

A row of gamers sitting at a long table in a dimly lit room, likely a gaming tournament. They are wearing headsets and looking at their monitors. The table has various items on it, including water bottles and keyboards. The background is dark with some blurred figures of people.

Gaming on Fedora

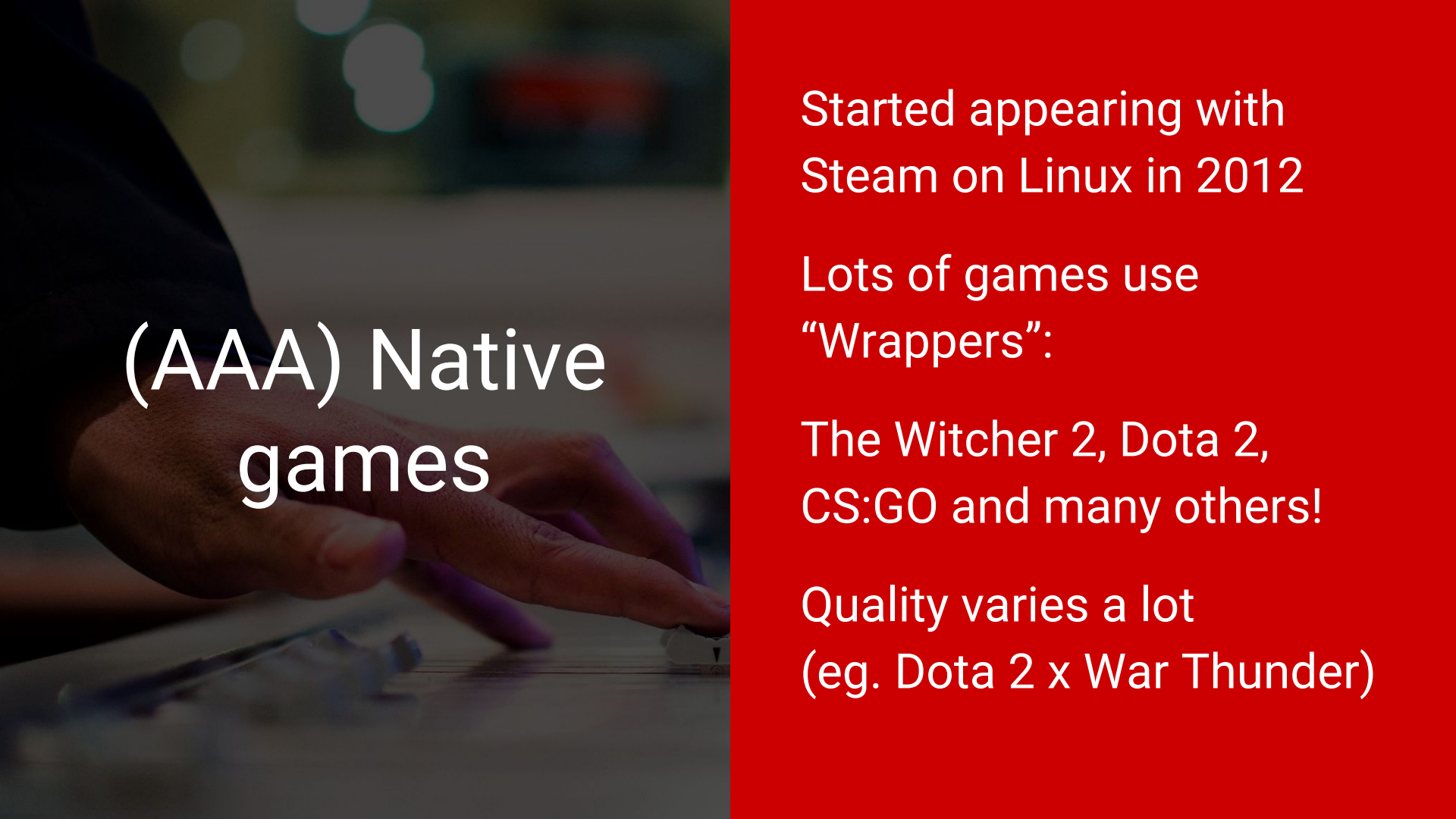
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Gamer!



(AAA) Native games

Started appearing with
Steam on Linux in 2012

Lots of games use
“Wrappers”:

The Witcher 2, Dota 2,
CS:GO and many others!

Quality varies a lot
(eg. Dota 2 x War Thunder)

A photograph of a person's hands typing on a keyboard, with a blurred background of lights. The image is partially obscured by a red vertical bar on the right side.

Wine

Almost every Windows
game can run on Wine

Performance heavily
variable

Regressions & Bugs



PlayOnLinux

“Wine” for newbies

Automatic fixes

Separate namespace for every application

Multiple wine versions

Wine Games Compatibility

OpenGL and D3D9 :)

D3D10 and D3D11:/

D3D12 gaming :(

appdb.winehq.org

Wine Performance

Terrible performance in D3D Games

CSMT - off main thread DirectX > OpenGL

Gallium Nine - “Native DirectX9” on Linux!



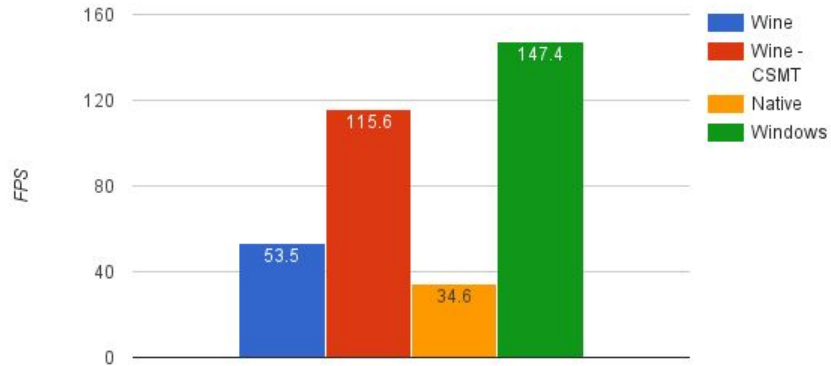
Benchmarks!

RX 480 & Core i5 6600K

Fedora 25 x Windows 10

OSS driver x AMD Crimson

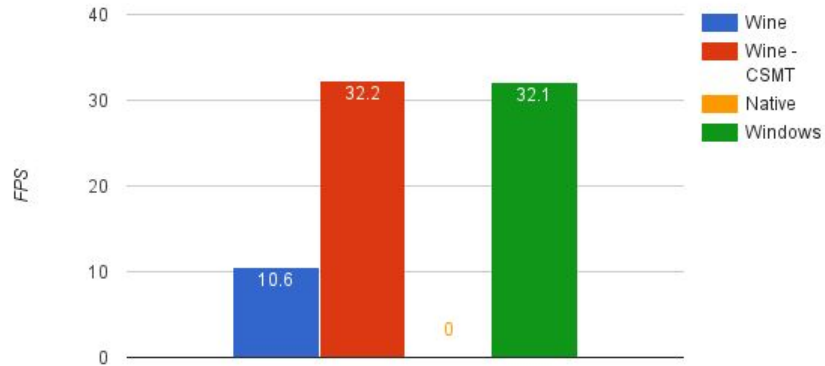
War Thunder



War Thunder

*Broken OpenGL renderer

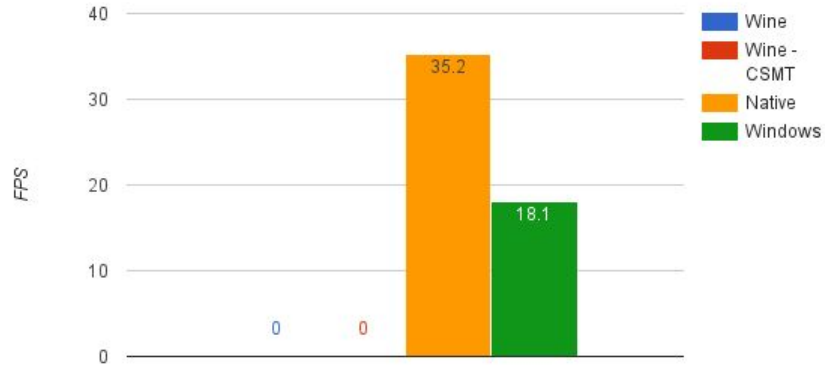
Unigine Valley DX9



Unigine Valley

*Wine CSMT > Windows

Unigine Valley GL



Unigine Valley

*Broken OGL on Windows



GPU Drivers

3 main GPU vendors

AMD, nVidia, Intel

6 drivers



AMD
RADEON
GRAPHICS
+Mesa

Drives way under the speed limit, but follows all traffic laws and drives safely.



AMD
RADEON
GRAPHICS
+AMDGPU

Doesn't even have his driver's license yet and everyone expects him to be the next Dale Earnhardt.



nVIDIA
+nouveau



AMD
RADEON
GRAPHICS
+Catalyst

Usually drives faster than Mesa, but still drives under the speed limit. Likely to crash.



nVIDIA
+proprietary

He drives fast.
He drives well.
But he's a massive douche.



intel
+Mesa

X496 HLB



nVidia Optimus

Widely used Hybrid
Graphics solution

Supported since Fedora 25

Q nvidia



NVIDIA Graphics Drivers Control Panel

The NVIDIA Accelerated Linux Graphics Driver brings accelerated 2D functionality and high-performance OpenGL support to Linux with the use of NVIDIA graphics processing...

Source: negativo17.org



NVIDIA Visual Profiler

The NVIDIA Visual Profiler is a cross-platform tool that provides developers with vital feedback for optimizing their applications.

Source: negativo17.org

NVIDIA Linux Graphics Driver

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NVIDIA Nsight Eclipse Edition

NVIDIA® Nsight™ is the ultimate development platform for heterogeneous computing. Work with powerful debugging and profiling tools that enable you to fully optimize th...

Source: negativo17.org

Q glarea



- New Window
- Launch using Dedicated Graphics Card
- Remove from Favourites
- Show Details

A person's hands are shown writing on a whiteboard with a marker. The background is dark and out of focus, with some bokeh lights. The text 'Look to the Future' is overlaid on the image in white.

Look to the Future

AMD killed fglrx, pushing
OSS driver

nVidia and Intel are
improving constantly

Vulkan (!!!)

Any questions?

Thanks for your attention!

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