DG UX 4.31

TESTING 0123456789
DG/UX BS 4.30.01

sd(1NSC(), ⊙)root/dg ux

VME ASYNC I/O BOARD VDA 128
@ 60000000_{16} BOARD ⊙

16384 KBYTES
14541 KBYTE AVAILABLE FOR TEST
PROM REV 5.02
single CPU rev 10

UNIT ⌀ MAXTOR XT-87606 DISK
UNIT 4 TANDBERG TDC 3800 G500 TAPE

VME HOST ADAPTER BOARD ⊙
MODEL HPS-6945
FIRMWARE P/N 90-070154-6-05B
Diagnostic cluster controller network
NO READY cluster controllers found
* green lights blinking
S = update report
Q = QUIT

INDEX

(1) Prereqs P1042 Avion Operations
(2) P1090 Unix Communications

1X 5G reference Manuals -b

2G 5G ADD ON MEMORY POSITIONS5

2-7,9 5G Memory board jumpering & Memory add on

3-2 Expanding the AV5000 (*) slot priority for option boards (*)
also

1-9 Setting up VME bus options — board/slot priority

2-10 5G jumpering for open slots

2-16 5G AV5000/6000 power plug on backplane

2-26 5G FUSES AV400 / 3000 / 4000

2-28 5G jumper must be in for AV5000 running DG UX
" " out for AV5000 running MAJIC

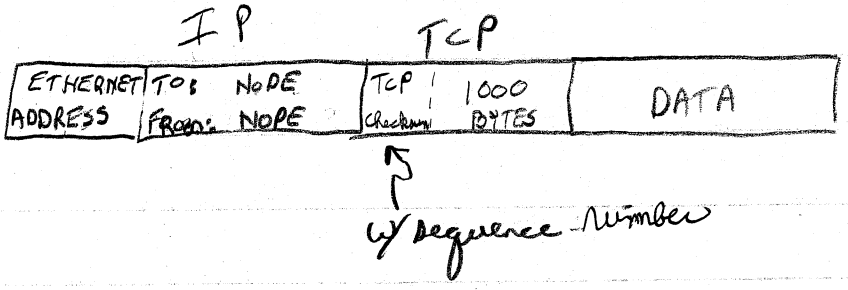
lab 17 for boot commands 5G

2-7 5GM manual CORES

48 bits in ethernet address

X.25

lan transmission with TCP/IP



telenet STUDENT10

host file list

/etc/hosts

128.222.13.10

network address

internet address

ARP TABLE

lan 10 megbits/second

---

ifconfig inen 0 STUDENT10 netmask 0xffff0000 broadcast 128.222.255.255

TOP MASTER 128.222.13.128

24 bits

XX.XX.XX.

8421

8bits | 8bits

128.222

16 bits for class b

each field is eight bits

128.222.13.10

netstat

~~nestat~~
nuptime
rwho -q

Pg e

X.25 SYNC via phone lines

UUCP ASYNC

ifconfig -inet ~~-qwe hostname~~ ← shows who you are

PING STUDENT5

student5 is alive — hardware is OK

pg /etc/tcpip.params

7-11 SG

Broadcast Address must be same on all loops

PS -e

PORT #'S 5-32

telnet hostname PORT 17

WALL write to all

5-33 to load TCP/IP

cp /etc/tcip.params ^ /etc/tcpip.params.orig

~~if no password~~

after reset

scm > b sd(INSC(),0) root:/dg ux_n -S

passwd to assign a new password

or get in

write to all

wall --- message

etc/nfs/.params to edit and stop Y/P

cat /etc/nfs/.params

rwhod

man netstat

netstat -i for errors

telnet

Remote host

rlogin STUDENT 4

Student 2
80 de0 de2

SYSTEM BOOT PATH

[sd(INSC(),0) root:/dgux

Who -r to get level
INIT 3

telnet "target host"

root prompt = superuser

To

— Bus Grant & Bus request must be identical for each board

— WILL USUALLY ONLY CHANGE ADDRESS BITS ON BOARDS, NOT BUS REQUESTS/GRANTS

— SCRIPT = MACRO (*) FOR DG UX

run level modes

UNIX

— S — single user mode, USR ldw (console, root logical disk) → automatically mounted

0 — shutdown mode

1 — console + TTY ⇒ administrative mode ⇒ root, usr, tmp are mounted; SYSAdm knows mode for devices

multiuser levels

2

multiuser + comm 3 " " " all above + con or lan is operational

4

5

6

Who -r to check run levels

512 byte blocks

/ = root directory, 25,000 blocks min, default 40,000

- sbin — binary commands
- USR — USERS + PACKAGES → opt (160K blocks) ↑ 160K blocks
  - X11 => X WINDOWS 105K blocks
- etc — system initialization files
- dev — similar to gen file

init 3 to get to run level 3

(*) and bring up network

/dgux = custom kernel in root

/dgux.starter

Scm> b sd(1#sc()) usr:/stand/diskman
DISKMAN – DG/UX only – on install tape
for installation, and to create a system

SYSAM to get to menu, #1 = DISKMAN
1-5 SYSADM – from AT&T – has a version of diskman
- add users
- add printers
- add ttys

SYSAdm => main menu select 2, next menu option 2 will let you build a custom kernel, must edit file, comment out using vi p.2-113

Scm>b sd (1#sc()) root:/dgux.starter – if dgux is gone
or /dgux.old

* can display ldev layout 2-3 installing/managing DG UX

Run Levels

INIT 1 go to administrative mode
INIT 3

RBOS - LAN TEST W/ PROMPT

TO TEST LAN NODE TO NODE

- can also get addresses of other systems in the LAN
  - or get lan address at power up
- run lan test w/ census to get your own lan address

2. — other machines must be up & running lan test to answer
   - run test node to node
   - answer yes to 2nd question
   - # exit to get out of another machine
   - telnet> bye to get back to #

STUDENT 4 08 00 1B 18 0E B4

Chas #3 08-00-1b-18-0d-54

WP # 2 08-00-1D-18-0E:BA

X MAY NOT SIZE ANOTHER MACHINE THROUGH LAN
MUST MANUAL SIZE

test mode — node to node

slave mode — no

fixed node list — yes ⇒ must to get a census

conduct census — ✓
↑ this will display your own node address,
you must do this at each machine and then
manually add the other to test both

: 1,10 S/ old pattern / new pattern / p

VI editer

/etc/inittab

cat /etc/password

#> Vi filename

:! ENV ← shell command to see environmental

.EXRC

: colon to get to last line mode

: set all

: set showmode to see whole screen + mode you are in

X hit esc to get out of a mode X

: set number

CONTROL not shift

h	left	^D	to go down ½ page
⇨	right	^U	to go up
k	up	^f	up 1 page
l	down	^b	down 1 page

a – append

i – insert

R – replace multiple

r – replace single character

X – delet a character X, dd deletes whole line

to look for a particular pattern

:/pattern

---

to get to a particular line

esc

20G

---

to write to disk

esc ~~ARfted~~ ZZ

or

esc ZZ to get out and write to disk

or

:w to write to disk

or

:w filename to creat it under another file

.PROFILE will change.

if .exrc file exists create w/ vi and save w/ ZZ for showmode & redraw & number

:q! to get out of a session w/o saving

UNIAM -a to find out which system your on

EXIT to get out of system

load to disk (unblocked) raw mag tape

block size

dd ^ /f=/dev/rmt/0 ^ of=/usr/STAND/DIAGS ^ bs=16K

XDIAG

4/4 run test 4 for 4 passes

Restart RBOS @ 60,000

Scm> ST 60000

Newest AT&T UNIX = 5.4

AT&T 5.3 (95% of commands) + UCAL @ BERKLEY (95% of commands) = UNIX

AT&T 5.3 → bourne shell

- # superuser prompt
- $ regular user prompt

UCAL @ BERKLEY → C shell

- # superuser
- % regular user prompt

to get to C shell from bourne shell

> csh

get you to %

OSF - open software foundation

300

ethernet address 08:00:1B:18:0E:BA

16 MB

ect/log/fsk

df -t = disk space

Pwd = DR

dev/disk/root

ROOT - login

To Boot RBOS TAPE

at correct time hit 1P then use DG REMOTE FE for password

AU 300 SCM> b ST (INSC (0), 4

To Boot RBOS from Disk (if loaded)

standalone or cold bootable files

AV300 scm > B usr:/STAND/DIAGS

full boot command

b ^ sd(INSC(),0) usr:/stand/diags

hit ^P at correct time? then dgremote fe for password

give 5 options on next menu

To LOAD DIAG FROM TAPE TO DISK Ø

dd ^ if=/dev/rmt/Ø ^ of=/usr/stand/diags ^ bs=16Kb

RBOS

- 1D to dtop testo

To view or change Boot Parameters

scm> F

UNIX Trouble Shooting

run level 3 for UNIX start com processes

PG/UX D.G.'s proprietary UNIX

DOS can reside in UNIX

NO CBT training on AVIION'S as yet

Lan based machine

CRU - customer replaceable units

- if ends in thousands - its designed to be a communications server
- up to 28 mB of memory

300/400 up to 28 mB lnen - intelligent ethernet

server-5000 up to 208 mB lnen hawk ethernet
↑ disk ESDI, tape SCOSI

INEN - lan

lnen

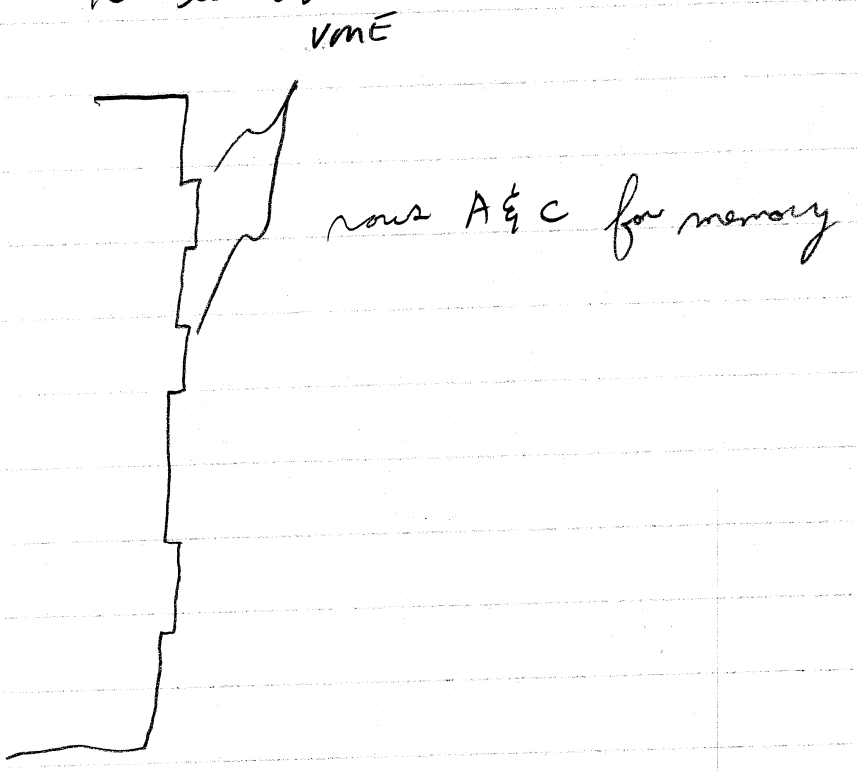
SMD - faster than - storage module drives

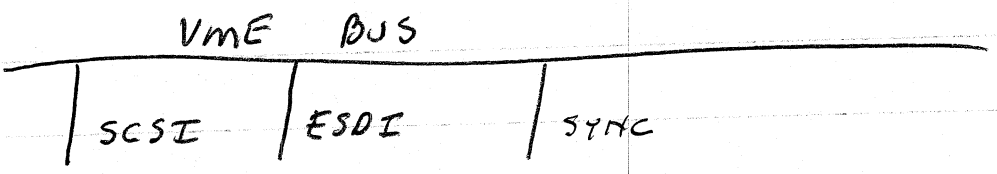
faster than scsi

ESDI ← extended small systems device interface - 1 data / 1 control ↔ is doing chained

SCSI small computer systems interface - 1 cable for data & control

90 boards





VME

Versa Modula Europa

X DIAG

scm>f to view or change format

G change testing parameters or set ECW
set bit 15

scm> xdiag

PGFEMOPE

esc shifted ZZ

① # SYSADM loadpackage => from tape

X11 n
dtK n
tcp y to load only tcp/ip
hfs n
YP n

② # sysadm setuppackage gives you necessary system files to run the package

③ build a custom kernel

#cd / /var/build

#pg system.wayne to view present configuration

cd /usr/lbb

edtreadrc.proto

#cp edtreadrc.proto /edtreadrc DG UX only

/A enables rewrite next line
or command esc to see last command

man . edtreadrc.proto

069-701035-01

get Using the DG/UX System

login: root

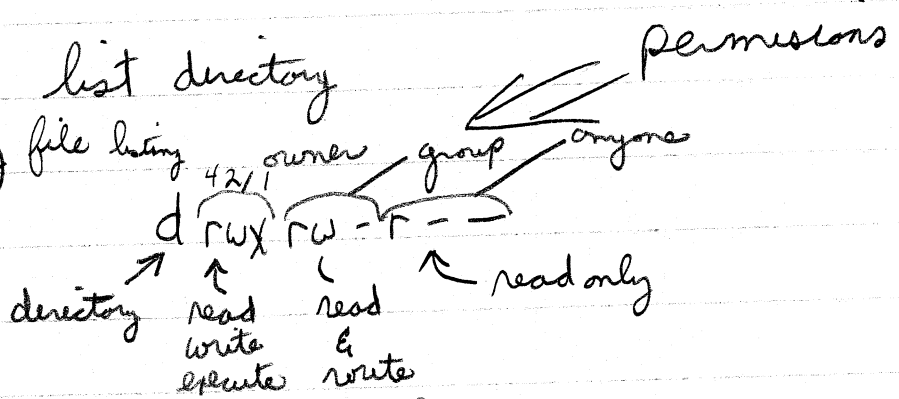
cd ^object Change dir /usr/opt/X11

INIT ^3 go to level 3

PWD present working directory

ls ^ -lia list directory

^ long file listing



who ^ -r to check run level

$ Chmod - change modifiers 6 5 4

4 2 1 r w x 4 2 1 r w x 4 2 1 r w x rw only r x read only

- #+who d to see if you are on a remote host

- CAT file a ⇒ Type out or view a file - use ^S if it is a long file

- pg file a ⇒ view file one screen at a time, hit enter to view next screen

- more file a ⇒ Same as above

- file ^ file c tells if ASCII, you can view (cat, pg, more)
  if 88K - this is executable and cannot (cat)

* structure of command, COMMAND ^ -option file

SHELLS

SHELLS are Command Line Interpreters

AT&T	Berkley
# superuser	#
$ user	% USER
| pipe - send to next command	MKFS - make file system
ls -lia | more ⇒ view 1 screen at a time	
# mount(cr) links directories	
MKDIR - make directory	
# diskman	

---

df -t ⇒ disk free total

12000 - remaining/ldev
40000 - original/ldev

@ 90% usage all but root is shut out
or 4000 remaining all users are shut out

ldev - can be a physical disk or piece of a physical disk

MAILX USER@SYSTEM

Problem

- cannot find host file
- ping or telenet does not work
- ~~all~~ all remote hosts are down
- ~~X~~ Cannot open /etc/hosts
- ~~X~~ changed broadcast
- ~~X~~ cannot use ifconfig STUDENT2
- ~~X~~ UP, LOOPBACK, RUNNING, STARTED
  - net mut 7-6 56

/srv/release/primary/root/MY HOST/etc/hot

---

reloaded TCPIP -

PING STUDENT 3 OK

TELNET STUDEN 3 OK

problem

IF CONFIG INET0

socket: address family not supported by protocol

X DIAG FAILS at CPU subtest

cpu subtest #1 CPU level 4 trap @ 0xFFC00018

Data Access Exception