

X.org myths

(and why you shouldn't always believe them)

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Problem statement

- *«Is it just me or does X seem big, slow, bloated, and old? It can't keep up with pretty environments like GNOME»*

seen on Slashdot

- *«X windows has always been bloated and slow, it is the culprit. Let's face it: the community has to ditch this abomination and rewrite the 'graphical interface' from scratch.»*

seen on OSNews

Myth #6

- Starting X takes time
 - Takes 30 seconds, sometimes more

Myth #6 rebuttal

- Starting X takes time
 - This is gnome/KDE startup time, actually
 - Use fluxbox, or twm, and see the startup time
 - But don't blame X !

Myth #5

- Network transparency makes X slow
 - Because you have to send everything through sockets
 - (even when you're running locally)
 - (even for huge windows)
 - (even for HD movies)

Myth #5 rebuttal

- Network transparency makes X slow
 - Shared memory extensions provide a no copy transfer for local rendering
 - It is fast !

Myth #4

- Screen hotplug is not possible

Myth #4 rebuttal

- True...
 - Until randr 1.2, which will allow that

Myth #3

- X leaks memory
 - Over time, X eats up more and more memory

Myth #3 rebuttal

- X leaks memory
 - X allocates pixmaps (i.e. images) for the client applications
 - Use xrestop to find who's eating all that pixmap space
 - Like top, but shows X pixmap usage :

```
xrestop - Display: localhost:0
Monitoring 14 clients. XErrors: 0
Pixmaps: 150159K total, Other: 105K total, All: 150265K total
```

res-base	Mins	GCs	Fnts	Pxms	Misc	Pxm mem	Other	Total	PID	Identifier
1c00000	681	40	1	1024	93	104823K	20K	104843K	5438	Mozilla Firefox
1400000	8	57	1	144	109	24323K	5K	24328K	?	Sans nom1 - OpenOffice.org Impress
0e00000	4	25	7	49	5	12190K	7K	12198K	2525	XMMS - 13826. Tchaikovsky - Piano Concerto

Myth #2

- X uses all my memory

```
top - 11:32:52 up 68 days, 16:25, 5 users, load average: 0.38, 0.44, 0.35
Tasks: 154 total, 1 running, 151 sleeping, 0 stopped, 2 zombie
Cpu(s): 2.3%us, 0.7%sy, 0.0%ni, 97.0%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 1035080k total, 987372k used, 47708k free, 175276k buffers
Swap: 1951888k total, 18196k used, 1933692k free, 239168k cached
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
4427	root	15	0	237m	88m	11m	S	0.7	8.7	141:02.73	Xorg

Myth #2 rebuttal

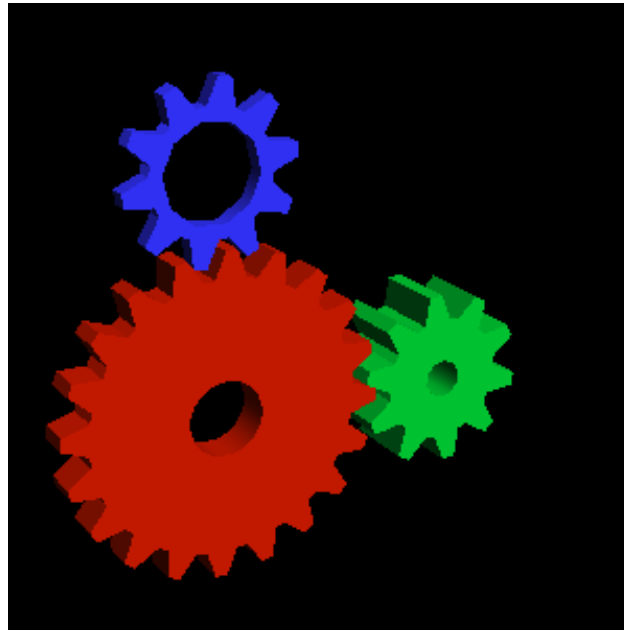
- Even on a clean startup, X uses all my memory
 - This memory is not used, just attached to the process
 - This is the AGP aperture
 - 64, 128 or 256MB
 - It is attached to X
 - But it is not actually used (unless you start using 3D)
 - So it's not eating up that memory

Myth #1

- glxgears is a reliable 3D benchmark

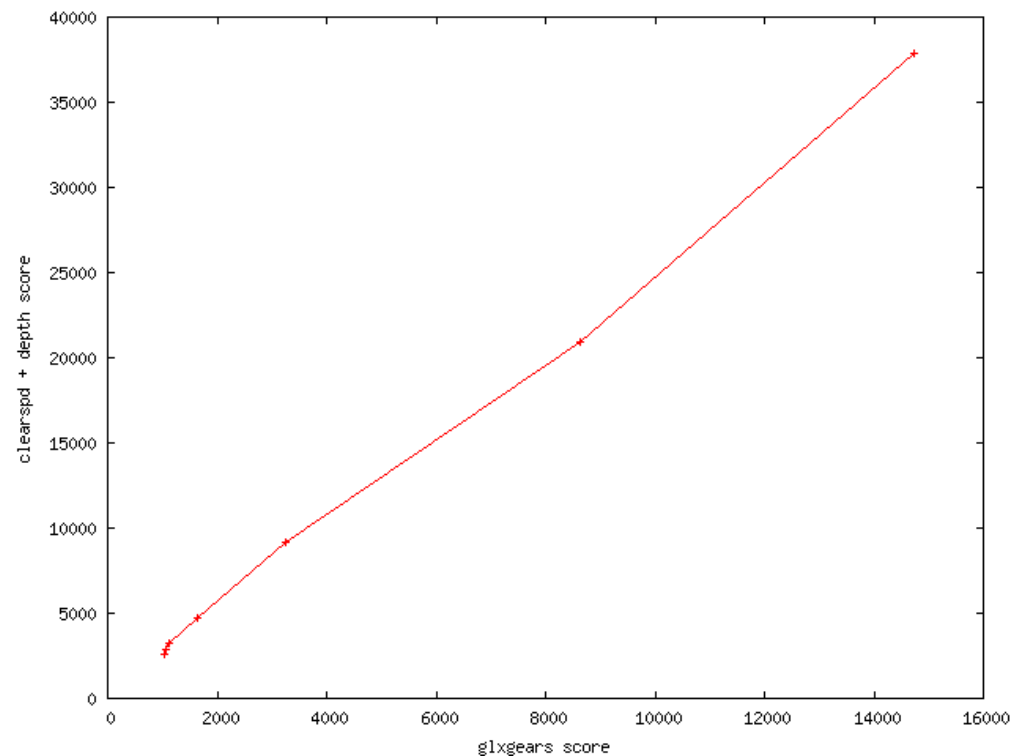
« The 3D acceleration seemed slow on this system. This is the test.

\$ glxgears -iacknowledgethatthistoolisnotabenchmark »



Myth #1 rebuttal

- glxgears is a reliable 3D benchmark
 - Does not even use texturing
 - Very few vertices, very small window
 - Insane framerate, so high-per-frame overhead
 - Benchmarks show that glxgears scores are related to buffer clear scores :



Conclusion

- Lots of misconceptions
 - Hopefully fixed now
- We have to look for new myths
 - I nominate the following :
 - X.org eats babies
 - I don't like the “X” name
 - <Add yours here>

Questions ?