

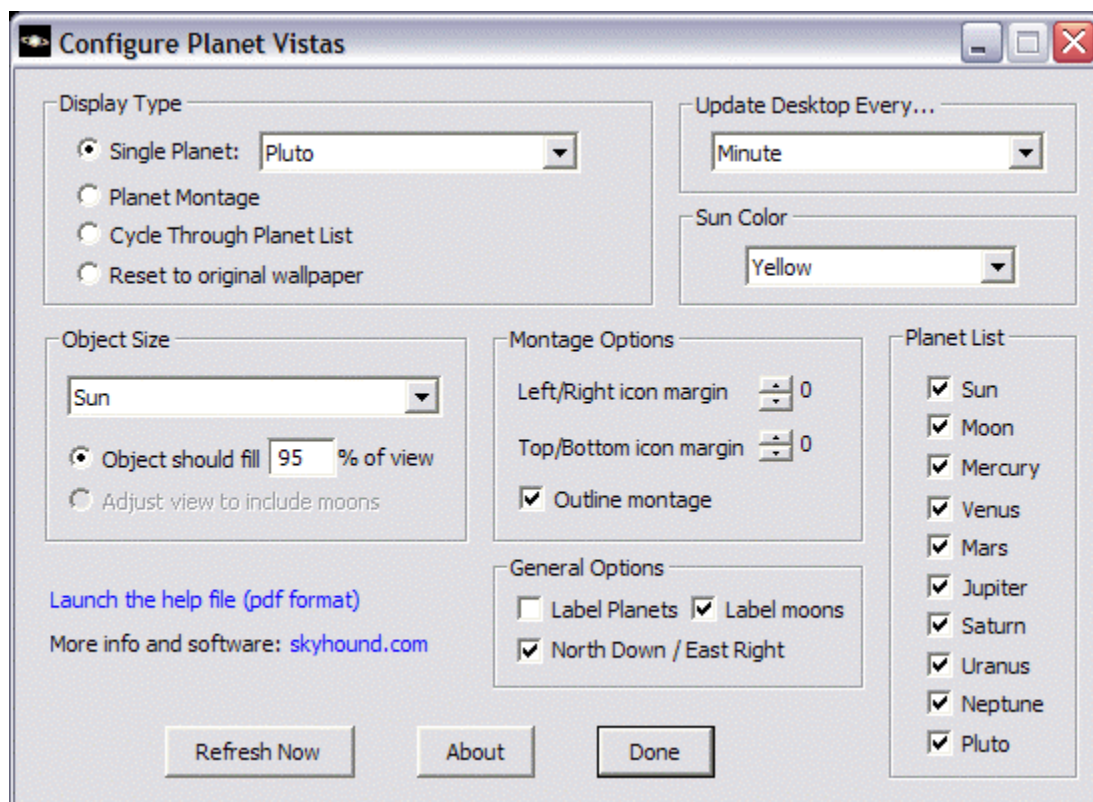
Planet Vistas Desktop

This program renders accurate simulations of the Sun, Moon, planets and their satellites as currently seen from Earth. The simulations are drawn to the Windows desktop background and are updated regularly to keep the depiction current.

Planet Vistas is a great way to keep track of what is going on in the solar system right on your desktop. The montage view is particularly useful to keep an eye on things. Watch for the shadow's of Jupiter's moons to cross the disk, or see a Lunar Eclipse occur in real time!

Configuration Settings

To change your display settings find the Planet Vistas icon in the system tray area of the Windows taskbar. Either double-click on it or right-click and select *Configure* to open the configuration dialog.



Display Type

There are three types of displays generated by Planet Vistas:

- *Single Planet* – renders the image of a single body on the desktop background. The planet (or Sun and Moon) is selected to the right of this

choice. Each time the desktop is updated the planet is drawn as it appears at the current time.

- *Planet Montage (default)* – renders a montage of images for all the major bodies in the solar system simultaneously. Each time the desktop is updated the planets are drawn as they appear at the current time.
- *Cycle through planet list* – renders each of the planets that has a check mark placed next to it in the *Planet List*. Each time the desktop is updated the next planet on the list is drawn as it appears at the current time.
- *Reset to original Wallpaper* – resets the background to the wallpaper that you were using prior to starting Planet Vistas. After making this selection press the *Refresh Now* button to make the change or close the program.

Update Desktop Every...

Use this selection to determine how often the desktop is to be updated. To disable the updating, keeping the current background, select *Never*.

Planet List

This selection is used for the *Cycle through planet list* display type only. Each object with a check next to it will be rendered in turn when the desktop is updated.

Sun Color

The natural color of the SOHO sun image is orange. If you wish it displayed as gray or with a yellow cast these selections can be made here.

Object Size

This control how large each body will appear when drawn. Select one of:

- **Object should fill ... % of view** determines how large the body will appear. The range of valid entries is 1% to 100%. At 100% the body will fill nearly all of the view. At 1% it will only fill 1% of the view, appearing very small. If the montage is being displayed this parameter determines how large each planet is drawn relative to it's own box on the screen.
- **Adjust view to include moons** will continually adjust the view such that all of the planet's moon will be displayed. This option is only available for planets with moons.

Montage Options

Left/Right icon margin creates a margin on the left and right sides of the montage for icons. Use the up/down buttons to select the width of the margins in

terms of icons; a setting of 1 allows space for one icon on either side, 2 allows for two columns of icons, and so on.

Top/Bottom icon margin creates a margin at the top and bottom of the montage for icons. Use the up/down buttons to select the height of the margins in terms of icons; a setting of 1 allows space for one icon, 2 allows for two rows of icons, and so on.

Outline Montage turns the box outlines on/off in the montage display.

General Options

Label Planets turns the planets labels on/off.

Label Moons turns the planet satellite labels on/off.

North Down / East Right determines the orientation of the views. If not checked north is drawn at the top with east on the left. If checked north is drawn at the bottom with east on the right, as seen in most telescopes.

Notes on the Montage Display

The solar system bodies are depicted as follows:

Sun		Mars		Moon
	Jupiter		Saturn	
Uranus	Neptune	Mercury	Venus	Pluto

The bodies are *not* drawn to scale. In general they simply fill their views as directed by the planet fill percentage setting.

The SOHO Sun Image

If connected to the Internet Planet Vistas will periodically download the latest image of the sun obtained by the SOHO satellite. If not connected to the Internet or blocked by a firewall Planet Vistas will simply use the image shipped with the program or the last one successfully downloaded.

A Note on Solar Eclipses

With the exception of solar eclipses the renderings are essentially the same for any location on earth. But solar eclipses are highly dependent on location, and in order to accurately depict a solar eclipse the program must know where you are. If you have SkyTools 2 installed on your computer Planet Vistas will attempt to locate it and use the location data for the location that was selected in the *Observing Lists* tab of SkyTools 2 the last time you used it. *If SkyTools 2 is not installed a default location on the equator at the prime meridian will be employed instead. In this case solar eclipses will be depicted as seen from that location!*

A Note about desktop flashing

Each time the desktop is updated, the desktop, and even your program windows, may flash. This is normal. We find an update interval of 1 minute or more will keep down the annoyance of the periodic flashing while keeping you up to date on what is going on in the solar system.

Will it Slow or Hamper my Computer?

The part of Planet Vistas that runs in the background only uses about 2K of memory and spends most of its time waiting idly for a timer notification message. When the actual rendering is taking place the system may slow down a bit, depending on how fast your computer is and what you are rendering. *Saturn takes the most effort to render, particularly when it is displayed over many pixels.* If you notice periodic slowdowns either increase the update interval or decrease the size of the planet being drawn.

What is depicted?

- Planet Vistas displays the latest SOHO sun image if connected to the Internet.
- The Moon, Mercury and Venus are drawn showing the correct phase.
- **Eclipses of both the Sun and Moon are depicted.**
- Mars is depicted with detail visible in a telescope and it's two moons, Phobos and Deimos.
- Jupiter is depicted with bands and the Great Red spot at the correct position; in addition to the four main satellites Amalthea and Himalia are depicted in their proper locations, but in practice Himalia may never be seen because it orbits far from the planet.
- **The shadows of the four Galilean satellites of Jupiter are accurately rendered as they cross the planet.**
- Saturn's bands and rings are accurately depicted, including the shadow of the planet on the rings. The nine brighter moons are drawn, although Pheobe may never be close enough to the planet to be typically seen.
- The general features of Uranus and Neptune are drawn. The four major moons of Uranus are depicted along with Neptune's brightest moon, Triton.
- Lastly, Charon, the brightest moon of Pluto, is depicted in the proper location about Pluto.

Uninstalling Planet Vistas

Use the add/remove programs feature of Windows to remove and disable Planet Vistas. To restore your desktop background, right-click on the desktop and select *Properties*. Select the *Desktop* tab. Select the desktop background of your choice.

The nuts and bolts—How does it work?

Planet Vistas is comprised of two separate programs. The first is loaded when you start your computer and runs in the background. This is a small application that allows you to change the configuration settings and which also sets a timer to update the desktop background regularly. The second program is called periodically by the first to render an image that is saved to the “planet_vistas.bmp” file in your Windows directory. Once prepared, Windows is told to use this file as the Desktop background and to update the background when the file has changed.

Quirks

We recommend disabling Planet Vistas by setting the update interval to **never** when playing graphically intense programs such as games. Also note that if a game (or any full screen program) changes the video resolution while it is running Planet Vistas will render a desktop background at that resolution. When the program exits your background image may no longer be the proper size.

You may sometimes notice a delay in the update of the depiction. This happens when the program downloads the latest SOHO Sun image periodically. If connected to the Internet via dialup this may cause a delay of up to a minute.

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