Constructor for fssynch

First line software

Sdisk

Filesystem calls

Systesm programming

Ops dir(ls)

Addfile(get data from standard input)

Del(rm)

Type

Rename

Copy(cp)

Int copy (string file1, string file2)

Int fblock = getfirstblock(file1)

If (fblock == -1)

Cout << no such file

Return 0;

Newfile(file2)

While(fblock!=0)

String buffer

Readblock(file1,fblock,buffer)

Addblock(file2,buffer)

Fblock = nextblock (file1, fblock)

Return 1;

Addfile : string filename string buffer

512 byte blocks

50gb drive -> 98 mill entries in FAT

Ms - 65536 = 2^7 physical blocks FAT 32

Internet fragmentation

Sectors – pie slices

Tracks – conantrie circles

Cylinder – same track

Seektime – across arm motion

Rotational delay risk to rotate under r/w head

Transfer time – time to read data from sector capacity

Capacity

Track cap = # of sectors x blocksize

Cylinder cap = # surfaces x trackcar

Total cap = cyl cap x # cylinders

Segate scsi

170 sectors/track

16 tracks/cyl = # surfaces

6526 cyl

Size byte blocks

Seektime min max avg

.78 19 8 milsec

Rotational 10000 RPM

3) what is the maximum rotational delay?

Rps = 10000/60 mrd = 60/10000

4) what is the transfer time?

(100000/60) / 170

5) max data transfer rate?

170 x 512 x 10000

RAID – redundent array mexpensive drivers

Drive 0 drive 1 drive 2 drive 3

Raid 0 – striping

Stripe blocks across drives

Raid 1 – mirroring

Drive 0 = drive 1

Raid 2 – stupid (7,4) hamming code

Detect 2 errors, correct 1 error