

Running Windows Programs with Wine

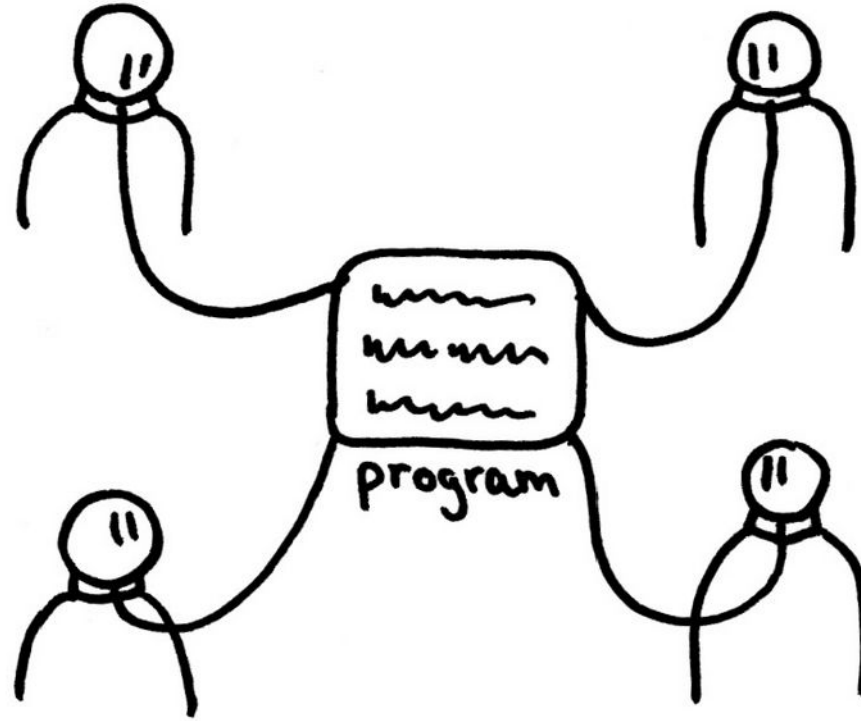


Tom Ryder

tom@sanctum.geek.nz

<https://sanctum.geek.nz/>

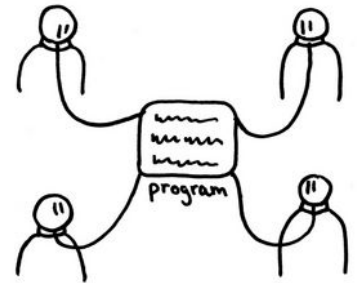
Stuck on Windows



Free software, free society: Richard Stallman at TEDxGeneva 2014

Stuck on Windows—1/4

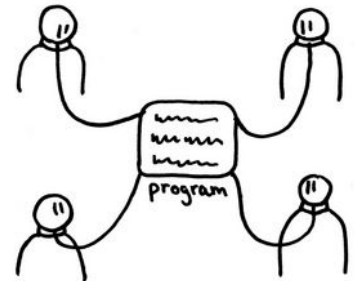
You want to move to GNU/Linux full-time, but you're stuck on just *one* or *two* programs that are deal-breakers.



Stuck on Windows—2/4

There might be a **free software replacement** for your program that fits the bill.

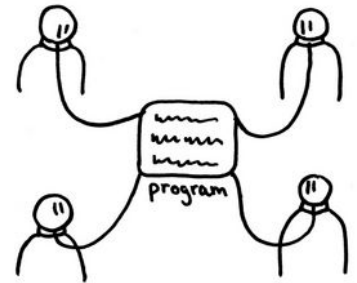
But not always...



Stuck on Windows—3/4

There might be a **GNU/Linux release** of the software, even if it isn't free software.

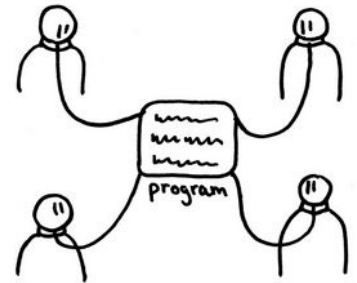
But not always...



Stuck on Windows—4/4

You could run a **separate computer**, or a **virtual machine**, or even **dual boot**, to minimise your use of Windows for things that don't need it.

But that can be a pain...



In vino veritas—1/2

You could try running the program in [Wine](#), a **compatibility layer** for Windows programs.



In vino veritas—2/2

Used to stand for “Wine Is Not an Emulator”—
because it isn’t, in a strict technical sense.

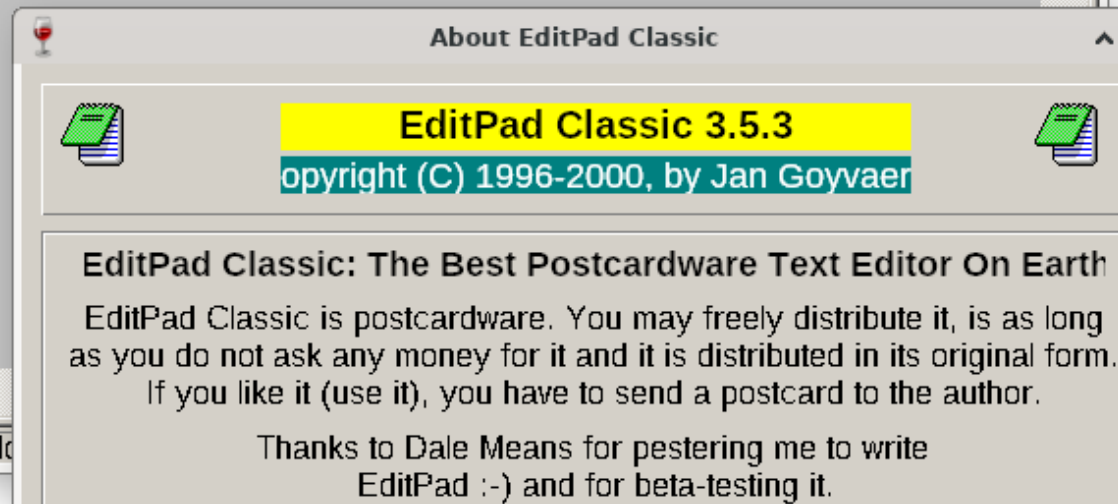
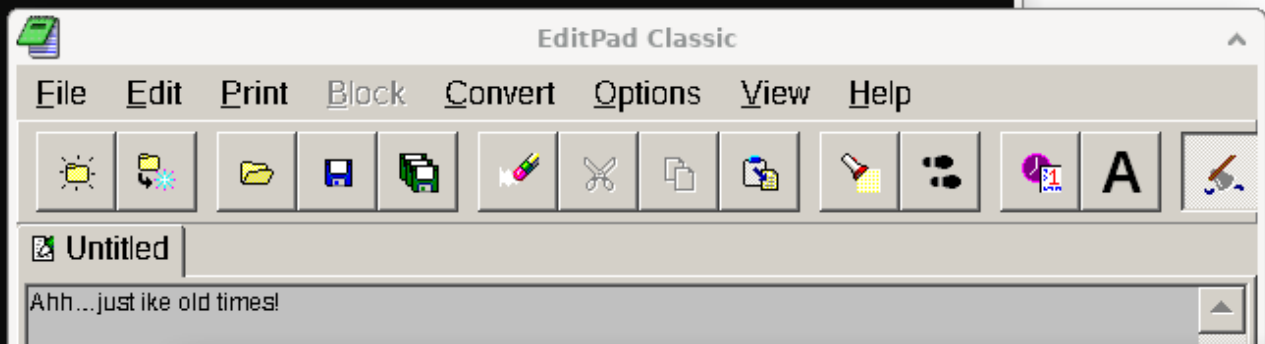


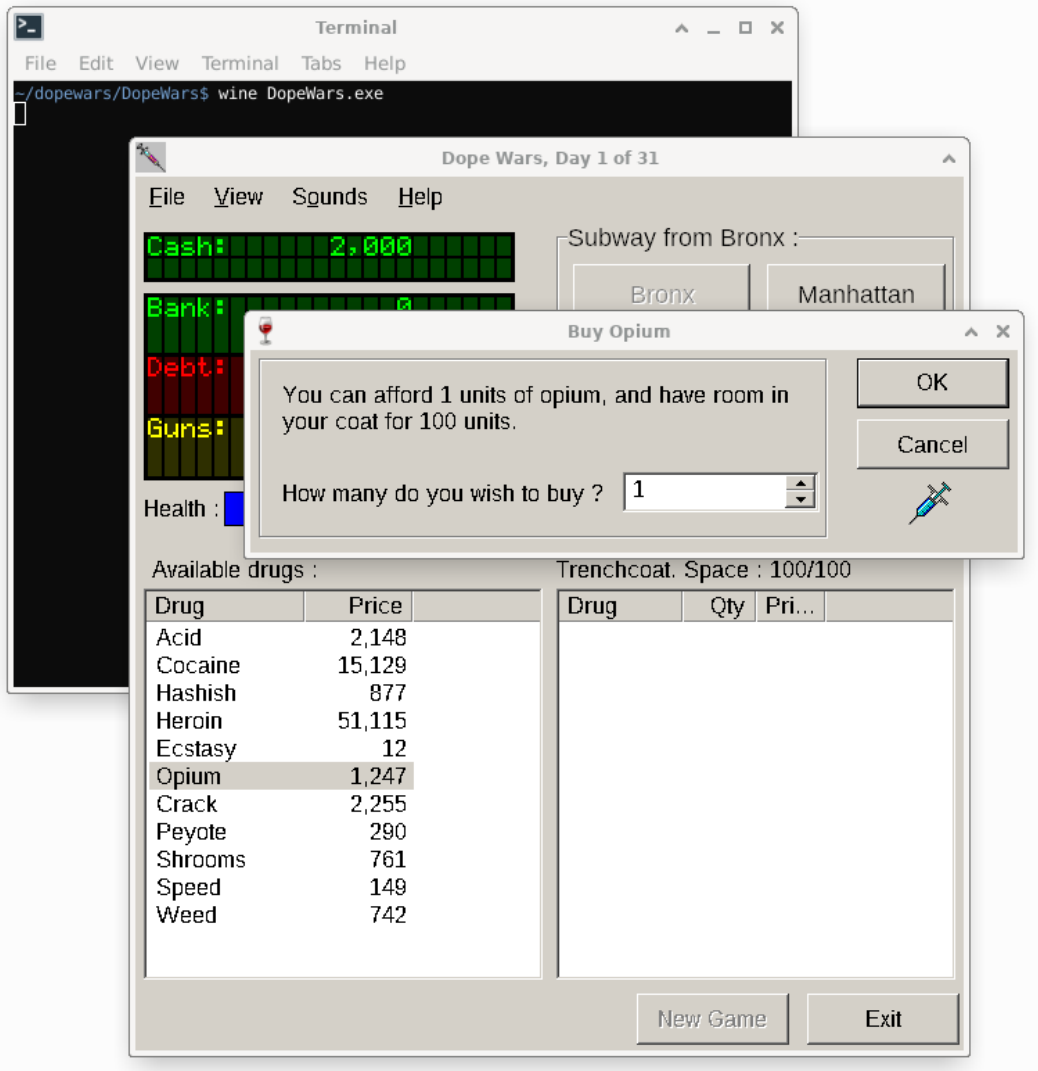
What does it do?

- *Wine translates* calls to Windows libraries (DLLs) so that they run with Unix libraries.
- The program doesn't have to be rebuilt.
- You don't need the source code.



```
Terminal
File Edit View Terminal Tabs Help
~/editpadclassic$ wine ed
EditPad.exe      EditPadClassic.xml
~/editpadclassic$ wine EditPad.exe
```





Microsoft Chat - [#comicchat] on darmok

File Edit View Format Room Member Favorites Window Help

#comicchat

YEAH I DON'T KNOW ANYTHING ABOUT THAT WORLD, I JUST OCCASIONALLY CODE AS A PET PROJECT AND THAT'S THAT

THERE IS GITEA, FROM WHAT I HEARD

GITEA IS EXCELLENT IF YOU WANT GITHUB FEATURES LIKE ISSUE TRACKING ETC AS WELL

I LOVE CGIT FOR JUST SHOWING WHAT'S IN THE REPOSITORY

ADMITTINGLY, GITEA IS KINDA LIKE INVIDIOUS, IN THAT THERE IS A BUNCH

OF INSTANCES

GRANTED, THE SEARCH IS KINDA EASIER(I MIGHT BE WRONG, HOWEVER)

Chat window showing a list of participants with avatars and speech bubbles.

Installing

- Start with your distribution's package manager...
 - ...unless/until you know you need something newer straight from [WineHQ](#).
- You probably want the 32-bit packages as well, even on 64-bit systems.
- On [Debian GNU/Linux](#):

```
$ sudo dpkg --add-architecture i386
```

```
$ sudo apt update
```

```
$ sudo apt install wine wine32 wine64 libwine
```

```
libwine:i386 fonts-wine
```

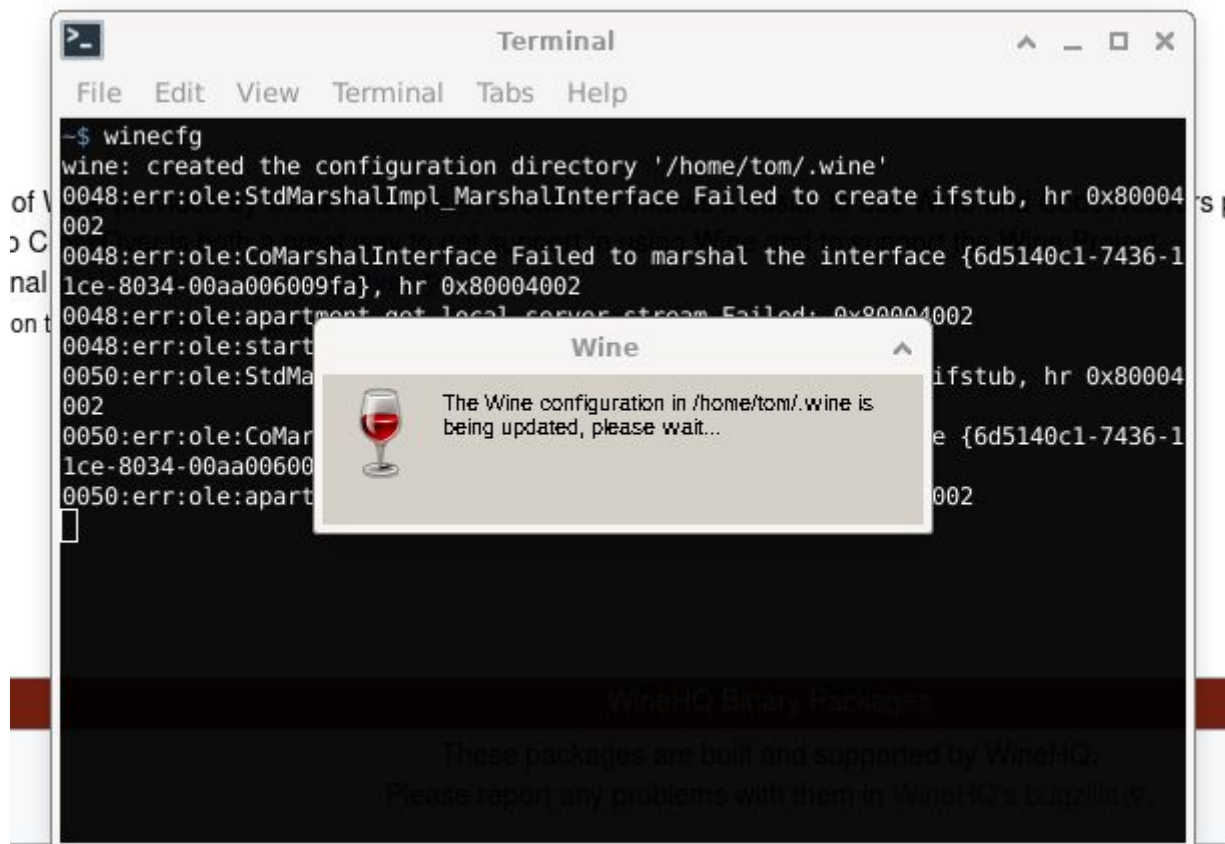


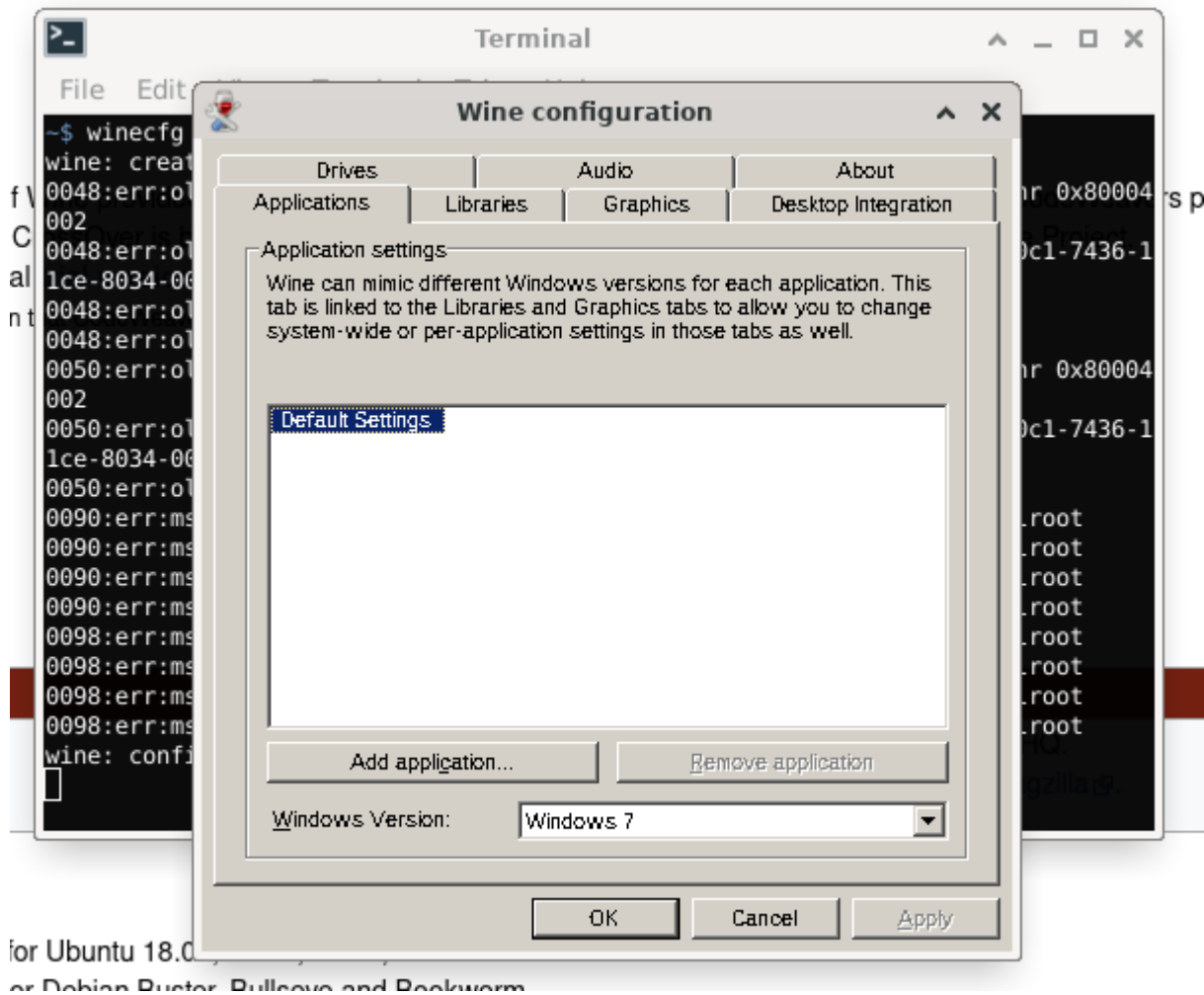
Configuring

```
$ winecfg
```

- Creates a prefix in `~/wine`
- Opens configuration window







for Ubuntu 18.0
or Debian Buster, Bullseye and Bookworm

What's a prefix?—1/2

```
~/.wine/drive_c  
~/.wine/drive_c/users  
~/.wine/drive_c/users/tom  
~/.wine/drive_c/windows  
~/.wine/drive_c/windows/system32  
~/.wine/drive_c/windows/system  
~/.wine/drive_c/Program Files  
~/.wine/drive_c/Program Files/Internet Explorer  
~/.wine/...
```



What's a prefix?—2/2

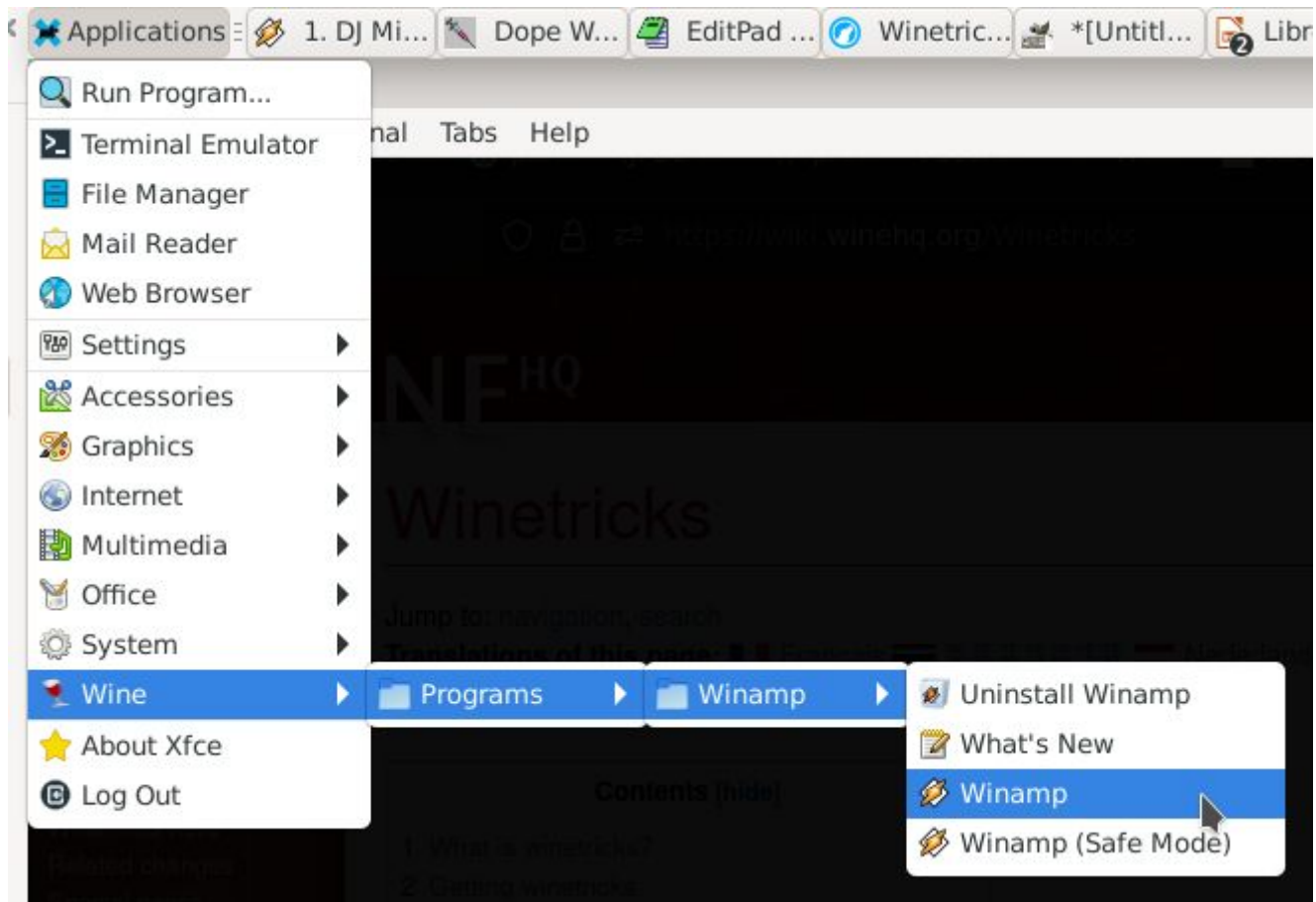
- Different programs might require different environments.
- You can make multiple such environments as prefixes, each with their own C: drive.
- For example:
 - ~/.wine—A default prefix for most modern programs
 - ~/.local/share/wine/32bit—For 32-bit programs
 - ~/.local/share/wine/win311—For Windows 3.11



Tricky installs

- The [Winetricks helper script](#) handles installing some common and/or tricky software:
 - `$ winetricks corefonts`
 - `$ winetricks ie6`
 - `$ winetricks steam`
 - **`$ winetricks winamp`**
- ...wait a minute, I have *got* to try that last one .





File Edit View Terminal Tabs Help

```
-$ wine: Read access denied for device L"\\??\Z:\", FS volume label and serial are not available.  
wine: Read access denied for device L"\\??\Z:\", FS volume label and serial are not available.
```

WINAMP

00:18 Quarter (7:02) 1. Led Zeppel

886 kbps 48 kHz mono stereo

WINAMP EQUALIZER

ON AUTO PRESETS

+12 db +0 db -12 db

PREAMP 70 180 320 600 1K 3K 6K 12K 14K 16K

WINAMP PLAYLIST

1. Led Zeppelin - No Quarter 7:02

ADD REM SEL MISC 0:00/7:02 LIST OPTS

WINAMP LIBRARY

Now Playing

Local Library

- Audio
- Video
- Most Played
- Recently Added
- Recently Modified
- Recently Played
- Never Played
- Top Rated

Playlists

Online Services

Devices

Podcast Directory

- Subscriptions

Bookmarks

Library

Search: Clear Search

Artist	Album
All (0 artists)	All (0 albums)

Artist	Album	Track #
--------	-------	---------

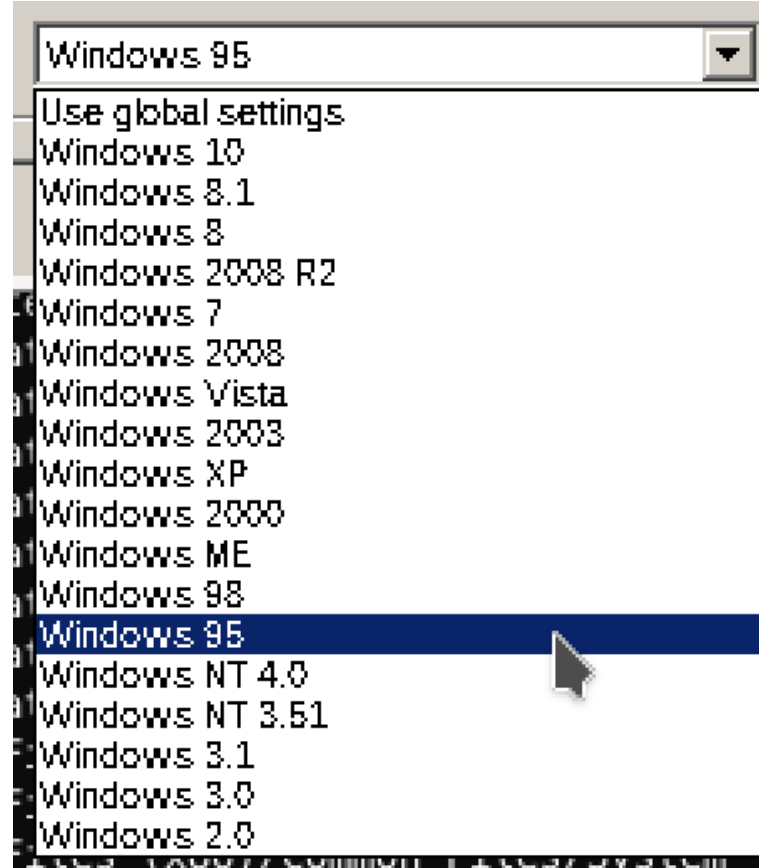
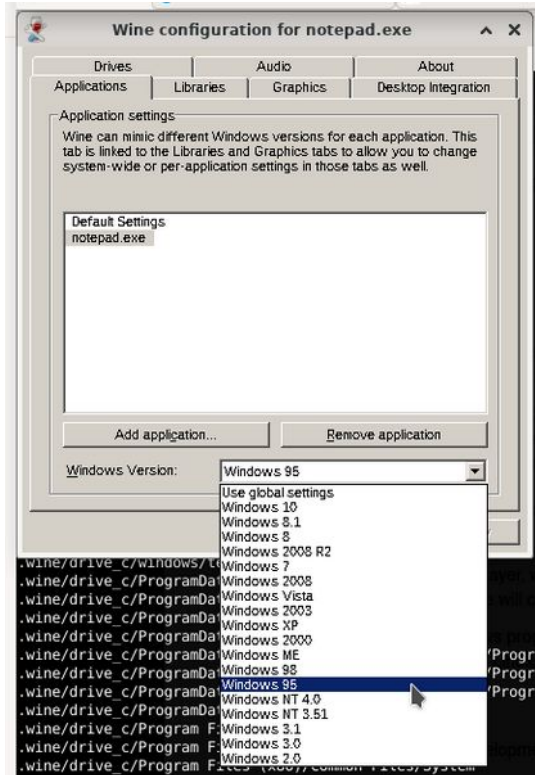
Play 0 items in 0.000 sec.

Windows versions—1/2

- Behavior of libraries can differ between Windows versions: Windows 3.11, Windows XP...
- Different programs can be set to different versions of Windows.
- The whole prefix can be set to have a “default” version of Windows.



Windows versions—2/2



Windows architectures

- 32-bit Windows programs can be run on 64-bit hardware.
- Set `WINEARCH=win32` when creating your prefix.



Will my program work?

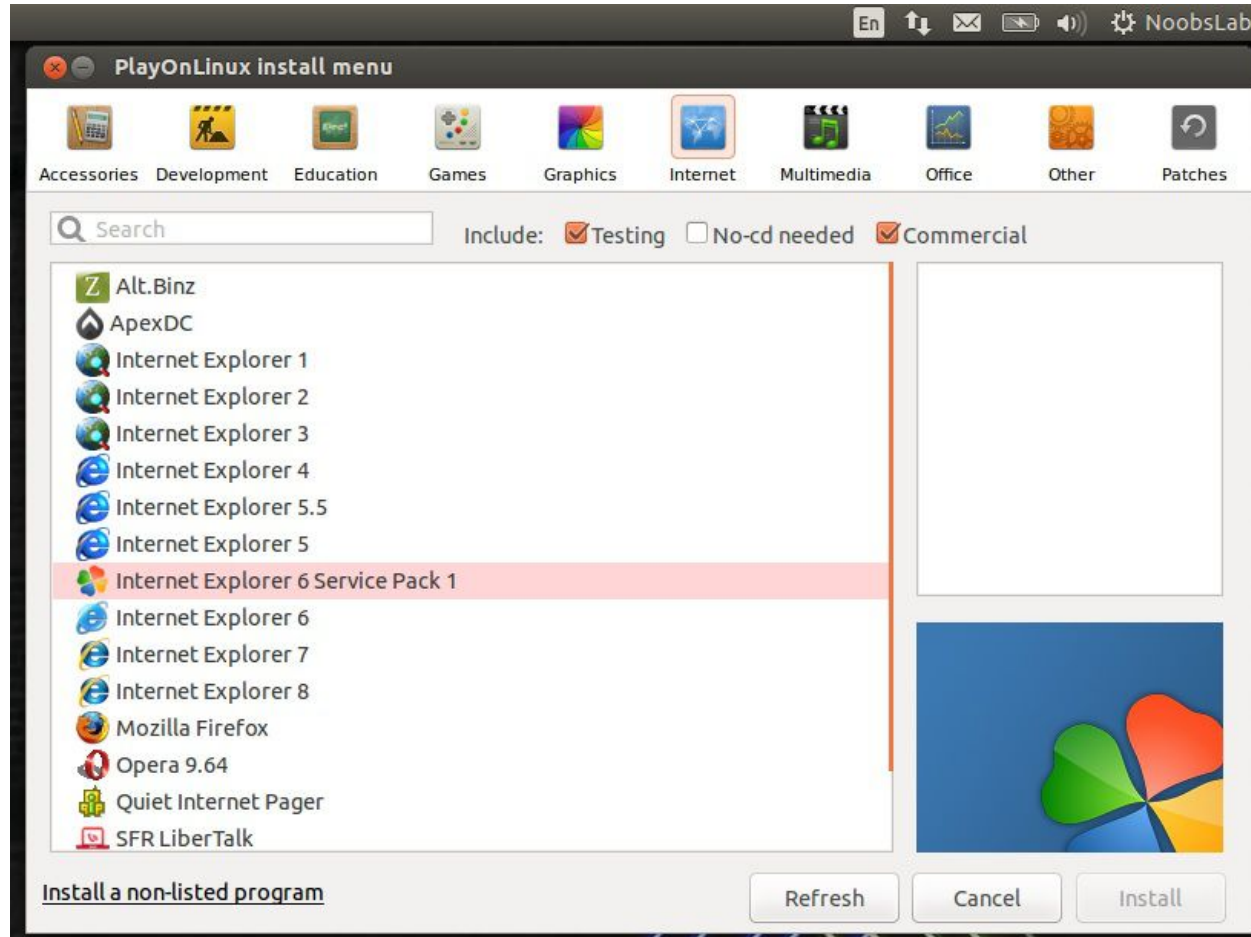
- Check the [Wine Application Database](#).
- Includes overall ratings for how well things are known to work.
 - Hope for “**Platinum**” or “**Gold**”...
 - Watch out for “**Garbage**”...
- Older stuff generally works better.



Frontends

- [PlayOnLinux](#) makes using Wine really easy.
 - If you're new to Wine, and just want to see what it can do, start here.
 - You can deal with the nitty-gritty later if you need to.
- [Lutris](#) can help for games, too.





[PlayOnLinux \(Wikipedia\)](#)

Games

- There's a patched version of Wine for games called **Proton**.
- It has **its own database** of game support, separate from WineDB.
- Lots of surprises here—*many* games work.
- Integrates with Steam.



Just a crutch

- Wine is amazing, but most of the time, it's just a way to keep running **nonfree software** after switching to a **free operating system**.
- If you can replace the proprietary software you're using, please try!



Questions?

Email: tom@sanctum.geek.nz

Website: <https://sanctum.geek.nz/>

Fediverse: [@tejr@mastodon.sdf.org](https://mstdn.social/@tejr)

