remove Programs** control panel.

Select **softOSM** from the list of installed applications and uninstall in the usual manner.

You will need administrative privileges to uninstall *OnScreen Manager*.

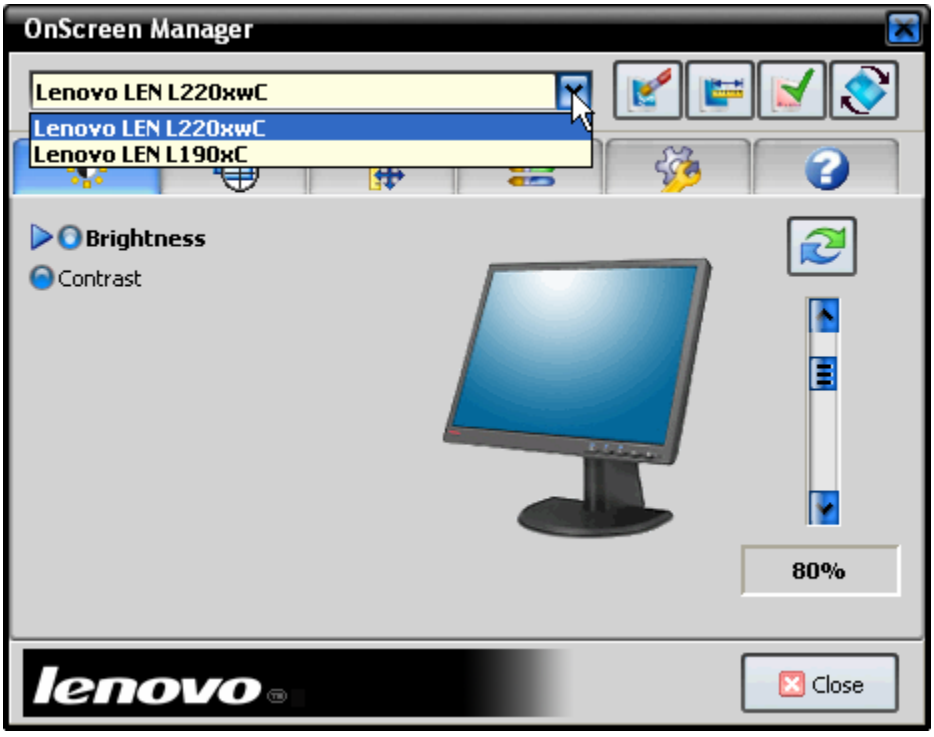
Getting Started

Initial monitor setup
Enable a connected monitor using Windows Display Properties.

To begin using *OnScreen Manager* click its icon in the task tray. This will open *OnScreen Manager*'s main window.

OnScreen Manager's main window is organized into two sections. The top section provides a **Toolbar** with access to commonly used controls. Other controls are grouped according to function and are presented below the **Toolbar** in a tabbed format.

Make sure the monitor you wish to manage is selected in *OnScreen Manager*'s **Monitor Select Menu**. If you have multiple monitors connected to your PC, you may also drag the titlebar of *OnScreen Manager*'s window from one monitor to another. Use the buttons in the **Toolbar** to quickly set the monitor to its optimal resolution and choose a desired display orientation (portrait or landscape). If your monitor uses an analog connection (VGA) use the **Toolbar's AutoSetup** button.



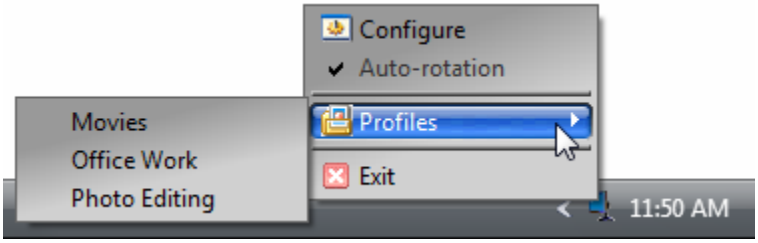
Making image adjustments
The controls on the **Levels**, **Focus**, **Geometry** and **Color** tabs are used to make adjustments to your monitor's image. The controls on the **Options** tab are used to change other characteristics of your monitor or to change *OnScreen Manager*'s settings. The **Information** tab provides asset management and support resources.

Each image adjustment tab provides a list of functions and one or two slider controls. Choose the function you wish to adjust by selecting its radio button. Then use the slider control until the desired amount of adjustment has been reached for that function.

You may undo your changes at any time and restore levels to an easily viewable state by pressing the **Restore Levels** button located just above the slider control on each tab.

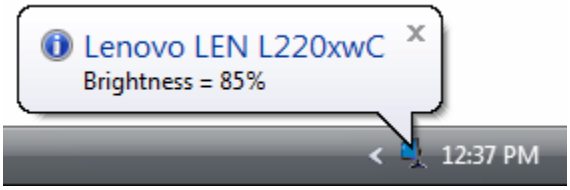
Background patterns are provided to help you optimize each image adjustment if *Onscreen Manager*'s **Show Patterns** option is enabled on the **Options** tab.

Saving profiles
You can also save groups of adjustments as a profile on the **Options** tab. This will allow you to quickly restore them for a particular purpose.



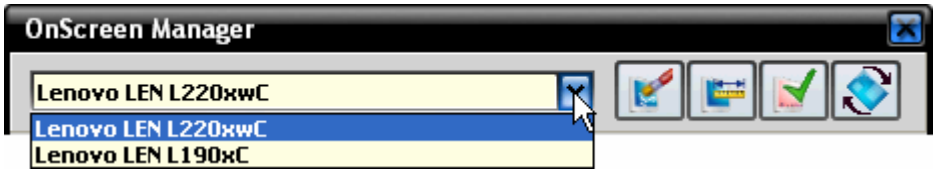
Shortcuts
Some options are available directly from *OnScreen Manager*'s task tray menu and don't require opening its main window. These can be accessed by right-clicking *OnScreen Manager*'s task tray icon.

In addition, re-assignable hotkey support is provided for many common operations such as adjusting brightness, restoring profiles and changing inputs. *OnScreen Manager* provides balloon message feedback for many hotkey operations.



Using *OnScreen Manager*

Toolbar



To begin using *OnScreen Manager* make sure the monitor you wish to manage is selected in the **Monitor Select Menu**.

Restore Factory Defaults
Restores your monitor to all of its factory default image settings.

AutoSetup
Causes your monitor to adjust itself to the incoming analog video signal. This function is only used for VGA connections. It is not enabled for digital (DVI) connections.

Resolution
It is recommended that you always run your LCD monitor at its optimal resolution. If the resolution selected from the dropdown menu is not optimal for your LCD, *OnScreen Manager* will remind you from time to time.

Rotation
Choose a desired orientation from the dropdown menu then physically turn your pivoting monitor to a matching position (portrait or landscape). See the ***Viewing in Portrait/Landscape*** section on page 16 for more information.

Using *OnScreen Manager*

Levels Tab

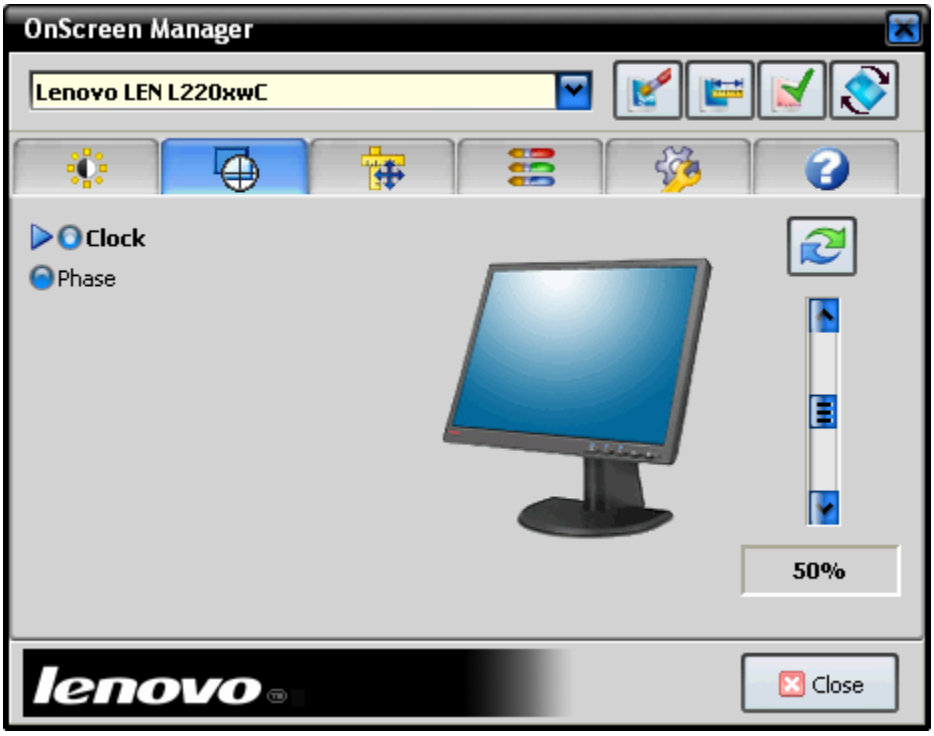
Brightness
Adjust your monitor's brightness to change its total light output. You may wish to use less brightness in dark environments and more brightness in light environments. Too much brightness may cause the darkest blacks to appear gray. Always adjust brightness so that a true black remains visible.

Contrast
Adjust your monitor's contrast to heighten the differences between light areas and dark areas of the image. Too much contrast may cause the lighter colors to fade into white. Adjust contrast so that even steps remain visible among the lightest gray levels.

Restore Levels
You may undo any changes you made and restore your monitor to its factory default levels of brightness and contrast by pressing the **Restore Levels** button.

Using *OnScreen Manager*

Focus Tab



The **Focus** tab is usually only present for Analog monitors (VGA). Most of these functions are not relevant or available when connecting your monitor to a digital interface (DVI).

Clock
This adjustment can be used to better synchronize your monitor with the video signal being received. Adjust to reduce vertical noise or lack of focus in the image. Turning on **Patterns** to help with this adjustment is highly recommended.

Phase
This adjustment can be used to better synchronize your monitor with the video signal being received. Adjust to reduce horizontal noise or lack of focus in the image. Turning on **Patterns** to help with this adjustment is highly recommended.

Restore Levels
You may undo any changes you made and cause your monitor to determine the best levels of clock and phase for you by pressing the **Restore Levels** button.

Using *OnScreen Manager*

Geometry Tab

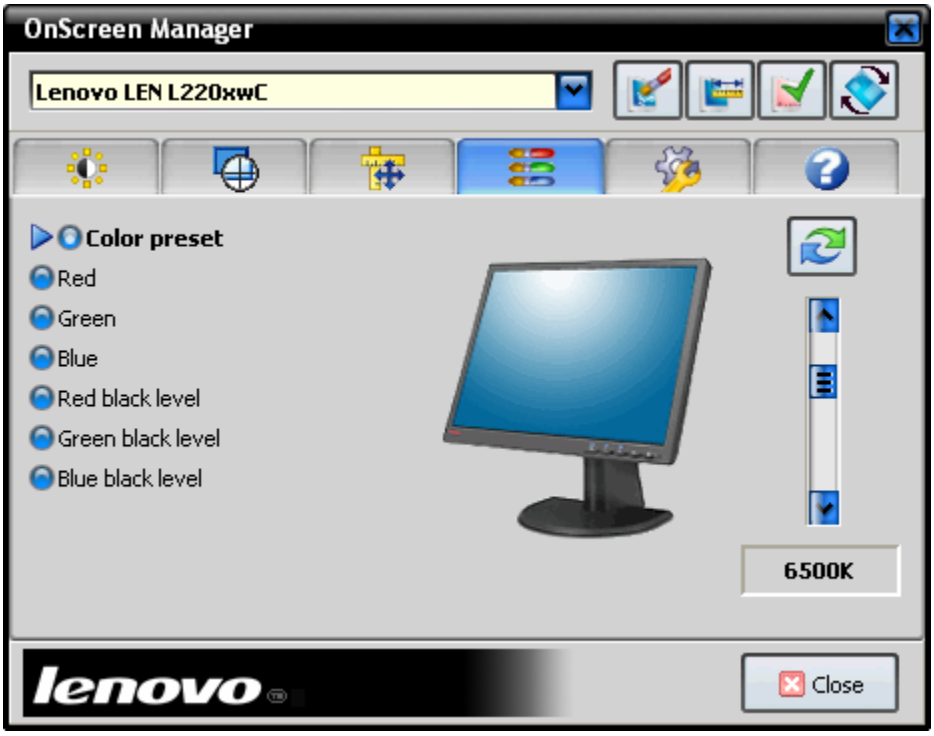
The **Geometry** tab is only shown for Analog monitors (VGA). These functions are not relevant or available when connecting your monitor to a digital interface (DVI).

Position
Use the two slider controls to center the image horizontally and vertically on your monitor's screen.

Restore Levels
You may undo any changes you made and restore your monitor to its factory default position values by pressing the **Restore Levels** button.

Using *OnScreen Manager*

Color Tab



Color Preset
Use this control to select a pre-defined color setting or white point. Lower color temperatures will make images look more red. Higher color temperatures will make images look more blue. sRGB is an industry standard setting supported across many computer platforms.

Red, Green and Blue
Use these controls to change the output intensity of your monitor's primary colors. These controls allow you to create your own color mixture.

Red Black Level, Green Black Level and Blue Black Level
Use these controls to set the minimum intensity of each of your monitor's primary colors.

Restore Levels
You may undo any changes you made and restore your monitor to its factory default color levels by pressing the **Restore Levels** button.

Using *OnScreen Manager*

Options Tab

Options

For more information about the checkbox options see the ***Preferences*** section on page 12.

Program Language

OnScreen Manager can be used in 7 different languages. These include English, French, German, Italian, Spanish, Chinese-Simplified and Japanese.

Profiles

For more information about **Profiles** see the ***Managing Profiles*** section on page 15.

Rescan
Starts a search for new monitors then refreshes the current view and operating modes.

Power On/Off
Puts your monitor in standby mode if active, and returns it to active mode if in standby.

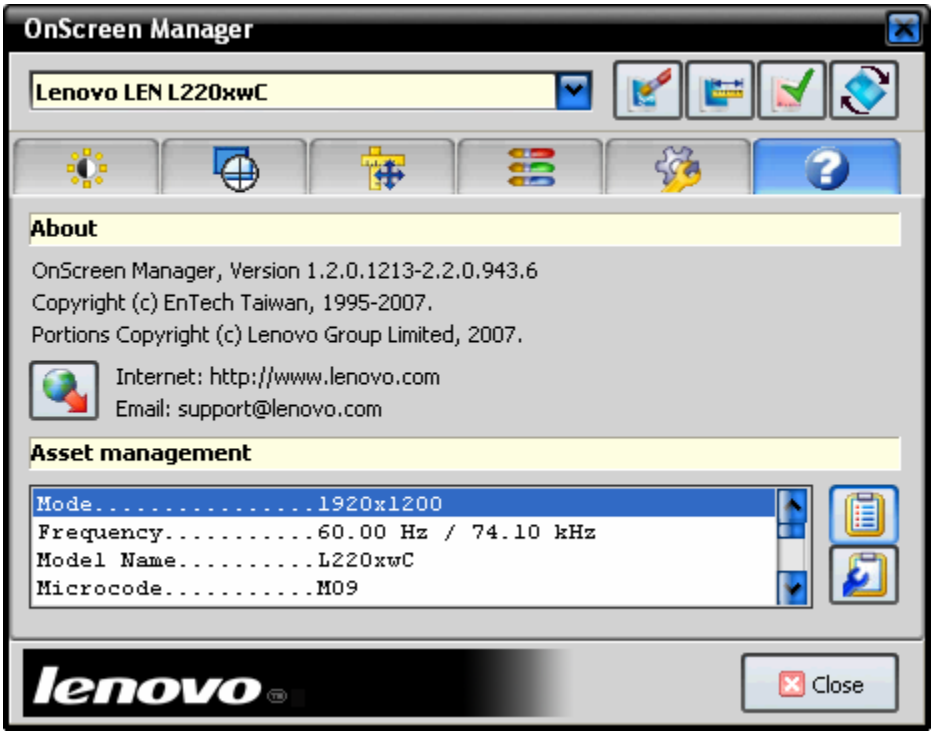
Input Select
Allows you to change the signal source being viewed on your monitor.

OSD Lock/Unlock
Locks your monitor's hardware OSD if it is unlocked and unlocks the OSD if locked.

Change Assignments
For more information see the ***Keyboard Operation/Hotkeys*** section on page 17.

Using *OnScreen Manager*

Information Tab



About
This area provides version information and live support links.

Asset Management
OnScreen Manager provides a list of internal information collected from the monitor that is presently selected in the **Monitor Select Menu**.

LiveUpdate
From time to time *OnScreen Manager* will update itself. This button also allows you to search for an update any time. You will need an internet connection to use **LiveUpdate**.

Save MIF File
Saves an SMS-compliant MIF file for use with corporate asset management software.

Save Diagnostic Report
Saves a diagnostic report for troubleshooting purposes.

Preferences

Various options to control *OnScreen Manager*'s behavior are available as checkbox items on the **Options** tab. Each of the following items can be enabled or disabled to suit operating conditions or personal preference. However, a user may require administrative privileges to change some of these items.

AutoLoad with Windows
When enabled, *OnScreen Manager* loads at system startup and places itself in the task tray. When disabled, remote management can still be available but *OnScreen Manager* will not be present in the task tray after startup. To restore *OnScreen Manager*'s icon in the task tray, re-enable this preference item or launch *OnScreen Manager* manually from the Start Menu.

Show values as percentages
When enabled, all continuous slider control values are shown as percentages. When disabled, the continuous slider control values are shown in numeric form and are not normalized.

Show patterns
When enabled, context-sensitive patterns are tiled onto the desktop to aid with specific image adjustments. When disabled, the patterns are not provided during image adjustment.

Auto-rotation
When enabled, the auto-rotation sensor in the monitor is used to determine the physical orientation of the monitor after it is pivoted. When disabled, the auto-rotation sensor is ignored.

Hotplug detection – TheftAlert
When enabled, monitor connections and disconnections are sensed in real-time (usually in about a minute). When disabled, monitor connections and disconnections are not sensed. Disabling hotplug detection also disables remote TheftAlert sensing which may be undesirable in corporate environments.

Show hints and warnings
When enabled, various screen hints, warnings, and reminders are displayed. When disabled, these messages are not provided.

Enable hotkeys
When enabled, use of any of the assigned hotkeys is effective. When disabled, hotkeys have no effect.

Use skin
When enabled, *OnScreen Manager* uses the Lenovo theme. When disabled, *OnScreen Manager* uses the current Windows theme.

Operating Modes

Each time *OnScreen Manager* is opened it determines the capabilities of the monitors connected to your PC. From time to time its appearance may change based on the monitors it encounters.

Analog Mode

This is the standard operating mode for supported analog monitors (VGA):

- All tabs appear.
- **AutoSetup** button is enabled.

Digital Mode

This is the standard operating mode for supported digital monitors (DVI):

- **Focus** and **Geometry** tabs do not appear.
- **AutoSetup** button is disabled.

Limited Mode

This is the operating mode provided for unsupported monitors (VGA and DVI):

- Only the **Options** & **Information** tabs appear.
- **Restore Factory Defaults** button is disabled.
- **AutoSetup** button is disabled.

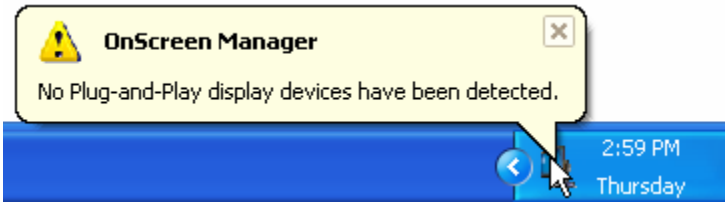
OnScreen Manager also sometimes uses this mode for supported monitors that have not yet been enabled with Windows Display Properties.

Rescan
If you change monitors often, or regularly enable/disable monitors using Windows Display Properties, then *OnScreen Manager* may temporarily show a mode that does not match your connected monitors. *OnScreen Manager* will usually notice this in the background and adjust its mode in a minute or two if the **Hotplug detection-TheftAlert** option is enabled. But you may also press the **Rescan** button to manually refresh *OnScreen Manager* at any time.

Notebook Use

Notebook PCs usually provide an internal display and an external video port that allows the connection of an external monitor. In some cases notebooks may be placed in a docking station where the docking station itself has an external video port.

Even without an external monitor connected, *OnScreen Manager* will usually recognize a notebook's internal display and provide **Limited Mode** functionality. However, older notebooks sometimes do not supply all of the information necessary to adequately describe their displays. In such cases *OnScreen Manager* will not recognize the notebook's internal display as a Plug-and-Play display.



Connecting/Disconnecting monitors
If you regularly connect/disconnect monitors to your notebook's external video port, make sure *OnScreen Manager*'s **Hotplug detection-TheftAlert** option is enabled on the **Options** tab.

When you connect an external monitor to your notebook, or your notebook's docking station, *OnScreen Manager* will usually recognize this change in less than a minute. If *OnScreen Manager* is open when you connect the new monitor, it will close during the recognition process.

If the new monitor does not show an image after being connected, enable it in the usual manner using Windows Display Properties or your notebook's function keys. Then re-open *OnScreen Manager* from the task tray to manage the newly connected monitor.

Likewise, when you disconnect a monitor from your notebook or your notebook's docking station, *OnScreen Manager* will usually notice this change in less than a minute. If *OnScreen Manager* is open when you disconnect the monitor, it will close. When *OnScreen Manager* is re-opened it will no longer provide support for the disconnected monitor.

Rescan
If you change monitors often, or regularly enable/disable monitors using Windows Display Properties, then *OnScreen Manager* may temporarily show a mode that does not match your connected monitors. *OnScreen Manager* will usually notice this in the background and adjust its mode within a minute or so if the **Hotplug detection-TheftAlert** option is enabled. But you may press the **Rescan** button to manually refresh *OnScreen Manager* at any time.

Advanced Features

Managing Profiles

You may find yourself occasionally adjusting your monitor to suit different applications, different environments or different users. For instance, you may prefer to watch movies with a high brightness setting but do office work at a lower brightness setting. A particular color mixture may be appropriate for photo editing but not suitable for web surfing.

After adjusting your monitor for a particular purpose it is often convenient to save the current settings as a **Profile**. Later, your monitor can be returned to the same settings simply by restoring the **Profile** you had previously saved. In this manner the process of repetitively configuring your monitor to its optimal state for a given task becomes much more convenient.

Save Profile
After adjusting your monitor, press the **Save Profile** button. You will be asked to name your new profile.

Delete Profile
Choose a **Profile** from the dropdown menu that you wish to delete. Then press the **Delete Profile** button. You will be asked to confirm the deletion of the profile.

You may restore your monitor's settings to a previous state by selecting a **Profile** from the dropdown menu on the **Options** tab or from the profiles list on the **Task Tray Menu**.

Advanced Features

Viewing in Portrait/Landscape

Some Lenovo monitors are equipped with an auto-rotation sensor. When these monitors are physically pivoted to a new position, *OnScreen Manager* automatically senses this change and redraws the displayed image to match. This makes it easy to use a Lenovo monitor in landscape or portrait orientation. Just turn the monitor to the desired position and *OnScreen Manager* will do the rest.

To use auto-rotation make sure the **Auto-rotation** option is enabled on the **Options** tab.

Using manual rotation with auto-rotating monitors
In some cases you may wish to override the orientation provided by the auto-rotation sensor. To manually choose an orientation use the **Rotation Button** on the **Toolbar**.

Rotation
Use this button to manually select an orientation for the displayed image. This will temporarily override the orientation provided by the auto-rotation sensor in your monitor.

You may again synchronize your monitor's physical position to its auto-rotation sensor by pivoting your monitor once or twice. This will override the last manually selected orientation and re-establish normal auto-rotation operation.

Advanced Features

Keyboard Operation/Hotkeys

Keyboard operation
OnScreen Manager is designed to be fully keyboard-driven. You can use the keyboard to navigate to different areas of its open windows, move among active tabs and perform all the functions you would otherwise accomplish using a mouse.

Once any *OnScreen Manager* window is open and active:

- Use the **[Tab]** key to navigate to different tabs and controls
- Use the **[Enter]** key to select an item
- Use the **[Arrow]** keys to adjust controls
- Use the **[Alt][DnArrow]** key to drop down menus
- Use the **[Spacebar]** to Enable/Disable preference items on the **Options** tab.

Using hotkeys and shortcuts
In addition, many *OnScreen Manager* functions can be most easily accomplished through the use of predesignated keystroke combinations called hotkeys and shortcuts. Use of *OnScreen Manager*'s hotkeys and shortcuts is often the quickest and most convenient method of performing common tasks.

If enabled, some of *OnScreen Manager*'s hotkeys are active all the time. Others are shortcuts that are only effective when *OnScreen Manager*'s window is the open, active window on your desktop.

Always-on hotkeys

[Ctrl][Shft][O]	Opens *OnScreen Manager*
[Ctrl][Shft][Num+]	Increases Brightness
[Ctrl][Shft][Num-]	Decreases Brightness
[Ctrl][Shft][End]	Cycles through saved profiles
[Ctrl][Shft][PgUp]	Cycles through color presets
[Ctrl][Shft][PgDn]	Cycles through Display Mode settings (if any)
[Ctrl][Shft][Home]	Switches between available monitor inputs
[Ctrl][Shft][↑]	Rotates image content to 0 degrees (landscape)
[Ctrl][Shft][↓]	Rotates image content 180 degrees
[Ctrl][Shft][←]	Rotates image content to 90 degrees (portrait)
[Ctrl][Shft][→]	Rotates image content to 270 degrees

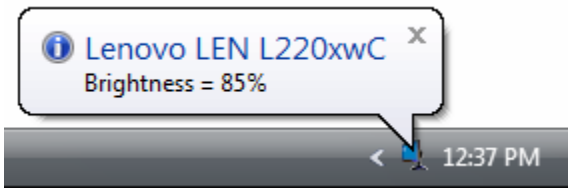
Active window shortcuts

[Ctrl][BkSpc]	Restores monitor's factory default image settings
[Ctrl][Home]	Performs a monitor Autosetup process
[Esc]	Closes *OnScreen Manager* if it is the active window

Using hotkeys with multiple monitors
When you use hotkeys with more than one monitor be sure to first target the monitor you want to affect with the action of the hotkey. If *OnScreen Manager*'s window is closed, then use the mouse pointer to designate the target monitor. If *OnScreen Manager*'s window is open, then the target monitor will be the one selected in the **Monitor Select Menu**.

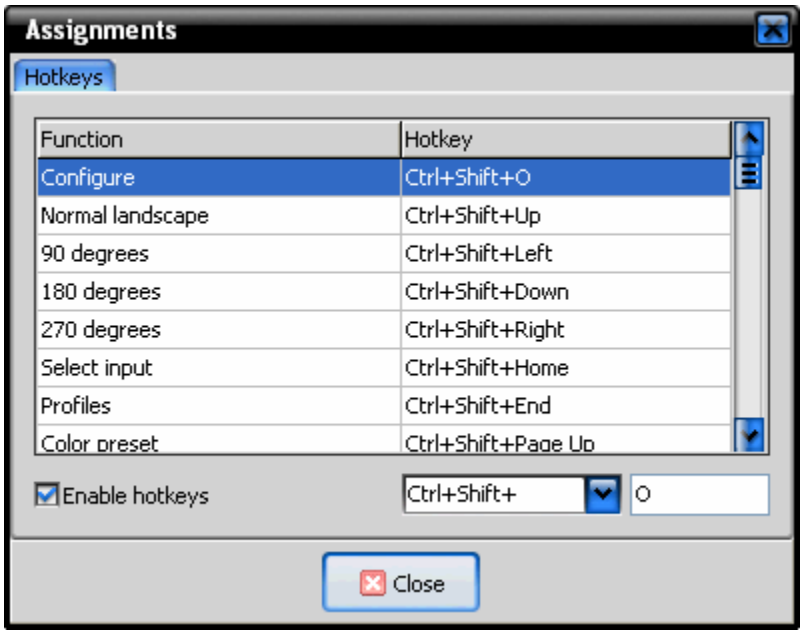
For example, if you want to increase the brightness on monitor #2, and *OnScreen Manager*'s window is closed, then place the mouse pointer on monitor #2 and press **[Ctrl][Shft][Num+]**.

OnScreen Manager displays helpful balloon messages to provide feedback when using hotkeys.



Assigning hotkeys
You can gain access to *OnScreen Manager*'s Assignments area by pressing the **Assignment Button** on the **Options** tab. There you can assign hotkeys to additional functions, change the keystroke combinations already in use, or enable/disable hotkeys altogether.

Assignment Button
Provides access to *OnScreen Manager*'s Assignments sub-window.



Advanced Features

Network Management and TheftAlert™

When *OnScreen Manager* is installed on a PC, it enables Lenovo monitors connected to that PC to be managed by third-party management consoles. These consoles are provided by industry standard management vendors and are typically used by large corporations to manage their PCs, peripherals and other equipment on their company's networks.

OnScreen Manager allows remote management software to collect asset management information in real-time from Lenovo monitors. It also allows various features of the monitor to be remote controlled from a management console across the network.

Asset Management Data Collection
Orientation (Landscape or Portrait)
Horizontal Frequency
Vertical Frequency
Display Technology Type (LCD or CRT)
Display Controller Manufacturer
Firmware Revision Level
VESA MCCS VCP Version
Generate MIF File

Remote Monitor Control
Turn Monitor On/Off
Set Brightness Level
Set Contrast Level
Restore Factory Brightness/Contrast Levels
Lock or Unlock Hardware OSD
Restore Factory Defaults
Perform AutoSetup

OnScreen Manager also provides a measure of anti-theft notification called TheftAlert™. When a Lenovo monitor is physically disconnected from a PC, *OnScreen Manager* notices this event (usually in under a minute) and alerts the remote management console. A corporate administrator can then react to the event in a suitable manner. The Lenovo monitor is not disabled in any way to provide TheftAlert support. An administrator is free to mix and match PCs and monitors at all times and the resale value of the monitor is not affected.

Troubleshooting

OnScreen Manager is a sophisticated display application that closely interacts with your PC's video system and operating system at a number of different levels. Complete functionality is achieved using a supported monitor, compatible GPU with the latest video driver, and a PC running a compatible Windows operating system with the latest service packs installed.

Compatible operating systems include Windows NT4.0, Windows 98SE, Windows Millenium, Windows 2000, Windows XP, Windows 2003 Server, Windows XP 64-bit Edition, Windows 2003 64-bit Edition, Windows Vista and Windows Vista 64-bit Edition.

LiveUpdate Button
Make sure you have the latest version of *OnScreen Manager* installed on your PC.

Improper monitor recognition, inactive or ineffective controls
If the **Monitor Select Menu** does not list all connected monitors, if *OnScreen Manager* displays the wrong operating mode for connected monitors, or if *OnScreen Manager*'s controls are ineffective or show "n/a" for values:

- Press the Rescan button on the Options tab to refresh the view. This may immediately solve the problem.
- Make sure video cables are securely connected to monitors and PC video ports. Use the supplied video cables whenever possible. Keep in mind that some video switching products (KVM switches) may block the necessary signals.
- Power cycle the monitor. To do this, remove the monitor's power cord, wait 30 seconds, re-connect the power cord, and then turn the monitor back on.
- As a last resort, restart your computer and if necessary try re-installing and re-updating *OnScreen Manager*.

Note: Internal displays that are associated with older notebook PCs may not be listed in *OnScreen Manager*'s **Monitor Select Menu**. This is normal operation.

Resolution and rotation functions are not available
The **Resolution** and **Rotation** buttons are disabled in the **Toolbar**:

- Make sure the monitor listed in the **Monitor Select Menu** is enabled and shows an active image. Then press the **Rescan** button on the **Options** tab.
- If necessary restart your computer.

Note: In some cases resolution and rotation functions cannot be supported when a notebook PC uses an external monitor in a clone configuration. This is normal *OnScreen Manager* operation. However, these features are supported when notebooks use external monitors in extended desktop configurations.

Rotation functions are not available
The **Rotation** button is disabled but the **Resolution** button is enabled:

- Make sure you have the latest video driver from your GPU manufacturer or notebook vendor installed.
- See the release notes for the latest list of GPUs that provide support for *OnScreen Manager*'s rotation features.

Auto-rotation functions are ineffective
The **Rotation** button is enabled and effective but auto-rotation is ineffective:

- Make sure the Auto-rotation preference item is enabled on the Options tab.
- Make sure your monitor supports auto-rotation.

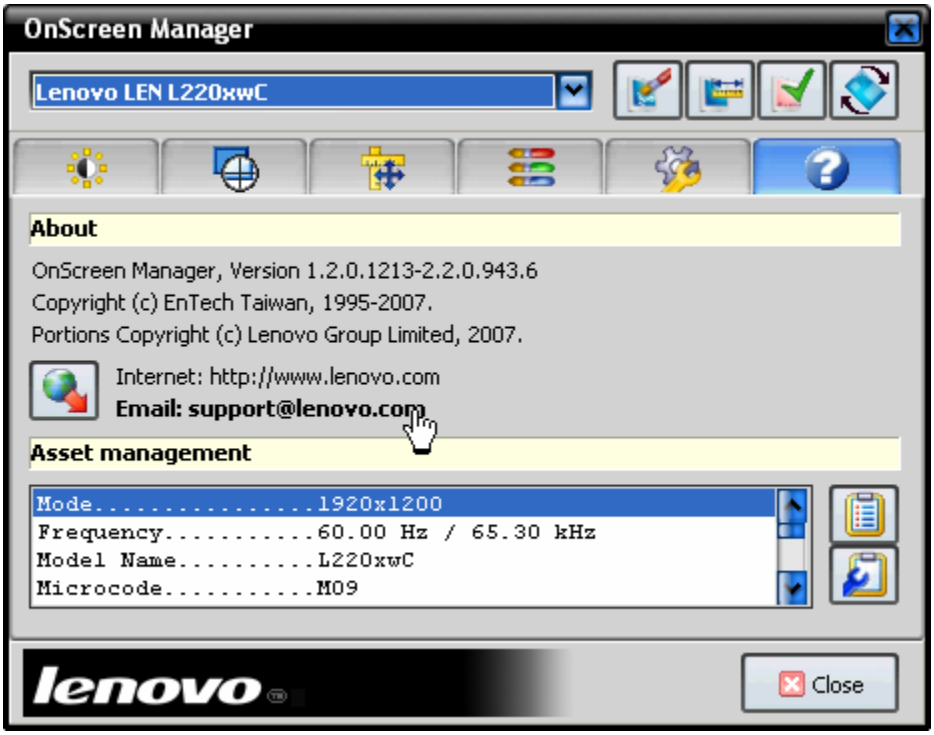
Obtaining technical support
Before requesting technical support for *OnScreen Manager* confirm that your PC has the latest operating system service packs and graphics driver installed. Also check to make sure the latest version of *OnScreen Manager* is installed.

LiveUpdate Button
Make sure you have the latest version of *OnScreen Manager* installed on your PC.

If problems persist save a diagnostic report on the **Information** tab.

Save Diagnostic Report
This report contains useful troubleshooting information for technical support.

To contact technical support, click the support link provided on the **Information** tab. Give a brief problem description in the email form provided. Attach the diagnostic report and send the email to technical support.



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