Blackbox window managers

Lightspeed

Lightweight window managers do not have to be short on features. We take a look at the Blackbox based systems and explore the benefits.

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Window managers are programs that control how other X clients on your screen are drawn, positioned and moved. They provide information on how title bars and the overall look of the desktop work, along with controlling the mouse focus and keyboard binding.

Unfortunately the main window managers have a reputation for being big and so slow running on some limited hardware. To overcome this, lightweight window managers have been developed. These allow you to run graphical systems on computers with limited, or just old, resources.

Blackbox

Blackbox [1] is just such a system being small in size but rich on features. It is able to cope with themes and so can look as good as required and configured just to your tastes. Being small in code size means that it can handle old or memory limited hardware. On modern hardware it just becomes even faster.

Themes are available from [2] and although not as eye catching and flashy as those for the Enlightenment window manager, they give a simple elegance that is useable.

So why use Blackbox if you have fast modern hardware? No matter what your hardware, the window manager will in some way slow down your system. Minimizing this overhead allows you to do other more useful work. Cutting down the bloat helps to reduce some possible risk. These risks might be interaction between differing programs or the potential to have malicious code.

We could make a slimmer window manager that would be even faster but the downside would be lack of features. Remove too many of them and the system becomes unusable.

So what can it do?

It can obviously handle your windowing needs of positioning and moving the X clients for other programs. It can handle pretty themes to suit your desires as not everyone has the same tastes. By being small the system can offer support for having more windows open at the same time without grinding the system to a

halt. The system also has the advantage that it loads quickly. The project is coded in C++.

A toolbar sits at the bottom of the screen (configurable to be where you want it) and right clicking in the desktop area gives you a dropdown root menu similar to that in Window Maker. Arrows on the toolbar allow you to scroll through your differing virtual workspaces. Global menu items are stored in the */usr/share/Blackbox/menu* and you have your own within your home directory.

Using the middle mouse button gives a dropdown menu relating to those items in your current workspace, which simplifies many tasks. The settings option available in the dropdown menu changes the *.blackboxrc* file in your home directory, although this can always be changed with a text editor if so desired.

An area of the desktop can be given over to the "Slit". This is where you can dock applications such as XMMS.

The bbtools [3] web site gives extended features that you soon learn to rely on such as the bbpager which indicates the virtual workspaces with outlines of open windows and bbmail which as the name suggests is a mail notification agent. KDE and Gnome functionality are supported and you can always choose to have your familiar icons on the workspace.

```
$ nohup gmc &
```

We can change some of the toolbar within the *.blackboxrc*. For example we can use the line:

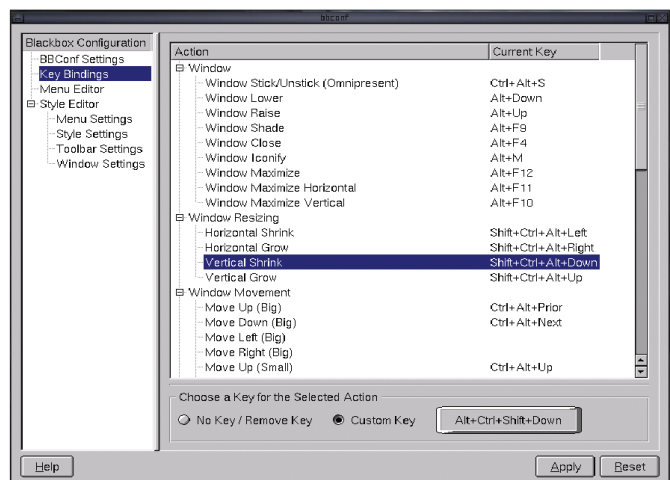**Figure 1: Blackbox window manager with afterglow theme**

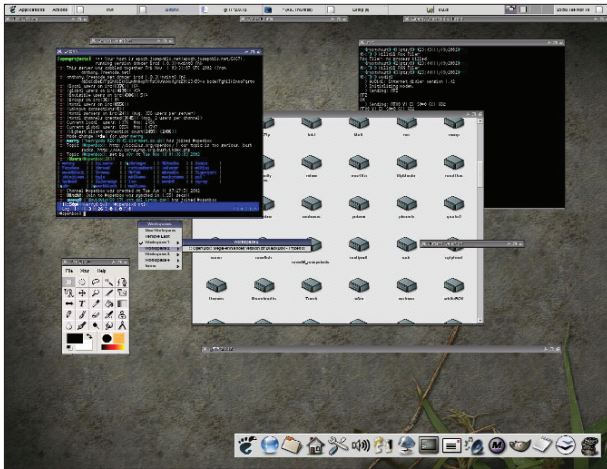**Figure 2: BBconf showing keybinding settings**

Figure 3: Openbox showing the Gnome panel (at the bottom)

```
session.screen0.strftimeFormat:%I:%M:%P ⮐
5m/%d/%y
```

to show the date and time. To make life easier in setting up the window manager you should run bbconf [4]

Openbox

Openbox [5] is another window manager for the X11 windowing system. This project was originally based on the Blackbox window manager and it remains very similar, even using Blackbox styles (with available extensions) for its themeing. Similar to the original Blackbox, Openbox is written entirely in C++ and maintains no dependencies on any libraries other than X11.

Why fork the project?

Some of the people who used Blackbox felt that although they liked the window manager, they were unable to contribute. As a result a forked project was created. It aims to be open for all to contribute to.

Openbox plans

Openbox is designed to be fast in its performance and to aid functionality. By extending the configurability of the
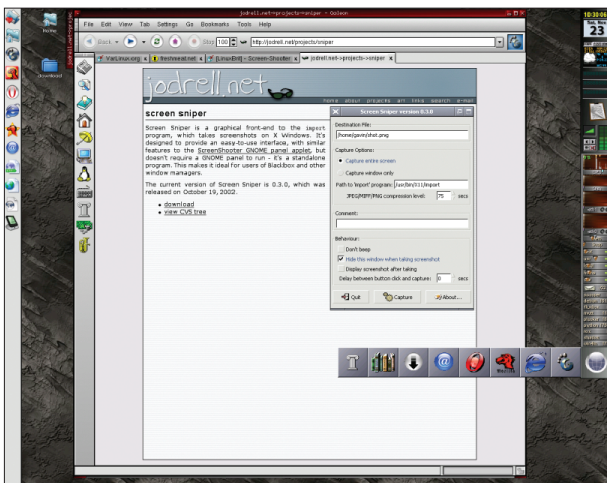

Figure 4: Fluxspace tool for background configuration

system the project is designed to make the new Openbox window manager more useable. The project is released under a BSD style license.

New features in Openbox 2 include support for Xft anti-aliased fonts.

To allow Openbox 2 to make use of the KDE3 environment, the startkde script needs to be modified. The line:

```
kwrapper ksmserver
```

should be changed to:

```
kwrapper ksmserver ⤷
--windowmanager openbox
```

Openbox 2 can also be used in the GNOME 2 environment. You may also just want to run Openbox on its own, and run the "gnome-panel" and/or "nautilus" applications with it. This provides a sort of lightweight version of GNOME 2.

Idesk [6] gives Openbox the ability to have desktop icons on your workspace.

Keyboard bindings in Blackbox are usually handled by the bbkeys tool which will work in Openbox. Since Openbox 2 was released, the recommended key handler is *epistrophy*. This can be found in the openbox/util/epist directory of the source code tarball). bbkeys still works too, however, if you prefer to use it.

The Docker tool can be used as a system tray for KDE3 and GNOME2

Figure 5: Waimea window manager

applications. Other Blackbox tools can also still be used in Openbox.

When I set a background and then restart, my background is overridden by the style's background. How can I set an image that overrides my styles?

To change the background in the style files with one of your own choosing, you need to add a setting to the openbox rc file. Any option found in styles can be put in your rc file, and it will then override any styles with that setting. So, to override the rootCommand in the styles, you would place in your ~/.openbox/rc file:

```
rootCommand: bsetroot ⤷
-solid black
```

or

```
rootCommand: bsetbg ⤷
~/pix/wallpaper.png
```

When running bbkeys, bbdate, or some other bb tool, it typically fails to use the set Openbox theme. This is because these bbtools are looking for your ~/.*blackboxrc* file to obtain the current style. To make them look like Openbox, you need to have the bbtools read your ~/.*openbox/rc* file. This can be done with a simple symlink, such as:

```
ln -s ~/.openbox/rc ⤷
~/.blackboxrc
```

Fluxbox

Fluxbox [7] is yet another window manager for X. Similar to the Openbox

project it's based on the Blackbox 0.61.1 code. Fluxbox looks like blackbox and handles styles, colors, window placement and similar thing exactly like blackbox (100% theme/style compatibility).

Fluxbox has the additional feature of supporting tabs – each window can optionally have a tab above it with its name.

This allows a user to group windows together and switch between them by clicking on tabs (or using certain keys). Here the scroll wheel on a suitable mouse changes between workspaces.

Fluxbox also has an in built menu management system which also allows users to switch themes very easily. It included support for an iconbar (for minimized/iconified windows) and the maximize over slit option.

New Tool For FluxBox

Fluxspace [8] (by Steve Cooper) is a tool which not only sets the background image, but can work with Rox or idesk for per-workspace panels or desktop icons, and can start and stop slit or desktop applets in each workspace or globally. It works well as a rootCommand for FluxBox. ■

INFO
[1] Blackbox: *http://blackboxwm.sourceforge.net/*
[2] Themes: *http://freshmeat.net/* (previously *http://bb.themes.org*)
[3] bbtools: *http://bbtools.windsofstorm.net/*
[4] bbconf: *http://bbconf.sourceforge.net/index.php*
[5] Openbox: *http://www.icculus.org/openbox/*
[6] Idesk: *http://linuxhelp.hn.org/idesk.php*
[7] Fluxbox: *http://fluxbox.sourceforge.net/*
[8] Fluxspace: *http://www.isomedia.com/homes/ stevencooper/projects/fluxspace.html*
[9] Waimea: *http://www.isomedia.com/homes/ stevencooper/projects/fluxspace.html*

Waimea

Another Blackbox project fork with Blackbox style support, pixmap style support and transparent textures. Text can be rendered double buffered using both X core fonts and Xft fonts. Waimea [9] also includes a fast lightweight menu system with dynamic menus support.

The built in action configuration system makes waimea the most configurable window manager available. It allows the user to set up waimea to behave as any other window manager or in new ways never before possible. It supports translucent text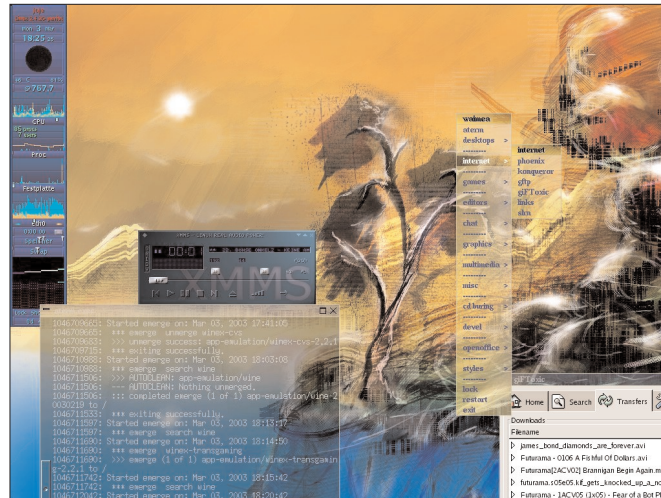ures using Xrender extension and Multiple desktops.