

Jo's alternative desktop SOMETHING A LITTLE SPECIAL

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You alone determine the appearance of your Linux desktop. Here, Jo Moskalewski takes a look at an alternative to the well-known window managers and desktop environments which you might like to try.



Away from the mainstream of KDE and Gnome can be found EPlwm, a project started by a French group of programmers. The aim was to create a small and fast window manager with a simple configuration and an extensive range of functions. The project's success – particularly with regard to the list of features – is very impressive. Here is an extract from `top`, for example, which lists information about active processes (programs):

```
PID USER PRI NI SIZE RSS SHARE STAT LIB 2
%CPU %MEM TIME COMMAND
730 jo 1 0 1324 1324 1028 S 0 02
.0 1.0 0:05 eplwm
```

The *RSS* column provides details of the total memory used by a program – in our example this is 1.3MB.

You can look out for new versions and further information about *EPlwm* at <http://epiwm.sourceforge.net/>. You will also find a link to a graphical configuration tool which saves you the bother of editing configuration files. However, this tool can produce bad configurations and so is only recommended for advanced users. Even without this kind of front-end, the configuration is easy.

Ready for EPlwm?

In order to install *EPlwm*, your hard disk should contain at least the *x-devel* (the **Header files** to X) and *make* program packages. However, if you would

rather install a graphical program from a *tar.gz* archive, you should first install the relevant development packages for *imlib*, *libpng*, *libtiff*, *libxpm*, *libgif* and *libjpeg*. Only these will enable all the features contained within *EPlwm*.

If the package *EPlwm-0.5-5.tar.gz* is in your home directory it can be unpacked quite easily using the *tar* tool: a new directory is then created containing the program code, after which you switch to it. An example would be:

```
jo@planet ~> tar xvzf EPlwm-0.5-5.tar.gz
[ ... ]
jo@planet ~> cd EPlwm-0.5-5
jo@planet ~/EPlwm-0.5-5>
```

Typing *make* should compile the window manager from the program code, resulting in an executable binary file. If *make* stops due to an error you'll either have to install the missing program packages or adjust the *Makefile*, which tells *make* what to do. You will find instructions to do this in the *INSTALL* file.

Buggy? Buggy!

But the program isn't actually installed yet! Only administrators (i.e. *root*) may undertake this task. Unfortunately, there's a small bug in this procedure – CVS files cause the installation to fail. Fortunately they are not actually needed, so the problem can be solved quite easily by deleting the files in the following way:

Header files: When developers write programs they include the header files of foreign program libraries: these header files contain the most important information about the functions already provided by the libraries. This helps the compiler when it runs. The libraries referred to here describe the X-Header files that are used for programming X-Window programs.

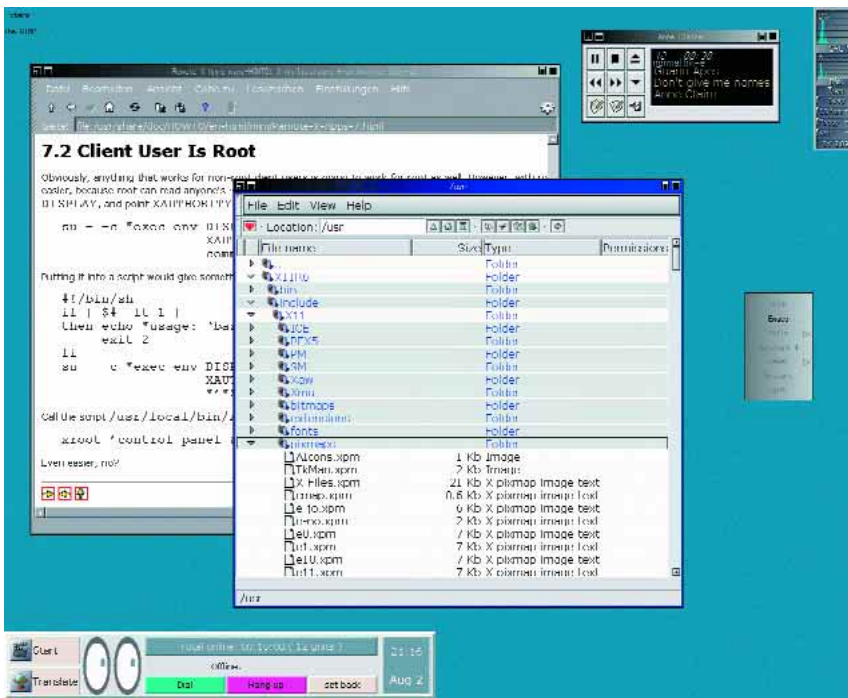


Figure 1: EPIwm's Standard look with its own tools (including *Tkgoodstuff*, *gkrellm* and the file manager *F*)

```
jo@planet ~/EPIwm-0.5-5> rm -rf config/CVS
jo@planet ~/EPIwm-0.5-5> rm -rf bin/CVS
jo@planet ~/EPIwm-0.5-5> su
Password:
root@planet: /home/jo/EPIwm-0.5-5> make inst
all
[ ... ]
root@planet: /home/jo/EPIwm-0.5-5> exit
jo@planet ~/EPIwm-0.5-5> cd
jo@planet ~>
```

The directory containing the source code is no longer required and can simply be deleted. But before starting *EPIwm* for the first time all users must create a set of configuration files in their home directory. This can be done by retrieving *epiwm.inst*. A broken or faulty configuration can be reset to its original values in the same way.

Light at the end of the tunnel!

There are a number of ways to start a window manager and many distributions, rather unnecessarily,

Figure 2: Oclock with border



invent their own. We recommend the following method: deactivate graphical login (which should always be done before a new window manager is tested) and ensure that the user does not own any files that control the start of X (in particular, *~/xinitrc* or *~/xsession*). The following commands should then produce the desired effect in all distributions:

```
jo<@>planet ~> export WINDOWMANAGER=epiwm
jo<@>planet ~> startx
```

Or:

```
jo<@>planet ~> startx epiwm
```

Initial steps

EPIwm should now be king of your desktop. Press the left mouse button and a start menu should appear. Your desktop should now look like the one in figure 1. Here is how to use the program:

- left mouse button: start menu
- centre mouse button: task list (active programs)
- right mouse button: window options
- left window icon: minimise
- 2nd window icon: maximise
- 3rd window icon: maximise window height
- right window icon: close window

The mouse can be moved beyond the right-hand edge of the screen so that it then appears in the second virtual desktop.

Made to measure

The list of features is long and the default settings are mostly sensible and acceptable. Therefore just a few points about the configuration need to be made: all settings can be found in the user's own configuration files under *~/epiwm*, divided into individual files by subject:

~/epiwm/icons:

IconWidth 48

Often the user doesn't see an icon (if an icon has been allocated at all) - just text. Although this is not a disaster (after all, in our experience, users use the text rather than the graphics to guide them anyway) those who are unhappy with it can simply try typing 200 here.

IconFont fixed

The *xfontsel*, *gfontsel* or *kfontmanager* tools list which fonts are available.

~/epiwm/key

The keys can be adjusted to suit the user's own requirements and additional **shortcuts** can be defined for programs.

~/epiwm/menu

MenuColor H dimgrey grey

Unfortunately, the default colours make it difficult to read the menu: it uses a horizontal (H) graduated fill from *dimgray* to *gray*. Instead you can use a ver-

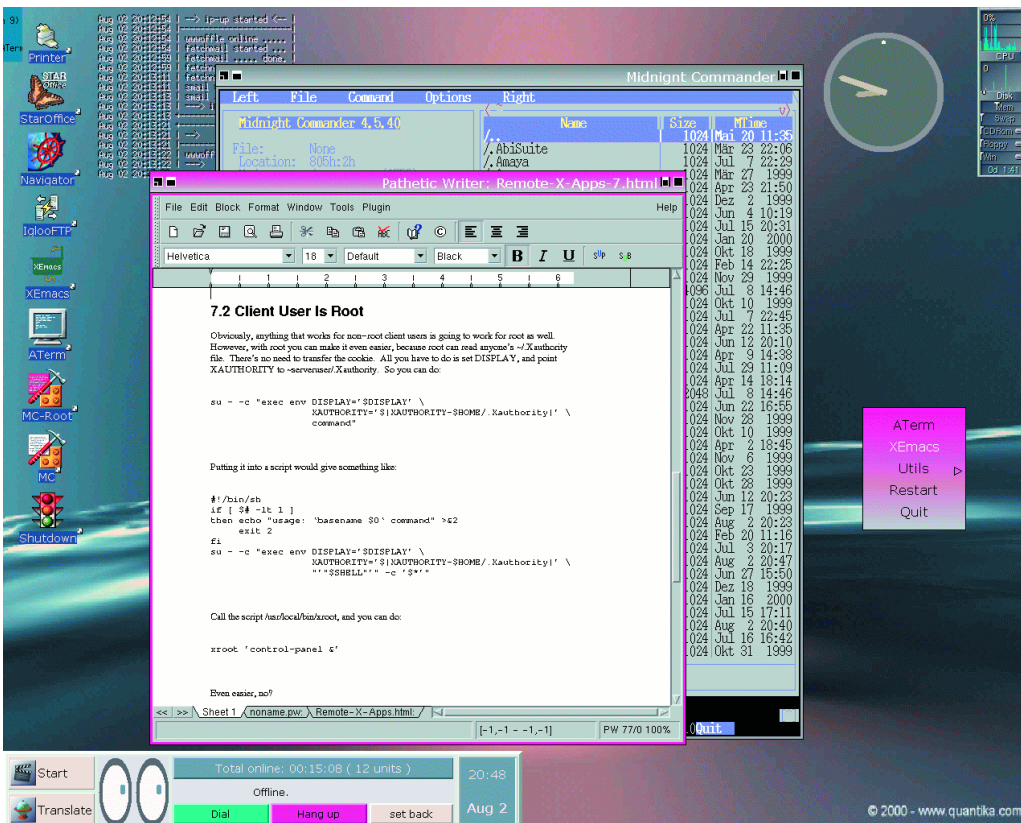


Figure 3:
EPIwm in its element

tical graduated fill specifying the colour using the hex RGB colour coding similar to that used when designing web pages:

```
MenuColor V #B2337A #BFBFBF
```

A colour value rather than "H" or "V" obviously indicates that it is all one colour.

~/epiwm/start

This is the *Autostart folder* of *EPIwm*. Anything entered here automatically starts with *EPIwm*. The default setting for the background is taken from *xsetroot*.

The interesting part of the configuration is that it is possible to allocate individual programs particular window characteristics from the start. The following keywords can be used:

- NoTitle: Button title is not displayed
- NoBorder: no border
- Sticky: visible on all virtual desktops
- StayOnTop: not covered by other program windows
- WindowListSkip: not listed in the task list

Here's an example: the clock *oclock* is to appear on the desktop. So we cheerfully type *xterm "oclock"* and a window like that in figure 2 appears. This is not really what we want, of course, so we can leave the following entry in the *~/epiwm/style* file:

```
"oclock" NoTitle NoBorder Sticky WindowListSkip
```

Furthermore, if the *~/epiwm/start* file contains the entry *Init oclock &*, our newly configured clock always appears on the desktop (see figure 3).

~/epiwm/window

This defines the appearance and behaviour of the window itself. It's quite difficult to stop experiment-

ing with this option. The option to swap the window buttons with your own graphics is highlighted – the graphics format used must correspond to one of the formats whose development packages were available when the program was compiled (this means, for example, only PNG graphics if only *libpng-devel* was present during compilation).

~/epiwm/workspace

```
WorkspaceChangePercent 100
```

As you can also place a window between two desktops, many find it helpful to scroll only half a screen:

```
WorkspaceChangePercent 50
```

If you now go beyond the right-hand edge of the screen, you will go only half a screen further.

```
WorkspaceResistance 150
```

Determines the time period after which moving the mouse to the right-hand edge of the screen causes it to move to the next desktop.

Conclusion

EPIwm is released under the GPL and is therefore available free of charge. In fact, *EPIwm* exacts a small price for its non commercial development. For example, a program with the *-geometry* option, which allows users to position it using the command line, creates problems. On our test system, for example, it is not possible to use *ATerms* (a modest replacement for *XTerm*). However, this aside, *EPIwm* is highly recommended to anyone seeking an alternative desktop. ■

Shortcut: Shortcuts are key combinations that allow the user to reach frequently used menu commands in a program more quickly. For example, many programs use *[Alt+Q]* or *[Ctrl+Q]* to quit – not to be confused with the shortcut *Alt+F4* used by many window managers to close a window.

Info

EPIwm home page:

<http://epiwm.sourceforge.net/>