```
^P3
.
.
.
^S      ^P3
```

```
$$u
AI ITS 795  CONSOLE 22 FREE. 11:22:57

AI ITS.795. DDT.508.
8. USERS
WE HAVE AN INTERRMITTANT ON THE IO BUS,
SO BE VERY CAREFUL WITH YOUR MAGTAPES AND MICRO TAPES.
IF THE 340 IS DISPLAYING OK FROM THE IO, ALL IS OK. OTHERWISE
FIND A HACKER FAST AND BRING DOWN THE SYSTEM IN FIVE MINUTES.
--RG
mult$u
tn^K!
TELNET.37
HOST = MULTICS
*
```

```
Load = 27.0 out of 50.0 units; users = 28
1 Salrzer@1 Saltzer
Password:
[illegible]
You are protected from preemption until 1155.
Saltzer Multics logged in: 04/10/73  1125.7 est Tue from Network terminal "mita
Last login 04/02/73  1330.1 est Mon from 1050 terminal "."
Lines 8-8149 to 8-8170 and 8-7119,8-7120 have been removed from the
645 Multics machine as of Sat. 4/7/73
Please type help sked for 645 Data Line availability.
new/updated help files: 6180_costs, mpm, lines.
LISP users: type "help lisp_changes"
There will be a User's Forum on Wed, 4/18, at 1500 in 39-530 to
discuss the transfer to the new Multics machine (Honeywell 6180)
r 1126  7.571  0+95
whom -long

Multics 18-11 up since 04/09/73  0632.6
load 27.0/50.0; abs 1/2; 28 users
1037.8 10 526  1.0 AIDES      PLJensen
1049.4    none 1.0 AutoProg   Reed
0636.6 09 403  1.0 CNet       Network_Daemon
1120.8 10 567  1.0 CPAdmin    Treimanis
1120.2    255  1.0 CPCen      Gilson
1030.9    375  1.0 CPCen      Godsell
1029.5    565  1.0 CPStat     MSiegel
1106.5    none 1.0 CompNet    Kanodia
0937.1    none 1.0 CompNet    Pogran
0936.1    .    1.0 CompSys    DClark
0905.2    none 1.0 Druid      Dupuis
1038.2    none 1.0 Druid      Hartman
0845.3    PE2  1.0 Druid      Punches
1056.8    403  1.0 Druid      Rice
0844.3    none 1.0 Druid      Wylie
0935.3    334  1.0 EEAdmin    Caloggero
0851.3    a97  1.0 EEGradOff  Dodge
1030.6    568  1.0 Janus      Hill
1114.1    none 1.0 Local_4    Ressijac
1114.0    none  .5 MPM        Carey
1112.0    none  .5 MPM        Grant
1125.7    mita 1.0 Multics    Saltzer
1117.9    none 1.0 PMED       GMiller
0938.0    532  1.0 SysAdmin   Phillipps
0929.6    502  1.0 SysAdmin   RHart
0633.5 09 412  1.0 SysDaemon  Backup
0634.4    402  1.0 SysDaemon  IO
0633.0    none 1.0 SysMaint*  Roach
r 1126  8.070  4+57
ls -a

Segments= 43, Records= 73.
rewa   1  mipt
re     1  x
r wa   1  x.alm
re     1  tcall
r wa   1  tcall.pl1
re     1  no_call_test
r wa   1  no_call_test.pl1
re     1  call_test
r wa   1  call_test.pl1
re     1  mipt_eapi30
re     1  mipt_eap30
r wa   1  mipt_eapi30.alm
r wa   1  mipt_eap30.alm
re     1  mipt_ada30
```

```
r wa    1  macsyma.ec
re      1  loop
re      1  intm
r wa    1  intm.pl1
r wa    1  mipt.alm
r wa    1  loop.pl1
re      1  mipm
r wa    1  mipm.pl1
rewa    1  mpw
rewa    1  mpw.pl1
rewa    1  dfq
           digraph_freq_
rewa    1  sums
rewa    1  sums.pl1
rewa    1  digraph_freq_.pl1
           dfq.pl1
r wa    1  sarah.basic
r wa    1  mailbox
re      2  whom
re      1  tgm
r wa   10  misc.archive
r wa    4  memo.archive
re      2  gomoku_move
           gomoku_init
r wa    1  gomoku.info
re      2  gomoku
r wa    5  eds.pl1
re      2  eds
r wa    7  edit2.pl1
rewa    4  edit
           eq
r wa    2  cnts.mpm
Directories= 0.
Multi-segment files= 0.
Links= 3.
macsyma                         >udd>ap>as>macsyma_objects>macsyma
lisp                            >udd>ap>dpr>installed>lisp
trace                           >UDD>M>Wolman>trace
r 1127  9.143  29+108
```

help sked
(45 lines in segment.)
April 9, 1973

The following is a list of available 645 lines.

Baud Rate	Ext. Numbers	Number of Sets
110	8-6111 to 8-6118	8
134	8-8111 to 8-8148	38
150	8-7115 to 8-7118	4

New Multics operating schedule:

Monday and Wednesday	Tuesday and Thursday
0000 - 0300 small configuration	0000 - 1000 small config.
0300 - 0700 Salvager, Save and PM	1000 - 1800 large config.
0700 - 0800 possible Special Session	1800 - 2000 small config.
0800 - 1000 small config.	2000 - 2400 large config.
1000 - 1800 large config.	
1800 - 2000 small config.	
2000 - 2400 large config.	
Saturday	**Sunday**
0000 - 0500 small config.	0000 - 0800 small config.
0500 - 0700 Salvager and Save	0800 - 2400 generally large config.
0700 - 0800 possible Special Session	
0800 - 2400 generally large config.	

In addition, whenever the development time is not being used, the equipment will be added to the service configuration. Likewise when the full configuration is scheduled and there are fewer than 20 users, the second processor and third memory may be removed from the service to form a development machine for development use or to allow FED to work on questionable equipment. Exceptions to this schedule and confirmations of special sessions will be noted in schedule.info and the message_of_the_day.
(END)
r 1128 5.828 68+68
help lisp_changes
(6 lines follow)
03/22/73
The current version of LISP is not planned to be upgraded for the new Multics machine (the 6180). Instead a new and slightly incompatible version will be installed. All LISP users should contact Dave Reed (room 501 Tech. Square - phone 3-6013) for details on the conversion necessary.
21 lines follow. More help? yes

This file documents all changes to the LISP subsystem, located in the Development system. They are listed in reverse chronological order.
7/30/71
Support procedures for object programs produced by the forthcoming lisp compiler were added to the interpreter. No change should be visible to users.
7/26/71
The LISP interpreter, and the functions save, defsubr, and subr_info, were replaced along with the lisp command in order to incorporate a change in the internal format of subr links which allows use of the standard Multics subroutine linkage mechanism for snapping pointers to function entry points. The internal subroutine lisp_link_, which formerly performed this task, was deleted. This change makes all existing saved environments invalid. The user

of subr links contained within. Such a program is available
from David Reed (who can be reached via the mail command, in
the MultImp project).

9 lines follow. More help? yes

6/21/71
An automatic garbage collector has been added to the
lisp system. This fact should not affect the user particularly,
except for the fact that most programs will make more efficient
use of storage. The user may still call the garbage collector
on his own, as the lisp function "gc".
Rest of segment has 12 lines. More help? yes

6/16/71
     A modification was made to the LISP interpreter system, such
that all machine language functions are now SUBRs called in the
standard manner. In the past, some functions (such as quote,
cons, eq...) were treated as special cases and had no value as
variables. Any saved environments generated before this change
will not work, and must either be regenerated or modified. The
modification may be made by an exec_com, which can be obtained
from David Reed (Reed MultImp) if necessary.
(END)
r 1129 9.511 75+97
mail
2 messages, 9 lines.
From: Pogran.CompNet 04/10/73 1129.6
Logging in from AI can be hazardous to your password.
From: Gintell.Multics 04/01/73 1418.2
Limits have been set on your Multics project usage. Please use resource_usage
to discover whether you have remaining "funds".
mail: Delete? yes
r 1130 4.842 55+90
ru

Saltzer.Multics Report from 04/01/73 0841.6 to 04/10/73 1125.8
  Month-To-Date Charge: $ 1.47;
  Resource Limit: $ 75.00;
     Interactive Usage: $ 1.47;   2 logins, 0 crashes.
          shift $charge $limit
            1   1.47   open
     Absentee Usage: none;
     IO Daemon Usage: none;

r 1130 2.979 8+9
mail * Pogran CN
Input
Ken,
thanks for the warning, but i am trying out the new
Terminet 1200. It is a neat dv#evice! I will try to change my password somet
when I get bqck.
..
.
r 1132 20.286 408+229
copy mipt_ada30 mipt

copy: Name duplication. Do you want to delete the old segment mipt? yes
r 1132 7.474 63+137
sa mipt rewa
^Hll
r 1133 2.972 28+105
line_length: Expected argument missing.
r 1133 1.355 0+51
loop 1 10 @loop 1 1000 10

```
cpu  b  7
cpu  a  6
mem  c  128.  on
mem  d  128.  on
mem  e  128.  on
44 short and 5 long interrupts.
musecs mips
   993  .304 0
   980  .308 5
   967  .312 1
   955  .316 12
   943  .320 4
   932  .324 4
   920  .328 0
   909  .332 1
   898  .336 0
   888  .340 0
   877  .344 0
   867  .348 0
   857  .352 0
   848  .356 4
   838  .360 0
   829  .364 1
   820  .368 0
   811  .372 1
   803  .376 0
   794  .380 4
   786  .384 10
   778  .388 18
   770  .392 14
   762  .396 23
   755  .400 33
   747  .404 40
   740  .408 56
   733  .412 44
   725  .416 29
   719  .420 33
   712  .424 81
   705  .428 245
   699  .432 231
   692  .436 43
   686  .440 5
   680  .444 2
   674  .448 0
   668  .452 0
   662  .456 0
   656  .460 0
   650  .464 0
   645  .468 0
   639  .472 0
   634  .476 0
   629  .480 0
   623  .484 0
   618  .488 0
   613  .492 0
   608  .496 1
   604  .500 0
average mips =  .421
each trial 302 instructions
cpu  b  7
cpu  a  6
mem  c  128.  on
mem  d  128.  on
mem  e  128.  on
r 1134  14.572  113+156
```

```
loop 1 1000 10

cpu  b  7
cpu  a  6
mem  c  128.  on
mem  d  128.  on
mem  e  128.  on
27 short and 6 long interrupts.
musecs mips
   993  .304 0
   980  .308 2
   967  .312 1
   955  .316 1
   943  .320 1
   932  .324 2
   920  .328 1
   909  .332 1
   898  .336 1
   888  .340 3
   877  .344 3
   867  .348 1
   857  .352 1
   848  .356 0
   838  .360 3
   829  .364 0
   820  .368 2
   811  .372 2
   803  .376 4
   794  .380 2
   786  .384 0
   778  .388 0
   770  .392 2
   762  .396 2
   755  .400 2
   747  .404 0
   740  .408 0
   733  .412 3
   725  .416 3
   719  .420 0
   712  .424 16
   705  .428 25
   699  .432 63
   692  .436 102
   686  .440 64
   680  .444 99
   674  .448 106
   668  .452 73
   662  .456 19
   656  .460 16
   650  .464 34
   645  .468 105
   639  .472 20
   634  .476 9
   629  .480 14
   623  .484 14
   618  .488 23
   613  .492 38
   608  .496 117
   604  .500 0
average mips =  .455
each trial 302 instructions
cpu  b  7
cpu  a  6
mem  c  128.  on
mem  d  128.  on
mem  e  128.  on
```