BRINGING WINDOWS TO THE LINUX DESKTOP

In a perfect world, the operating system that you use wouldn't matter. We're moving towards that with the growing use and availability of Web applications. But the day when the operating system is irrelevant is still awhile off.

Right now, though, Windows is the dominant operating system. And there are no Linux versions of the popular and most widely-used applications for Windows -- programs like Microsoft Office and Adobe Photoshop.

If you're a Linux user and you need to play nicely with the Windows world, conventional wisdom dictates that you either need a separate desktop computer or laptop computer that's running Windows or a system that dual boots. If you're adventurous, you can install a virtualization tool like VMWare or Virtual Box. This software recreates Windows on your Linux box. The only problem with those solutions is that they need a lot of hard drive space and CPU.

There is another choice: fake it.

Faking it

What do I mean by faking it? Using software that fools Windows applications into believing that they're actually running on Windows and not on Linux. It does this by creating what's called an application layer between the Windows program and Linux. The application layer simulates the Windows environment -- calls to the operating system, DLLs, drivers, and the like. Unlike the other
solutions mentioned earlier, using an application layer only adds a bit of extra load to your computer -- a few megabytes of disk space and a couple of megabytes of RAM.

There are a number of good Windows emulation tools for Linux, including Wine, Win4Lin, and the application that this TechTip will be focusing on, CrossOver Office.

**Overview of CrossOver Office**

CrossOver Office is the commercial version of Wine, and is actively developed by a company called CodeWeavers. CrossOver has a user-friendly, graphical interface which makes installing and maintaining Windows applications easy. CodeWeavers also, in the true spirit of Open Source, turns its code over to the Wine Project.

The central feature of CrossOver Office are *bottles*. Bottles are miniature Windows environments in which you install applications. Each bottle is a separate entity, and doesn't interact with other bottles. So, if one bottle becomes corrupted or fails it won't affect another bottle.

The main drawback (for some people anyway) is that the personal standard edition of CrossOver Office costs $39.95. However, support is good and you're getting the latest updates to the underlying Wine software.

**Getting Going**

The first thing to do is download and install the software. You can get a trial version, and there are installers for a number of popular distributions like Ubuntu, Debian, and Linspire. There's also a generic installer that you can use with just about any Linux distribution, which you run from the command line. The installer also bundles a copy of Internet Explorer, Windows Notepad, and
Windows Media Player.

Once CrossOver Office is installed, it adds a menu item to your task bar or panel. On my laptop running Xubuntu, it's **Applications > CrossOver Office**.

To install a piece of Windows software, select **Applications > CrossOver Office > Install Windows Software**. After a few seconds, the CrossOver Office installation window appears.

You'll notice on the installation window that there's a list of programs that will *definitely* install using CrossOver Office. These are ones that have been tested and certified. Chances are, though, that you'll want to install some other application. You can also take the chance with others by clicking **Install unsupported software** and then clicking **Next**.

CrossOver Office will warn you that you might want to check the big list of compatible software at the company's Web site before you proceed. You can do that if you want to, or you can just click **Next**.

You're asked where the installer for the Windows application is located. The default is your CD-ROM drive. If the installer is on your hard drive, click **Other installer file** and then click **Browse**. You can search your hard drive for the installer program, and once you've found it click **Open** and then click **Next**.

Next up, choose a bottle for the program. It's recommended that you create a new bottle; installing an application into an existing one has the potential to mess up that bottle. Create a bottle by typing its name in the **New bottle** field. Then, from the **Create from template** list choose a version of Windows that the bottle will be compatible with. Your options are win2000 (Windows 2000), winxp (Windows XP), and win98 (Windows 98). The CrossOver Office user guide recommends trying a win98 bottle.
first, then trying win2000 and winxp. I've had better luck going the other way.

Click **Next**. CrossOver Office begins the installation process. After a few seconds, the installer program for your Windows application should appear. Just go through the installation step. When you're done, you'll be returned to the CrossOver Office installation window. Click **Finish**.

If all goes well -- it doesn't sometimes; more on that later -- you'll have an icon for the application on your desktop and in your menu. Just double-click the desktop icon or select the application from the menu. Then, you're ready to go.

**How well does it work?**

Quite well in most cases. With some software, it's just like running it under Windows. For example, I sometimes have to use Microsoft Word. I have Word 2003 installed on my laptop and it starts as quickly (if not faster) than on a comparable Windows machine.

Sometimes, though, funky things happen with a program's interface. You can't resize dialog boxes, the edges of the interface are transparent, and there's some other general weirdness. However, I've found with each subsequent release of CrossOver Office, these problems become fewer.

But, what happens if you have a Windows application that doesn't have an installer? It's just a lone executable -- the ubiquitous .exe file? Just open your file manager, find the executable, and right click on it. Then, select **Run with CrossOver** (or whatever variation appears). In many cases, the application should run smoothly.
Compatibility

Not every application that's written for Windows will install. Either the installation won't start, or it will fail part way through. Once in a while, an application will install, but refuse to start. In my experience the recent version of the publishing tool FrameMaker hasn’t played well with CrossOver Office and neither has the Windows Live Writer blog client. Any application that requires the .NET Framework (a Windows-specific environment for running applications), or access to Java or ActiveX definitely won't run.

You can find a list of compatible programs at the Codeweavers Web site. If you really want to get a program working, you can become an advocate. Advocates help test various Windows programs and even post tips and tricks for other users.

Conclusion

CrossOver Office is an easy-to-use and powerful way to run Windows applications under Linux.

There's a version for Mac, too. It only adds a bit to the overhead of your desktop computer or notebook. CrossOver Office isn't perfect, but definitely beats dual booting!

If you need to be pragmatic and have to run Windows applications, then the price of CrossOver Office is definitely a worthwhile investment.

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