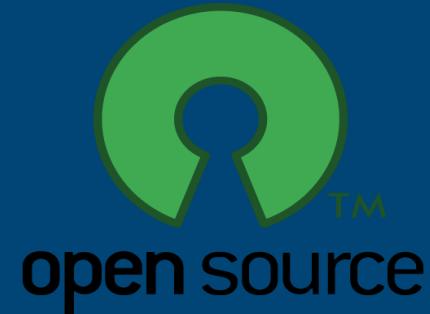




Mata Kuliah : Open Source
Tahun : 2013



Pertemuan 6

GUI (Graphical User Interface)

UI is Culture

..

Like any other type of design, it has a rich history

**like any other type
of design, it has a
rich history.**

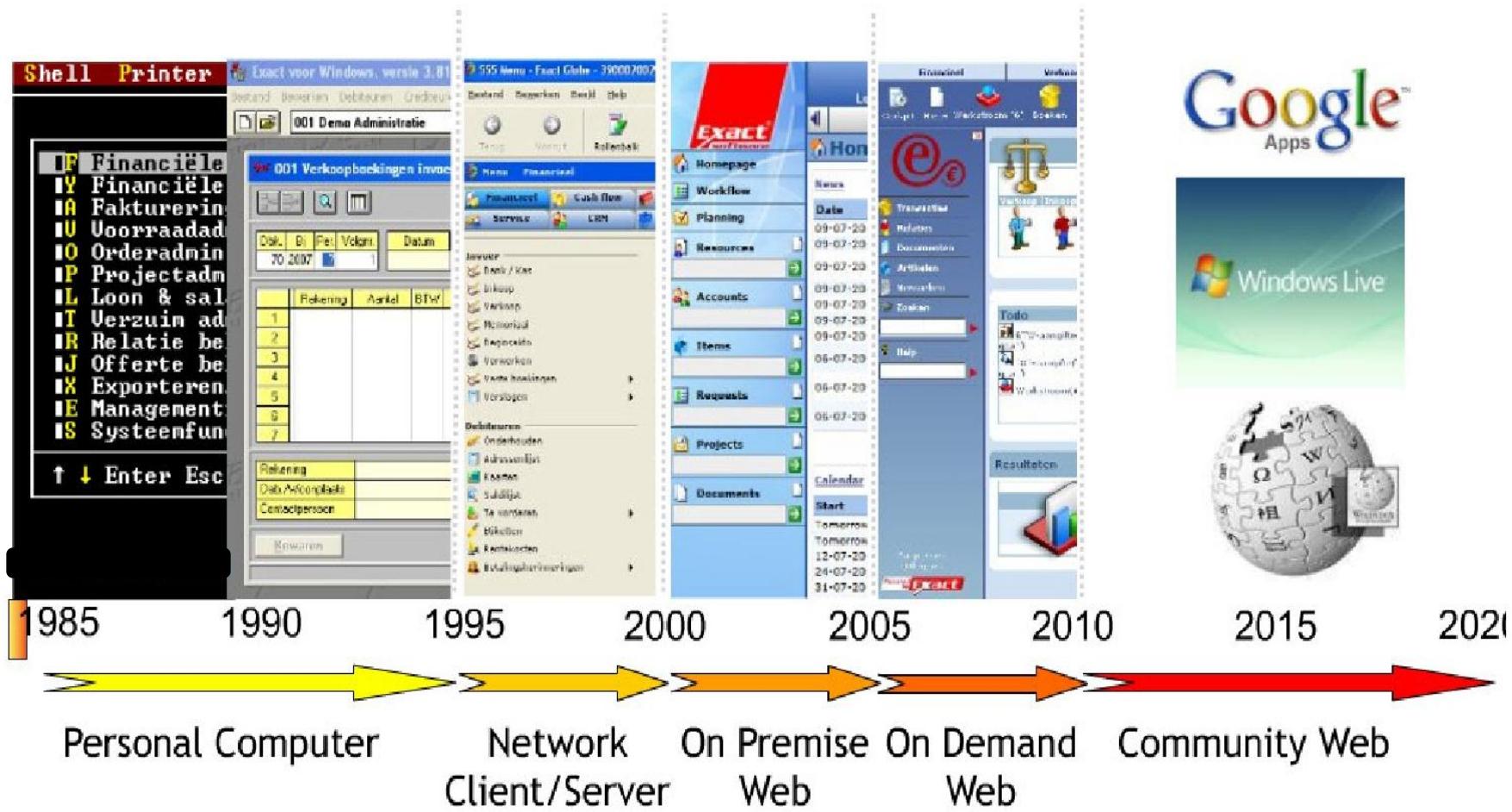
GUI

Designing the visual composition and temporal behavior of a GUI is an important part of software application programming in the area of human-computer interaction.

Its goal is to enhance the efficiency and ease of use for the underlying logical design of a stored program, a design discipline known as usability.

Methods of user-centered design are used to ensure that the visual language introduced in the design is well tailored to the tasks.

Software Evolution



MSDOS // CLI

```
C:>dir

Volume in drive C is MS-DOS 6.0
Volume Serial Number is 446B-2781
Directory of C:\

COMMAND   COM      52925  03-10-93   6:00a
          1 file(s)    52925 bytes
          10219520 bytes free

C:>ver

MS-DOS Version 6.00

C:>
```

```
mars@arsmain ~ $ pwd
/home/mars
mars@arsmain ~ $ cd /usr/portage/app-shells/bash
mars@arsmain /usr/portage/app-shells/bash $ ls -al
total 130
drwxr-xr-x  3 portage portage 1024 Jul 25 18:06 .
drwxr-xr-x  3 portage portage 1024 Aug  7 22:39 ..
-rw-r--r--  1 root   root   35888 Jul 25 18:06 ChangeLog
-rw-r--r--  1 root   root   27082 Jul 25 18:06 Manifest
-rw-r--r--  1 portage portage 4645 Mar 23 21:37 bash-3.1_p17.ebuild
-rw-r--r--  1 portage portage 5977 Mar 23 21:37 bash-3.2_p39.ebuild
-rw-r--r--  1 portage portage 6151 Apr  5 14:37 bash-3.2_p48.ebuild
-rw-r--r--  1 portage portage 5988 Mar 23 21:37 bash-3.2_p48.ebuild
-rw-r--r--  1 portage portage 5643 Apr  5 14:37 bash-4.0_p10-r1.ebuild
-rw-r--r--  1 portage portage 6230 Apr  5 14:37 bash-4.0_p10.ebuild
-rw-r--r--  1 portage portage 5648 Apr 14 05:52 bash-4.0_p17-r1.ebuild
-rw-r--r--  1 portage portage 5532 Apr  8 18:21 bash-4.0_p17.ebuild
-rw-r--r--  1 portage portage 5660 May 30 03:35 bash-4.0_p24.ebuild
-rw-r--r--  1 root   root   5660 Jul 25 09:43 bash-4.0_p28.ebuild
drwxr-xr-x  2 portage portage 2048 May 30 03:35 files
-rw-r--r--  1 portage portage 468 Feb  9 04:35 metadata.xml
mars@arsmain /usr/portage/app-shells/bash $ cat metadata.xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE pkgmetadata SYSTEM "http://www.gentoo.org/dtd/metadata.dtd">
<pkgmetadata>
  <herd>base-system</herd>
  <use>
    <flag name='bashlogger'>Log ALL commands typed into bash; should ONLY be
      used in restricted environments such as honeypots</flag>
    <flag name='net'>Enable /dev/tcp/host/port redirection</flag>
    <flag name='plugins'>Add support for loading builtins at runtime via
      enable</flag>
  </use>
  </pkgmetadata>
mars@arsmain /usr/portage/app-shells/bash $ sudo /etc/init.d/bluetooth status
Password:
* status: started
mars@arsmain /usr/portage/app-shells/bash $ ping -q -c1 en.wikipedia.org
PING rr.esams.wikimedia.org (91.198.174.2) 56(84) bytes of data.
--- rr.esams.wikimedia.org ping statistics ---
1 packets transmitted, 1 received, 0% packet loss, time 2ms
rtt min/avg/max/mdev = 49.820/49.820/49.820/0.000 ms
mars@arsmain /usr/portage/app-shells/bash $ grep -i /dev/sda /etc/fstab | cut --fields=3
/dev/sda1          /boot
/dev/sda2          none
/dev/sda3          /
mars@arsmain /usr/portage/app-shells/bash $ date
Sat Aug  8 02:42:24 MSK 2009
mars@arsmain /usr/portage/app-shells/bash $ lsmod
Module           Size Used by
rndis_vlan        23424  0
rndis_host         8696  1 rndis_vlan
cdc_ether          5672  1 rndis_host
usbnet          10688  3 rndis_vlan,rndis_host,cdc_ether
parport_pc        38424  0
rgircx            2388128 20
parport          39548  1 parport_pc
iTCO_wdt         12272  0
i2c_1801          9380  0
mars@arsmain /usr/portage/app-shells/bash $
```

MSWORD



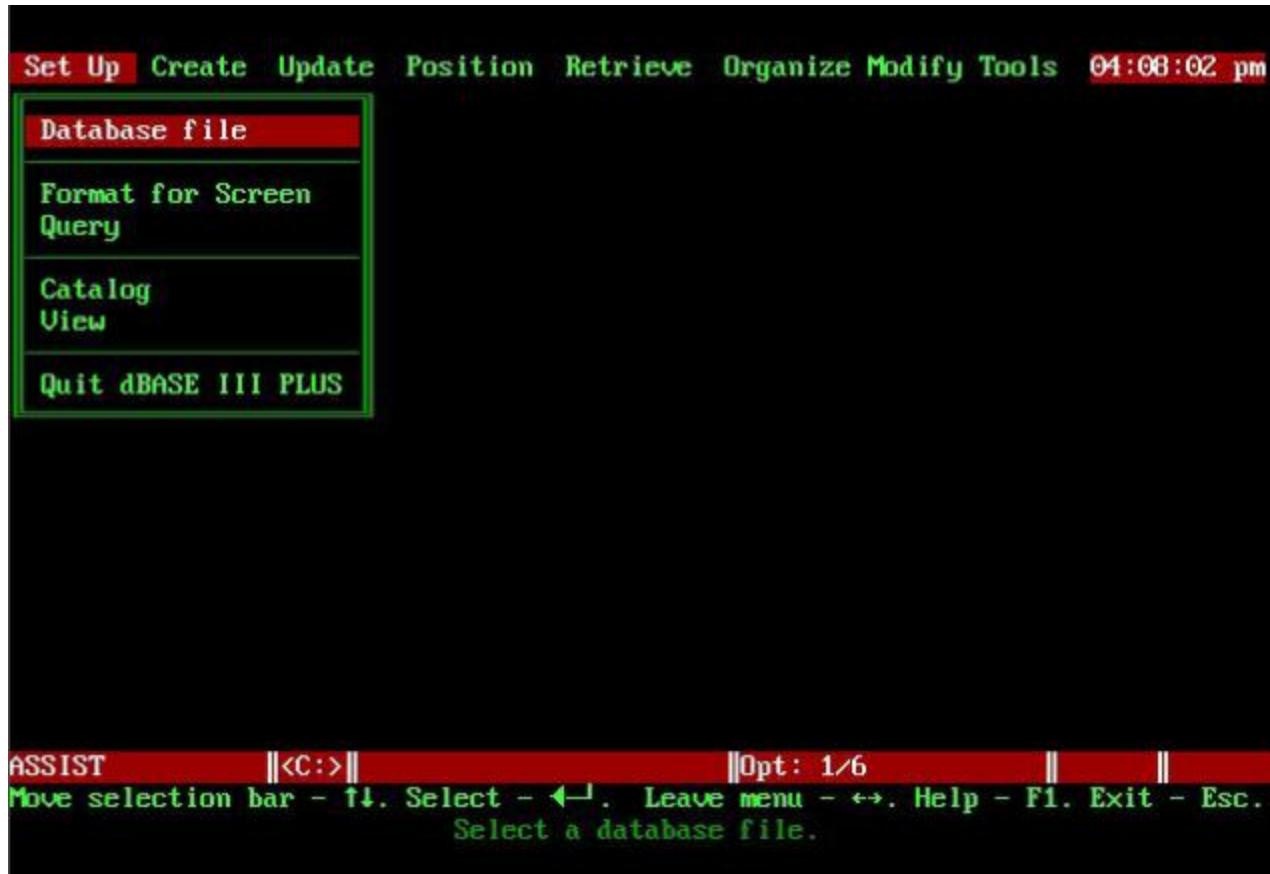
LOTUS

A:A1: 'EMP

	A	B	C	D	E	F	G
1	EMP	EMP_NAME	DEPTNO	JOB	YEARS	SALARY	BONUS
2	1777	Azibad	4000	Sales	2	40000	10000
3	81964	Brown	6000	Sales	3	45000	10000
4	48370	Burns	6000	Mgr	4	75000	25000
5	50706	Caeser	7000	Mgr	3	65000	25000
6	49692	Curly	3000	Mgr	5	65000	20000
7	34791	Dabarrett	7000	Sales	2	45000	10000
8	84984	Daniels	1000	President	8	150000	100000
9	59937	Dempsey	3000	Sales	3	40000	10000
10	51515	Donovan	3000	Sales	2	30000	5000
11	48338	Fields	4000	Mgr	5	70000	25000
12	91574	Fiklore	1000	Admin	8	35000	---
13	64596	Fine	5000	Mgr	3	75000	25000
14	13729	Green	1000	Mgr	5	90000	25000
15	55957	Hermann	4000	Sales	4	50000	10000
16	31619	Hodgedon	5000	Sales	2	40000	10000
17	1773	Howard	2000	Mgr	3	80000	25000
18	2165	Hugh	1000	Admin	5	30000	---
19	23987	Johnson	1000	VP	1	100000	50000
20	7166	Laflare	2000	Sales	2	35000	5000

DATA.WK3

DBASE



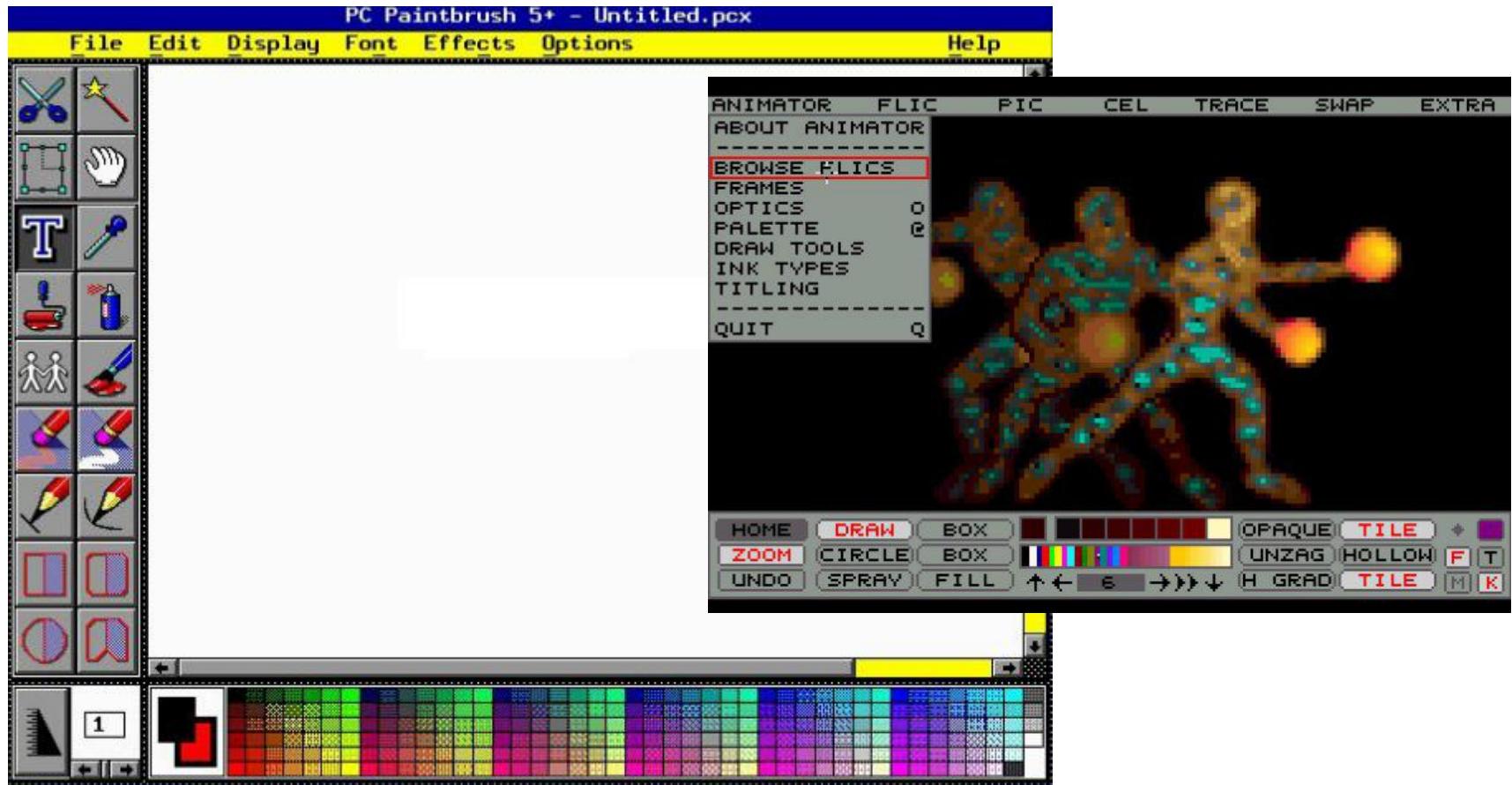
NORTON COMMAND (NC)

C:\ Nazwa		
ADAPTEC	PROGRA~1	avalon ini
BITWARE	RECYCLED	bios txt
CDPRO	REJESTR	Bootlog prv
CDROM	ST	Bootlog txt
CMEDIA	TEMP	cldma log
COOLST~1	TOTALCMD	command com
DISCDOPE	UCZDOS	config ctl
DN	WINDOWS	config ns0
FC	ZGTEMP	config ns1
INTERNET	ZRZUTY	config sys
MODEM	Asd log	cslogs txt
MODEM1	autoexec bat	Detlog old
MOJEDO~1	autoexec bit	Detlog txt
NC	autoexec cmi	emm386 exe
NEOPAINT	autoexec ns0	et exe
PCIAUD	autoexec ns1	et01 exe
PCVIEW	autoexec nu4	etconfig dat
PQMAGIC	autoex~1 txt	file0000 _dd

C:\ Nazwa		
ADAPTEC	PROGRA~1	avalon ini
BITWARE	RECYCLED	bios txt
CDPRO	REJESTR	Bootlog prv
CDROM	ST	Bootlog txt
CMEDIA	TEMP	cldma log
COOLST~1	TOTALCMD	command com
DISCDOPE	UCZDOS	config ctl
DN	WINDOWS	config ns0
FC	ZGTEMP	config ns1
INTERNET	ZRZUTY	config sys
MODEM	Asd log	cslogs txt
MODEM1	autoexec bat	Detlog old
MOJEDO~1	autoexec bit	Detlog txt
NC	autoexec cmi	emm386 exe
NEOPAINT	autoexec ns0	et exe
PCIAUD	autoexec ns1	et01 exe
PCVIEW	autoexec nu4	etconfig dat
PQMAGIC	autoex~1 txt	file0000 _dd

C:\>		
1Lewy	2Prawy	3Podg..
4Edyt..	5Konpre	6Dekomp
7Szukaj	8Histor	9MałaCz
10Drzeuo		

PAINT BRUSH

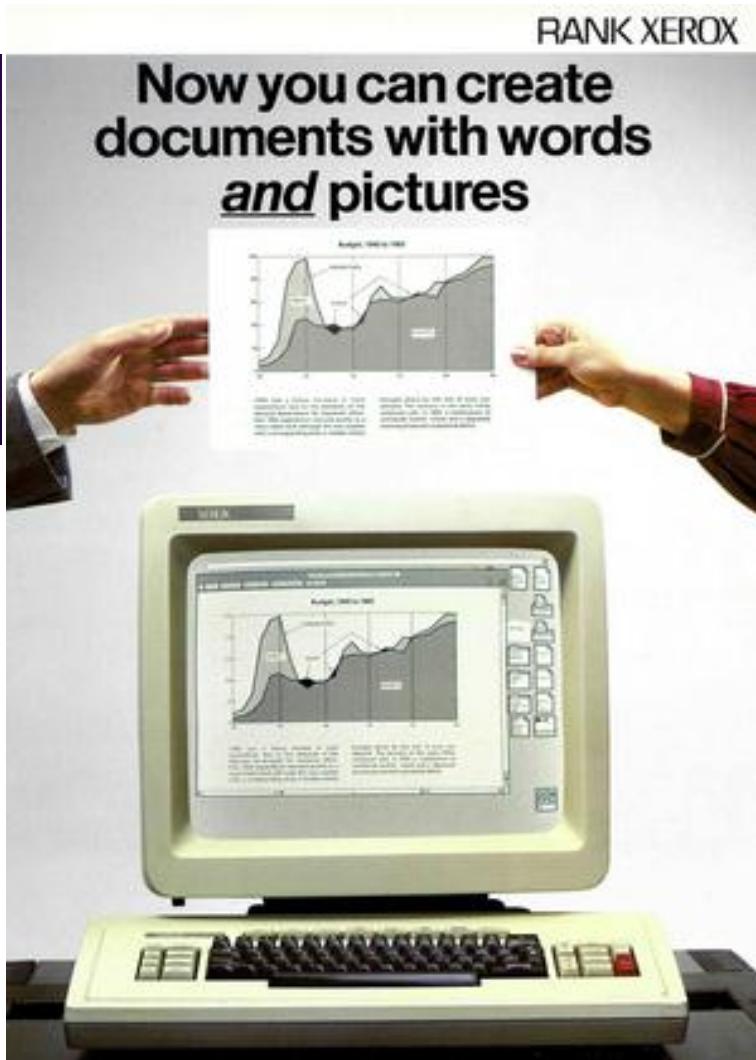


WIMP

windows, icons, menus, pointer

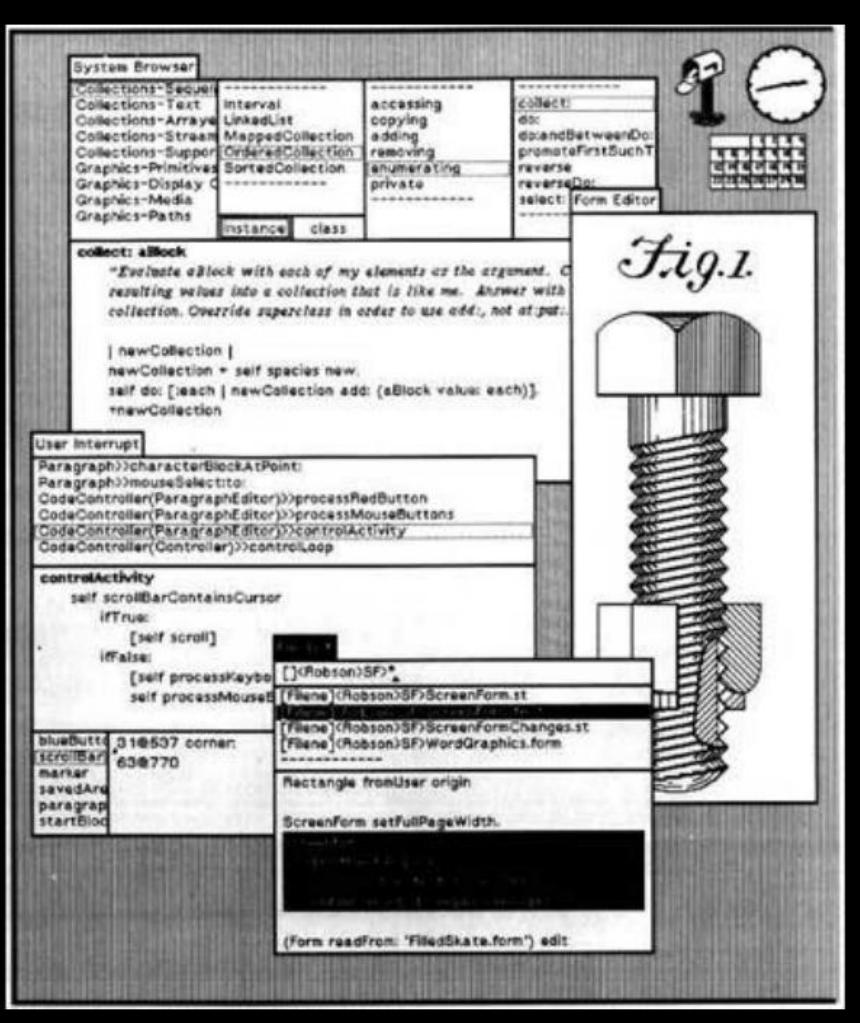
XEROX PARC

these guys invented WYSIWYG
+ modern software
development + most of the GUI
elements we know today.



Alto

1974

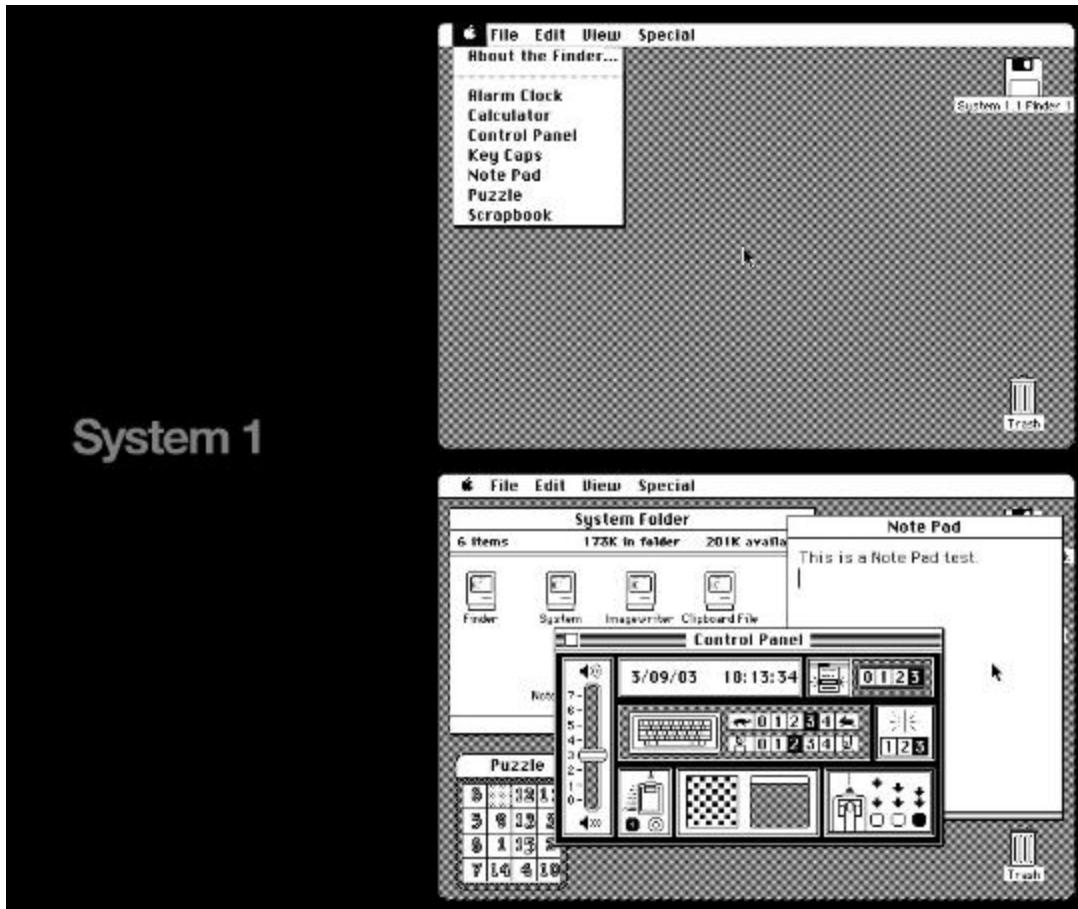


Apple

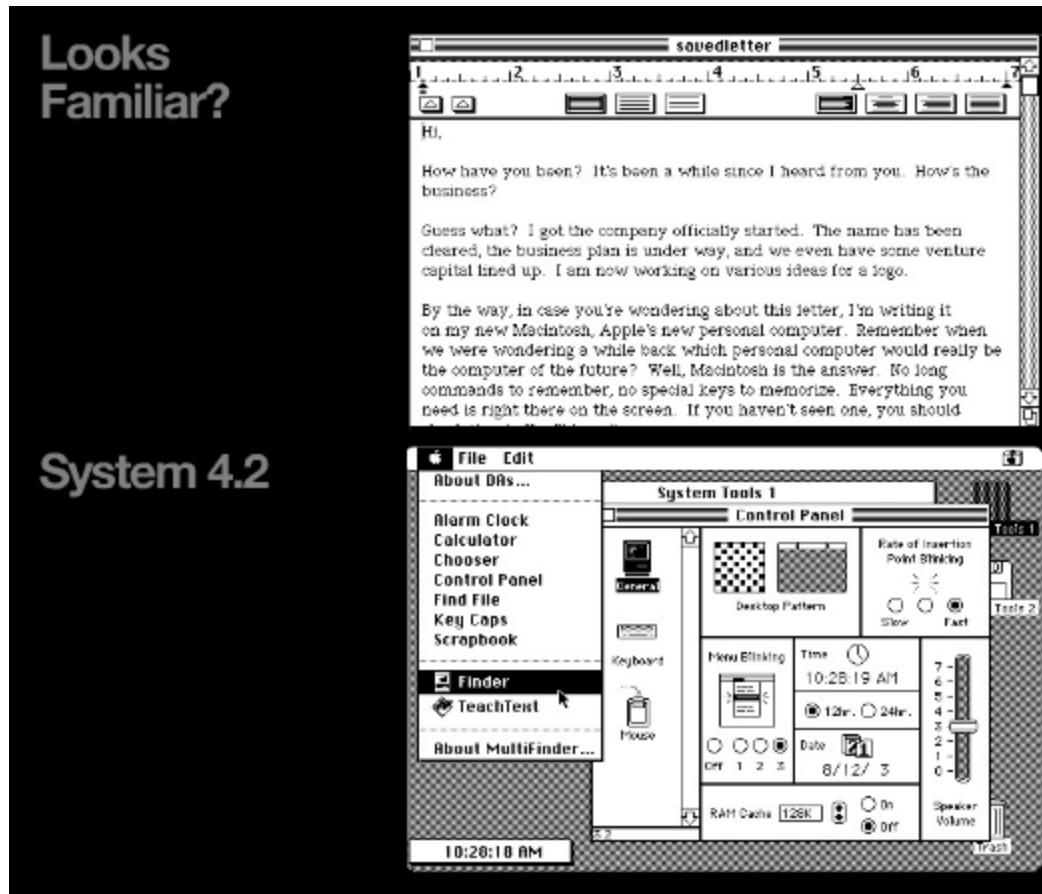
Lisa > Macintosh (System 1..9)



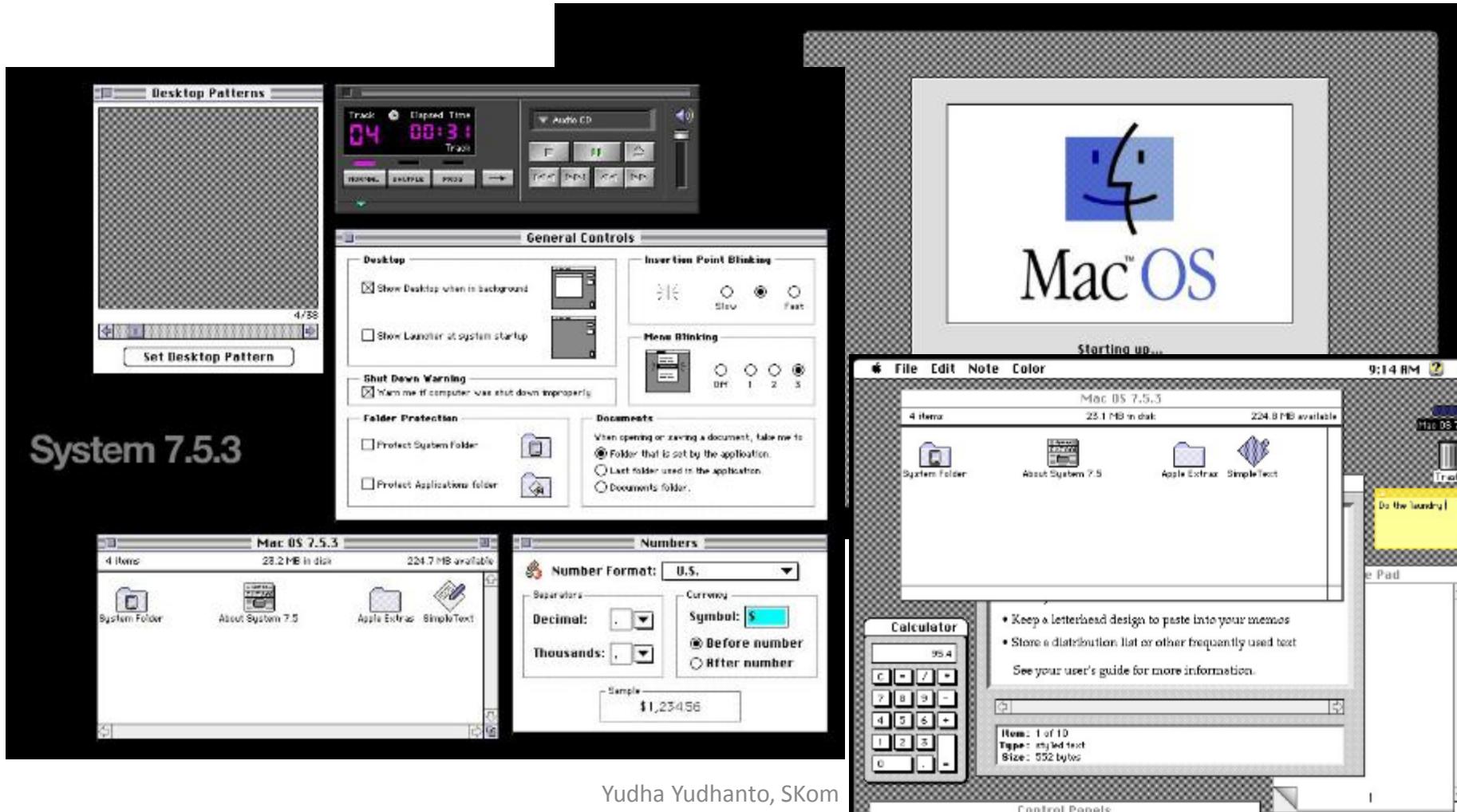
Mac system .1 ,...,9



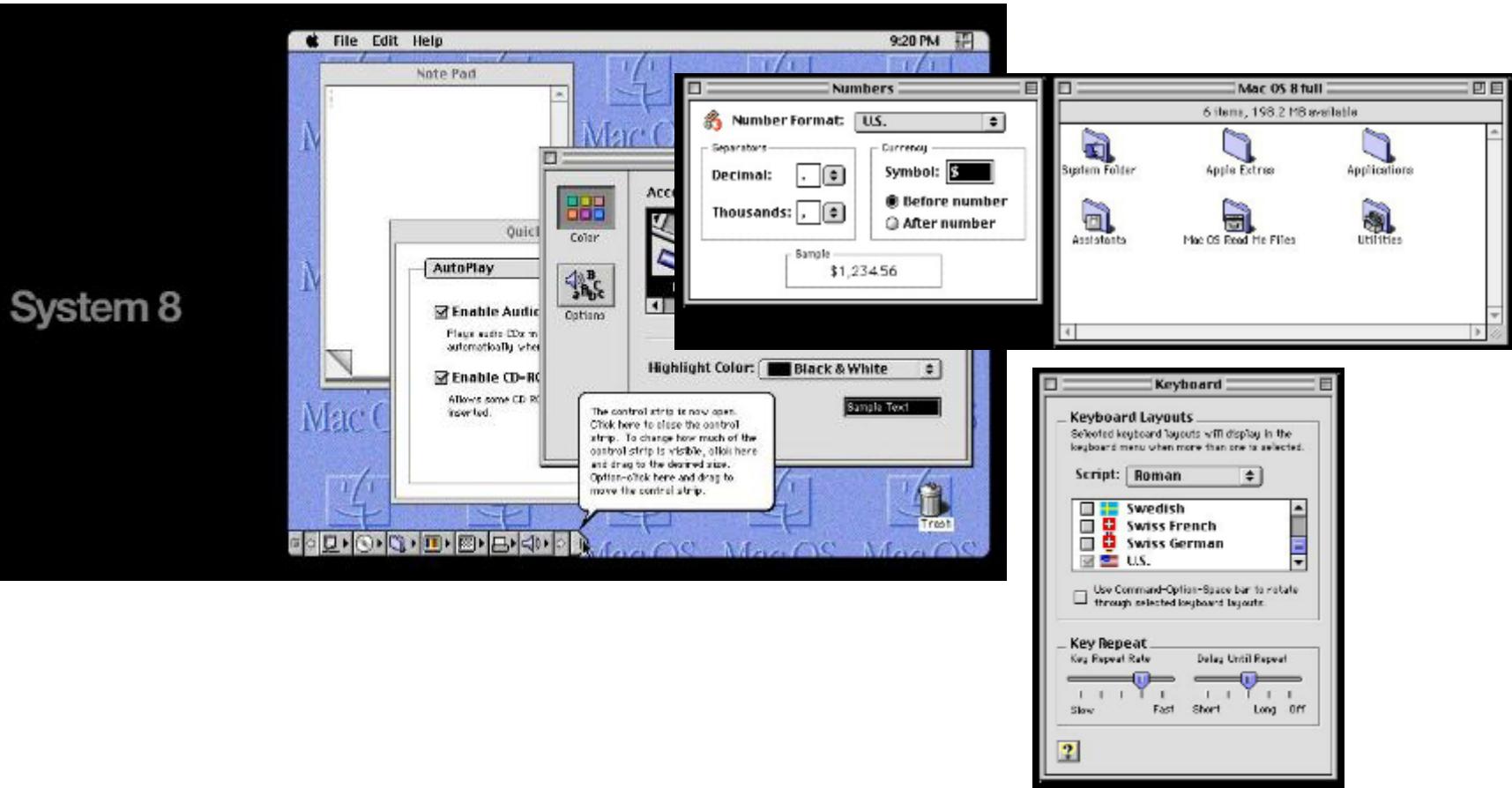
Mac system .1 ,...,9



MAC system .1 ,...,9



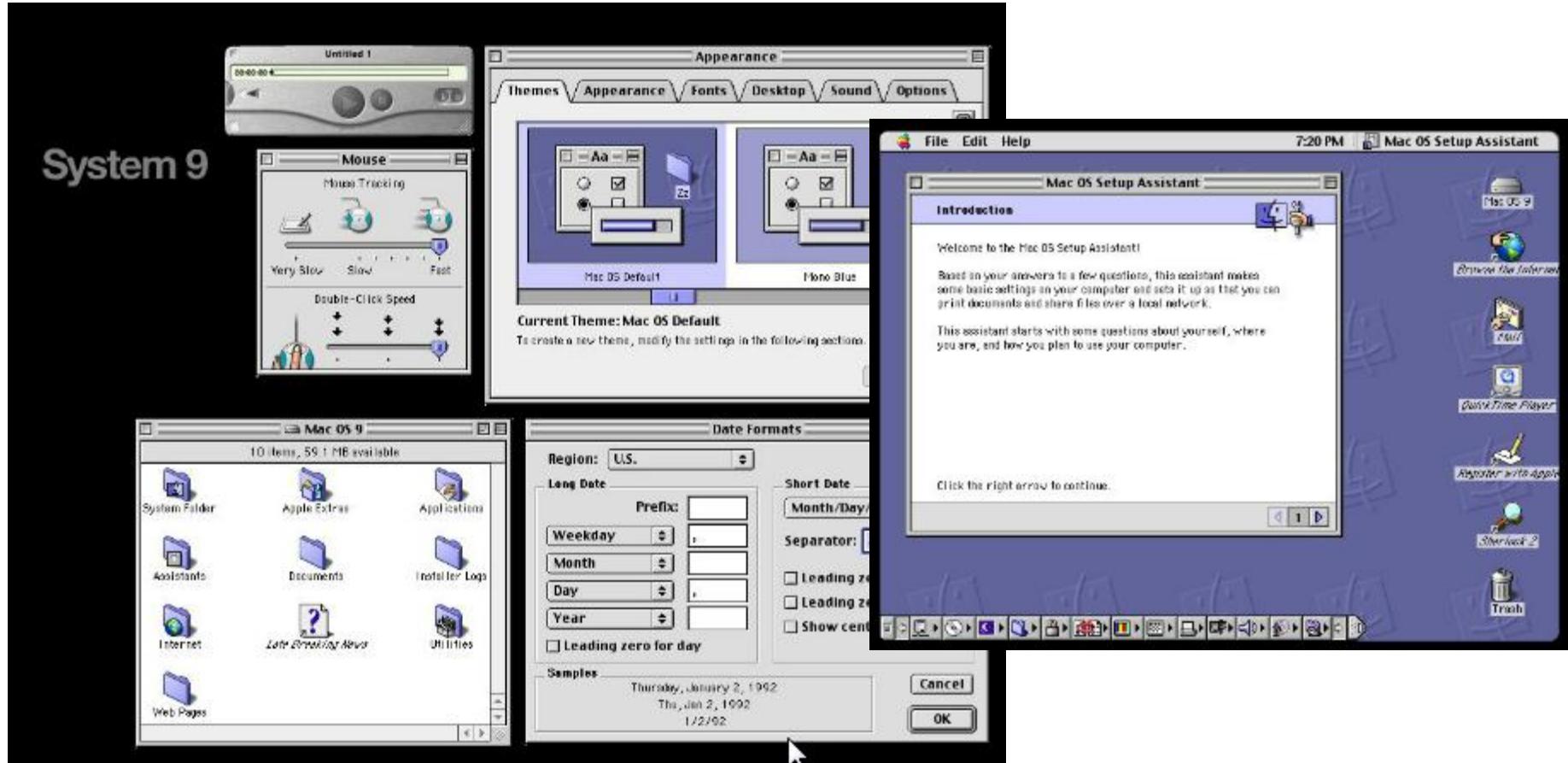
MAC system .1 ,...,9



System 8

MAC system .1 ,...,9

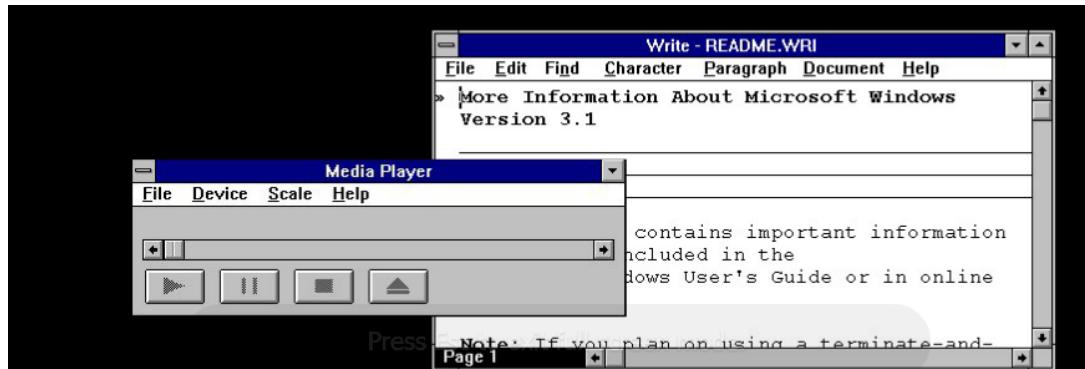
System 9



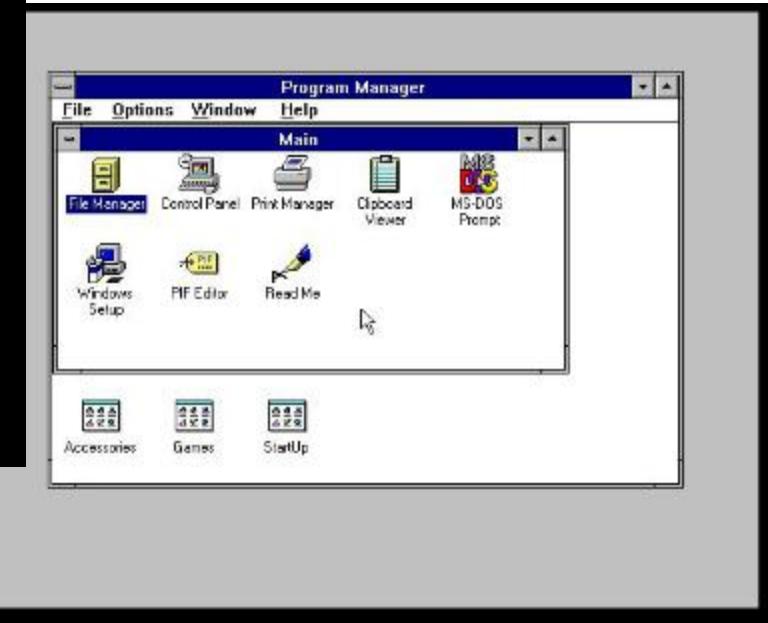
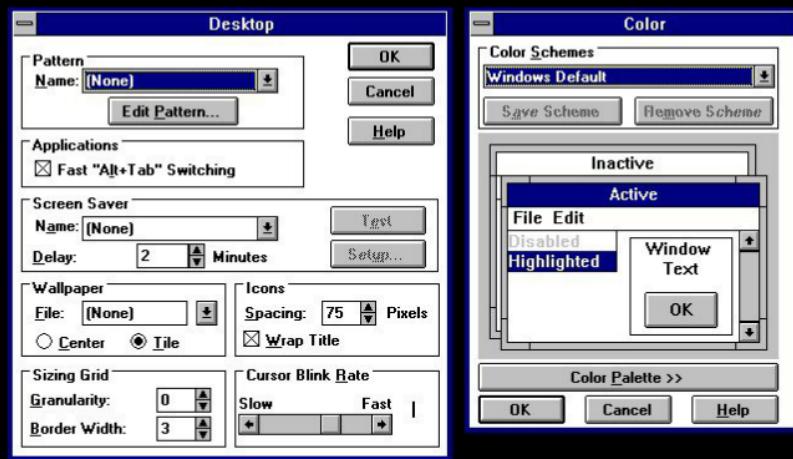
Microsoft
Windows 1, 2, 3.11, 95, 98

Pertemuan 06 : Open Source

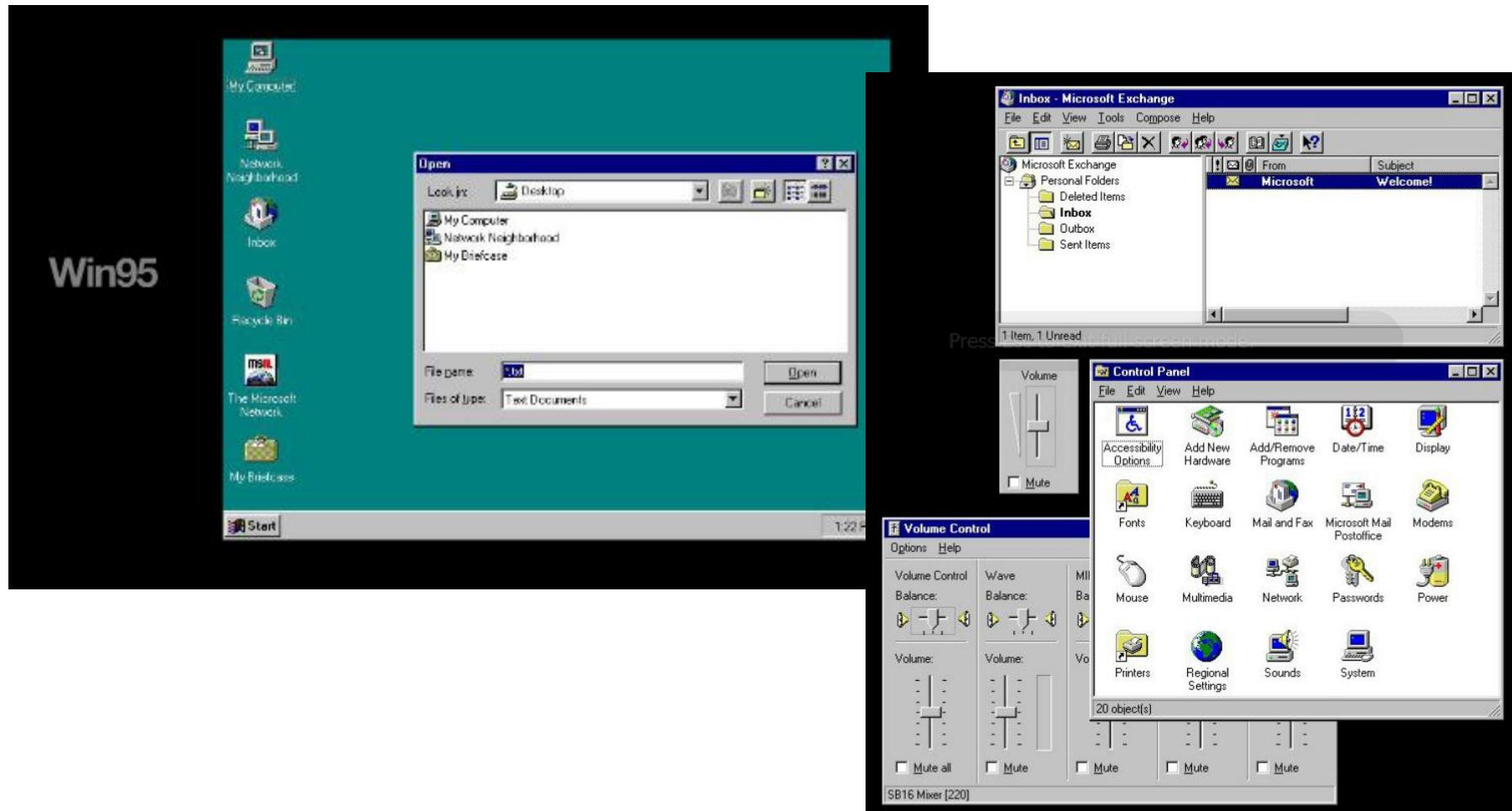




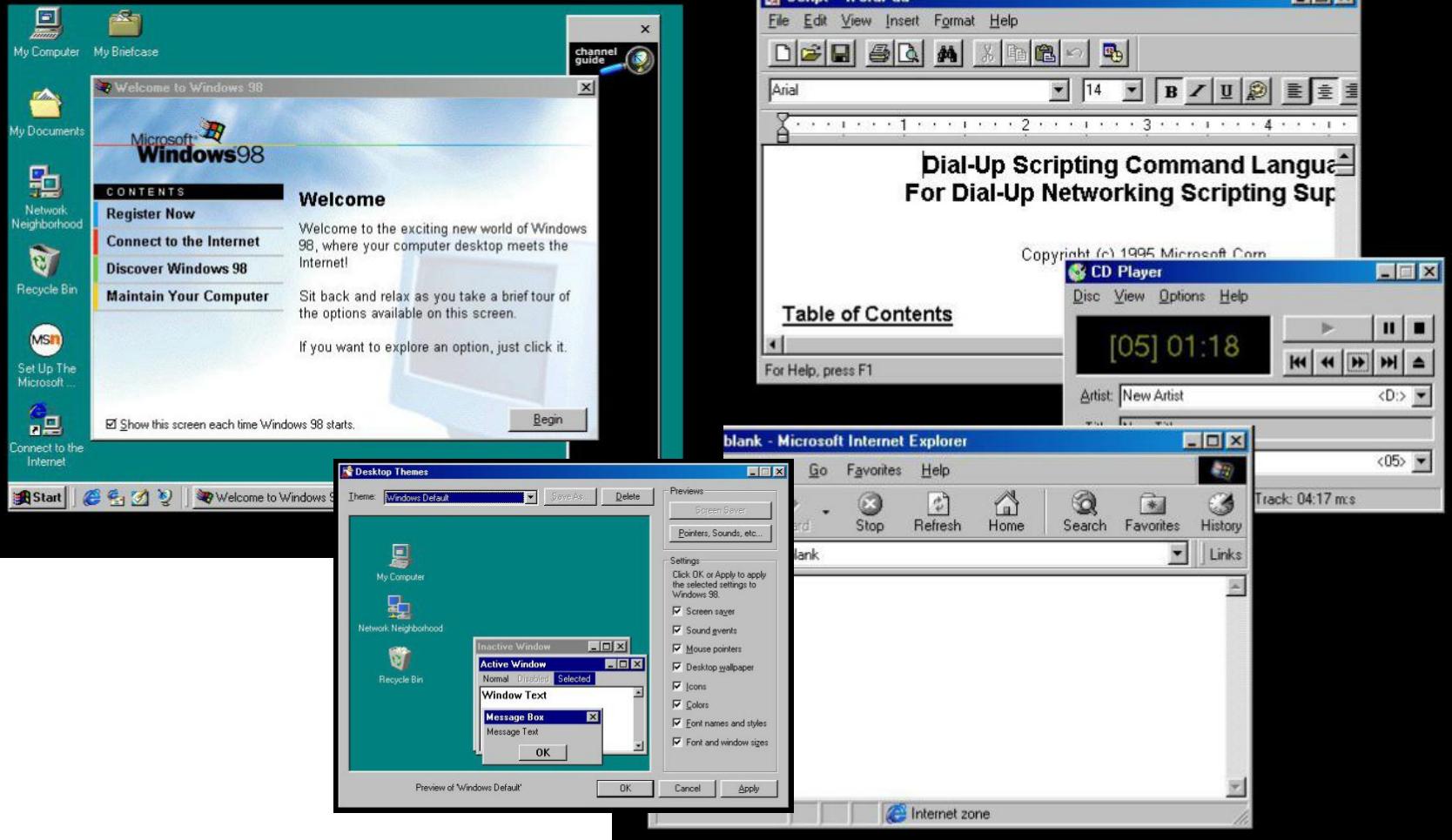
Win3.11



Pertemuan 06 : Open Source



Pertemuan 06 : Open Source



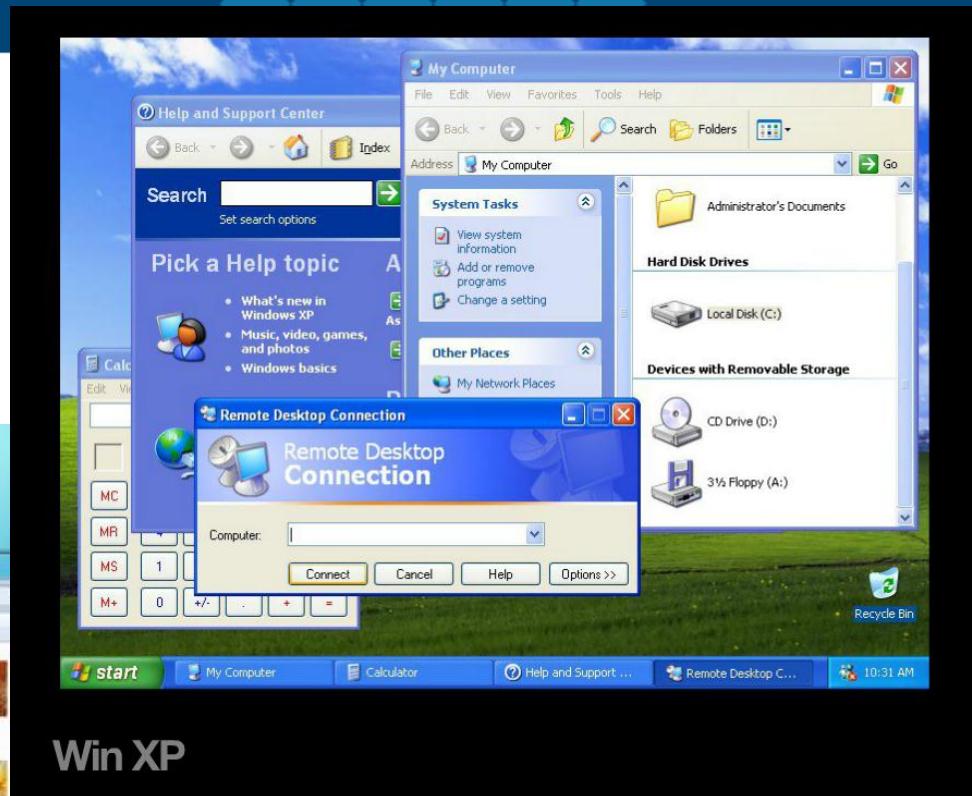
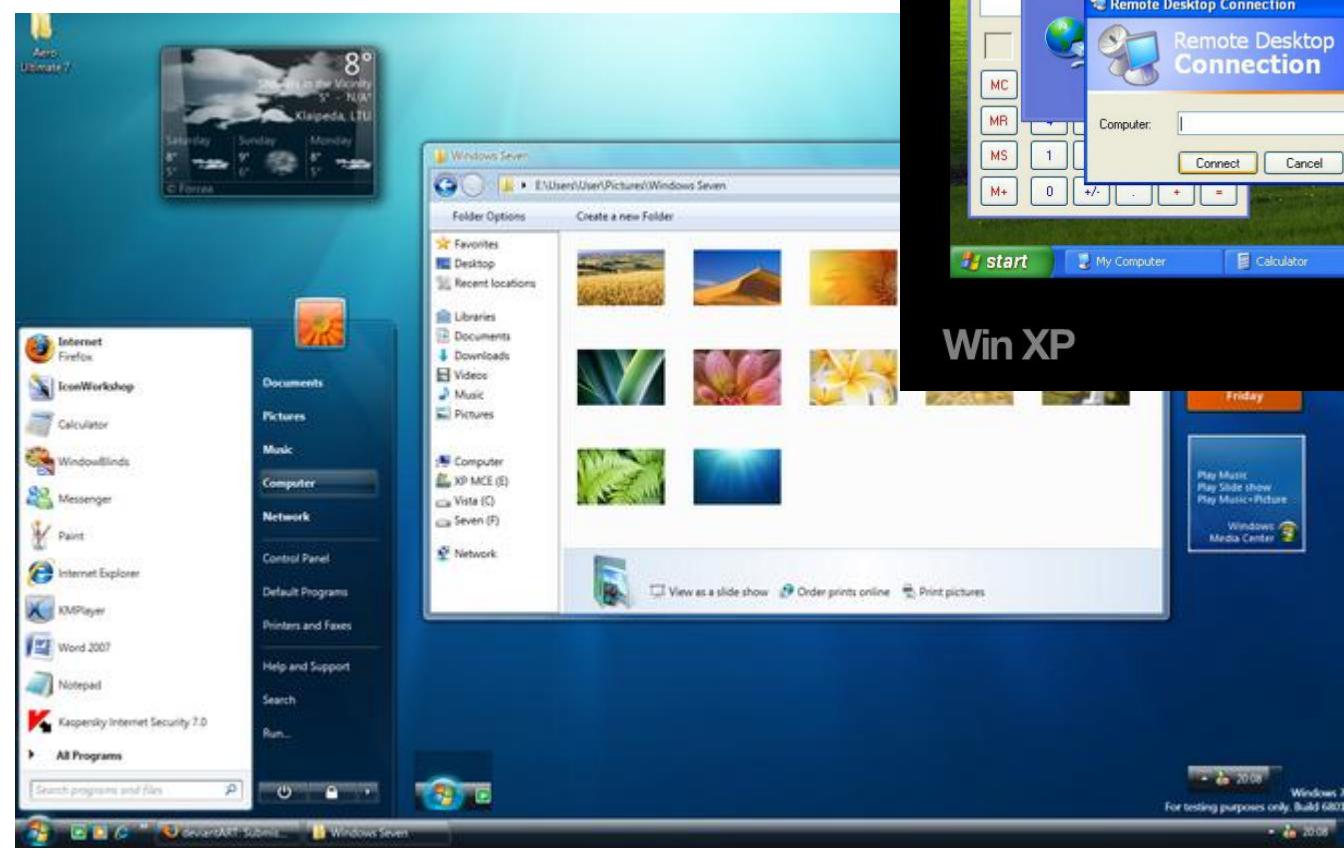
Pertemuan 06 : Open Source





Win 2000

Pertemuan 06 : Open Source



Win XP

Pertemuan 06 : Open Source

Start



Windows Technical Preview
Build 984

Meanwhile...

Unix, Linux, IRIX

Unix

Low level system + X Windows

Unix

X Windows =
Each system is different

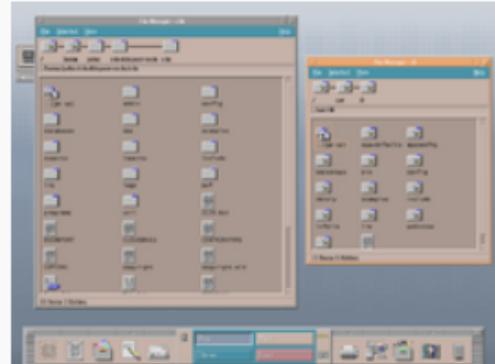
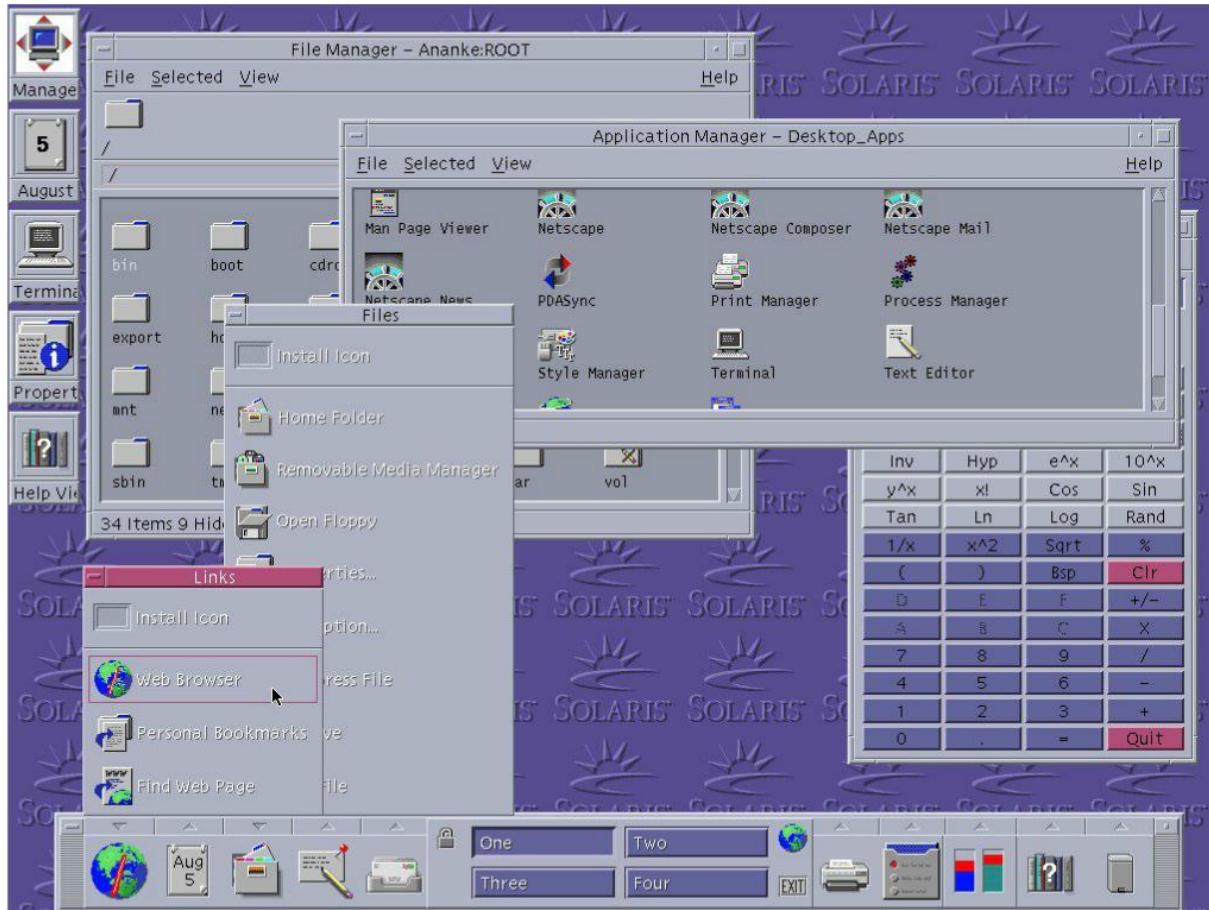
Unix

X Windows =
Minimal Definitions

CDE - Common Desktop Environment

CDE

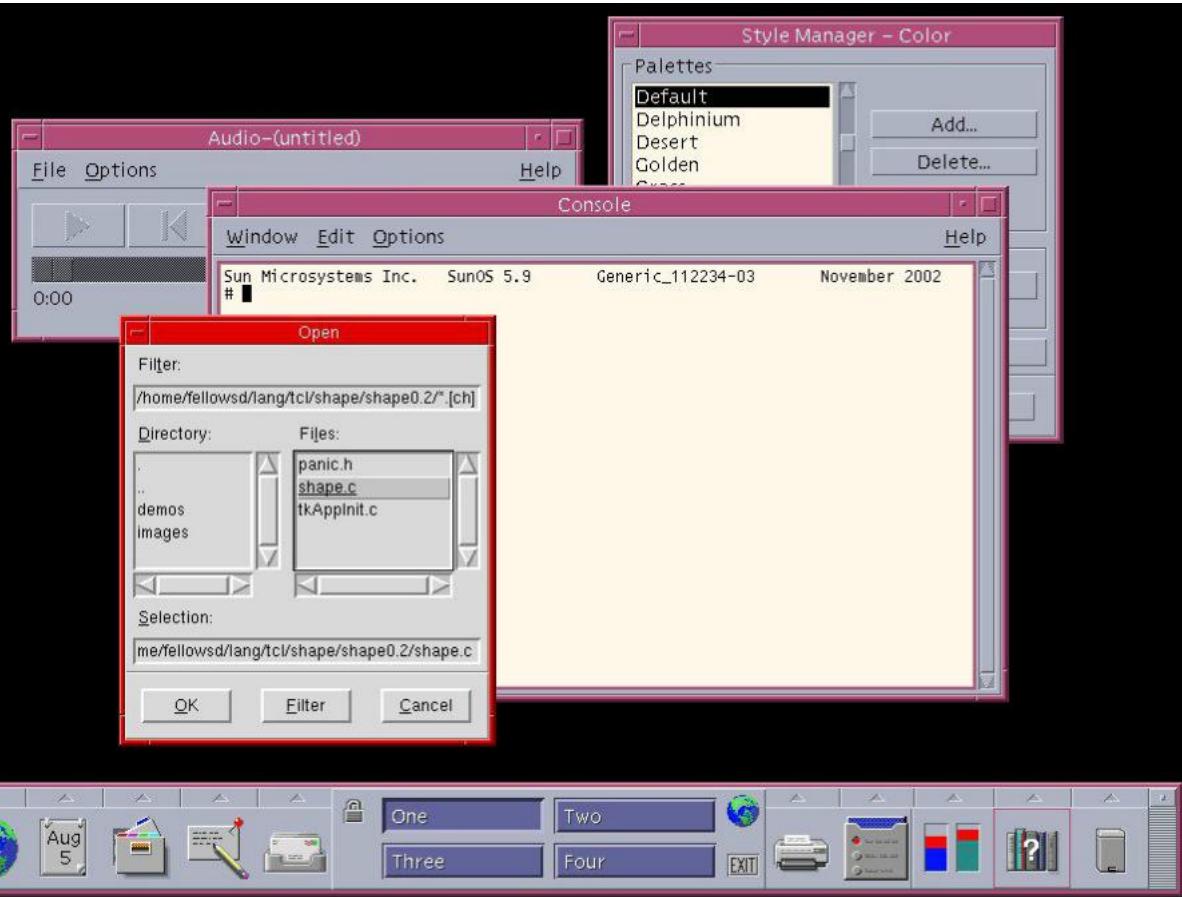
**multiple Unix companies join
together to define a desktop
standard.**

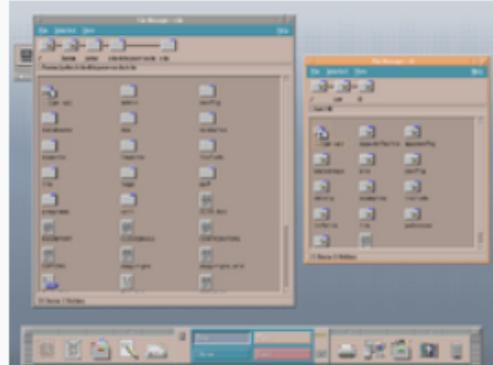


CDE 2.2.0 Alpha running on GNU/Linux

Developer(s)	The Open Group
Stable release	2.1 / 5 February 1997 ^[1]
Preview release	2.2.0d Beta / 30 May 2013
Operating system	Unix, Linux, OpenVMS, Other Unix-like OSes
Type	Desktop environment
License	LGPL v2+
Website	cdesktopevn.org

Pertemuan 06 : Open Source



	COMMON DESKTOP ENVIRONMENT
	CDE 2.2.0 Alpha running on GNU/Linux
Developer(s)	The Open Group
Stable release	2.1 / 5 February 1997 ^[1]
Preview release	2.2.0d Beta / 30 May 2013
Operating system	Unix, Linux, OpenVMS, Other Unix-like OSes
Type	Desktop environment
License	LGPL v2+
Website	cdeskopenv.org

Linux

Open source Unix + X Windows

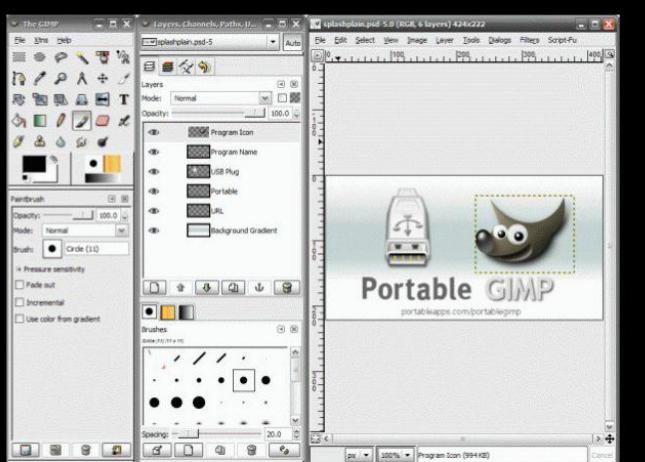
Linux

X Windows again.
Multiple UI Libraries + Desktops



Linux

Gimp > Gtk > Gnome



Gimp

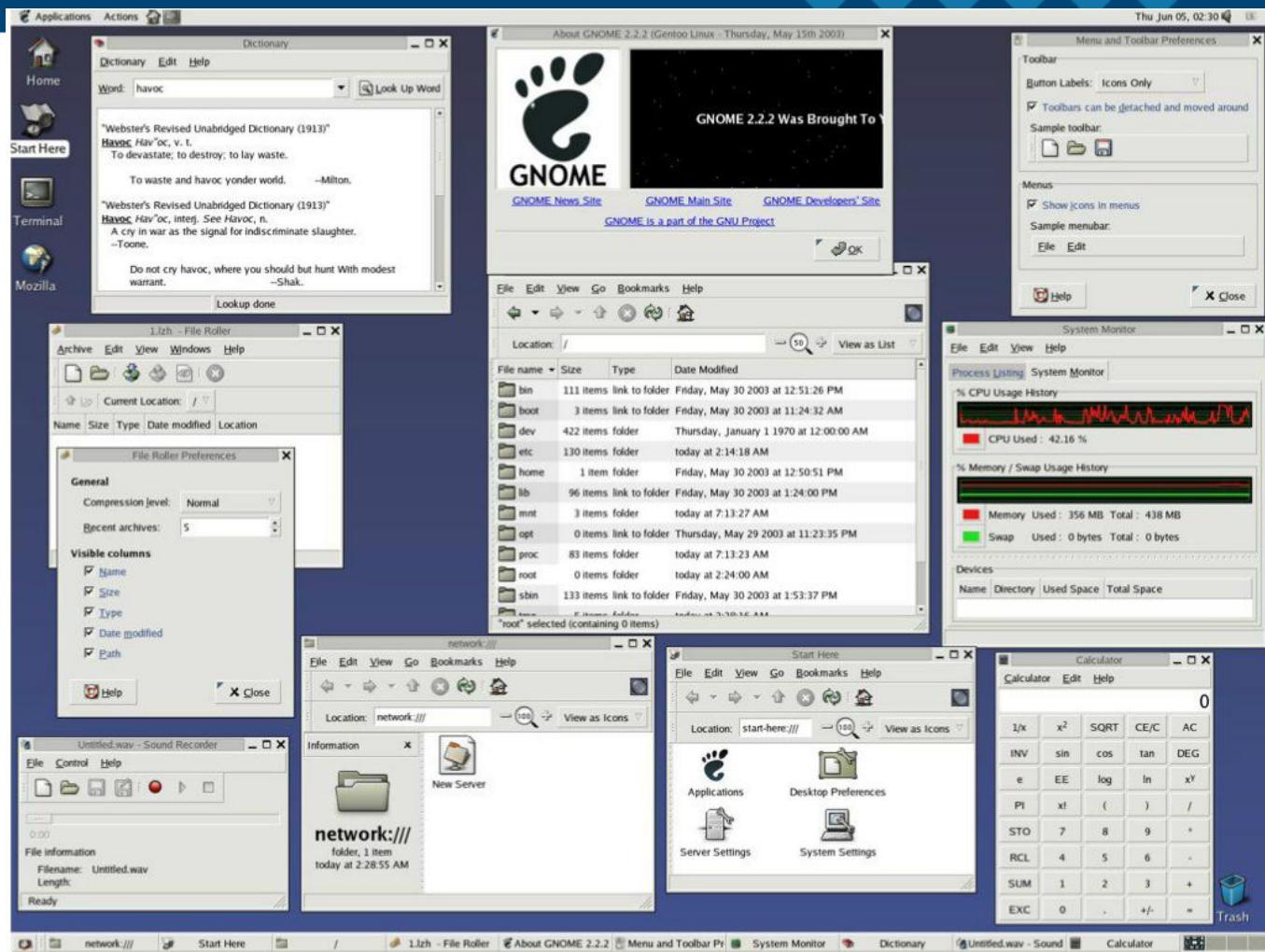
Pertemuan 06 : Open Source

GNOME 1.0 (dirilis pada 1999)

Desktop GNOME ini diutamakan untuk Red Hat Linux, kemudian dikembangkan lagi untuk distributor Linux lainnya juga.

GTK+ atau GIMP Toolkit adalah sebuah widget toolkit antar-platform untuk menghasilkan **GUI**. GTK+ adalah salah satu toolkit terpopuler untuk Sistem X Window, bersama-sama dengan **Qt**.

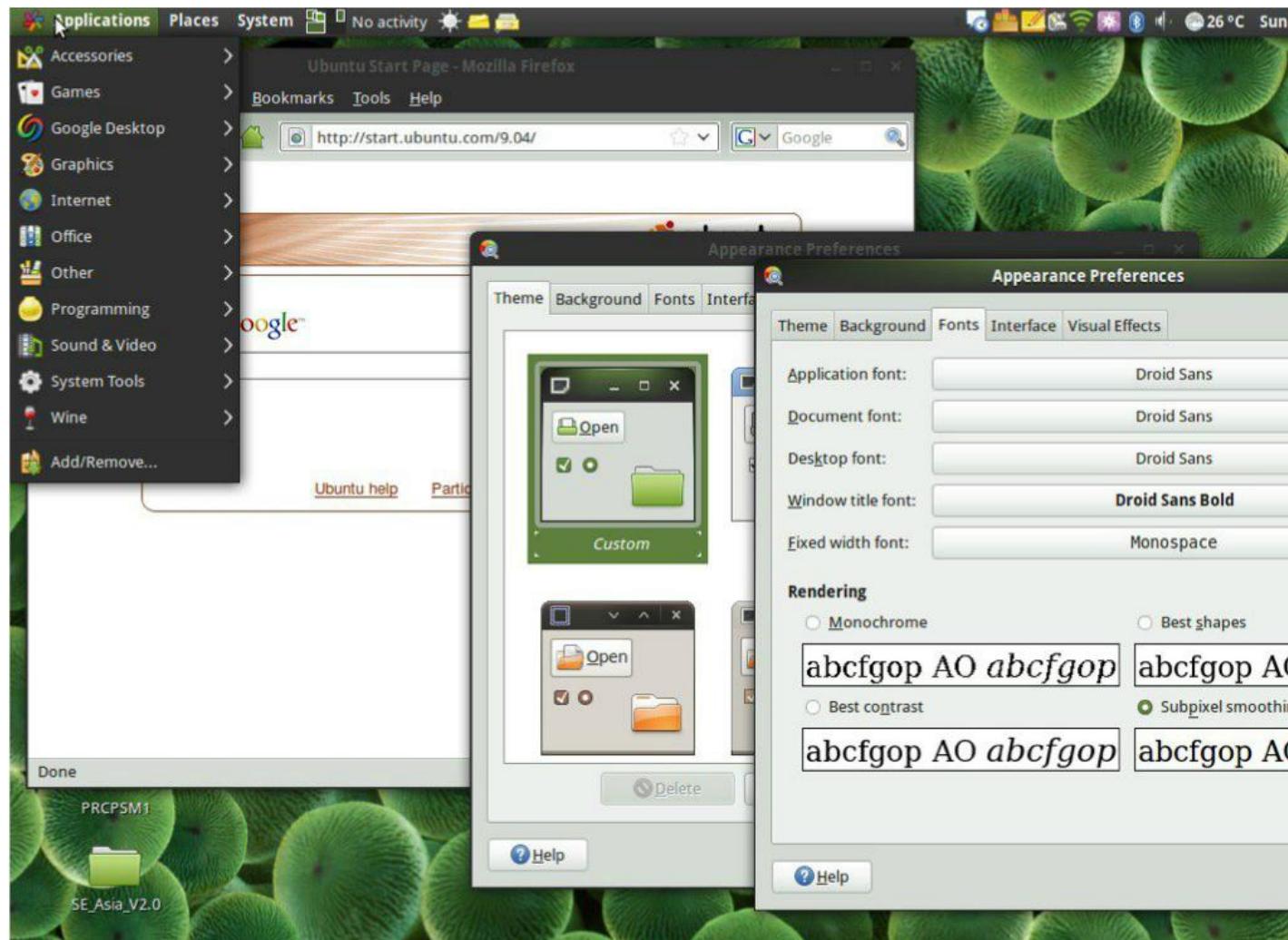
Pertemuan 06 : Open Source



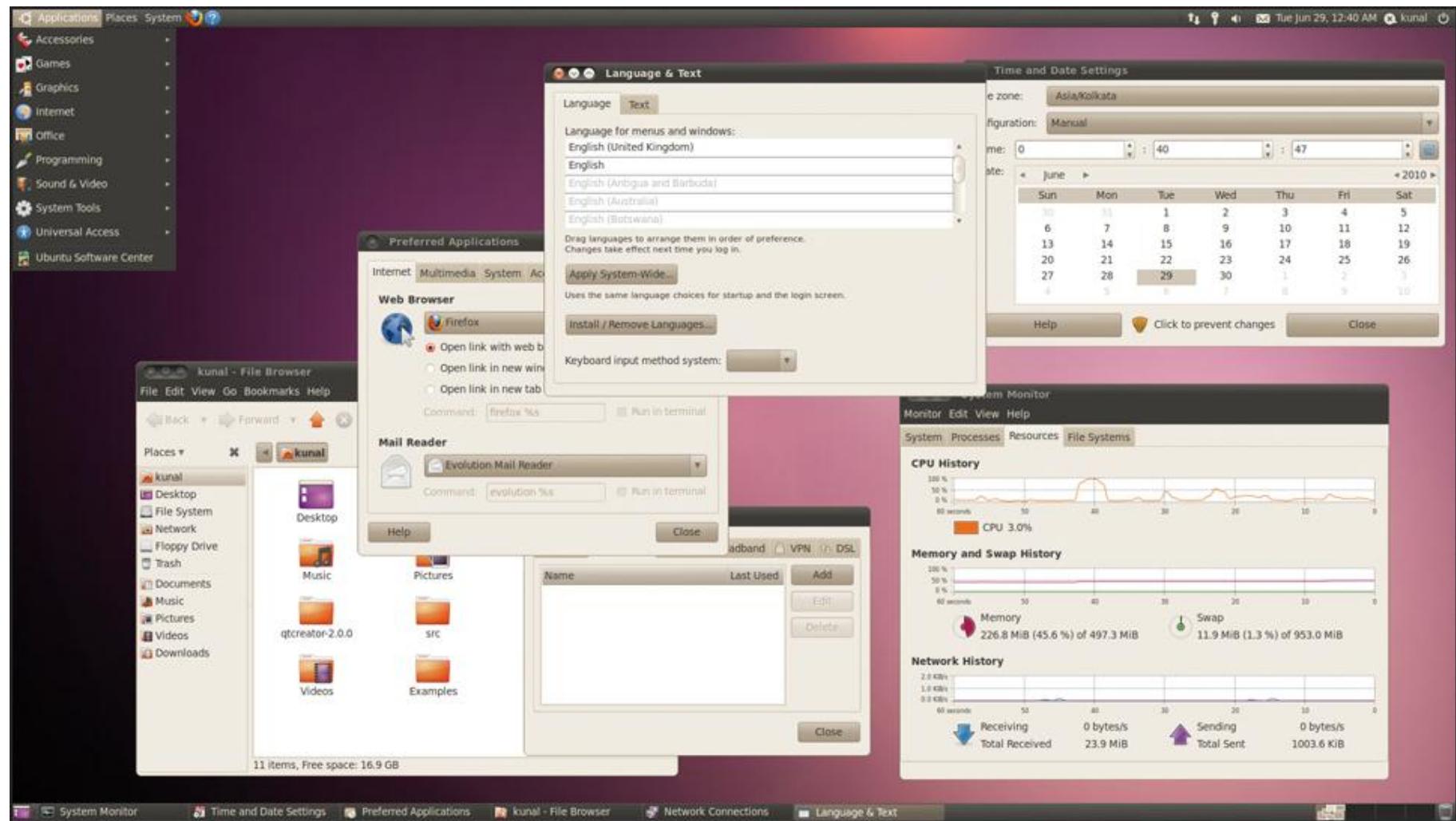
Pertemuan 06 : Open Source



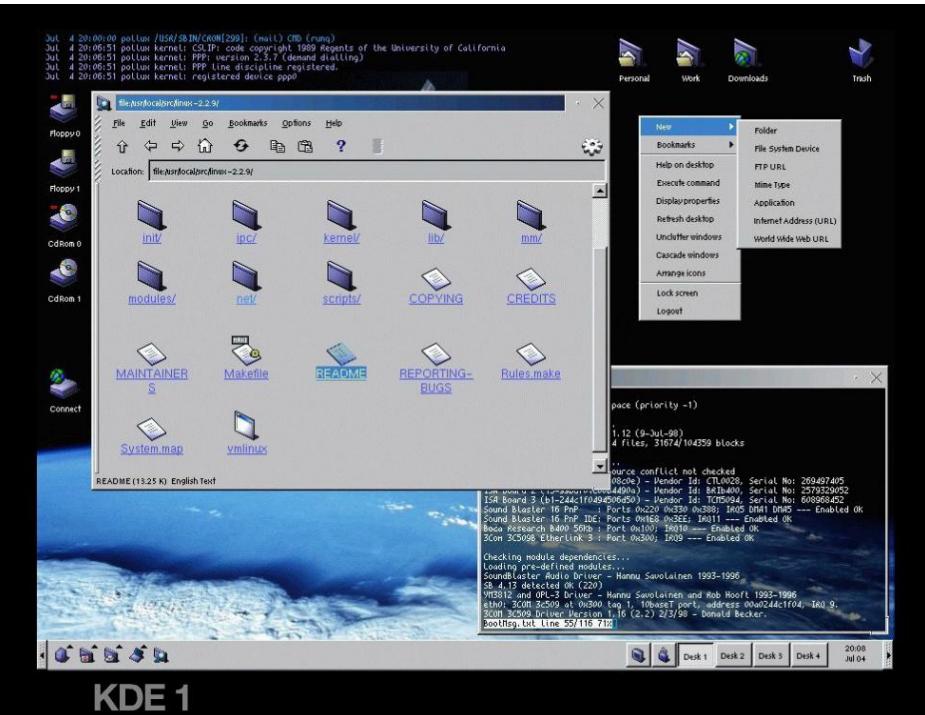
Pertemuan 06 : Open Source



Pertemuan 06 : Open Source



Pertemuan 06 : Open Source



KDE 1

KDE (di dominasi Linux) berusaha untuk memenuhi kebutuhan untuk sebuah desktop yang mudah digunakan untuk Unix workstation, mirip dengan lingkungan desktop yang bisa ditemukan pada MacOS atau Window95/NT. Sistem ini sepenuhnya gratis termasuk kode sumbernya yang dapat dimodifikasi.

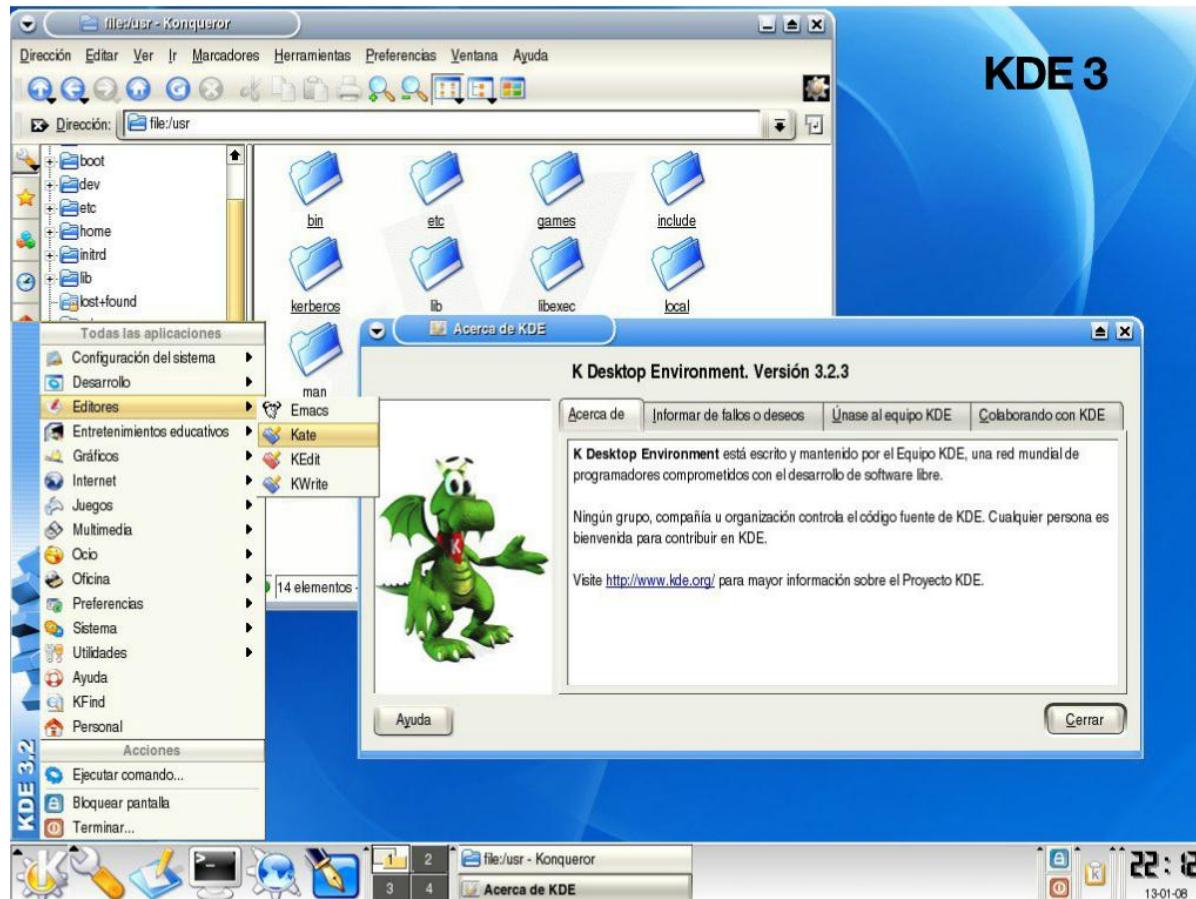
KDE 1.0 (dirilis pada 1998)

Linux

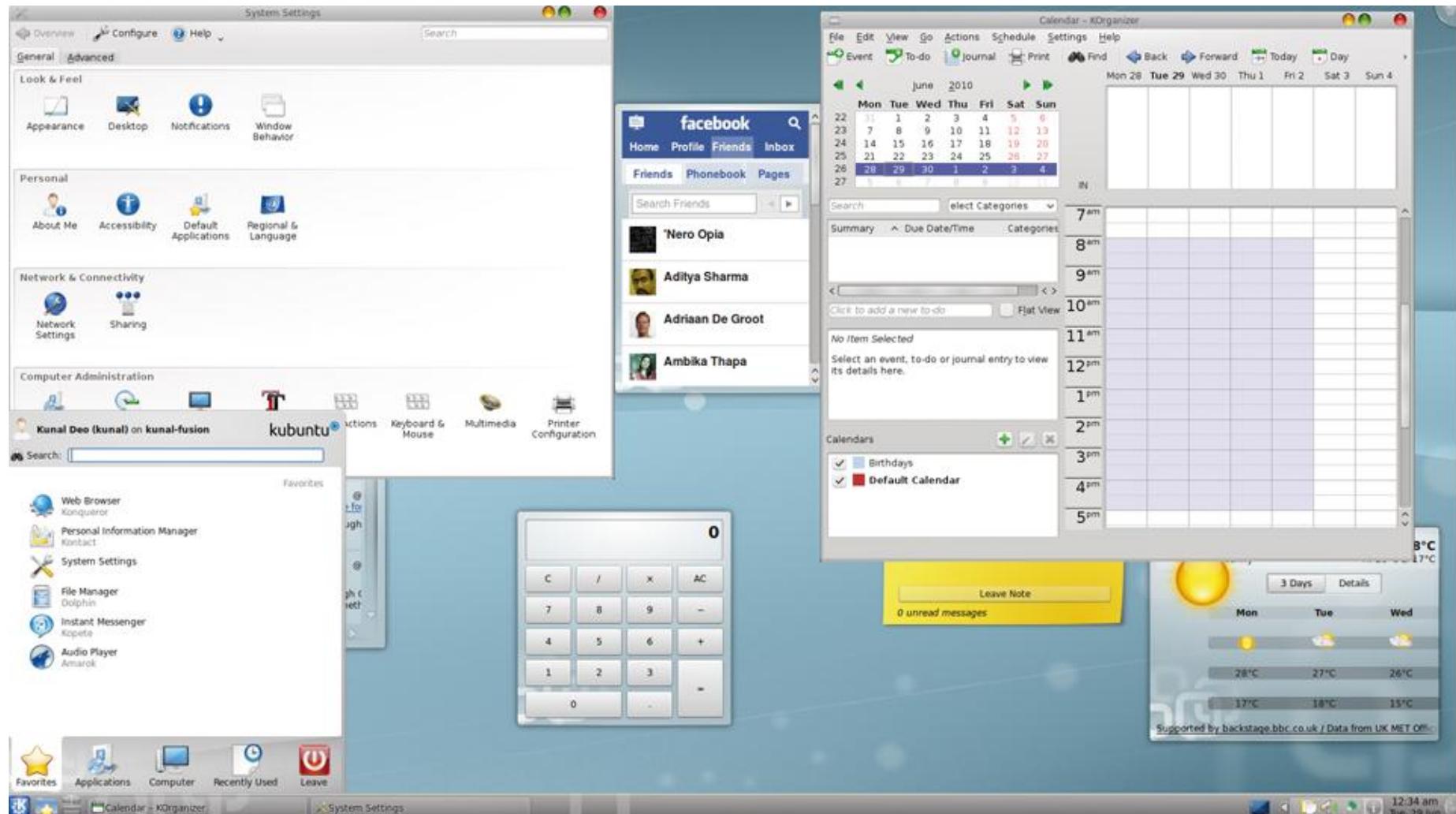
QT > KDE

QT is now owned by Nokia.

Pertemuan 06 : Open Source

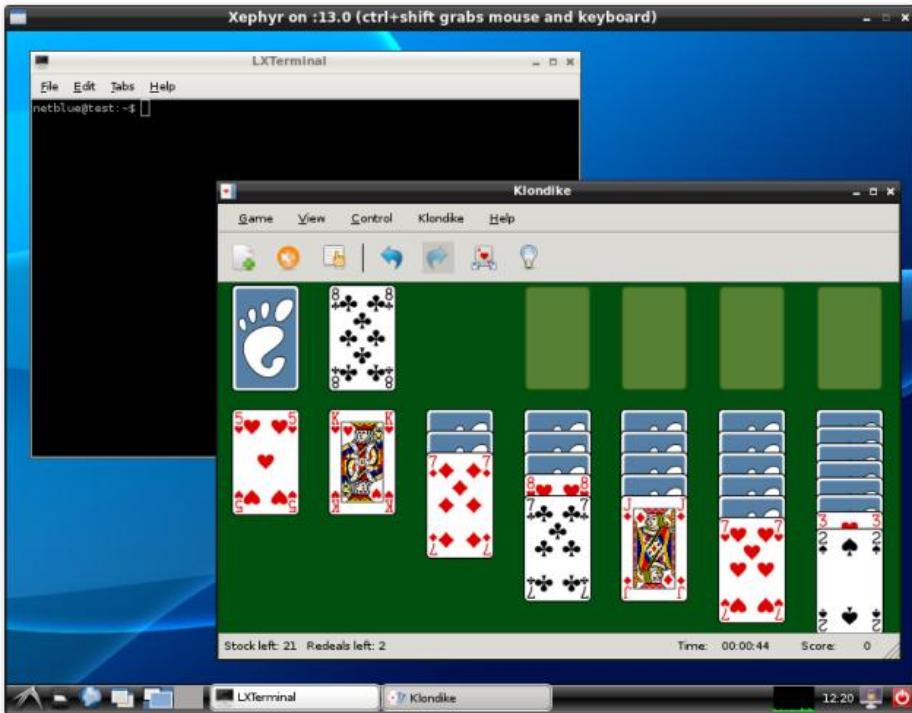


Pertemuan 06 : Open Source



OTHER GUI FOR LINUX

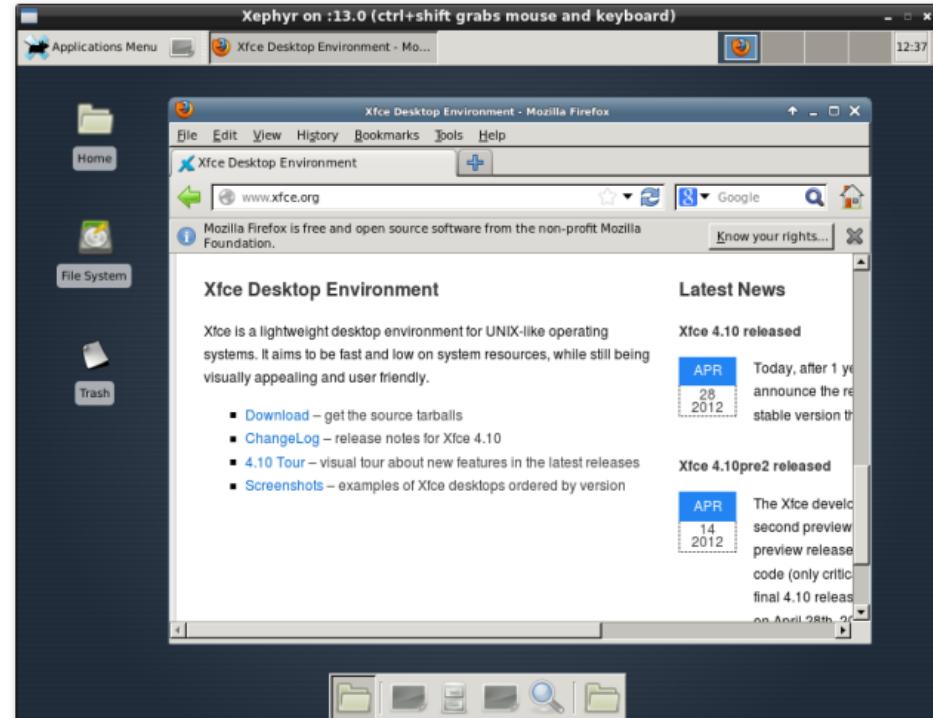
Pertemuan 06 : Open Source



LXDE Desktop Environment

LXDE

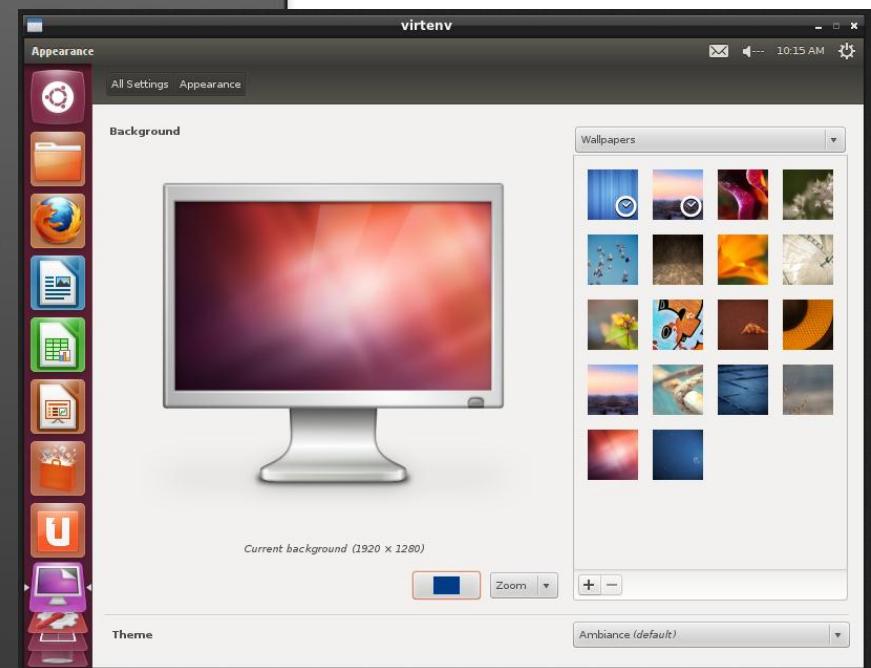
Yudha Yudhanto, SKom



XFCE Desktop Environment

XFCE

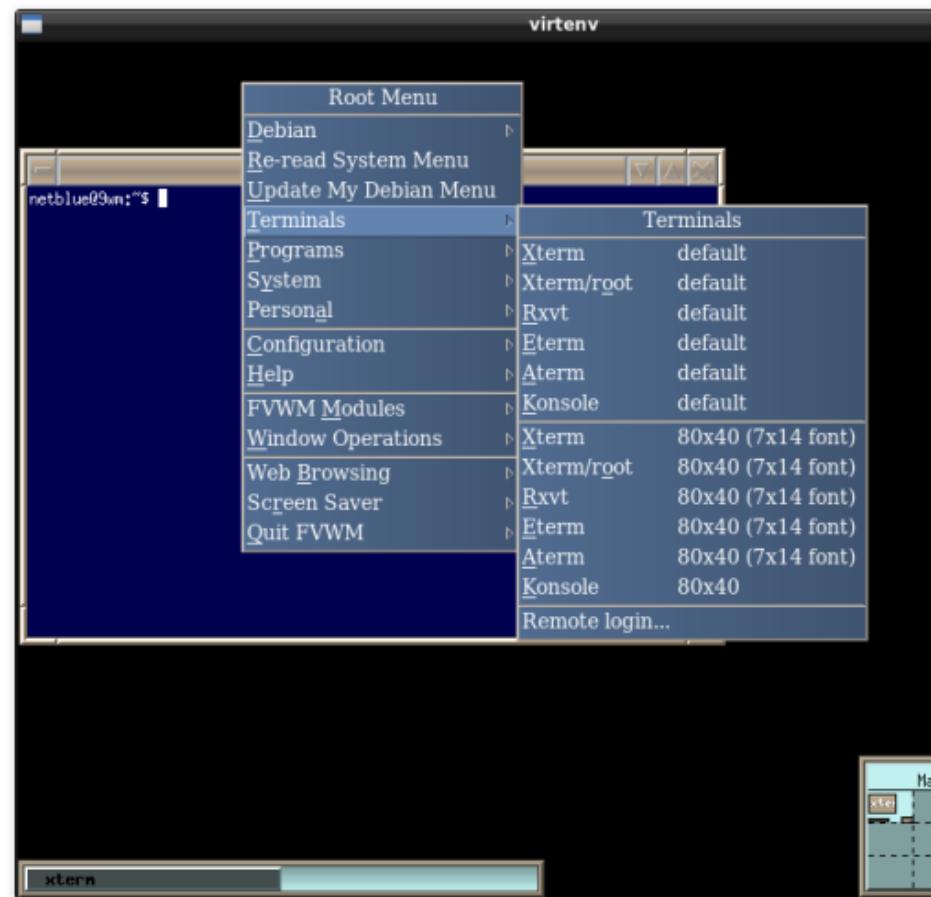
Pertemuan 06 : Open Source



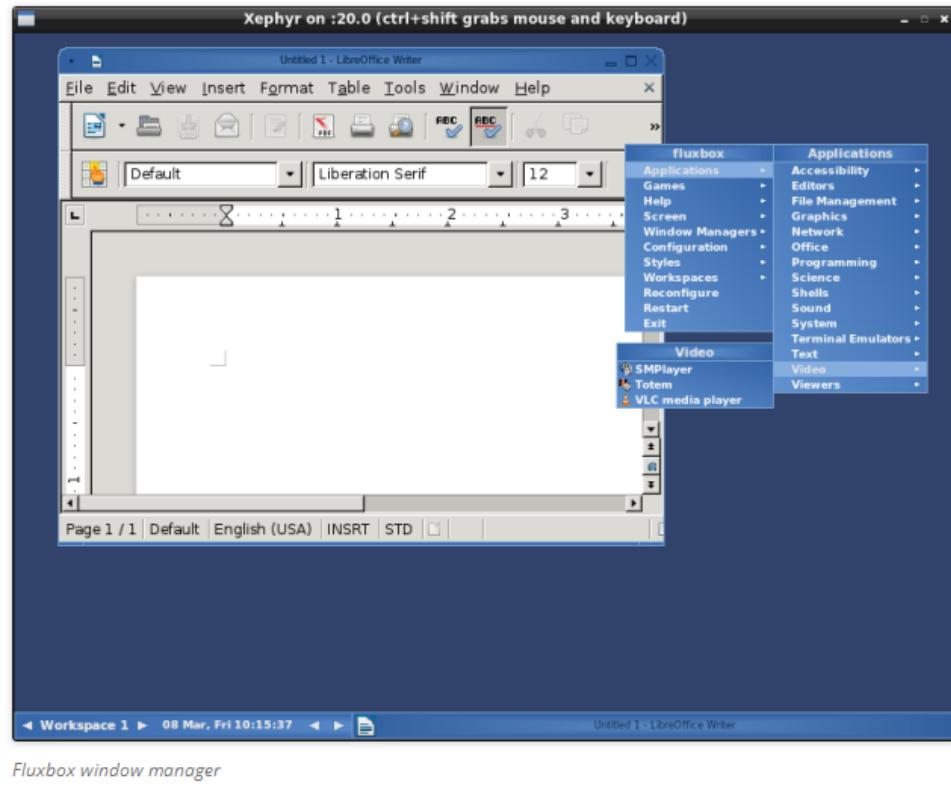
E17 Desktop Environment

E17

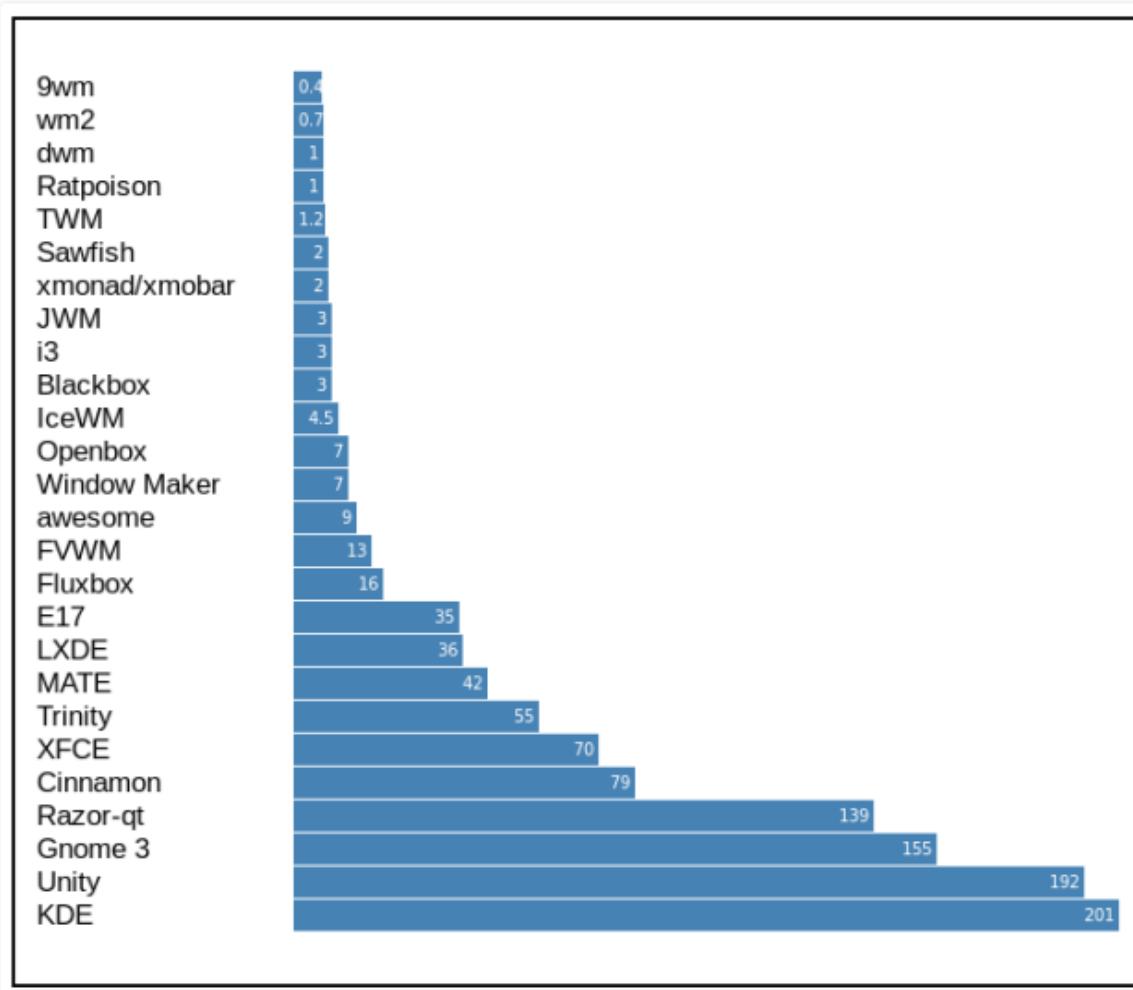
FVWM



FVWM Window Manager



FLUXBOX



WM/DE Memory (MB)

Yudha Yudhanto, SKom

QNX

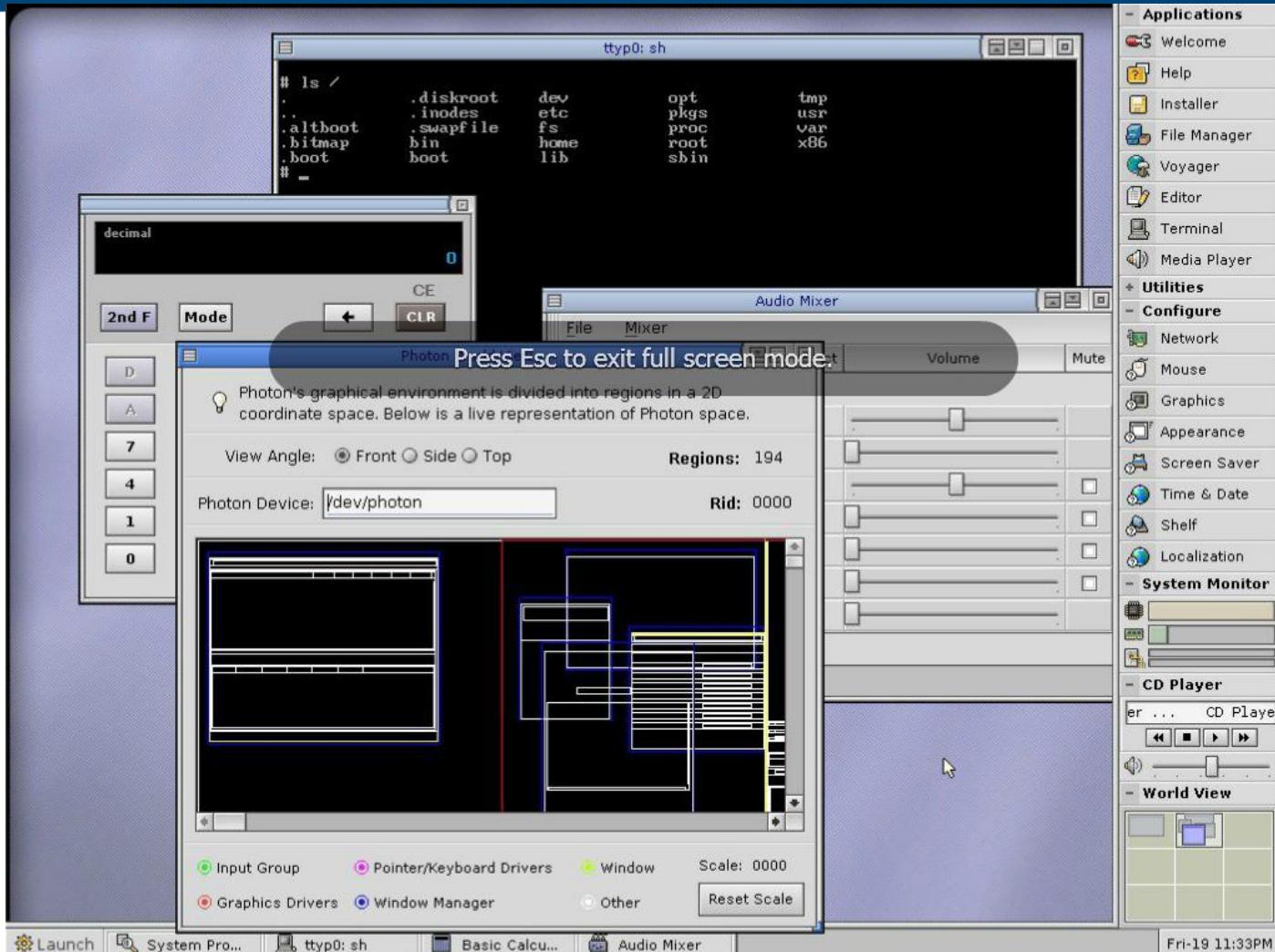
One Floppy OS.

**QNX is now owned by RIM - makers of Blackberry.
It powers the PlayBook.**

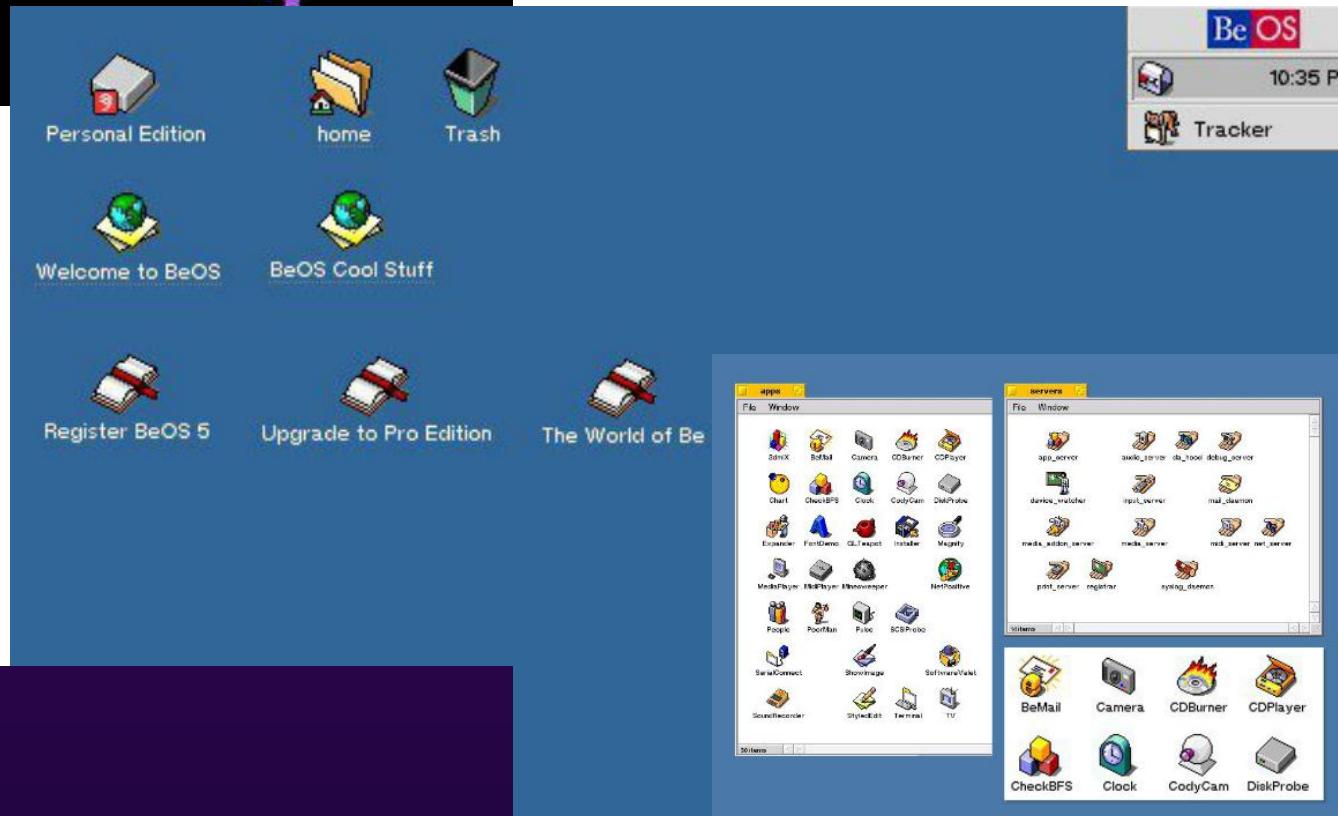
Pertemuan 06 : Open Source



Pertemuan 06 : Open Source

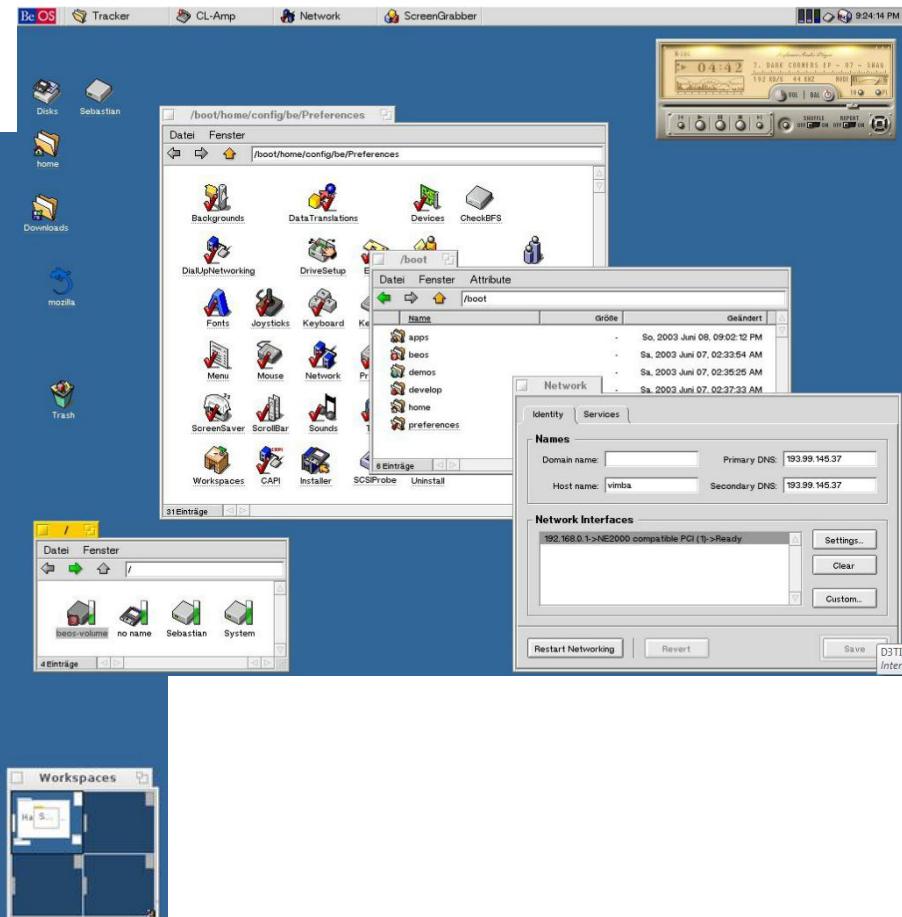
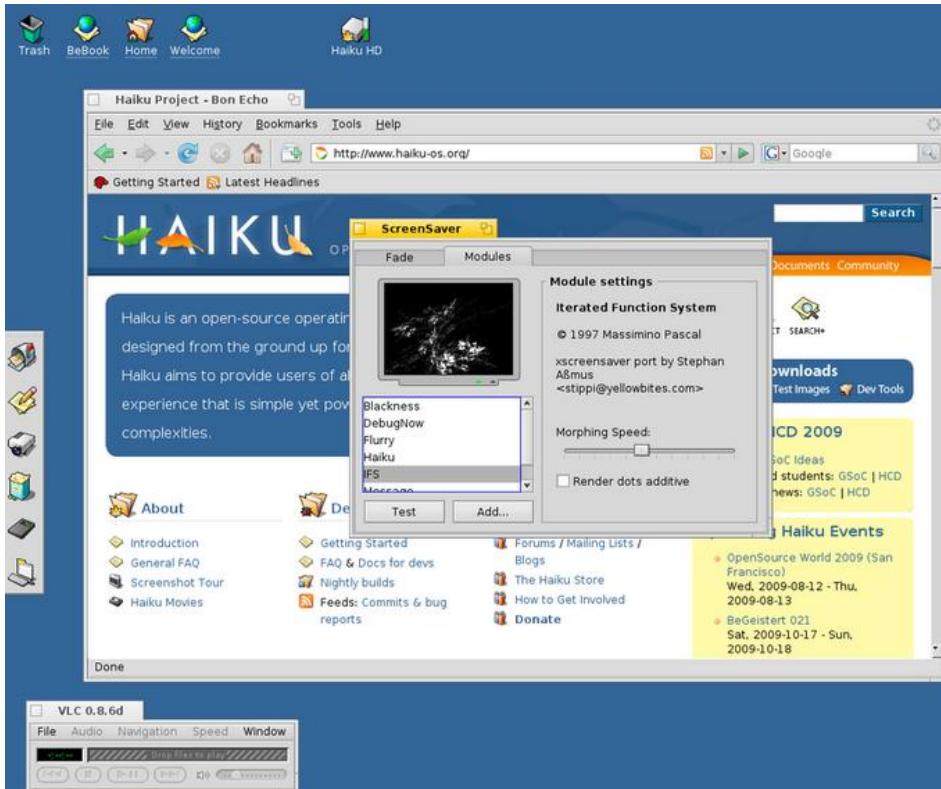


Pertemuan 06 : Open Source



BeOS

Pertemuan 06 : Open Source

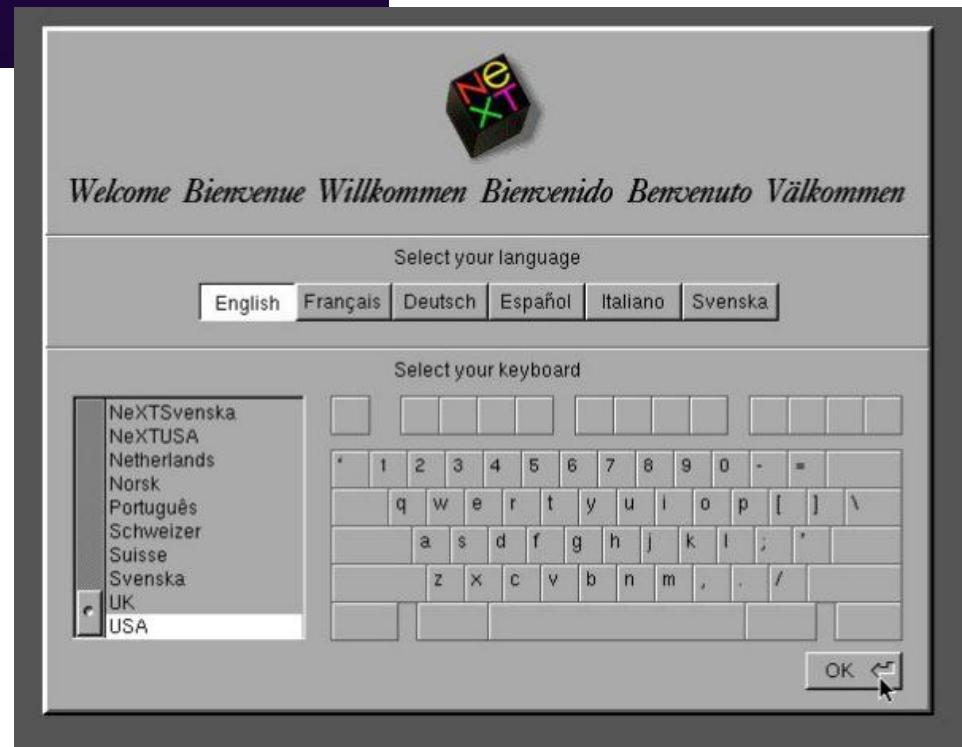


BeOS

Kom

NeXT

Steve's other company.



Pertemuan 06 : Open Source



Apple

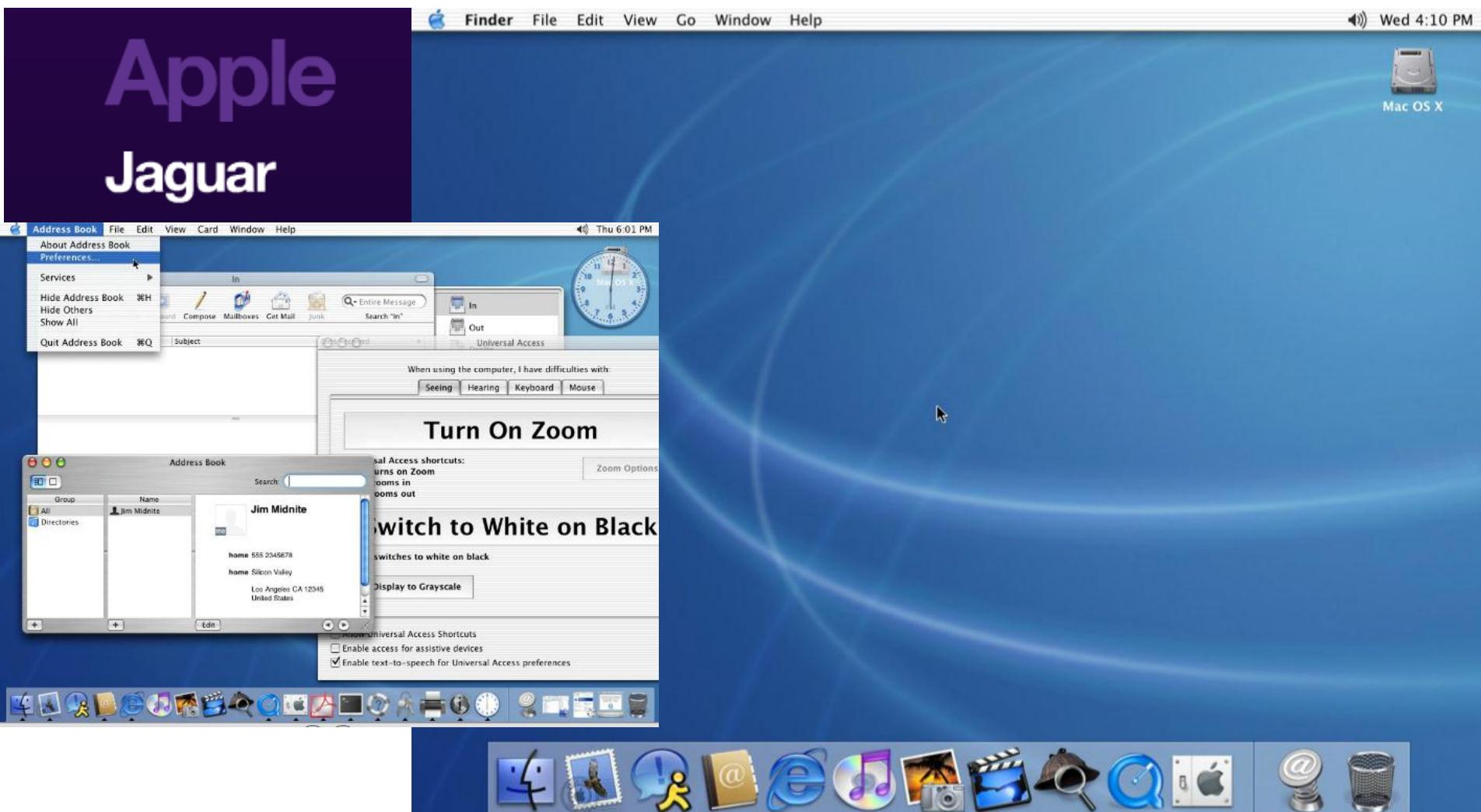
Apple Buys NeXT > Mac OS X

Apple

Mac OS X

Unix + Aqua ~~XWindows~~

Pertemuan 06 : Open Source

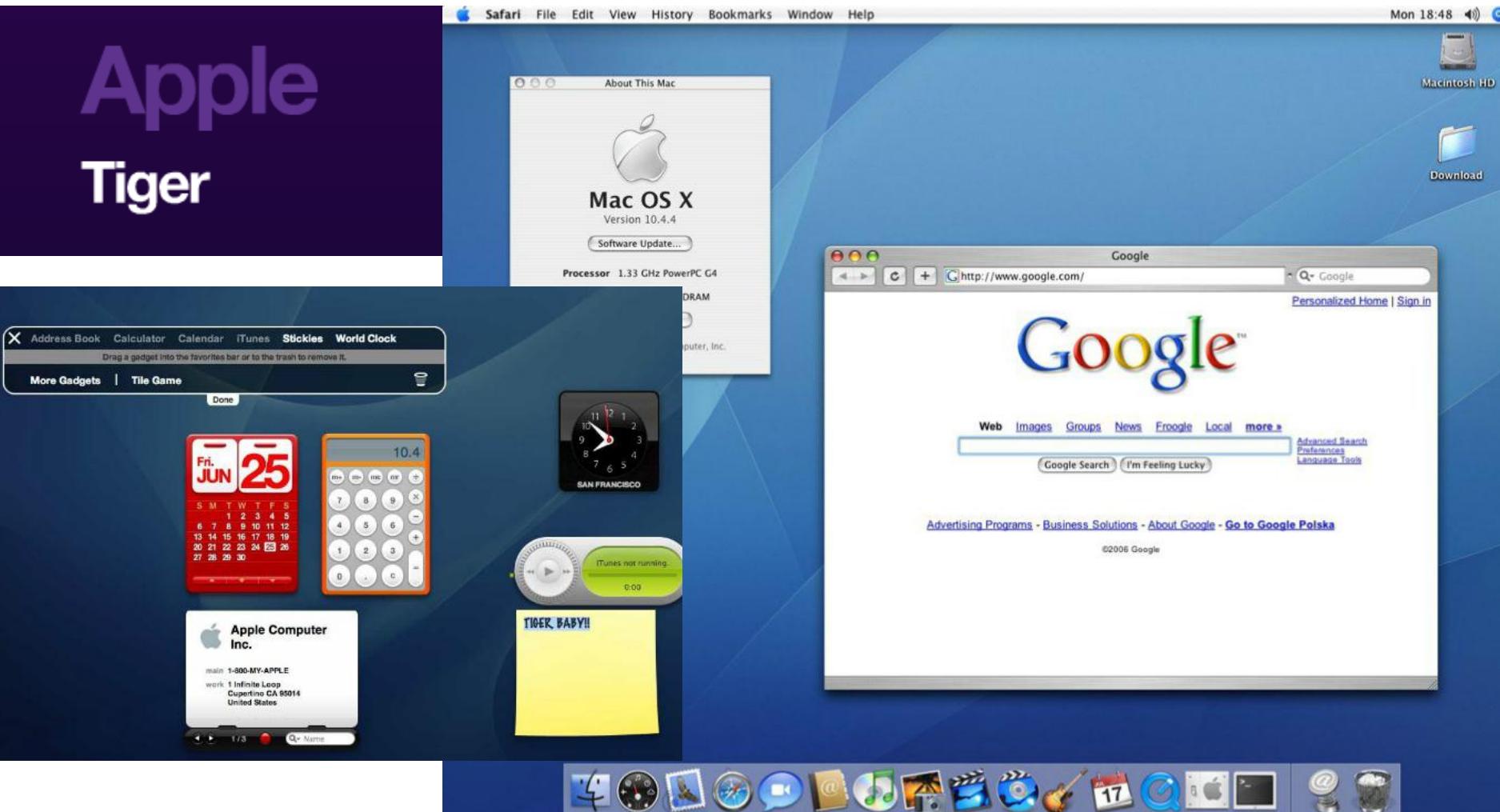


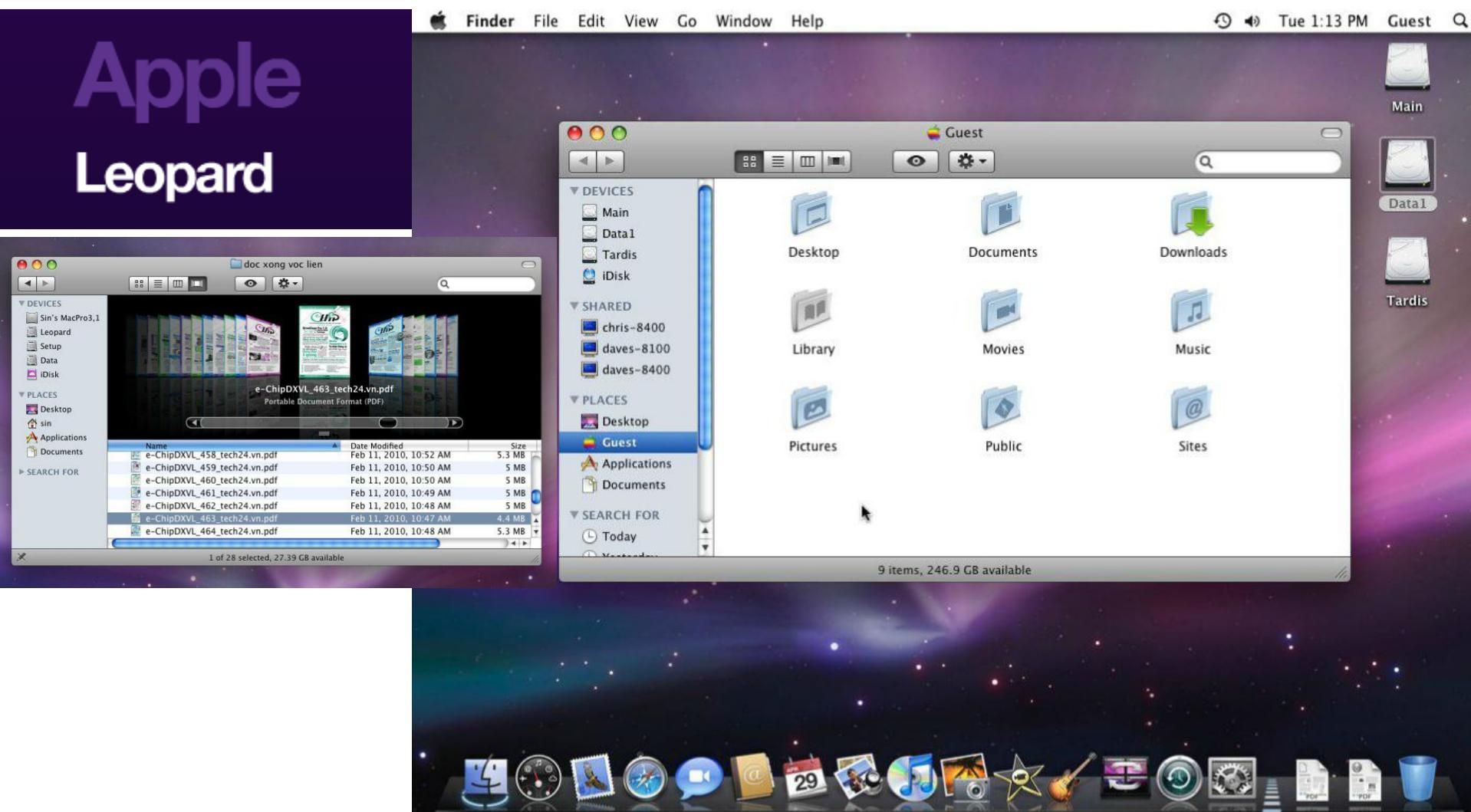
Pertemuan 06 : Open Source



Yudha Yudhanto, SKom

Pertemuan 06 : Open Source





Name roundup

DOS

Mac OS Classic (System 1..9)

Linux: Gnome, Kde, Gtk, QT

BeOS

QNX

Windows

NeXTSTEP

Mac OS X

thank you.



1. Gesture Interfaces

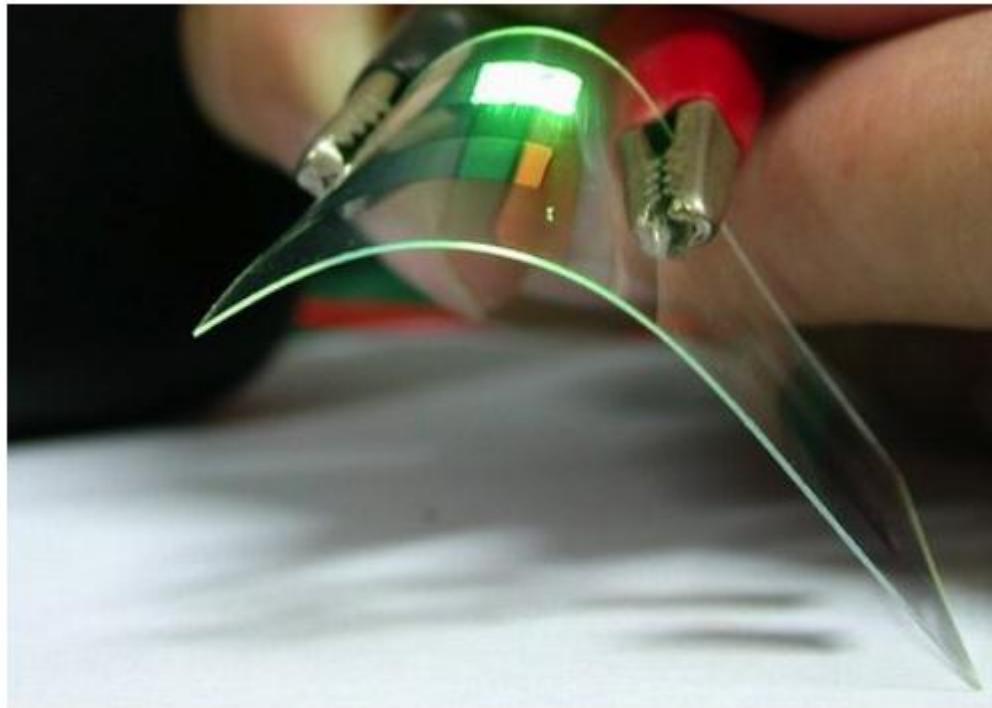


Minority Report (2012)

2. Brain-Computer Interface

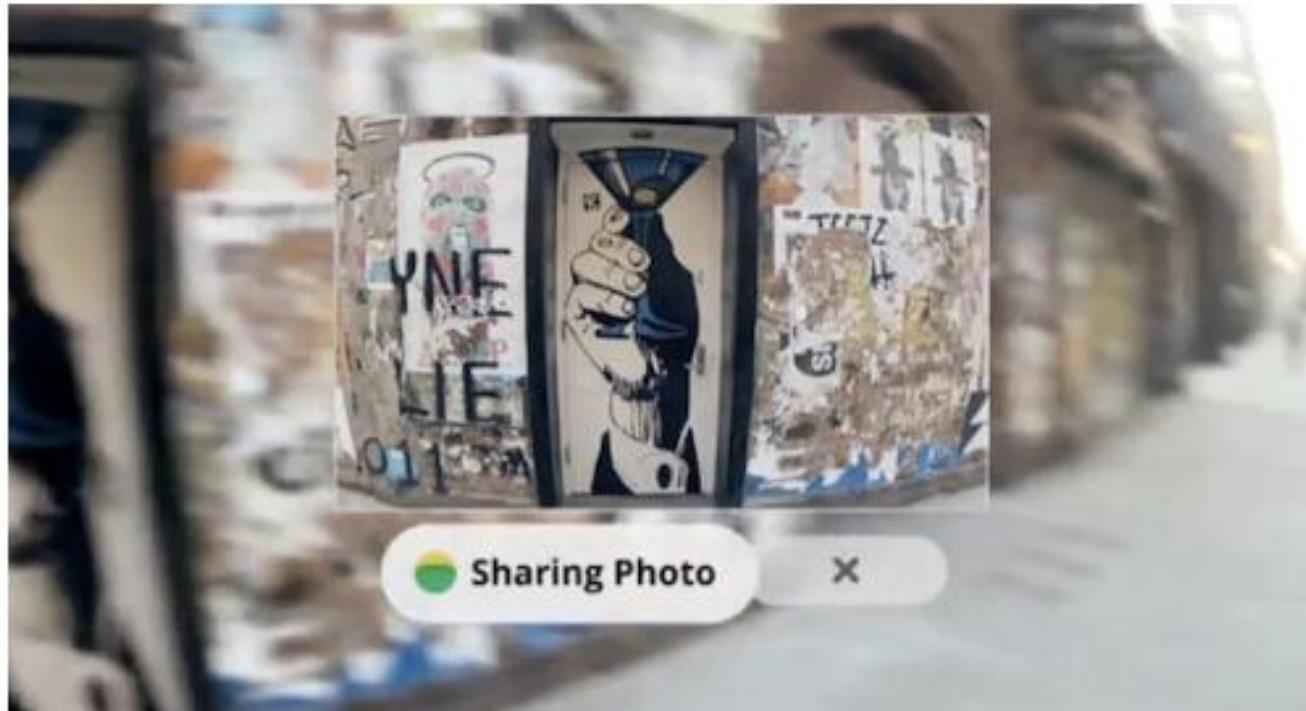


3. Flexible OLED display

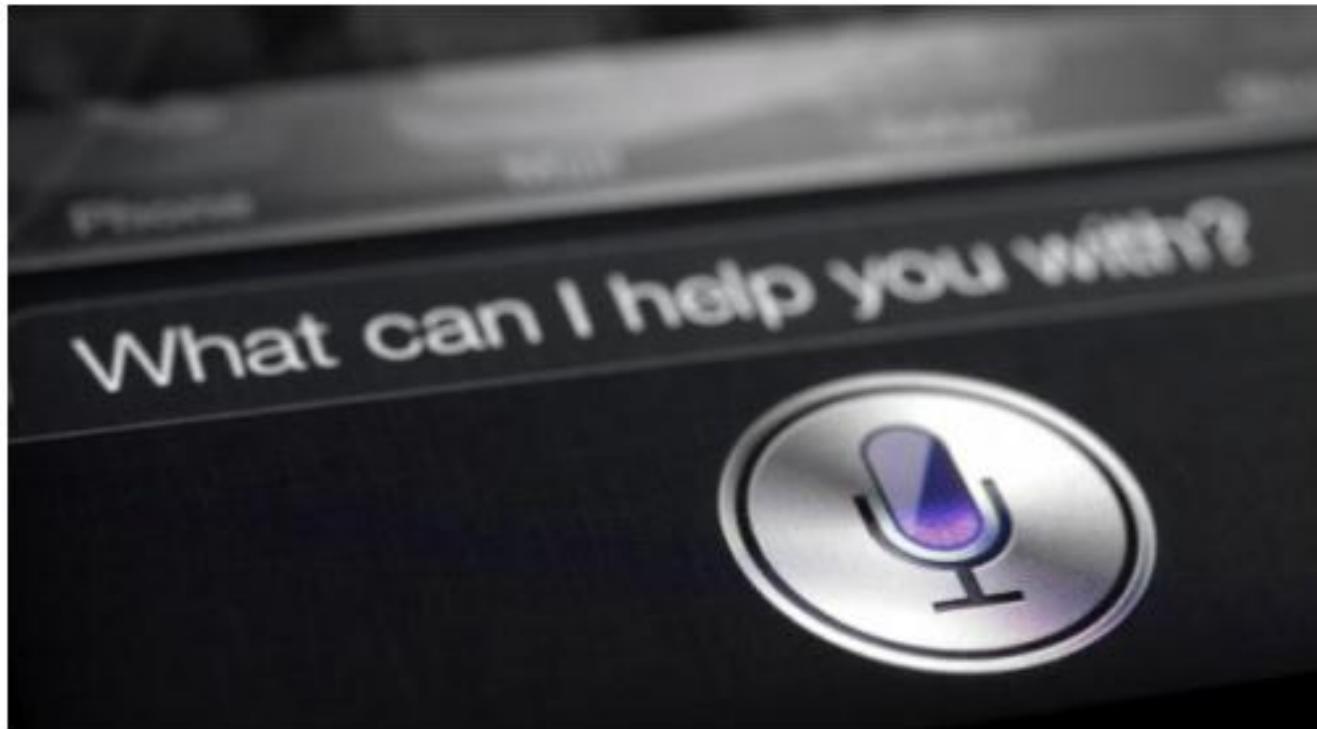


flexible OLED (organic light-emitting diode)

4. Augmented Reality (AR)



5. Voice User Interface (VUI)



6. Tangible User Interface (TUI)



7. Wearable Computer

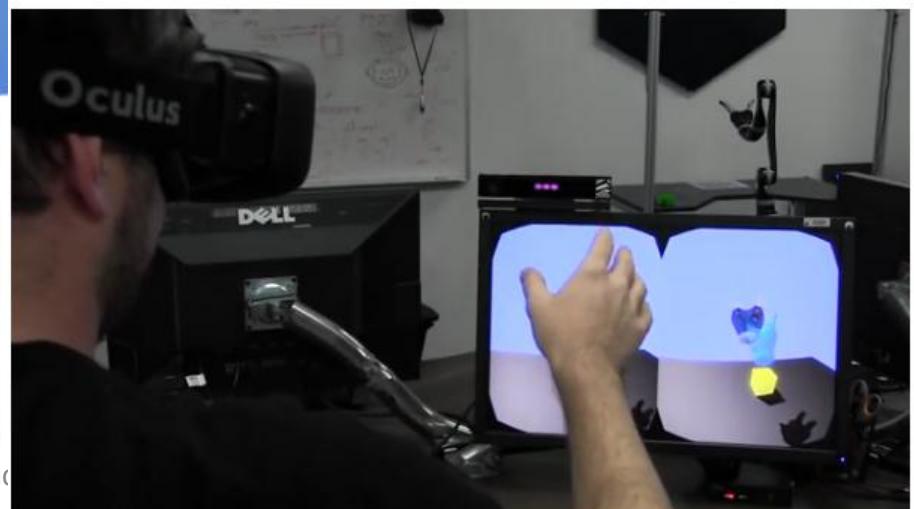


Android-powered [SmartWatch](#)

8. Sensor Network User Interface (SNUI)



9. Kinect



Yud