

DESKTOPIA: Xscreensaver 3.33

BREAK IN TRANSMISSION



If you're going to take a break, it's worth protecting your screen from interlopers. Jo Moskalewski takes a look at the ins and outs of Xscreensaver

desktopia

Only you can decide how your Linux desktop looks. With deskTOPia we regularly take you with us on a journey into the land of window managers and desktop environments, presenting the useful and the colourful, viewers and pretty toys.



Figure 1: Standard screensaver, configured via xset

Screensavers are undoubtedly very popular. While many home and office users vie for the most attractive, one question needs to be raised – what's the point of them? Screensavers were originally intended to prevent the contents of the desktop being permanently burned onto the terminal screen. However, with any half-way modern monitor this is hardly something to be afraid of. Should the period of non-use last as long as that, it would surely be a better idea to simply turn off the monitor for the next few days.

Coffee break

The other reason for using a screensaver, which is as valid as ever, has nothing to do with the lifetime of the monitor. It's much more likely to be that of protecting the desktop content from the gaze of the curious. This is then called locking the screen. When this happens, the screensaver can only be escaped by entering a password. Anyone who wants to do this will activate their screensaver manually when leaving the workstation, instead of letting it make an appearance automatically after all too long a period of inactivity.

Lastly, today's screensavers are also more to do with satisfying the play instinct: the function of saving is questionable and can be realised equally well with the mains switch or an energy-saving mechanism. Anyone who wants to protect their desktop from others, is really more in need of a manual start, including a password challenge. If only really value the original function (or again, simply want a rudimentary energy-saving function), then you would do well to use xset.

Black, no sugar

The simplest screensaver is a part of XFree itself. It offers a simple X logo animation or else simply turns off the desktop. You can control it with a range of arguments, so it's possible to make the screen go blank with a simple `xset s 300` after five minutes (300 seconds). Table 1 sheds some light on the main functions.

Anyone who tries to use the keyboard to protect the screen manually with `xset s activate` will soon

notice that this is not necessarily rewarded with success. The keyboard command itself deactivates the saver, which has just been called up. The remedy lies in a `sleep 1s && xset s activate`, so that the keyboard has a full second to come to a stop. If you set the option `noblank` and first set the background with `xsetroot`, you will be faced, instead, with the mouse-grey spotted X-Standard background which was set with `xsetroot` (Figure 1).

Users of the K Desktop Environment can keep ahead of all these games. Here it is not the actual Root Window which is used as desktop background: Instead, a frameless window covers everything that's happening on it. So an `xsetroot -solid blue` merely changes the desktop behind the KDE desktop.

Milk and sugar

If you also want a feast for your eyes at the same time, and are not averse to a goodly portion of comfort, you may wish to check out the Xscreensaver package at <http://www.jwz.org/xscreensaver/>. In most cases, however, this has probably already been installed as a part of your standard installation.

Xscreensaver is not what an exiled Windows user may understand by the term screensaver. Rather than choosing a single screensaver to be displayed, Xscreensaver lets the user select the desired ones from a list of countless options. These will be continually alternated between – if you only select a single font then this will always appear when the screensaver is active.

The concept is modular, so any graphics demos you like can be integrated into the package, so long as they are able to redraw the X-Root window. The basic package comes with no less than 123 demos. These are intended, not only as eye candy, but also as a feast for scientists, who want to have one or other



Figure 2: Splashscreen at the start

of the famous mind games paraded before them. Some of these will just be one big yawn for the average home user, some take the modern PC to the absolute limits of its performance, and some require features that may not be present in your home Linux system.

Fortunately, with xscreensaver-demo you can rifle through the long list of demos. Even after filtering out the unsuitable graphics, there ought to be enough left over to suit just about any taste.

Cream buns

You can personalise each individual graphics demo, and thus the screensaver itself, via the command line. Click on the Documentation... button to read the information entered therein. There is an introduction like this for each of the 123 screensavers, which you can exit again via *q*.

It's not only the list of available screensavers that can be viewed and configured here. In the second tab there are options with which you can rule, switch and experiment to your heart's desire (Figure 4). The changes made under the Screensaver Options tab don't take effect until the xscreensaver daemon has been re-started. This item can be reached via File/Restart Daemon. As xscreensaver-demo merely edits a configuration file, the program Xscreensaver always carries on taking care of functionality regardless (and unnoticed in the background). Once started, it knows nothing about the changes and has to be informed of them explicitly with a new start.

Cakes

Anyone who wants to control the daemon from the keyboard can do so using the xscreensaver-command tool. You can find out which options this command understands with a parameterless command. If the brief instructions, which are then outputted, are not enough for you, the manpage `man xscreensaver-command` offers more comprehensive information.

The `-activate` parameter may be of particular interest. If you include the command `xscreensaver-command -activate` in your start menu (or if you create a desktop icon with this command, for example), then you can activate the screensaver directly with it. If instead you start it with a `-lock`, then the screen will also be immediately protected. If troublemakers turn up, they will be challenged to enter the password. Only once the password is correct can the user return to the X session and carry on working.

This leaves the question as to how `xset`, or the daemon, is launched automatically. If the window manager in use offers a so-called Autostart function, then you simply enter Xscreensaver (or `xset`) there. Regardless of which window manager is in use, there is yet another solution: The X server searches on start-up in the home directory of a user either for the

Table 1: xset's screensaver options

Command	Function
<code>xset s</code>	reset to standard settings
<code>xset s 600</code>	activate after 10 minutes
<code>xset s blank</code>	use blank screen
<code>xset s noblank</code>	display X logo instead of blank screen (cf. Figure 1)
<code>xset s 600 300</code>	move X logo to new position every 300 seconds (provided this is set)
<code>xset s off</code>	deactivate screensaver
<code>xset s on</code>	switch on screensaver
<code>xset s activate</code>	activate screensaver immediately
<code>xset q</code>	display current settings

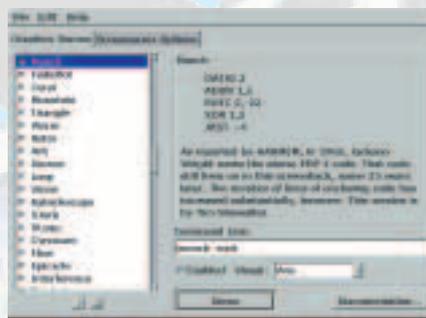


Figure 3: Selection menu for the graphics demos

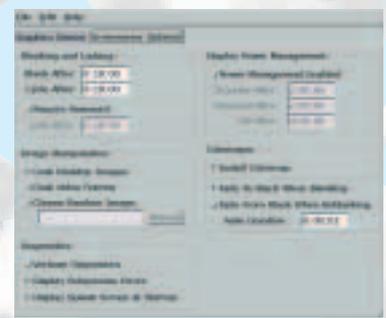


Figure 4: Configuration menu

file `.xinitrc` or for `.xsession`. If it finds this, then the X start mechanism finds out from this file how the user wants their X session. One possibility would be the following structure:

```
xsetroot -solid "#102040" &
xsetroot -cursor_name left_ptr &
xset s off &
xscreensaver &
evilwm
```

In this example, firstly the desktop background colour is set. Thanks to the concluding `&`, the second `xsetroot` command doesn't have to wait until the previous one has been dealt with, but can start immediately and change the mouse cursor into an arrow. When this happens, the standard screensaver is deactivated. After that, the Xscreensaver daemon starts and finally a window manager (in this case the `evilwm` – discussed in issue 14 of Linux Magazine). This is not sent on its way with a concluding `&`, because as soon as it is concluded the whole X session is meant to end – and with it, all programs which were started by it.

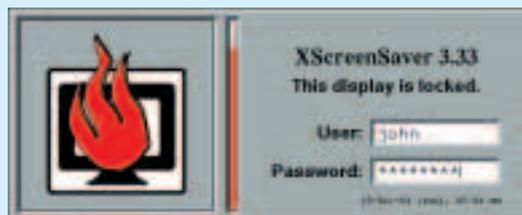


Figure 5: Unlocking a locked screen