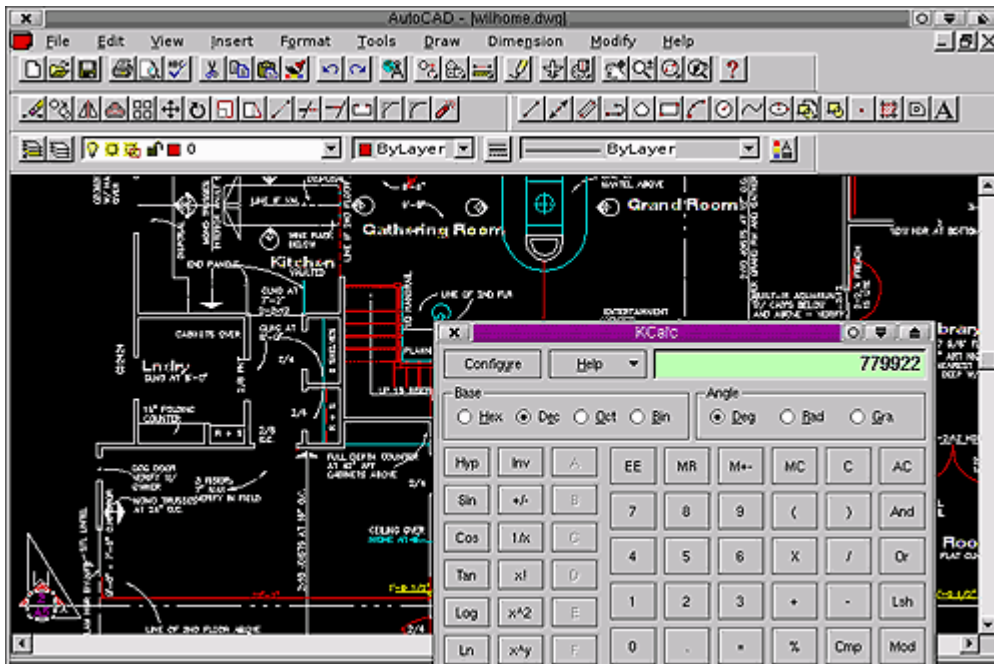


Look Ma, **No** Windows ...



Many architects believe that they cannot migrate their IT systems away from Microsoft(tm) Windows(R) and embrace GNU/Linux like all other professions are free to do.

A small practice in Johannesburg, South Africa, is doing it without Windows. We interviewed the senior partner to find out why and how Autodesk's AutoCAD was made to run on a GNU/Linux machine .

There is a small architectural practice in Melville, Johannesburg, that has done the unthinkable: removed all Microsoft software from their machines and replaced it with Free and Open Source alternatives. The only proprietary software which they still run are old AutoCAD R14 licenses built for the Microsoft Windows platform - and they run it inside GNU/Linux.

This is a transcript of an interview conducted by Architect Africa and the practice's senior partner, with the questions excluded for brevity.

"We didn't do it to save money. That's a common misunderstanding about [Free Software](#). We did it because it offers us a better solution all round. The fact that it has saved us some money is a bonus.

The practice has been running on dual systems (Windows and GNU) for some years but the majority of the desktops and CAD workstations were Windows machines because we are very fond of AutoCad and AutoCad has only ever been released for the Windows operating system. That was the only stumbling block in crossing over to the Unix camp...

We like AutoCAD R14 because it's paid for, because we are used to it and because we can use it effectively

and productively. I've been using AutoCAD for over 10 years and wouldn't dream of changing now. Why? For us it is a drafting tool, nothing more. It works. Our 14's are as good as your common garden variety 2000's or whatever's; we've added on our own commands and modules over the years and nothing we could buy now would improve on our system... Quite the opposite.

We don't run 3D software. That's for people who have a problem drawing with a pencil and a piece of paper. The computer has a very long way to go before it can replace the architect's hand. In our practice we do our 3D's and models by hand in the physical world. It works better for us that way and being from the old school, we can draw ... which helps.

But that too is set to change in the next two or three years when Autodesk hopefully releases a GNU/Linux version of Revit. We would buy that. But we won't be holding our breath. Revit is ahead of my time and needs its edges tweaked a bit. We can wait, or maybe something similar pops up at a quarter of the price before that...

We're not exactly happy about running old Acads - it's an interim measure. We've been looking at a German GNU/Linux clone of AutoCAD which is quite impressive and very cheap. Maybe we will go that route. For now AutoCad R14 is what keeps our office in business.

It was decided in 2002 that we would run both operating systems in the practice until we had tested and liked a GNU/Linux AutoCad clone that made economic sense and could improve on the old R14's.

Then, a couple of months ago, I got a call from a very brash lady who claimed to be calling from Microsoft South Africa. I didn't like her attitude or her veiled threats to invade my office and confiscate my computers - which she assured me she had the legal right to do.

I asked her to send me a letter [explaining her company's position](#), which she did. That letter together with the [Business Software Alliance](#) adverts on TV made me realise how vulnerable my practice had become to external mercenary threats and the willy nilly policies of American corporations. I was being called a pirate and they were behaving like bounty hunters. It was ugly, I thought.

We had a variety of MS-Office packages running on all the AutoCAD workstations and all our admin machines on Open Office and the odd Star Office as well. We also had a large cardboard box with years' worth of licenses and certificates. It would have taken us weeks to go through all those pages and pages of legal mumbo jumbo. It was easier to delete all MS-Office installations and replace them with [Open Office](#). Which we did.

To compound the problem we knew that the part time students that we employ are forever installing their own (usually pirated) software on our machines. Other CADs, graphics software, etc. We could have a ton of illegal software on the network, not know about it and still get fined for it.

That particular concern got us going and we decided to go all the way and get rid of the operating systems as well and then burn the cardboard box full of licenses. To do that we needed to find a way of running R14 in [Debian GNU/Linux](#).

We thought this would be a stumbling block but it turned out to be the opposite - not only did we get AutoCad R14 running on Debian GNU/Linux within 24 hours but it actually ran faster! Can you believe that?

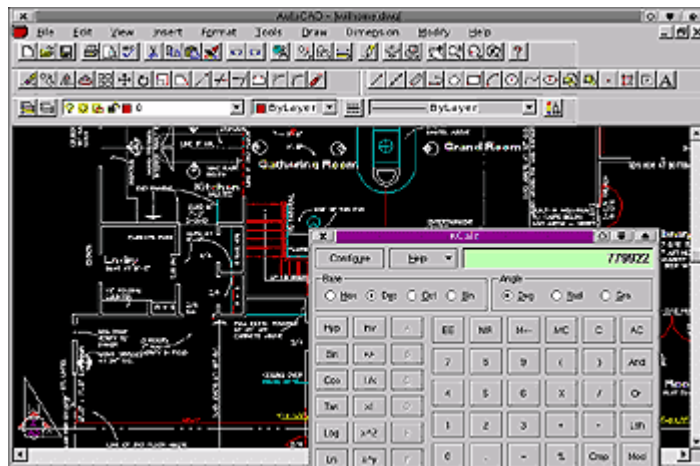
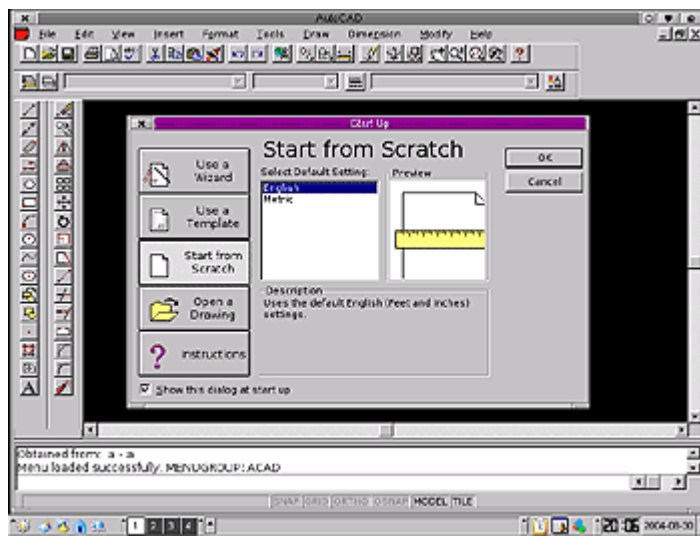
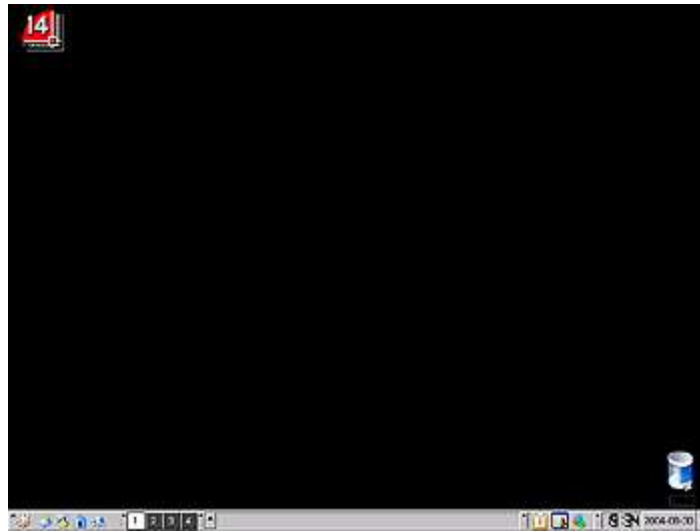
The advantages are astronomical and the savings substantial. With a GNU/Linux backbone we have great stability, uniformity, control and scalability. The security aspect is also greatly enhanced and we are now immune to viruses which are mostly geared towards attacking Microsoft operating systems. That's a big plus for us as our CAD workstations are equipped with email and FTP to ship off drawings and documents through the Net. That meant that we suffered regular virus attacks ... often with serious consequences and long periods of down time.

Another great plus is that our student workers can't install their illegal stuff on our machines and put us at risk. That is over and I feel good about that particular aspect

I can say that this migration has worked well for us because we planned it with time and care. I'm sure it's not for everyone and I don't recommend that you rush to burn your licenses and ditch your software. You can't rush these things. It's like software updates - sometimes they cause more disruption than good.

Our network is our most valuable resource and our most valuable asset. We like to take good care of it and we like to keep outsiders away from it. Now, for the first time ever, we can say that we truly own it and control it. We are proudly a GNU practice - a Free Practice. "

Roll on freedom ...



AutoCad R14 running in Debian GNU/Linux with KDE and Wine

How is it done?

A Johannesburg FOSS (Free and Open Source Software) company used the package [Wine](#), tweaked it and installed it on Debian GNU/Linux.

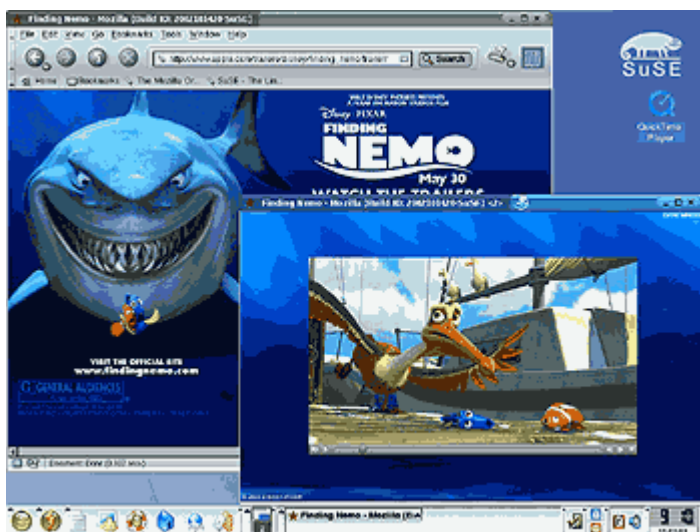
Wine is an Open Source implementation of the Windows API on top of X and Unix.

Think of Wine as a Windows compatibility layer. Wine does not require Microsoft Windows, as it is a completely alternative implementation consisting of 100% Microsoft-free code, but it can optionally use native system DLLs if they are available. Wine provides both a development toolkit (WineLib) for porting Windows sources to Unix and a program loader, allowing many unmodified Windows binaries to run on x86-based Unixes, including Linux, FreeBSD, and Solaris.

More information can be read in the articles [Why Wine is so important](#), and [Debunking Wine Myths](#).

The licensing terms are the GNU Lesser General Public License.

If you have no Unix experience you are better off using the commercial counterpart [Cross Over Office](#) which works off the box. It costs around US\$60 per seat. It's an excellent product. [Try it for free](#). Although we much prefer the [Gimp](#) you can also run Photoshop in Wine and CrossOver.



as well as MS-Office and Multi-Media ...

This article was published on <http://architectafrica.com> on 10 September 2004

Writer : JG van der Walt

Editor: P. Sousa

Email: aa@cyberlink.co.za

Architect Africa Online

P.O. Box 111

Westhoven 2142

SOUTH AFRICA
