



Version 3.6.2

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1. INTRODUCTION

SwitchResX is an utility that allows you to control and customize the settings of your monitors.

SwitchResX is running in the background, and its user interface is just an icon in the Menu Bar and a Contextual Menu Item . A Preferences Panel lets you customize the different settings. In this way it's always available everywhere you need it.

What is the difference with the standard System Menu Extra or the System Preferences Panel ?

If only one feature should be mentioned: SwitchResX will allow you to select all resolutions that your monitor and video card can do, and you're not limited to the choice that Apple did for you. Moreover, you can even define a new resolution if the one you're looking for is not available.

But there's more :

SwitchResX is completely configurable. You can define which resolutions are really accessible, and which will require a confirmation. An option allows you to redirect a resolution on an other, in all applications.

You can also create 'Display Sets' which will allow you to change the resolution, the depth and position of all your monitors, and to use an AppleScript with one click, or one key.

You can assign a specific Display Set to an application, so that every time you use this application, your Mac will automatically switch to predefined resolutions...

2. SYSTEM REQUIREMENTS

SwitchResX will require a Mac with at least MacOS X 10.3.9.

MacOS X 10.4 is recommended but not mandatory. Users of least MacOS X 10.3 should think to upgrade to MacOS X 10.3.9, as it will be more than recommended in the future.

3. LICENCE

SwitchResX is distributed as a \$15 shareware. This version is an evaluation version. You can use it for 10 days. After that, the preferences saving and restoring will be deactivated.

To unlock SwitchResX, you will have to register it. You can use the included 'Register' links to automatically place your Internet browser at the correct address for registration.

For special site licences, school or district licences , you can contact the author to learn how to register at special prices.

4. INSTALLATION

SwitchResX uses an installer program because a lot of components need to be placed at the right place to work. SwitchResX is not only an application, and as such can not be installed by simple Drag&Drop.

You just need to launch the Installer application, which will place each item at the right place. You can choose whether you want the installation be usable for all users of your computer or only for your own personal use.

4.1. WHAT IS INSTALLED AND WHERE ?

- A "SwitchResX" folder is created in your "Application Support" folder and the "SwitchRes Control" and "SwitchRes MenuExtra" elements are installed there.
- A "SwitchResX" folder is also created in your "Applications" folder and the "SwitchRes Daemon" and "Read me" elements are installed there.
- The "SwitchResX" Prefpane is installed in your "Library/Preferences Panes" folder.
- The "SwitchResX Menu" plugin is installed in your "Library/Contextual Menu Items" folder.
- The "SwitchResX Features" element is installed in your "Library/Application Enhancers" folder.

4.2. UNINSTALLATION

The installer program also contains an uninstaller. But you can remove the elements manually if you wish.

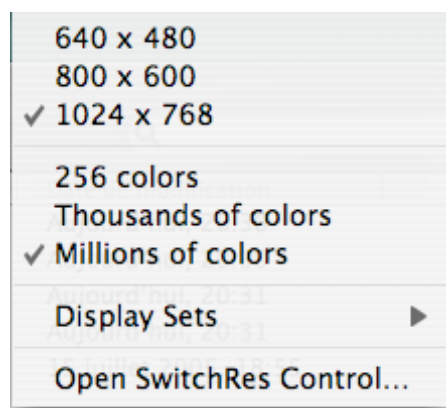
To remove all components of SwitchResX, you can drag all elements listed above to the trash. Or you can search for your hard disk for all items containing the name "SwitchRes" in it and trash them. This will also remove the two preferences files that are created if you launched the program.

5. THE SWITCHRESX UTILITY — « USER MANUAL »

5.1. BASE INTERFACE

After installation, you will be presented with the sole user interface of SwitchResX : the SwitchResX menu in one of the following locations:

- in the menu bar



- in the Contextual Menu when clicking on the desktop

if you have more than one display, then the display-specific options are grouped into hierarchical submenus.

Most options of the menu are obvious : you can directly choose the resolution and the depth of the all monitors, as well as other specific options.

All options shown in this menu are completely configurable. You can choose to only show some options, independently from one menu to the other. This is done in the SwitchResX Preferences Pane.

5.2. THE SWITCHRESX PREFERENCES

This Preferences Panel can be launched by the item in the SwitchResX menus, by the System Preferences Pane, or by launching it in the Finder.

The settings in the Preferences Pane are divided in 6 sections. The sections are accessible by the icons in the Toolbar. The toolbar is configurable, so that you can access only easily to the section that you need.

Preferences are saved when quitting the Preferences Pane or closing the window. Most of the settings are applied immediately.

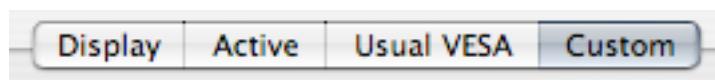
Let's check the sections one by one :

5.2.1. Resolutions section



In this section you control the resolutions choice that the system gives to you for all displays. The local popup menu lets you choose the desired display whose settings you control in this panel.

This panel is then composed of 4 tabs. The tabs are:



- Display
- Active
- Usual VESA
- Custom

5.2.1.1. Display Tab

All monitors are identified by MacOS by a vendor code and a product code. Moreover, the displays communicates some informations to the system via a protocol named DDC (Display Data Channel). From these informations, the system knows the capabilities of the display: maximal resolution, name of the display,...

This tab gives you information about the selected display. This is currently the name, the vendor and product ID, and some frequency ranges.

You can export the result of the DDC as a text file, so that you can really see the details of what the system knows about your display.

At this time, you can edit some of these settings. One useful feature is that you can edit the display capabilities to fake the OS, and thus letting it enable some resolutions that it would otherwise not enable.

Be careful and don't enter too high values, as it could let the OS activate resolutions that your display is really not able to show. In this case you would end in with a black screen if you select such a resolution (see troubleshooting section).

Some options finally let you configure the display by:





- displaying the refresh rate in the menu (Example: "640 x 480" or "640 x 480, 120Hz")
- modifying the monitor name (Example: "Multiscan monitor", "21" Multiscan monitor" or whatever you want)
- specifying to keep the same depth or to use the deepest available when switching in a new resolution.
- adding additional information in the resolutions name (like "Simulscan" for example)

5.2.1.2. Active tab

This tab shows the list of resolutions that are currently active on your system. If a resolution is not listed here, it means that it is not available, neither for the system or for SwitchResX.

From this list, you can customize the way the system handles such resolutions.

By selecting a resolution, you will activate a dialog that will let you choose:

- the resolution name as shown in SwitchResX menus. This doesn't affect the way the system itself shows the resolution
-  if the resolution should be disabled: a disabled resolution will not be shown in SwitchResX. It will be shown in the system but the system will not be able to use it.
-  if the resolution should be redirected: a redirected resolution will not be shown in SwitchResX. It will be shown in the system, and if you select it in the system, an other resolution will be used instead.
-  if the resolution should be in SwitchResX menus
-  if the resolution should trigger a warning alert when selected. In this case, if you select this resolution, SwitchResX will pop up a dialog asking you to confirm your choice.

From this dialog box, you can also apply the current resolution to the display. Also, the "Details" button will give you informations about the detailed timings that the current resolution uses. These timings will be useful when you define a custom resolution.

You will quickly find that actions that you define in this dialog can also directly be done with a click on the different columns of the list.

Finally, the "Import" button will let you import individual resolutions settings from other displays that you may have once connected to this computer. This option is useful if you change your video card but still use the same display, and will reconfigure the list of active resolutions accordingly.

5.2.1.3. Usual VESA tab

This tab shows a list of common resolutions that are predefined on some video drivers.

You can activate or deactivate resolutions of this list with a simple click to expand the choice of resolutions that your video card will give.

Be warned that not all resolutions activated here will be really used by the system. Some may overflow the display capabilities (that you can change in tab "Display" described above). In all cases, the system will make checks at startup to decide to activate this resolution, and some of these checks cannot be bypassed. That simply means that there are chances that resolutions cannot be activated this way, but it doesn't hurt to try.

5.2.1.4. Custom resolutions tab

This is one of the most important features in SwitchResX.

In this tab, you can define complete, new resolutions to be used by the system at next restart.

Two types of resolutions can be created in SwitchResX: Custom timings and Scaled resolutions.

Scaled resolutions...

...are only possible on hardware that support this feature. This generally includes LCD and Plasma screens, and more generally digitally linked displays. Such display have a physical number of pixels that are determined when they are built. This is their "native" resolution. For convenience, they can also show smaller resolutions by interpolating the picture on their native resolution.

For example, if a display has physically 1280 columns of 960 pixels, it can also show the logical 640x480 resolution by splitting all logical dots on 4 physical pixels.

This mode allows you to create all resolutions that you want on such displays, as long as they evidently are smaller than the native resolution of your display. It doesn't matter if the ratio height/width is not respected, the system will take care of that by creating both square and stretched resolutions.

Custom timings...

...are standard resolutions, limited only by the capabilities of the monitor. For creating these resolutions, you will need to know the details of the resolutions, the so-called timing parameters. Such parameters can be found on the Internet on home-theater user discussion groups for example, or on some Linux user discussion groups.

If you really don't know the timing parameters for a new resolution, you can try to use one of the simplified settings formulas that are available. This will give you "first shots" of all timing parameters if you enter just the width, height and frequency of the desired timing. But be aware that there is little chance that the obtained values are immediately valid: you will probably need a long trial-and-error process to get the correct values. Starting from existing resolutions is always a good idea, that's why SwitchResX can give you the detailed information for a specific existing resolution (see section "Active" above).

And now ?

For both methods, it can happen that the correct value is not recognized, and a slightly different value is validated by SwitchResX (eg. you enter 1366 and you get 1368). This is normal, because video cards sometimes need the values to be multiple of 2, 4 or 8 to be validated. There is no way you can work around this, as any value that is not the format the video card requests will be completely discarded by the system.

Once you have defined the new resolution (either scaled or custom), a restart is required.

What if the new resolution doesn't activate ?

At restart, the system will check if the resolution's timings:

are within the display capabilities

match the video card requirement (especially this "multiple of..." requirement)

are not similar to any other resolution that is already shown

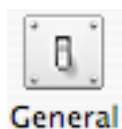
and many other checks

If any of these tests has failed, the resolution will not be activated. If, once you have restarted, the resolution is not in the "Active" list, check again your parameters.

Defining a new resolution can be painful, and takes time until you finally succeed. Moreover, at this time SwitchResX has no way to know if a resolution is really activated and to give hints about corrections to apply, so it will simply show "should be active".

All in all, this feature is very powerful, but is difficult to apprehend, and can take time until everything works the way it should.

5.2.2. General section



The options shown in this part of the window lets you define basic settings:

- Set the resolution of every monitor attached after restart or use a specific Display Set.
- Add the Display number after its name in the menus
- Autolaunch SwitchResX after startup or login
- Tell SwitchResX to use the Keychain to store your administrator login and password. By activating this option, you won't be asked to enter them each time you make changes in the Resolutions panel (see below)

- Activate the advanced user mode. In this mode, you won't see any alert any more. Use this only if you know what you are doing.
- Use a System-wide key shortcut for opening the Preferences Pane
- Use a System-wide key shortcut for closing SwitchResX
- Define the delay SwitchResX will use when testing a new resolution. That delay allows you to validate the use of this resolution, by clicking on an alert displayed on screen (that obviously you could not see if the resolution is not valid).

5.2.3. Display Sets section



You have more than one monitor and you are tired of switching multiple displays resolutions one after the other ? You often need to change at the same time a resolution and a color depth ? You want to activate and deactivate video mirroring with just a key ?

SwitchResX can define multiple options Display Sets. These sets contain resolutions, depths, position of a monitor, main monitor settings, video mirroring option, all together in one single Menu option. That's it.

The Display Sets are activated either by a Key Shortcut, a selection in one menu, when an application starts, or brought to the front, and even at startup.

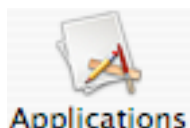
For each of these events, the Set will be applied. This goes far beyond a simple resolution change, because with just one key you might want to tell SwitchResX to open an application and automatically use the correct display settings.

But there's more: you can add any Applescript to a Display Set ! That extends the power of Display Sets to any scriptable item of the system ! And since Display Sets can automatically assigned to Applications (see below), you could chain automatic actions whenever any specified application is launched.

The options in the Display Set are self-explanatory. Since SwitchResX can remember settings for as much as 7 different displays, even unattached, you can remember different settings on the same Display Set for example for a Powerbook alone, or when attached to a monitor at work, or to a completely different monitor at home...

Hint: The order of the Display Sets in all SwitchResX menus matches the order in this list. It is customizable by Drag and Drop.

5.2.4. Applications section



In this part, you define the application settings. You can define settings that will be used for every application, and other settings that will be used for certain applications only, when the application is launched or brought to the front.

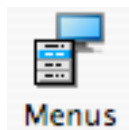
The principal settings are the Display Set and the sound level. That will allow you to launch a game with a correct sound level, and with the correct Monitor parameters that you have defined in a Display Set (see above). Of course, the older settings can be restored when the application quits.

Other interesting options in this section are:

- Automatically hiding the Control Strip and the other Applications
- Restoring the older settings when the application quits
- Applying again the defined settings when the application is brought to front

The last application definable option is the ability to forbid every resolution change coming from the application itself. Only SwitchResX will be able to change the resolution. This is useful for games that will change your monitor to an hard-coded resolution.

5.2.5. Menus section



This section lets you define what you want to see in the SwitchResX menus: the main menu in the Menu bar and the Contextual Menu.

Here you can also activate or deactivate the menu in the menu bar.



Try everything to choose what you like the most...!

NB: Sometimes the main menu icon appears crossed. This means that SwitchResX Daemon is not running while the menu is. You just need to start the Daemon again. This can be done by clicking on the menu icon or by using the option in the Contextual Menu.

5.2.6. Desktop section



(NB : at this time this function is still not correctly functioning on MacOS X, because of a limitation in the OS X Finder. The bug has been filed to Apple in 2002. Sigh.)

This part let you define more precisely how SwitchResX will save and restore the position of all icons and the Finder windows

- Automatically save the positions of the icons/windows of the desktop when a switch is done by SwitchResX menu commands. The button on the left or the last command of the menu is devoted to do this manually. Remember this can be time saving if you don't change your icons frequently.
- Anchor your icons on their parent screen: when you move a display, the icons/windows can stay at their original position, or move along with the display. It's up to you to decide which option is better.
- Tell SwitchResX to store only icons, or only windows, or even both when rearranging the desktop
- You can allow SwitchResX to place your icons at their exact position, or let it choose to place them on an invisible grid, so that icons are correctly aligned. The grid spacing can be changed.

If you enable this option, a new command in the menus will be added, which allows you to rearrange your desktop when you want, without having to save/restore the icons.

6. VARIOUS

6.1. COMMENTS

For all comments, you can email me at:

stephane@madrau.com

6.2. USED TOOLS

About "SwitchResX features":

This product uses Application Enhancer system
Copyright ©2002-2005, Unsanity LLC
<http://www.haxies.com/ape/>