DOS

* DOS
- disk operating system
- MSDOS, PCDOS, DRDOS
- PCDOS v1.0 written by Bill Gates
- he wrote v1, v2, v3 also
- Bill Gates went his way & made MSDOS
- there are different commands & structures
- different DOS versions wasn't compatible
- boot files in MSDOS - io.sys
- in PCDOS - ibmio.sys
- MSDOS.sys vs. IBMDOS.sys
- command.com vs. command.com (same name)
- io.sys reads config.sys which had device listings
- msdos.sys - low level operating system
- command.com - interprets internal commands from user
- internal commands are built into command.com
* * ~~Internal~~ Commands
* prompt command - prompt = $1 $2
- prompt $P - displays path of current direct
- $g - makes the greater than sign >
- $n - default directory
- $d - date
- $t - time
- $q - equal sign
- $l - less than
- $v - version
- $L - pipe symbol

- $_ - line feed
- $text - print text

* DIR
- switches are led by a /
- /s - subdirectories
- /p - page (pause)
- /w - wide screen
- /a - attributes +/- h, s, a, d, r (d is directories)
- /o - order them +/- n A-Z/Z-A by filename
- /o +/- e order by file extensions
- /o +/- d date
- /o +/- s size
- /o +/- g directory or file (grouping)

- cd - displays current dir
- cd\ - goes to root
- root is C:
- cd.. - goes to parent directory (back up one)
- cd\"path" - go directly to directory

* naming conventions
- 8.3 (filename.extension)
- anything except reserved characters
- =, $, *, \, ., /, @ are not allowed (?) too
- <, >, ., ,, ", |, AUX, COM, BAT, CON, EXE
- LPT, PRN
- dir kgt?? would have to have two letters often

* Copy
- from + to
- to isn't needed if already in directory you wanted it to go

* Rename
- ren - rename original to new
-

- an OS is an interface for user interface & machine
- using dir in C:, use /p to slow down
- Scandisk scans disk for errors, finds broken pieces
- defrag takes the pieces and puts it together
- ramdrive - virtual drive is expanded memory
- view memory usage - mem
- RAM boot is like remember
- expanded memory made because of IRQs
- emm386.exe & himem.sys
- format A:/s
- surface scan verifies that it's readable
- ROM BIOS and video are in upper memory
- mem /c /p /f - c is conventional, f is free
-

DOS Review

- ver - version
- ren - rename a file
- ? * are wildcard for one letter
- prompt changes text before cursor
- erase - same thing as del
- fast method for preparing disk - format /q
- cd.. - parent directory
- emm386.exe makes expanded memory
- attrib does changes archive, system, read-only, hidden
- attrib +r *.txt - make all text files read only (in directory)
- archive is set when ready to backup
- mouse.com is loaded in autoexec
- mouse.sys is loaded in config.sys
- install external floppy - driver needed is floppy.sys
- fdisk partitions, deletes, and make logical drive
- REM prevents a line from executing
- power.exe reduces power consumption in idle state
- moving all files to new directory - move *.* c:\new (starting in C:\)
- format cannot make a boot record, fdisk does that
- undelete
- sys c: - copies floppy
- fdisk create dos make primary, then extended, the logical
- date
- dir c:\ /s - display all files in all subdirectories
- tree shows file structure, directories, and subdirectories (doesn't show files)
- prepare a floppy for use with DOS - format A: /s

- fc - file compare
- fc /b or /l
- /b - bytes /l - line by line
- run fdisk recovers a format
- ~~attrib c:\dos~~ can't attrib to directories
- nothing will recover data after FDISK
- load devices high, load in upper memory
- TSI - terminate & stay resident
- more hidden files during optimization - defrag
- .ini is parameter info for a program
- time/date are used with system clock
- himem.sys uses high memory
- * - wildcard
- files = 30, only 30 files open at one time
- to prevent interrupt in config.sys, use break = off
- buffers are part of memory reserved for file transfers
- 23 logical drives
- prompt = pg is put in autoexec
- dos system files must be in active primary
- 2GB in FAT16
- for startup: io.sys, msdos.sys, config.sys, command.com, autoexec.bat
- DOS was designed for IBM compatible PC
- first 64K is base memory (convention)
- first 64K over 1MB, hi
- Gregg file system is the file directory structure
- F8 will allow to choose modes

Brandon Buchanan

Exercise 1-3:
Navigating DOS Directories

Let's practice navigating the DOS directories. For this exercise, you will need a computer that has DOS installed on the hard drive and a blank, formatted floppy diskette.

1. Verify your floppy drive is empty.
2. Power on your computer.
3. Once you are at the command prompt of the C: drive, place your blank diskette into the floppy drive.
4. Change to the A: drive by typing the following and pressing ENTERI:

   A:

5. Perform a directory listing on the A: drive with the DIR command.
6. Let's create a directory on the diskette. At the A:\ prompt, type the following and press ENTER:

   MD DATA

7. To view the directory, type the following and press ENTER:

   DIR

8. Now we will change to the DATA directory. Type the following and press

   ENTER:

   CD DATA

9. To change back to the root of the A: drive, type the following and press ENTER:

   CD\

   In DOS, the backslash (\) symbol represents the root or the highest level of the drive.

10. Now we will delete the DATA directory by typing the following and pressing ENTER:

    RD DATA

11. Verify that the directory is gone. Type the following and press ENTER:

    DIR

12. Make a directory called LEVEL 1 at the Root of the A: drive. What command did you use?
    md level1
13. Change to the LEVEL! directory.
14. Does your prompt look like this? yes

    A: \LEVEL1>

15. Let's make a subdirectory called LEVEL2 under the LEVEL 1 directory. Type the following and press **ENTER:**

MD LEVEL2

16. To veri& the subdirectory creation the following and press **ENTER!:**

DIR

17. Change to the LEVEL2 subdirectory

CD LEVEL2

18. Let's move up one level to the LEVEL! directory. Type the following and press **ENTER:**

CD

19. Let's move up to the Root of the diskette. Type the following and press **ENTER:**

CD\

20. We can view all the directories and subdirectories from here. Type the following and press **ENTERI:**

DIR *IS /P*

21. We can also use the TREE command. At the A:\ prompt, type the following and press ENTER:

TREE

The TREE command is used to view the directories and subdirectories of your DOS directory structure. Unlike the DIR IS IP command, TREE will not show files.

22. Let's remove the LEVEL 1 directory. Type the following and press **ENTER:**

RD LEVEL1

Were you able to delete the directory? Why not? Remember you can only remove empty directories with the RD command.

no, director has a subdirectory.

Exerdse 1-4:
Working with DOS Files

1. Verify that the floppy drive is empty.

2. Power on your computer.

3. Once you are at the command prompt of the C: drive, place your blank diskette into the floppy drive.

4. Change to the floppy drive by typing the following and pressing ENTER:

```
A:
```

5. Let's co y our keyboard input to a file. To start, type the following and press

   ENTER:

```
COPY CON TEST.TXT
```

6. Instead of command prompt, you should see a flashing cursor to the left-most side of your screen. We are ready to begin typing. Type the following and press **ENTER:**

```
THIS IS JUST A TEST OF

THE COPY CON COMMAND.
```

7. To complete the copy, hold down the **CTRL** and **Z** keys simultaneously.

8. You should now see a ^Z appear on your screen. Press ENTER:

9. Did you receive a confirmation that 1 file was copied? If not, try it again. yes

10. Let's perform a directory listing of our A: drive using a wildcard. Type the

    following and press ENTER:

```
DIR *TXT
```

11. Rename your file to TEST1 .TXT by typing the following and pressing ENTER:

```
REN TEST.TXT TEST1.TXT
```

12. To see all files that begin with the letter T, type the following and press

```
DIR T*.*
```

13. Now copy the contents of our file to another file with a different name with the COPY command. Type the following and press ENTER:

COPY TEST1.TXT TEST2.TXT

14. Let's try the ? wildcard to check our copy request. Type the following and press **ENTER:**

```
DIR TEST?.TXT
```

15. To view the contents of our new text file, type the following and press

```
TYPE TEST2.TXT
```

16. Create a directory on A: called MYFILE by issuing the MD MYFILE command while in the root directory of A:.

17. Now copy our text file to the MYFILE directory. Type the following and press ENTER:

```
COPY A: \TEST2 .TXT A: \MYFILE\TEST2 .TXT
```

18. Verify the copy using the command;

```
DIR IS /P
```

19. Delete the original TEST1.TX'T file in the Root. Type the following and press ENTER:

```
DEL TEST1.TXT
```

20. Verify the file was deleted. What command did you use?

dir

21. Let's look at the on-line help available for the DIR command. Type the following and press ENTER:

```
DIR /?
```

22. Practice using the /? switches on some of the other commands we have learned.

Exercise 1-5:
Advanced DOS

For this exercise, you will need two floppy diskettes and DOS installed on your computer hard drive. Be sure to follow each step carefully.

1. Verify that the floppy drive is empty.
2. Power on your computer.
3. Once you are at the command prompt of the C: drive, place your blank diskette into the A: floppy drive.
4. Let's begin by creating a simple text file. Type the following and press **ENTER:**

   ```
   COPY CON APLUS.TXT
   ```

5. Instead of a command prompt, you should see a flashing cursor to the left-most side of your screen. We are ready to begin typing. Type the following and press ENTER:

   ```
   THIS IS A SIMPLE ASCII TEXT
   ```

   Type the following and press ENTER:

   ```
   FILE TO PPACTICE WITH
   ```

6. To complete the copy, hold down the CTRL and keys simultaneously
7. You should now see a ^Z appear on your screen. Press **ENTER:**
8. Did you receive a confirmation that 1 file was copied? If not, try it again.
9. Now we will create a directory at the Root of A:\ called TEST.
10. Verify the new directory and text file with the DIR command. Do you see them? If not, did you create the directory with the MD TEST command?
11. Copy the APLUS.TXT file to the A:\TEST directory. Type the following and press ENTER:

    ```
    COPY APLUS.TXT A:\TEST
    ```

12. Use DIR IS /P to verify that the APLUS.TXT file is now located in both A:\ and A:\TEST.
13. Let's try out the File Compare command. Type the following and press ENTERI:

    ```
    FC APLUS.TXT A:\TEST\APLUS.TXT
    ```

    Are the files the same?

14. Change to the TEST directory.
15. Let's view the attributes of our text file. Type the following and press ENTER:

    ```
    ATTRIB APLUS .TXT
    ```

16. What attributes did you see? DOS automatically assigns the Archive (A) attribute to new files.

A

17. Add the Read Only attribute by typing the following and pressing ENTER:

```
ATTRIB +R APLUS.TXT
```

18. Type the following and press ftENTERI to verify:

```
ATTRIB
```

19. Delete the APLUS.TXT file. Type the following and press ENTER:

```
DEL APLUS.TXT
```

20. Were you able to delete it? Remember that the Read Only attribute prevents a file from being modified or deleted. Access denied

21. Remove the Read Only attribute on our text file. Type the following and press

[ENTER]

```
ATTRIB -R APLUS.TXT
```

22. Since we are going to be issuing some long commands, let's load DOSKEY. Since it is in the DOS directory on your hard drive, let's change to the C: drive, by typing the following and pressing **ENTER:**

```
C:
```

23. Change to the DOS directory. Type the following and press **ENTER:**

```
CD DOS
```

24. Execute DOSKEY by typing the following and pressing **ENTER:**

```
DOSKEY
```

25. Do you see anything different? You will not see anything yet, but later on in our exercise we will test to see if DOSKEY is working.

26. Let's change back to our floppy diskette. Type the following and press ENTER:

```
A:
```

27. Change to the TEST directory. Type the following and press **ENTER:**

```
CD TEST
```

28. Create a subdirectory under the TEST directory. Type the following and press **[ENTERI**

```
MD SUBDIR
```

29. We are going to move the APLUS.1XF file from A:\TEST to A\TEST \SUBDIR. Make sure you are at the A:\TEST prompt and then type the following and press **ENTER:**

```
MOVE APLUS .TXT A: \TEST\ SUBDIR
```

30. Change to the SUBDIR directory and verify the move.

31. Let's try the DISKCOPY command.

32. If you have 2 floppy drives, an A: and a B:, make sure there is a diskette in both drives.

33. Use the diskette we have been working with for the A: drive and type the following and press **ENTER:**

```
DISKCOPY A: B:
```

34. If you only have 1 floppy drive, you will need to keep the diskette we have been working with in the A: drive. This will be the Source diskette. When you are prompted for the Target diskette, eject the floppy and put the second, blank diskette in the A: drive.

35. Type the following command and press ENTERI to begin the copy:

```
DISKCOPY A: A:
```

36. Did it work? Perform a directory listing on the Target diskette to verify the procedure..

Yes

37. Let's check in on DOSKEY and see if it is working. Press your a few times.

38. Did it show your last commands? Try pressing F7. What did you see? 12 commands

39. For a listing of all of the available switches for DOSKEY, type the following and press **ENTER:**

DOSKEY /?

a lot of commands

* Delete
- del - deletes
- deltree - external command; deletes a folder
* Attributes
- attrib - changes attributes of files (ex hidden, archive..)
- can't delete a system file
- +/- a, h, s, r + is turn on, - is turn off
- user.dat & system.dat is the registry in Win
* Other
- DOSKEY keeps track of commands
- diskcopy copies a whole disk one file at a time and will switch
- xcopy as many files into memory and then will switch
- example - xcopy C:\DOS C:\BACK
- xcopy won't copy empty without /e
- /v will verify
- /s - dirs & subdirs
* FC (file compare)
- fc A:test c:\test2
- /b - byte by byte
- /l - line by line

* * Format
- internal & external
- many switches
* Switches
- /s - makes a bootable disk
- command.com, msdos.sys, io.sys
- /q - quick format (rewrites FAT and directory)
- /u - unconditional (when something goes bad, it leaves bad sectors)
- /v:name - volume label
- /c - tests sectors marked bad
- /f:xx - formats to a certain size
- /t:xx - tracks (18 tracks)
- /n:xx - sectors per track
- /1 - format one side only
* * Sys
- sys A: - puts system files on a previously formatted disk
* * Label
- label A:[name]
* * Unformat <Drive:>
* * Undelete <Path\Filename>
* * CHKDSK
* * SCANDISK
- /s - surface

-2

Brandon Bu

Fundamentals of Unix Chapter 2 Practice Questions

1. Which button on the Solaris login panel allows you to login in a manner similar to Windows safe mode?
   a. Options, Session, Failsafe Session
   b. Safe Mode
   c. Start Over, Reset Login Screen
   d. Options, Command Line Login

2. How many different types of accounts are there on a linux or unix system?
   a. 1 (user)
   b. 2 (root and user)
   c. 3 (root, user, super-user)
   d. 4 (root, user, regular user, super-user)

3. Which linux or unix user account is used to create new users, manage file systems, and install software?
   a. User
   b. Supervisor
   c. Admin
   d. Root

4. In Solaris, at least how many alphabetic characters and numbers (or special characters) must be in a password?
   a. 1,1
   b. 2,1
   c. 3,3
   d. There are no rules of this kind

5. Which command allows you to change your password?
   a. password
   b. pword
   c. pw
   d. passwd

6. Which of the following is a valid password?
   a. JohnABC
   b. AbC 123
   c. ACS
   d. Johnnybegood

7. Login names are stored in which directory?
   a. usr/passwd
   b. usr/shadow
   c. etc/passwd
   d. etc/shadow

8. Which key sequence will allow you to re-enter your user name or password if you believe you've made a mistake and haven't pressed Enter yet?
   a. Control-O
   b. Control-U
   c. Escape
   d. Undo

9. Which sequence of commands at the command line will do a proper shutdown of the system?
   a. exit
   b. logout;init 0
   c. **su -**, *then provide root password*, then **init 0**
   d. start; shutdown

10. Where would you go to change your password?
   a. File Manager
   b. Workspace menu has a button for that purpose
   c. Applications directory
   d. Terminal Window to access command line

11. Which character represents the Korn shell for a regular user?
   a. %
   b. &
   c. $
   d. @

12. What does the # sign represent?
   a. Logged on as root
   b. The C shell
   c. The Korn shell
   d. The Bash shell

Unix Review

* * Why learn?
- loading VDS
- many industries use it
- used on strong comps
- multi user capability and distributed processing
- stable & security
- mission critical applications (doesn't crash)
- knowledge of CISO with UNIX

* * Text
- 1969 - first UNIX was AT&T (system 5)
- open standard is free
- 64 bit architecture
- kernel - interfaces with hardware
- shell - interfaces with users
- file system - organization (EXT2)
- Korn is expanded Bourne ($)
- bash and korn - korn is harder
- Gregg filesystem
- vim, etc, kim
* User account
- root - superuser %SU
- regular user
- password 6-32 needs first 8
- at least two alphabetic, one special character
- they have to change
- root doesn't have to follow rules

- etc is where passwords are stored
- init 0 - shutdown
- passwd - change password
* * Quota 3
- mail & calendar tool
- N is new message
- ◇ - attachments
- alias is a short name that represents a group of email addresses
- Signatures can be created through yahoo
- the new mailbox can be categorized
- cannot attach multiple files at same time
- newsgroup - a forum that comes through email
- calendar manager, schedules appointments
- display, printer, and default settings
- appointments have permissions
-

- inverted tree
- UNIX uses /, DOS uses \
- default pathname - when what you want is in a different directory
- $ = bash
- cd ~ - home
- @ - symbolic link (shortcut)
- permission is directory - user - owner - users
- -r - recursive
- tree in DOS
- metachars - special keys that won't ASCII
- Vim key bindings
- Ctrl-q - starts screen output again
- Ctrl-c - break
- Ctrl-d - exit
- Ctrl-w - one word
- cat displays text of a file
- text, data, binary
- more stops after one screen
- head, shows beginning of file, default is 10
- tail ...
- head (tail) +[n]
- wc : word count
- diff = compares and shows difference
- filename up to 256 character
- directory can have extensions

- ext can be as many as you want
- several extensions
- touch creates an empty file
- touch -p - directory and subdirs
- rm - delete file -i will ask you
- rm -r - remove directories
- if you use file manager, you can undelete
- can't recognize in file manager
- cp is copy
- cp -i - copies and verifies, if ! - overwrites
- cp -r - copy directory & subdirs
- mv - move
- mv -i - overwrite?
- | moves results into next command
- ls -a | a is all files even hidden

Ch. 7, 9

Unix 8-9

- df shows partitions
- /usr has binary files and executables
- /opt - third party applications
- / - root
- find files with find
- find type d - finds directories
- find . -mtime +90 - find in current dir modified within last 90 days
- find -size +400 - find a file with 400 blocks or more 1 block = 512 bytes
- 777 - read - write - execute
- xx > file - write output to a file
- find ~ -user brad -ls > brad files
- grep sucks
- who | grep user2 - display user2 if user2 is on
- sort -rn +4 - sorts recursive on field 5 in ls -l
- sort +5n6n - sort by the 6 column, sort then by the 7 column
- who - users on system
- su - switch user (prompt password)
- user ID - who logged on
- effective ID - how you are acting like now
- whoami - shows current ID's
- Vi
- text only - ASCII
- works off of commands
- vi starts in command mode
- entry, last line are other modes
- command → entry - aio

- entry → command - ESC
- command → lastline - :
- lastline → command - enter
- vi filename
- vi -r is a crashed file to recover
- vredit - entry mode
- view - read only mode
- w - forward one word
- b - back a word
* End note
- a - append
  i - insert
- o - open
* Last line
- :w - write buffer
- :w filename - save as
- :wq - save & quit
  ZZ - ↑
- :q - quit
- :q! - quit with erasing
* vi edit commands
- d - delete
- dw - delete word
- 3dw - delete 3 words
- dd - delete line
- c - change

* Virtual Machine Management
- DOS, Win 16, Win 32
- each DOS runs in its own virtual machine
- Win 16 runs in 1 VM for all (address space 2 GB - 3 GB
- Win 32 - private address space for each app. (4 MB - 2GB)

Windows

- Win 9x — Win 95, 98, Me

** Requirements

* Win 95
- 80386 DX - FPU & 32 bit (486)
- first 32 bit OS
- 4 MB of RAM (8 MB)
- VGA
- 35 MB min. install
- typical, custom, portable, compact

* Win 98
- 80486 DX 66 MHz
- 16 MB of RAM
- VGA
- FAT 32
- 175 MB new install
- method of installation - same as 95

* Win ME
- P55 - 150 MHz
- 32 MB of RAM
- VGA
- 320 MB free
- FAT 32
- CD-Rom
- sound card
- requires mouse
- same installation as others

* Stuff
- 32 bit OS
- PNP - (PNP OS, PNP BIOS, PNP Device)
- preemptive multitasking
- support for legacy devices (safe discovery)
* Install Phases
- initial setup - determine how to install, loads some files
- hardware detection -
- configuration phase - configure devices
- final configuration - makes new entries and config.sys
- first time start -
- Windows ten - YAY!

& Device installation (cont.)

- with Windows Update, you can get device drivers also
- usually, find drivers on CD
- .inf file are the files for the drivers
- to see device, go to device manager
- under the drives tab, you can verify drivers data
- it also has resources

Video

** Windows 9x
- DOS & GUI
- MSDOS.SYS is a text file in Windows
* GUI
- device drivers (protected mode drivers)
- virtual machine and installable file system
- kernel, GDI ← (graphic device interface), users (three core files)
- applications, .dll files work between .exe files and core
* Registry
- device drivers are on DOS, INI files, and registry
- config.sys isn't used much in 9x
- system.sys is the primary loader of 9x
- sysedit - see all system config files
- win.ini - another main loader
- the registry is stored in two files
- contains all devices drivers and is better than ini files
- system.dat & user.dat
- regedit is command to access registry
- HKEY CLASS ROOT - file extensions
- HKEY CURRENT USER - settings for current user
- HKEY LOCAL MACHINE - settings for machine
- HKEY USERS - contains data for all users
- HKEY CURRENT CONFIGURATION - hardware config
- HKEY DYNAMIC DATA - programmers world
- scanreg - scans registry for errors
- Backup.dat

* Updating
- Windows 95 came out in Aug. '95
- MS made free updates
- patches - bug fixes and small improvements
- service pack is just a lot of patches
- OEM - original equipment manufacturer
- SR - service release
- ver shows version of Windows, more detailed in the way
- in Win 98, you can remove updates
- under System Information, you can uninstall
* Boot Options
- F8 gets to boot option screen
- 1 - Normal
- 2 - Logged - creates bootlog.txt
- 3 - Safe Mode - full GUI but turns off a lot of bells and stuff
- 4 - Step by step - asks before it loads
- in DOS 7 environment, win starts windows
- F5 goes to Safe mode
- msconfig has more boot options
- upgrade 95 to 98 - you don't have to worry about much
- install to same folder (C:\Windows)
* Device Installation
- before PNP, you had to configure everything
- Windows can recognize new hardware
- "Plug n Play printer plugged in a parallel port"
- auto - manually

WV29M - B4F26 - 24B9D - 6MR6F - T4PK8

Windows 98 Install

* Box
- preparing to run Win 98 Setup
- collecting info about your computer
- copying Win 98 files to your computer
- restarting your computer
- setting up hardware and finalizing settings
* Setting up hardware
- hardware detection - detects non-PNP stuff
- PNP detection
- restart
- PNP detection again

Install Box
- date/time properties
- control panel
- programs on start menu
- windows help
- MS-DOS program settings
- tuning up application start
- system configuration (updating system settings)
- restart

* * Windows 2000 Family
- Pro Server, Data Center, Adv Server
* W2K Pro
- 32 bit
- pro is for workstations
- more PNP
- security
- 2 SMP - simultaneous multi processing
- 4 GB max memory
- FAT, FAT32, NTFS 5
* W2K Server
- small business
- Kerberos security
- active directory - contains all directories and where files are stored
- 4 SMP
- terminal services
* W2K Adv. Server
- large business
- mostly same as Server
- 8 SMP
- clustering - grouping servers into 1
- 8 GB max memory
- network load balancing
* W2K Data Center
- 32 SMP
- enhanced clustering

- 64 GB of max memory
- large databases, webs, FTP
* * WOK Prw
* Requirements
- 133 MHz Pentium
- 64 MB of RAM
- 2 GB HD w/ 650 MB free
- VGA
- upgrades from 9x on NT 3.51 +
* Boot Files
- NTLDR is load file for WOK
- NT loads acts like IO.sys on active partition
- NT DETECT.COMM -
- boot.ini
- NTBOOTDD.sys - for SCSI devices
- Boot sect. Dos - multi boot system
- c:\system32\winnt32.exe /cmdcons
  (D: I386\system32\winnt 32.exe

* VSK Backups (archive bit)
- incremental - after a backup, turns off archive bit
- differential - copies & doesn't turn off archive bit
- full - copies & turns off all archive bit
- copy - doesn't change archive bit
* System Part. / Boot Partitions
- system partition - loader
- boot partition - OS files
* Command
- cmd - 32 bit command line interpreter
- command - 16 bit DOS

Win 2K Test

- resource settings change in device manager
- ntldr, boot.ini, ntdetect for W2K boot disk
- dual boot in bootsect.dos
- 32 bit command line interpreter - cmd
- at C:\ goto CD drive - :386/winnt32.exe
- don't install drivers - system properties, hardware, driver signing
- OS is installed on boot
- NTLDR is system partition, they can be same
- backup method - doesn't turn off archive - differential
- log files - setupact.log setuperr.log
  setupapi.log setup log.txt
- virtual memory - memory on hard drive
- RAID 5 - at least three drives
- to see encrypted files - cipher /d [filename]
- version of W2K - system info (properties on My Comp)
- create a setup boot disk - CD:\ makeboot | rmbeboot
- notes 4 disks
- resource level provides best control of security
- what file is created for VM - pagefile.sys
- F5 to safe mode
- device manager identifies resources issues
- ipconfig shows network configs
- MMC organizing tools snap-ins
- start MMC from control - MMC
- FAT32 & NTFS are file systems allowed for W2K
- My Comp, Recycle Bin, My Network Places, IE, My Documents are default icons

- need MB to install W2K to HD
- 133 MHz Pentium min
- 64 MB of mem.
- VGA
- keyboard / mouse
- CD-ROM
- /checkupgradeonly downgrades to Win 3.2
- new user - user must change password - can't change pass - pass never expires - account disabled
- Ctrl - Alt - Del to open taskmngr
- ERD - emergency repair disk - let's able to repair & boot
- disk management to format & create labels & change partitions size
- convert to change FAT to NTFS
- W2K Server - runs from NT 4 Server
- In W2K, ntbootdd is needed if you have the boot on SCSI drives
- quota management allows disk space for users
- disk management replaces fdisk
- hold shift to delete permanately.

Answer Sheet **Comp Tech I I** Quiz-win2k 85

Name: Brandon Buchanan Block: C

1.	D	21.	C
2.	D	22.	B
3.	C	23.	C
4.	C	24.	D
5.	D	25.	E
6.	D	26.	D
7.	B	27.	A
8.	C	28.	A
9.	D	29.	D
10.	B	30.	C
11.	B	31.	A
12.	A	32.	A
13.	D	33.	B
14.	C	34.	A, D
15.	A	35.	C
16.	D	36.	B
17.	A	37.	B
18.	A	38.	D
19.	A	39.	A
20.	C	40.	D

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Computer Tech II **Answer Sheet** **Win9x Quiz**

Name Brandon Buchanan

1 B, C	21 ~~C~~	41 ~~A, B, D, E~~	61 A, ~~C~~	81 B
2 C, D, E	22 A, B, C, E	42 ~~A~~	62 A	82 B
3 C	23 B	43 D	63 C	83 B, C
4 B, D	24 A	44 ~~B~~	64 B	84 A
5 A, B, D	25 A, B, D	45 B, ~~E~~	65 A, C, D	85 C
6 E	26 B, C, D	46 C, ~~D~~	66 A, B, E	86 D
7 ~~C~~	27 E	47 C	67 B	87 D
8 C	28 B, C, E	48 A	68 A, C, ~~E~~	88
9 A	29 B, C, D	49 A, B, E	69 A, E	89
10 C	30 ~~A, B, C~~	50 C	70 B	90
11 B	31 ~~A~~	51 A, B, D, E	71 C	91
12 D	32 A	52 B	72 C	92
13 A, B, C	33 A, E	53 A, B, C	73 A, C, D	93
14 B	34 A, C, E	54 ~~D~~	74 E	94
15 C	35 B	55 A	75 C	95
16 E	36 C, E	56 B	76 A, B, C	96
17 C	37 ~~B~~, E	57 D	77 ~~B~~	97
18 B	38 A, B, C	58 C	78 ~~A~~, C, D	98
19 ~~E~~	39 A, ~~B~~, D	59 B	79 B, ~~C~~	99
20 A, D	40 A	60 C	80 ~~D~~ E	100