

An up-to-date look at free software and its makers

# PROJECTS ON THE MOVE

Controlling two desktops with a single set of input devices: X2X and Synergy let the mouse cursor cross seamlessly between the desktops on two machines. Wikipedia founder Jimmy Wales looks to revolutionize politics with his Wikia Campaigns project. French Debian developers join forces to found Debian France, and introducing the new graphical installer for Sarge.

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**M**ost power users have at least two computers. Figure 1 shows a typical home office scenario with two displays, two keyboards, and two mice cluttering the desk. One machine might be a reliable office system while you use the other to experiment with unstable program versions, new distributions, and kernel releases. This configuration is ideal for a Linux Magazine author who regularly tries out new programs on a lab computer while recording the results on a stable system.

## Space on the Desk

Magazine authors and other users often wish for a way to save space on the desk without sacrificing the ability to work on two computers. Virtual Network Computing (VNC), is one possible approach. A VNC server [1] – both commercial and free versions of the software are available – gives a client the ability to display and control another computer's GUI.

But VNC has a few disadvantages: a VNC system can't handle 3D-accelerated

applications at all, and the exchange of data between the VNC client and server generates network traffic. This additional network traffic between the server and client can cause delays refreshing the original GUI and the image on the local desktop.

If the VNC server is in another room, the convenience of remote access more than compensates for the shortcomings of VNC. But if the second machine and its display are sitting on the same desk, you can find better solutions.

The legacy approach to the problem of desktop sharing is referred to as X2X [2]. X2X dates from the pre-Linux era, although it works perfectly with Linux. The X2X program gives users the ability to drag the mouse cursor out of a screen with an X11 desktop and access an X server running on another computer. While the mouse cursor is on the neighboring X server, all keyboard input will be sent to the neighboring server, in a scenario similar to a Cinerama configuration (Figure 2).

X2X creates an invisible window with a width of one pixel at the edge of the screen. When the cursor moves into this window, it disappears from the first display, and X2X passes mouse movements and keyboard input to the second X server. You just need to run the program on both machines and have X11 authenticated access to the second machine.

The simplest way of achieving this is to use SSH with X11 forwarding (`ssh -X`) to log on, and to launch X2X with the `-from :0` option. A second parameter specifies the direction to the second machine: `-east` (to the right), or `-west` (to the left). As an alternative, X2X could be granted access via X11 authentication with Xhost or a Magic Cookie.

## Platform Independent

The main disadvantage of X2X is that it means running an X server on both computers. Although Unix-style systems such as Linux and BSD typically have a means for running an X server on both systems, Mac OS doesn't. Although you



**Figure 1: Two desktops don't automatically mean two keyboards and two mice. Putting limited desk space to optimum use.**

can add an X server to MacOS, or to Windows for that matter, a native solution would save installation effort and

avoid performance hits. You can find a VNC extension for X2X, but this variant requires a VNC server, and it does not

remove the need to set up a third-party program.

Synergy gives users an alternative to X2X on Linux, Windows, and MacOS [3]. On Linux you will probably not notice any operational differences, however, the program follows the server-client model. The *synergys* server waits for incoming connections from up to four clients, which the user can control on the server after dragging the mouse pointer over one of the four borders.

On Linux and MacOS, *synergys* reads a configuration file with the client details that specify which screen border (*right*, *left*, *top* or *bottom*) triggers the client. The screen border can be restricted to just left or right if necessary.

The *synergyc* client program just needs the server IP address as a parameter. By default, the client logs on with the client computer's hostname, although you can specify an arbitrary login name. The important thing is to configure the name on the Synergy server.

Besides platform-independent support, Synergy has a number of benefits com-

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pared with X2X: keyboard shortcuts can be remapped; for example, you can remap [Ctrl] + [Alt] + [Break] on the Synergy server keyboard to [Ctrl] + [Alt] + [Del] on the client.

## News from Wikiland

Jimbo Wales may not be the inventor of the Wiki, but he certainly founded the best-known Wiki project. Wikipedia [4] is the biggest online encyclopedia; it is free, and it easily competes with commercial alternatives. Wikipedia volunteers have contributed content in ten languages.

The Wikimedia Foundation [5] has now taken over leadership of the Wikipedia project. The Wikimedia Board of Trustees consists of Wales and four other Wikipedia activists. But the Wikimedia board is apparently not enough to keep Jimbo Wales busy. Wales is also associated with the new Campaigns Wikia [6] project.

As the name suggests, the idea of Campaigns Wikia is to remove bias from politics, just like Wikipedia removes bias from encyclopedias, and to break the 50-year domination of TV as a broadcasting medium.

Instead of professional politicians presenting ready-made ideas to voters, Wales would like to see a more intelligent kind of politics. Instead of legacy election campaigns with centrally con-

trolled strategies, he envisions campaigns where supporters present and implement their own ideas.

Campaigns Wikia will introduce an Internet structure that uses individual Wiki pages to collect ideas and opinions on specific topics. Wales does not assume any political bias on the part of the contributors and invites everyone to join in, whether right or left wing, hawk or dove. Just like Wikipedia, Campaigns Wikia will allow contradictory views on specific topics; contributors can simply organize their arguments in for and against categories.

Jimmy Wales dismisses criticism concerning the usefulness of the Campaigns Wikia project or its potential for success. He is convinced that the Wiki contributors will add have bright new ideas to the political process.

## Debian France Officially Founded

A number of Debian developers recently announced the founding of the Debian France project [7]. Debian France is not a French fork of the Debian project but a non-profit organization that will promote Debian interests in France. French developers met in Vandoeuvre to launch the new project.

Before Debian France starts campaigning for members, the newly-founded group needs statutes and an administra-

tive body. The founders are confident that these structures will soon be in place. If the project succeeds, other countries might soon follow the French example.

## GUI-based Installer

A major change has made its way into the Debian Installer sources. The Installer is now GUI-based (Figure 3). The arrival of a Debian GUI installer removes one of the major criticisms levied at Debian. If you download a Debian Installer snapshot from the website [8], and select "installgui" mode at the boot prompt, you can enjoy the GUI-based installation environment.

In contrast to what most people expected, the underlying engine behind the GUI installer is not X11. Instead of a graphical server, the Installer relies on a framebuffer approach, with Directfb and GTK ++ Directfb rendering the graphics. The result of this Directfb rendering approach is that GUI mode is only supported on Intel and PowerPC CPUs, as Directfb does not work, or at least does not work properly, on other architectures.

As of this writing, you will find few differences between the Debian's GUI-based and text-based installation: the prompts are mainly the same; users can accept the defaults or enter their own values and commands. But this similarity is likely to change soon: one developer is working on a GUI-based partitioning tool that will replace the internal Installer module, and other modules will be updated and revamped prior to the Etch release. ■



**Figure 2:** The two displays are connected to two different machines. Thanks to X2X or Synergy, a single mouse and keyboard are all you need. The approach is similar to a Cinemania configuration.

## INFO

[1] VNC: <http://en.wikipedia.org/VNC>

[2] X2X: <http://x2x.dottedmag.net>

[3] Synergy:  
<http://synergy2.sourceforge.net>

[4] Wikipedia: <http://www.wikipedia.org>

[5] Wikimedia Foundation:  
<http://wikimediafoundation.org>

[6] Campaigns Wikia:  
<http://campaigns.wikia.com>

[7] Debian Planet page:  
<http://planet.debian.org/>

[8] Debian Installer homepage:  
<http://www.debian.org-devel/debian-installer/>