Reading

4. Practical arrangements
3. Introduction to GUI and window
2. Introduction to Unix/Linux
1. Course objectives

Structure

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Introduction to Unix/Linux

Lecture 6

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sort out a problem of the student.

between users. In particular, the institution can intervene to
It is ideal as a multi-user machine where files can be shared
There are free versions of UNIX around.

WHY UNIX

now ask the student's Thumas

4. From click computing to instruction computing

3. Jumping the quantum jump

2. Use an environment without click

1. Realize that the learning curve is steep

Implementation

4. From click computing to instruction computing

3. Jumping the quantum jump

2. Digital library building

1. Learning about digital libraries

Objectives
and the prototype of the more widely used variant today.

Meanwhile, the AT&T version was developing in different ways.

At the same time, a team from the University of California at
Berkeley was working to improve UNIX. In 1977, it released the
first Berkeley Software Distribution, which became known as
BSD.

In 1977 it was first made commercially available.

The first version of UNIX was created in 1969 by Ken Thompson.

UNIX History

would be the input of another. The output of one program
would be the input of another. The output of one program
in UNIX would only be good as one of two things, but different
programs created in opposition to Multics at Bell Labs. Programs
Bell Labs dropped out of the project in 1969.

Of programs each capable of doing a lot of things.

Big projects started in 64 to create the ultimate computer oper-

UNIX History: Once there was Multics

It is not likely to be replaced quickly.

Operating system of most digital library systems that I know of.

It is widely used as in the academic world. It remains the

UNIX is terse. It is not user-friendly. It is expert-friendly.

Why not UNIX
Such software is now known as "open source software."

Program that is used by the end user or one of its derivatives—that is the basis for the executable source code is the plain computer code—usually written in C.

Freedom of others to make changes.

A user is allowed to use the program and to modify its source

The GNU public license

It's free speech rather than free beer:

GNU

Bell Labs and UCB had liberal usage policies for the code:

- Not choice for networked machines
- Internet software implemented for BSD UNIX became O/S
- Language: UNIX is written in C.

What makes the success of UNIX
that Microprocessors require.

But it has good software that does not require the resources
of RAM. 2 times 17 Giga of disk space.

It is a Pentium with 166 MHz (1 think). It has 2 times 32 Mega

woman is the other god of the German legend.

Wotanlul.eu 148.4.2.31

Junk Hardware

open library.

more importantly, it shows the bridge between open source to

teach you the skill. It will take you onto the road of geekdom.

This is not a trivial task. It needs a lot of skill. This course will

This course aims to help building a “free” digital library.

The credo of this course.

tion for the die-hard hacker.

we use Debian/GNU Linux. This is a more strictly free distri-

bution.

There are many ways of doing that packaging. There are called

computer

these and other free software to produce a completely operational

generally. It is the packaging of that kernel with the GNU will-

by Linux. Thinking of the Intel Hardware architecture. More

initially, Linux is a free implementation of a UNIX Kernel. written
In Linux, the default shell is /bin/bash, invoked by /bin/bash. It
contains:

- extended C shell /bin/csh
- C shell /bin/csh
- bourne again shell /bin/bash
- korn shell /bin/ksh
- bourne shell /bin/sh

There are various shells
and pass them on to the kernel.

The shell is a command line interpreter. It reads your commands.

On a Linux machine, it is contained in the file /etc/shells.

Hardware of the machine.

Program that always runs on the machine and that talks to the

1st basic component: the kernel

Now create accounts for the students:

directory/home/usename
ordinary users, such as you and me. They have a home
special users
Superuser: account name "root"

users
It is your classmate next week.

Find a geeks way to use the "date" or "cal" program and show
install and operate prints at home.

Homework

command do not have long pages.
leave the data display with "control C control C". Some pro-
command program.
opens a simple hypertext system with information about the pro-

2. The program
leave the data display with "b".
mand.
display paged information about the command of program com-

1. The program

Getting help

man -- apropos string. Note the double minus.
GNU utilities also accept a long format of options, for example
as Is -l file. Geeeks like to be terse.
Such flags may be concatenated. Thus Is -lA file is the same
Example Is -l file

Traditionally, flags are of the form -letter.
commands operate. Arguments give the object of a command.
Commands accept arguments and flags. Flags modify the way a

Flags
Making all his UNIX plans for nobody...
Making all his UNIX plans for nobody...
Setting in his UNIX LAN
He's a real UNIX man

The new kernel boots; just like you had planned.
UNIX man
TEXT with time(t), don't hurry
UNIX man, don't worry

UNIX man, can you help me at all?
Use lex and yacc and C
He's as wise as he can be

The wo-o-o-old is at(t) your command.
UNIX man
My id(0) is missing,
UNIX man, please listen(2)
And me?
Isn't he a bit like you
Cares not where /dev/null goes to
knows the blocksize from du(1)
For nobody.
Making all his UNIX plans
Setting in his UNIX LAN
He's a real UNIX man

Finally

Thanksgiving
practical arrangements