

Jo's Alternative Desktop

SAPPHIRE

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DeskTOPIa takes you once more on a journey into the land of window managers and desktop environments, presenting useful viewers and colourful, pretty toys. One theme-capable little gem, which is still largely unknown in the land of the Linux desktop, is Sapphire.

You would be forgiven for thinking that the name Sapphire refers to a precious stone – but if you notice the second ‘p’ in the name and pick up a dictionary, the trail leads back some 2,600 years to the Greek island of Lesbos and its poetess, Sappho. She composed poems about her life and her liking for her female students. Sapphire is also about love and the amalgamation of two things. Take a look at the homepage: <http://sapphire.sourceforge.net/>. The program author was inspired by the code of the window manager *aewm*, which he used as the basis for his project, and a few features of the window manager *Blackbox*, which he gradually integrated. The result of this love is what he now calls Sapphire.

Window what?

A window manager does just what the name suggests – manages the windows on the desktop. As a rule, this also includes providing an application with a frame – usually in the form of a bar with buttons for closing and minimising. Some also offer a task list or taskbar (via which, for example, minimised windows are made visible again) along with a start menu. It's also worth knowing that a window manager actually needs a graphical user interface (and not, as many believe, itself acting as the graphical user interface) — under Linux this is X. Even interfaces such as KDE or GNOME operate according to the knitting pattern: X-server, window manager, application. So a window manager is

nothing but an optional application intended to simplify the use of a graphical user interface and improve appearance.

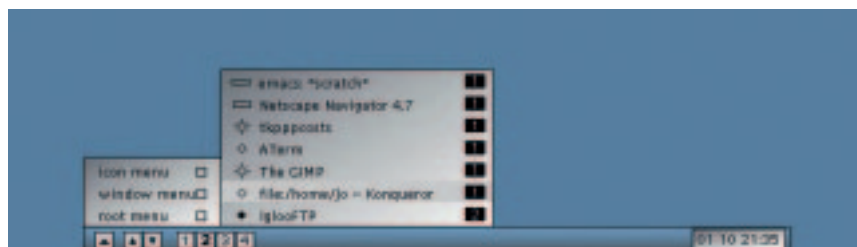
Getting the menu

The strength of Sapphire does not lie in its configurability or equipment, but in its use – it is easy and definitely pleasant to work with. In the middle of the lower edge of the desktop there is a small bar (toolbar). The toolbar makes all menus accessible with one button, starting with the Icon menu (a list of minimised windows), via the Window menu (a list of active programs) to the Root menu (Start menu, themes and end). All menus can also be seen by clicking on a free space on the desktop. Two buttons on the toolbar scroll up or down through the opened windows and four more manage virtual desktops in case space suddenly starts to run out. The date and time are also shown.

What really works well is the window decoration. The header offers a button on the left to close the window and one on the right that reduces the window to its own header – a practical feature once you get used to it. The desktop itself stays constantly in view in many open applications. The middle of the three right-hand window buttons minimises. You can open up the application again either with the middle mouse button on the free desktop or via the toolbar. The fourth button maximises – a feature that will surely be used rarely with today's monitor sizes. Much more important here is another and less obvious decoration on the right hand edge of the window. This bar is used to adjust the size of an application individually.

The latest window (or the one with the focus on it) is the one which registers keyboard inputs. In the foreground, though, there has to be a mouse click first – the range of the focus does not extend this

Figure 1: The Sapphire toolbar



far. In addition Sapphire is theme-capable and also sets an appropriate background colour, if this is provided by the theme. With a bit of tinkering, you can also conjure up a graphic onto the desktop (see the Personal Edition section). The demands made on the system are very low. Sapphire is very fast and takes up just 1.4MB of RAM for itself. But it's not just in terms of hardware that this window manager behaves modestly – it also makes few demands on the environment into which it is integrated.

On your marks...

Your own hard drive has to come up with a compiler (*gcc*) as well as with the header files for X (the packet with these is usually called *xdevel*). If these requirements have been met, the archive on the cover CD must first be unpacked. After that the script *configure* checks the system installation and creates a makefile based on the results, on the basis of which the compiler finds out (via the command *make*) what exactly needs to be done. Only after that is the program converted for your own computer and can be installed with *make install*. In addition, a standard configuration is set up with the script *data.inst*:

```
jo@planet $ tar -xvzf sapphire-0.15.6.tar.gz
jo@planet $ cd sapphire-0.15.6
jo@planet $ ./configure
jo@planet $ make
jo@planet $ su
Password:
root@planet # make install
root@planet # ./data.inst
root@planet # logout
```

... get set, go!

For the first attempts in any case – if it is used – the graphical log-in (*xdm*, *kdm* or *gdm*) should be deactivated. In the case of SuSE this is done by using Yast, for other distributions you should look in your manual. To stay with SuSE: After the computer has now presented the text console, the following command should get you to the finish line:

```
jo@planet ~-> WINDOWMANAGER=epiwm; export WIN2
DOWMANAGER
jo@planet ~-> startx
```

With other distributions, simply type *startx sapphire*. This command should work on any Linux system – unless the user has a file called *~/.xinitrc*. If this is present, it will in any case be heeded and when X is started, will be read out via the command *startx*. As a last entry in this optional file, call up the window manager. Because if this file has already been run through, X shuts itself down and thus also the window manager. So with the shutdown of the window manager the last entry of this file is ended – and as a result, the graphical user interface too. The file *~/.xsession* is equivalent to *~/.xinitrc*, which is also evaluated during the graphical log-in.



Figure 2: Sapphire window decoration with a menu

Personal Edition

There is not much else to say, the entire configuration is laid down for the whole system and not for the individual users. All relevant files are in the directory */usr/local/share/sapphire/* and are simply edited with your own favourite editor. This is really clear and simple and easy to understand at first glance: While the Root menu is self-explanatory, the themes do need a bit of introduction. The Default theme is always started – so if you want to use another one, either the previous one has to be edited or the desired one simply renamed. What's interesting about themes is also the undocumented feature command:, with this command (similar to an autostart) other desktop systems can be executed. For example, to set a graphic as desktop background with the tool *qiv*, you can proceed as follows: In the theme file the entry *root.background: is set to false*. Then enhance the file with the following line:

```
command: qiv -z /path/to/graphic/graphic.jpg
```

And now, have lots of fun designing your lyrical desktops with Sapphire!

Figure 3: A desktop with Sapphire

