

login DClark CompSys

USER NAME & PROJECT
Identified for access control

<password>

PASSWORD PROTECTION
Login message; motd
Ready message desc.

who -name

COMMAND LEVEL
Find cur & max load
User & project id's

<quit>

Discuss QUIT

list

VIRTUAL MEMORY:
Segments, paging
FILE SYSTEM: Directories
Working dir & sub-dirs
File system hierarchy
">" syntax
Component names

list -directory

print_wdir

change_wdir >user_dir_dir>CompSys>g

DClark is a subdirectory.

list -directory

Note access later.

display list (Fig 1)

PROTECTION: modes
modes on dir

change_wdir >system_control_dir

New working dir
System modules part of
hierarchy.
Note access modes.

list

<quit>

deleteforce accounting

No permission to delete
this file.

change_wdir >udd>CompSys>g>DClark>demo

Abbreviation for user_dir_dir

list

ACCESS CONTROL:

qedx

r stuff

Causes access violation;
no access to stuff.
Freeze state of editor;
Re-invoke command level.
Give access.

hold

setacl stuff rwa DClark.CompSys

start

Re-tries read operation.

p
q
listacl stuff
setacl >system_control_dir>accounting r DClark
edm blowup.p11

```
blowup:  procedure;
         declare (i, j) fixed;
         declare a(10) fixed;
         do i = -1 to -100000 by -1;
             j = a(i);
         end;
```

.

w

q

p11 blowup -table

blowup

debug

/blowup/25&t,s

i

i = 5

i

.q

ec credit

ec title2

list

Print a line.

Leave editor.

Look at an acl

Try to set access on
accounting file (fails)

PL/1 PROGRAM DEVELOPMENT:

Automatic array in stack

Will blow up running off
bottom of stack.

Makes segment

Leaves editor

Get symbol table for debugging
Note error messages.
Invoke procedure as command.

Examine troublesome source
statement.
Print out variable.


Set variable.

Leave debugger.

End of part 1.

And start of part 2

COMMAND PROCESSING

 display a & call_on (Fig 2)

b

call_on 2

Describe call_on
Execute a as sub-routine
DYNAMIC LINKING:
No explicit linking needed;
linking done at first ref.
Automatic -> generality
System progs like user progs.
Cost of little-used paths.

b

Comparison of 1st run cost
with re-run.

call_on 3

c doesn't exist.

hold

edm c.pll

```
c:      procedure;
        put list ("c has been called");
        put skip;
        return;
        end;
```

.

w

q

pll c

start

create xyz

file_output xyz;list;console_output

print xyz

dprint -copy 3 -delete xyz

print make_list.ec

exec_com make_list abc

Now linker finds c.

I/O STREAMS

Not paging or segment ref
Direct access file system
Symbolic source or sink
Connected outside program

COMMAND MACROS: exec_com
Based on changing input stream
Note ";" in line

print abc

rename make_list.ec =.absin

enter_abs_request make_list -ag xxx

change_wdir >udd>MPLS>Demo5

list

print fileseg

filelist fileseg

logout hold

login Demo5

<password>

print_wdir

list

print fileseg

howmany a

howmany b

ec credit

ABSENTEE LIKE BATCH
OR BACKGROUND:

SUBSYSTEM PROTECTION:
Subsystem is group of programs
encapsulated together in
ring of protection.

Explain collection of "grades".

Can access from ordinary
process.

Note ACL's.

Under-privileged user,
comes up in Ring 5.

Note access.

Can't do it from here.

Access selected info
through special software.