



---

# Take No Prisoners (Venimus, Vidimus, Dolavimus)

**Jon “maddog” Hall**

**Executive Director**

**Linux International**

**maddog@li.org**

**®Linux is a trademark of Linus Torvalds in several  
countries**





# Warning!

---

To make a point, broad generalities are about to  
be spoken.....

Nit-picking will not be tolerated!



# Overview of Presentation

---

- A tale of courage
- What really makes Linux unique
- What can we do?
- Questions



# October Sky (a.k.a. Rocket Boys)

---

- Coalwood, West Virginia
- A dying coal mining town
- Six boys who taught themselves rocketry

"The future was somewhere else, not in Coalwood....  
...I had to get ready for it" - Homer H. Hickham, Jr.

# Computer Science - 1968

---

## Monolithic computers

- Cost millions of dollars
- Schedule time of 0200 hours
- Computers worth more than you were
- Computers were very "small"
  - 8-64 K bytes of memory
  - initially no disk storage, only drum and tape



# A New Style of Computing

---

- Mini-computer
  - Hundreds of Thousands of dollars
  - "Desktop" or "Departmental"
- User Groups Started
  - Free Software (well, freely distributable)

Computers started to become personable.



# Lots of new....

---

- Languages
- Programs
- Games
- Operating Systems

Power to the people



# Computers in the Elbow

---

Prices stayed the same (or dropped gradually),  
but...

- More memory, disk was added
- Computers got faster, bigger
- Programs got more complicated



# Enter the Microprocessor 1975

---

- Prices dropped for small computers (very small)
  - 4-8 K bytes of memory
  - tape storage only
- User groups sprung up
  - Free Software came about!



# Lots of new....

---

- Languages
  - Programs
  - Games
  - Operating Systems
- 
- Power to the people

# Price Adjustments in Computing....

---

- As computers become cheaper
  - more memory
  - more disk
  - more graphics
  - sound cards!!
- The elbow returns
  - 1-3K USD



# Programs Become More Sophisticated

---

- Graphics and windowing systems became more commonplace
- Programming used more and more of "standard" interfaces
- More and more was asked of "small" computers
- More and more was asked of programmers
- Non-programmers "started" using computers



# "Shrink-wrapped" Software

---

- Shrink-wrapped software started to appear
  - had to run on the platform out of box
  - power of software matched power of hardware
- One operating system became prevalent in microcomputer space



# One Operating System One Company

---

- The operating system started to spread
  - compilers
  - databases
  - windowing systems
  - networking
  - mice
  - keyboards
- Influencing the production of:
  - modems
  - printers
  - computers in general



# Everything Centers on Redmond

---

After all, how many different:

- operating systems
  - compilers
  - computing languages
  - office systems
  - databases
  - networking protocols
  - etc.
- do you need?



# Or Even How Many Programmers?

---

And why should they live any other place than Redmond?

Why should their

- teachers
- researchers
- supporters
- etc.

live any other place?



# Enter a New Operating System

---

- Only Operating System in major usage started outside the United States
- Only Operating System in major usage which runs across multiple (more than two) hardware platforms
- One of two operating systems growing in market share



# More Price Adjustments to Computing

---

- Free Hardware appears
  - buy Internet service, get a computer
  - "outmoded" computers given away
  - Communities worry about computers in landfill
- Hardware/Software price ratio shrinks to a (small) fraction



# The World Uses Computers.. ....or Do They?

---

- 200 Million Microsoft Systems
- 9 Million Commercial Unix systems
- 2 Million \*BSD systems
- 2 Million "Proprietary" systems
- 15 Million Linux Systems
- 228 Million General Purpose systems - Total

5.6 **Billion** people in the world



# Fi, Fye, Fo, Fum...

---

- Software Piracy abounds in Asia
  - how far would you pedal for a quarter?
  - Which would you rather do:
    - feed your family
    - use Microsoft Word?
- Would your military trust an operating system developed by one company in America?
  - even if you got access to the source?
- Those cheap Chinese computers



# So Why is Linux Uniq? (Sorry about the spelling)

---

- The man who could not pay
- Debian's system administrator
- The trademark nightmare
- The Linux Company
- The lack of control at Compaq
- The new entrepreneurs
- The untapped resources



# Whose Operating System is it?

---

- It is not THEIR operating system.....
- ....it is OUR operating system.
- If you don't like it.....
  - make it realtime
  - make it a supercomputer
  - make it embeddable
  - make it fit on a palm pilot

A sense of ownership



# So What Can I do to Help Linux?

---

Anything you want....

- Write code
  - write fancy demos
  - write plain demos
  - write example code
- Write documentation
- Review documentation
- Join a user group
- Start a user group
- Create presentations for a user group
- Start N.U.N.s (New User Nights)
  - Train two people to use Linux



# Questions?

---

Sometimes one dream is enough.....  
.....to light up the whole sky  
--- Homer H. Hickam, Jr.