

Myths and Perceptions About Open Source Software and My Experience with Desktop Linux



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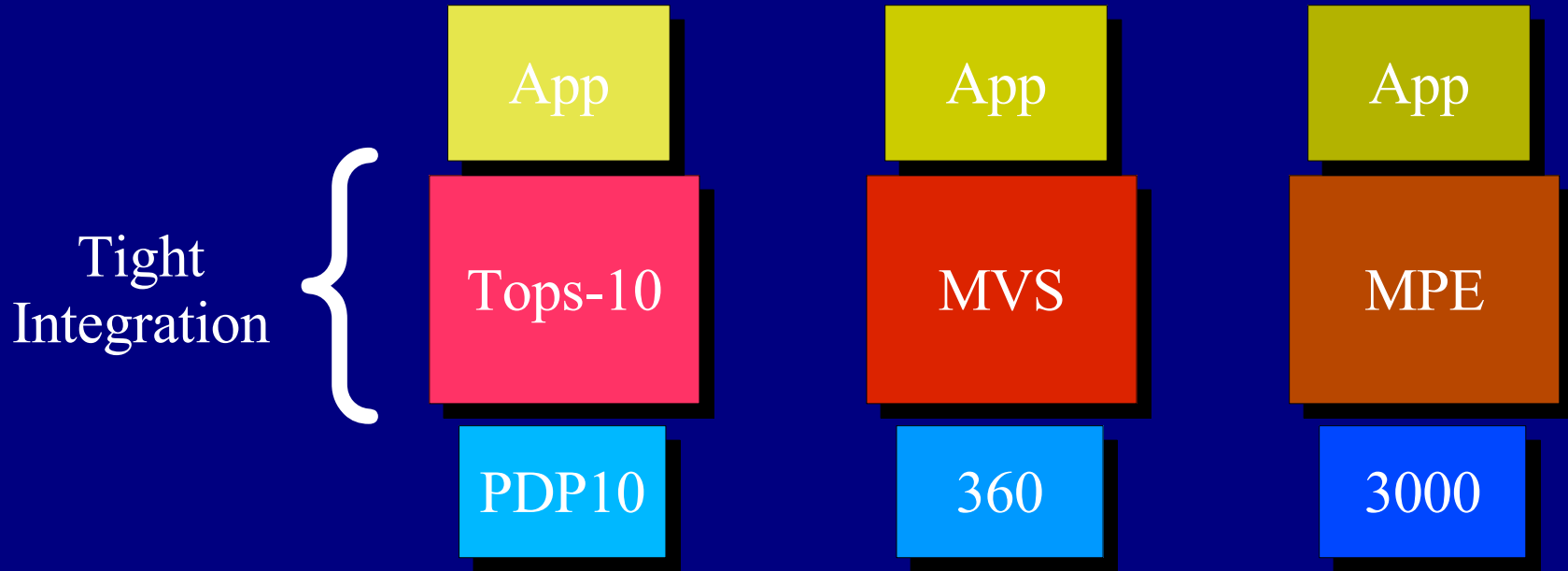
What We Will Cover

- The Computing Paradigm Shift
- Open Source Cost/Control Model
- GNU/Linux as an Open Source Example
- Licensing Issues
- Linux and Me on the Desktop
- A Few Predictions

Computing Evolution Timeline

- 1975-1984
 - Mainframe computing
- 1985-1994
 - Minicomputers
 - Unix Workstations
 - Independent ISVs
- 1995-2004
 - PC desktop growth
 - Commodity hardware
 - Unix servers
- 2005-2014
 - Commodity OS (Linux)

1975-1984



1985-1994

ISV

App

App

App

App



OS/
Hardware

SunOS

OSF1

HP-UX

AIX

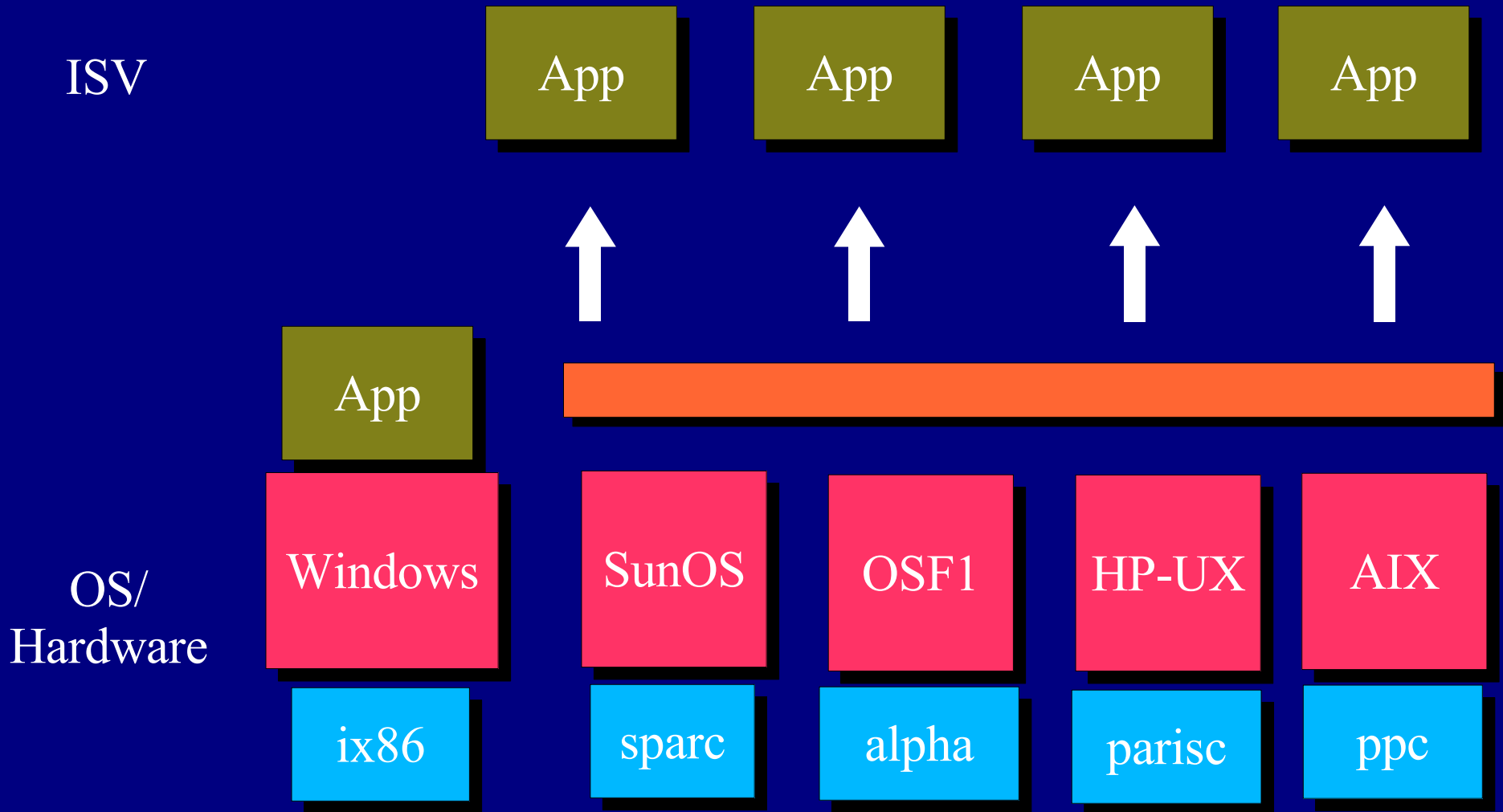
sparc

VAX

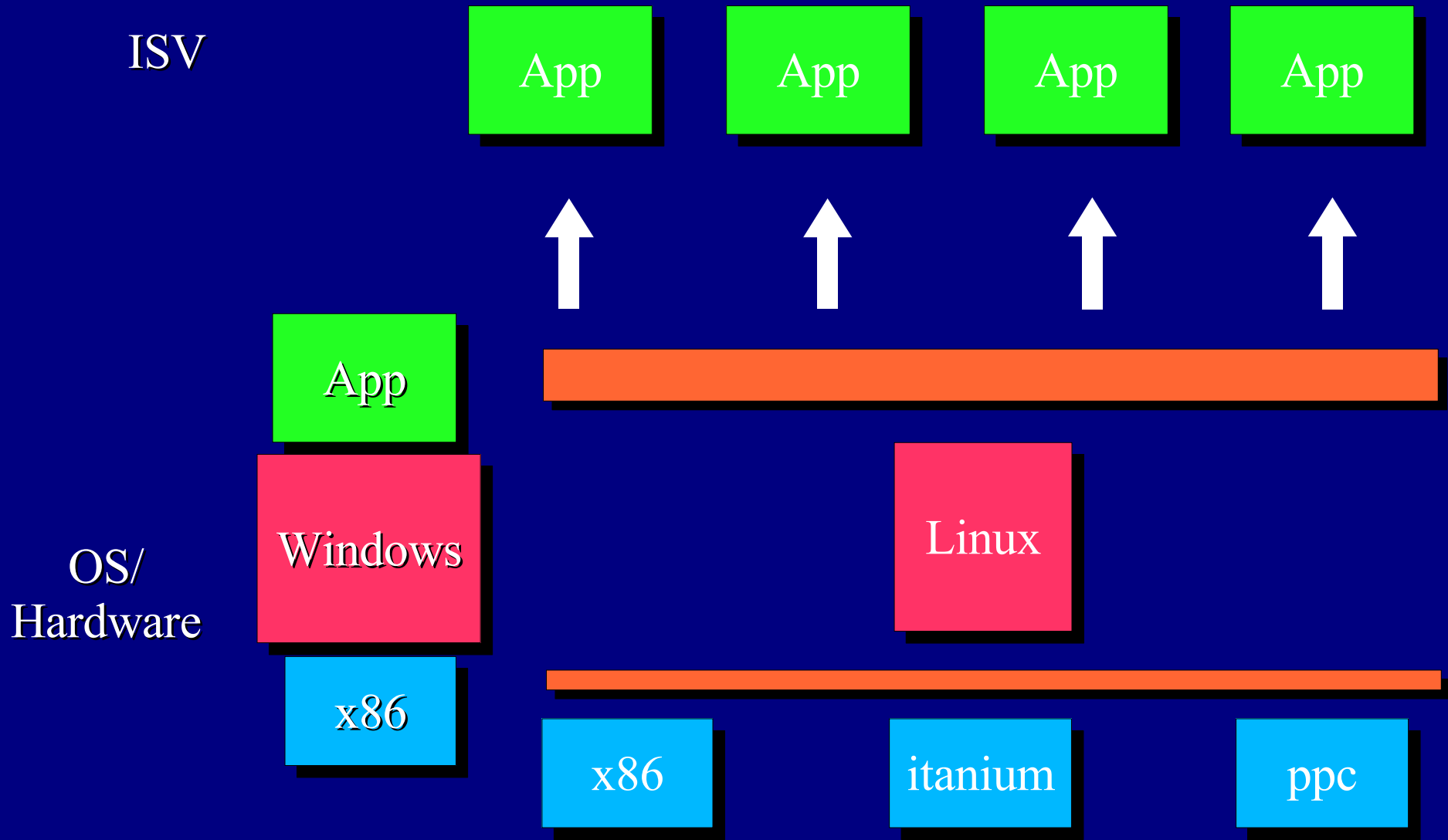
MIPS

ppc

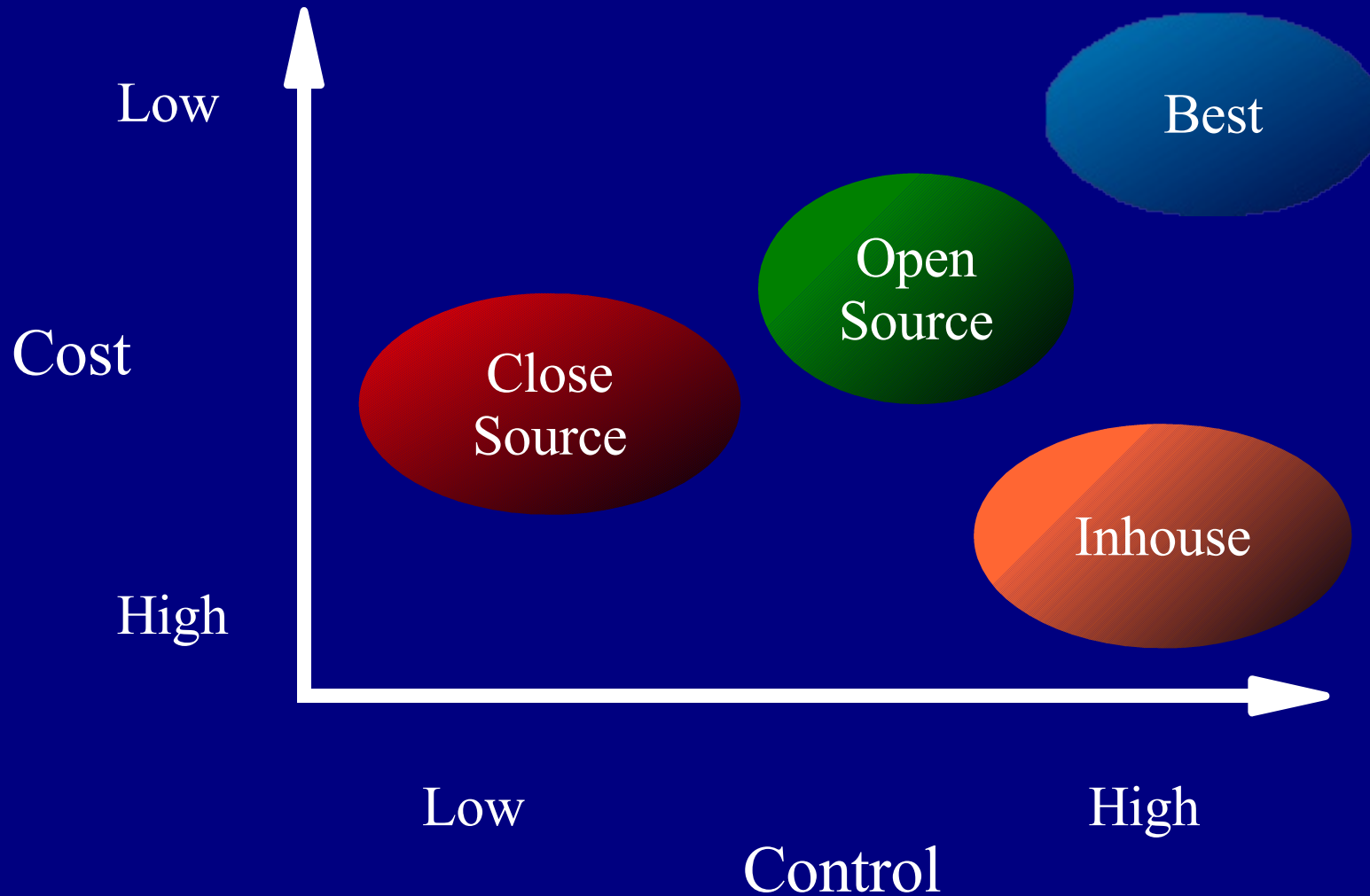
1995-2004



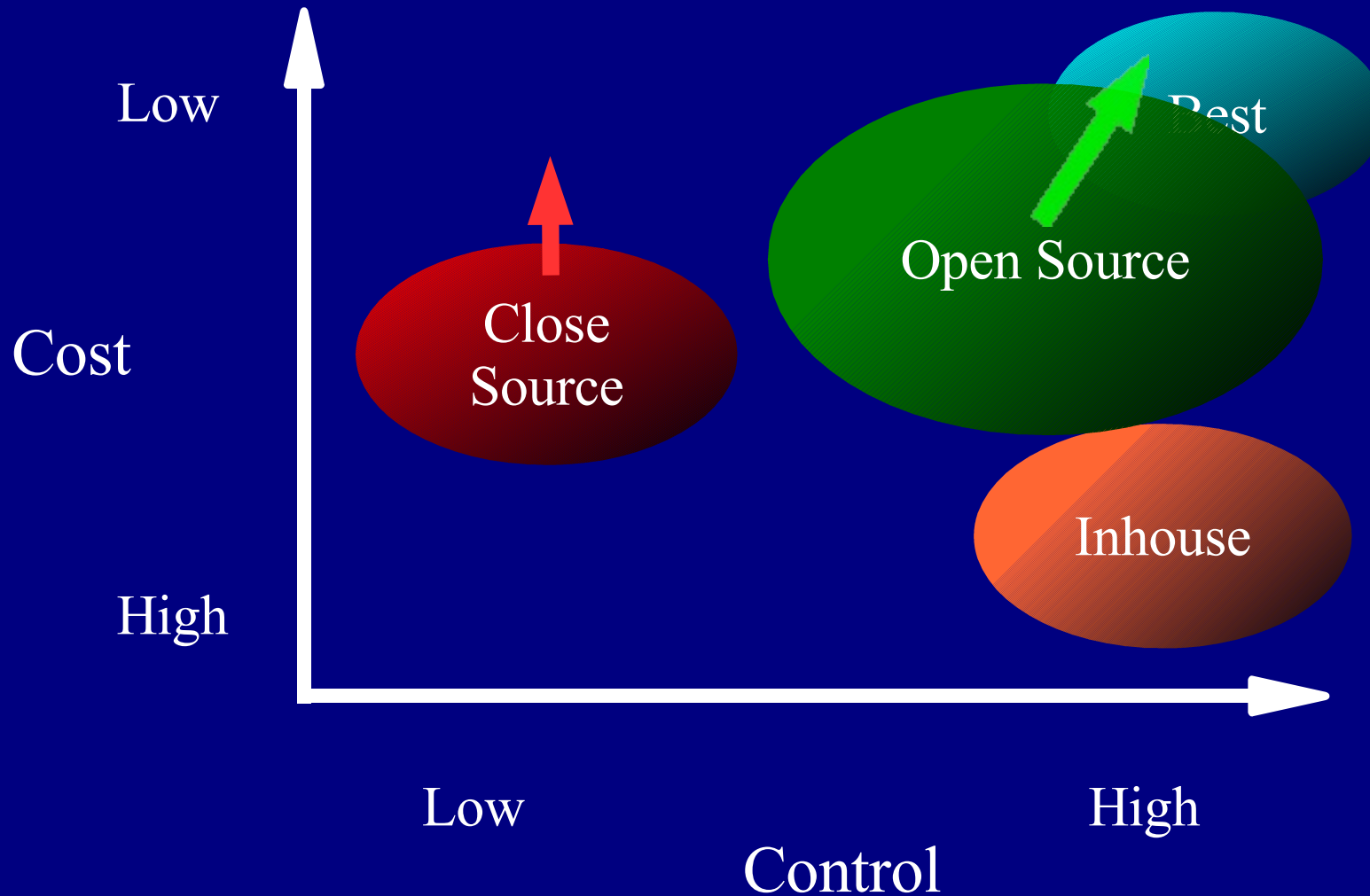
2005-2014



Software Cost Versus End User Control



Future Software Cost versus End User Control



What is Linux Really?

- A Few Facts
- How is it Like Unix
- How is it Different from Unix
- Linux Licensing
- Linux FUD

A Few Facts

- A Unix workalike kernel
- Distributions = Kernel + Tools
- Kernel – Linus Torvald and others
- Tools – GNU (GNU is not Unix)
- Distributions are more properly GNU/Linux
- Both the Kernel and the GNU tools are OpenSourced under the GNU General Public License (GPL)

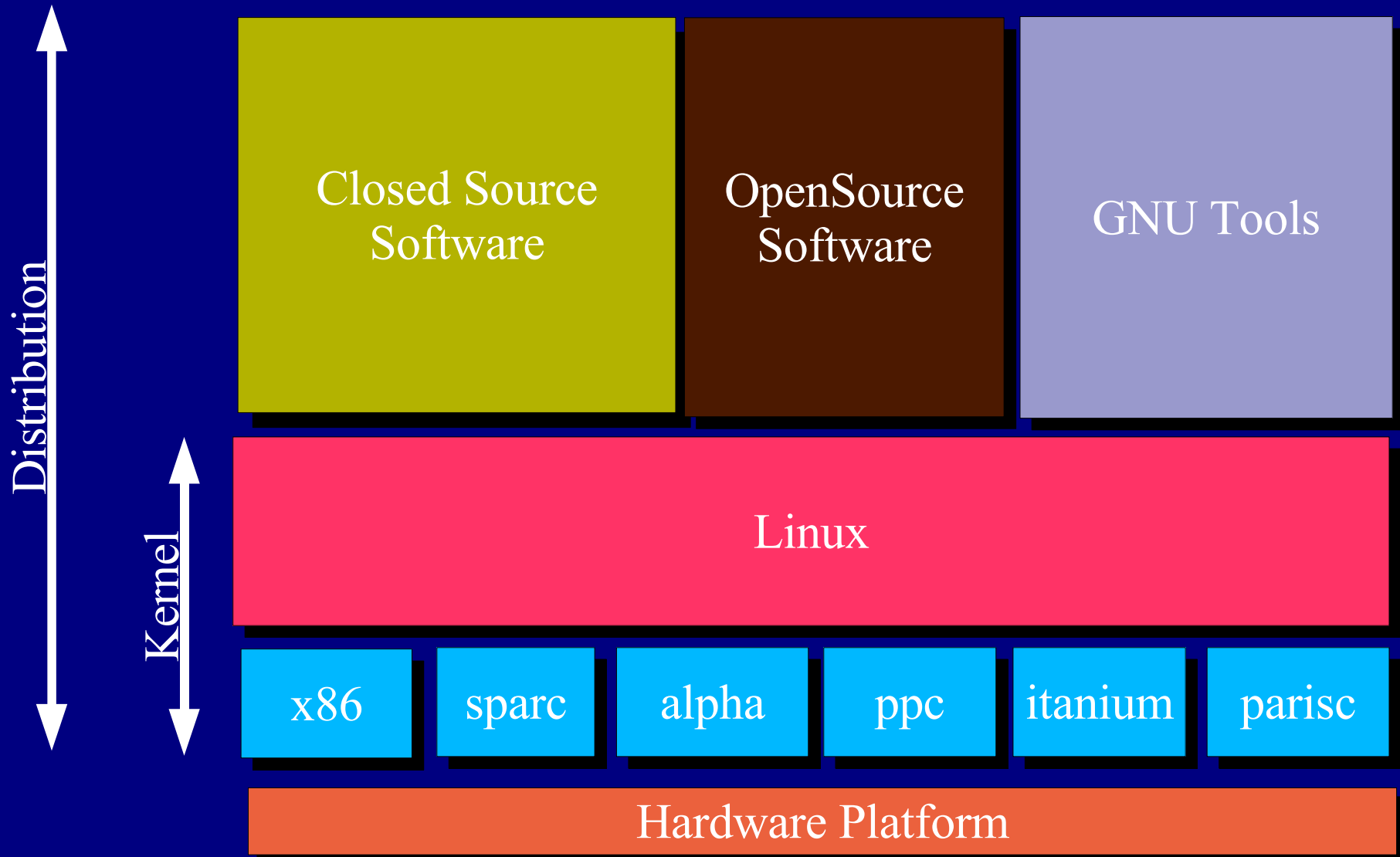
How is Linux Like Unix?

- Hierarchical file system
- File access permission framework
- Everything is a file paradigm
- Process multiplexing
- Networking (TCP/IP and other) support
- Command line shells
- X Window GUI interface
- POSIX compliance at the C library call level
- User-level toolset (e.g ls , cat...)
- Common development tools (make, cc, rcs...)

How is Linux Different from Unix?

- Kernel and tools source code distributed or available with distributions per the GPL
- No single vendor sponsorship
- Not tied to a single hardware type
- A Linux distributions may contain proprietary (non-GPL) software (tainting)
- Free to roll your own distribution
- Free to modify the codebase

Kernel and Distributions



What is the GNU General Public License (GPL)?

- License and a copyright (see www.gnu.org)
- All licensed code *must* be distributed in source form or source *must* be available
- A licensee is free (*as in freedom*) to modify the original code and use it
- A licensee may resell or redistribute the code, but must license any modifications under the GPL (e.g. Abide by the original license)
- Original author may do anything with the original code (e.g dual licensing, etc)

Commercial Licensing



This is the model we all grew up with- it still works

GPL Code Redistribution Rules

Original Code



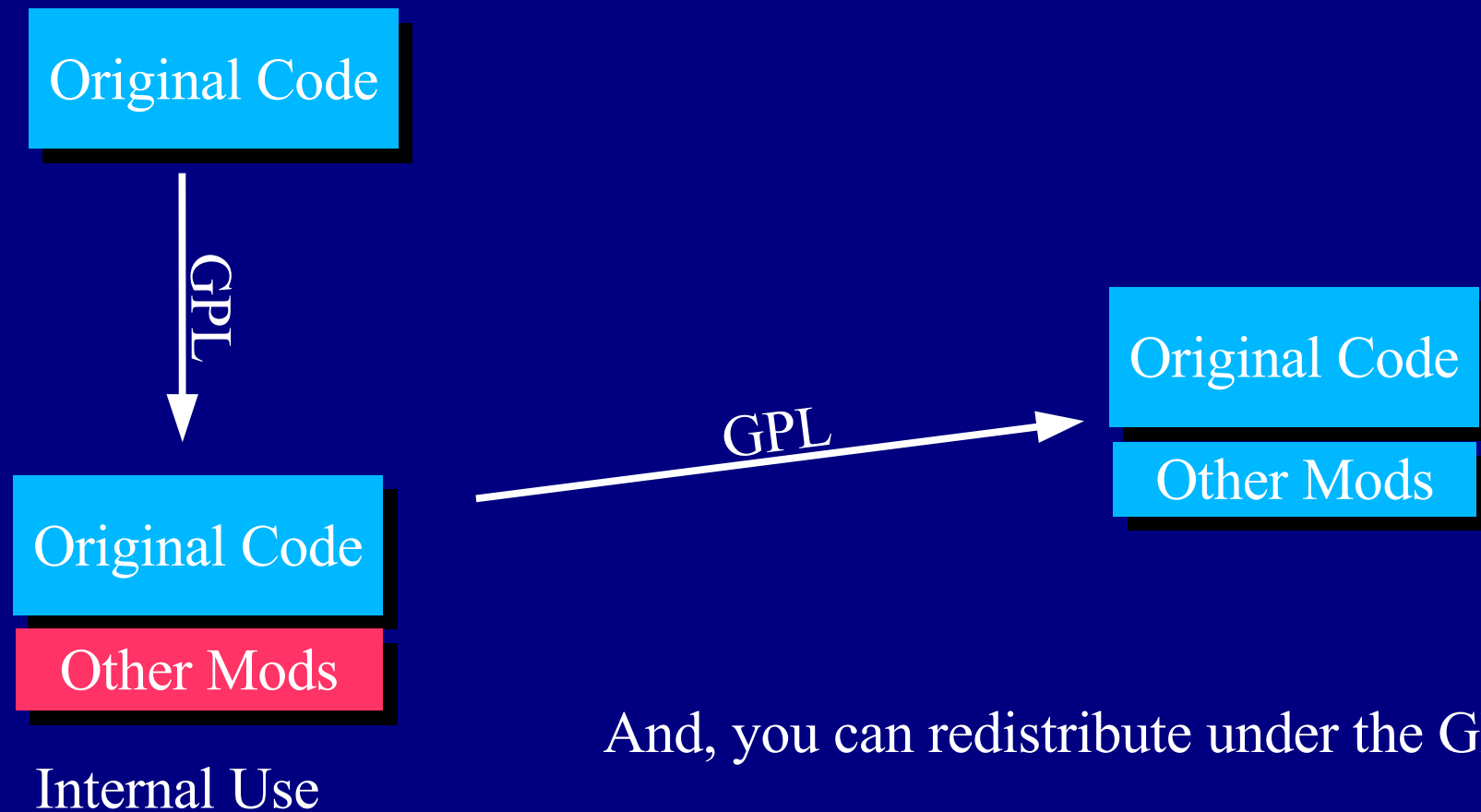
Original Code

Other Mods

Internal Use

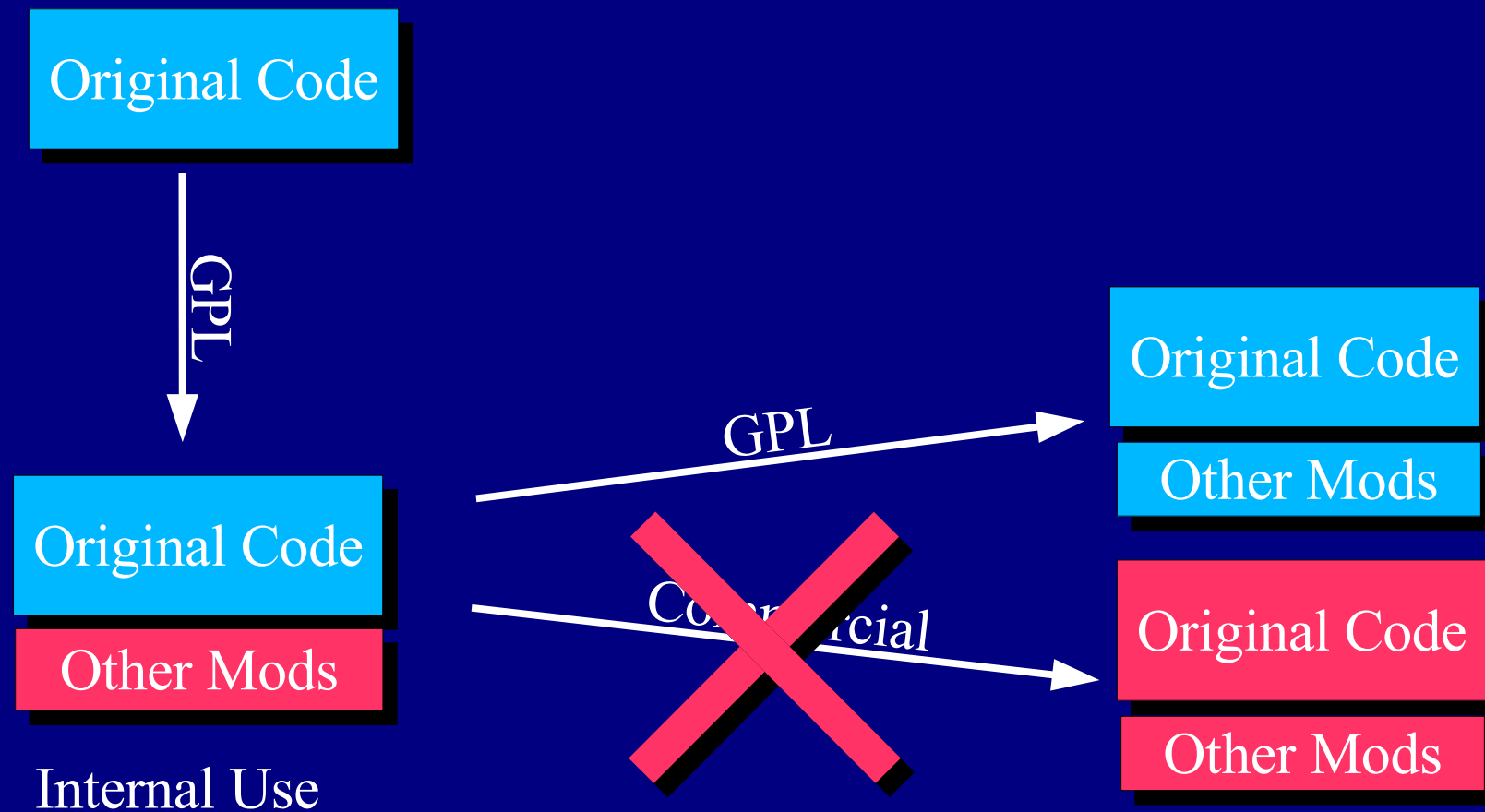
You can use GPL code internally with no problems and make your own modifications

GPL Code Redistribution Rules



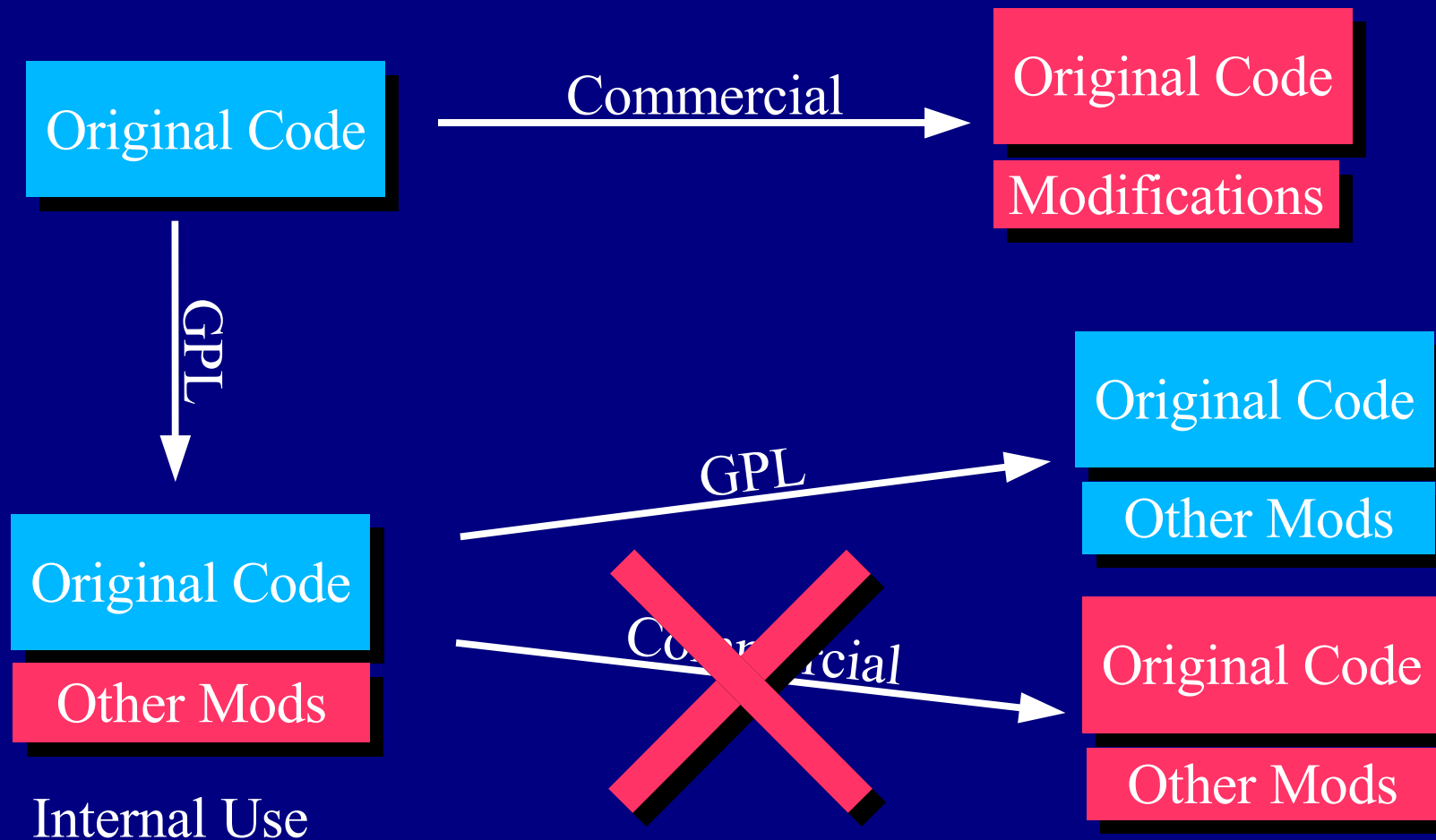
And, you can redistribute under the GPL

GPL Code Redistribution Rules



Just don't think you can distribute original code that has had GPL modifications, without also handing that code back to the community

GPL Code Redistribution Rules



But the original author of the GPLed code can dual license and make modifications without requiring the mods be licensed under the GPL. After all the author is the owner of the copyright.

Linux and Me

- First Desktop (Dell) 1997
- First Notebook (Compaq) 1998
- 2nd Notebook (Dell) 1999
- 3rd Notebook (Sony) 2002
- 4th Notebook (IBM) 2005

1st Desktop

- Slackware 3.4
- Linux 2.0.30 kernel
- Xfree86
- Fvwm
- 160 Mhz Intel Pentium
- 64 Mb memory

- Issues: X was painful to configure initially

1st Notebook

- Slackware 3.4
- Linux 2.0.30
- Compaq Presario 225 Mhz Celeron 64 Mb
- PCMCIA Ethernet

- Issues
 - Weird touchpad problem
 - X took some work (framebuffer)
 - PCMCIA required separate package

2nd Notebook

- Slackware 7.0 - 8.0
- Linux 2.2.13
- Dell Inspiron 500 Mhz Pentium 256 Mb
- Xfree86 (framebuffer driver)
- PCMCIA Ethernet
- VMware 2.x - 3.x

- Issues
 - USB
 - Sound
 - X driver

3rd Notebook

- Slackware 8.0 - 9.1
- Linux 2.4.5 - 2.6.9
- Sony PCG-GR390 1.2 Ghz Pentium II 512 Mb
- PCMCIA Wireless
- VMware 3.x – 4.x

- Issues:
 - Wireless
 - ACPI
 - Multimedia
 - CD burner
 - USB storage

4th Notebook

- Slackware 10.1
- Linux 2.6.9
- 2 Ghz Mobile Pentium III 1Gb
- Internal Wireless
- VMware 4.x

- Issues:
 - Wireless with WEP

Productivity Tools

	1997	1998	1999	2000	2001	2002	2003	2004	2005
Email	MH		EXMH				Sylpheed	Evolution	
Web	Netscape				Mozilla			Firefox	
Word Processing	Groff		StarOffice		LyX	OpenOffice			
Spreadsheet			Gnumeric			OpenOffice			
Calendar								Evolution	
Graphics						OpenOffice			
						GIMP			

Predictions

- GNU/Linux will continue to grow on the desktop
- Open Source productivity tools will continue to evolve for GNU/Linux
- Corporate IT will be a mix of Windows and GNU/Linux Servers
- Open Source software will become a mainstream software choice
- Vendors will embrace the Open Source development methodology