

RECEIVED  
JUL 20 1975  
U. H. SALTZER

F O R U M   L I S T

D. CLARK

C. CLINGEN

R. DALEY

J. GINTELL

G. LUNDBERG

J. REGESTER

**PROF. J. SALTZER**

R. SHOEMAKER

# Honeywell

TO: List of Attendees  
SUBJECT: FORUM Minutes for July 15, 1975  
ATTENDEES: G. Ackerman-Lewis E.D. Kleinow  
W.J. Burner R.A. Roach  
R.J. Chevalier L.J. Ryan  
R.M. Gross

cc: J.R. Steinberg  
D.M. Jordan  
List

## Hardware-E.D. Kleinow

- \*Processors- Cache Parity in Processor A. FED Located and replaced faulty chip.
- \*Memory Problems- SCU-A, SCU-B had memory parity errors. Problem seems to be related to Processor-B. FED has been unable to find a solid failure.
- \*PRT 301- Sensing arm mechanism for detection of upper hood limit was broken. FED replaced sheared pin. Also, clock timing motor replaced.
- \*Reader- Optics Lense Assembly was dirty causing reader problems on two occasions.
- \*MTH 505- Failing tape copies were found to be a software problem.

## Software-G. Ackerman-Lewis

### \*Systems Installed

MSS 25.9C  
MSS 25.9D  
MSS 25.10  
MSS 25.10A

- System 26.0 being worked on for installation next week. Includes MCS
- AIM ready for installation
- Bugs causing two crashes last week have been fixed  
ie: Bugs in makeunknown, bugs in page\_fault.

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Page Two

Other

\*Billerica Hardware- Disk unit and bussel are on-site. Installation can take place after permit for electrical work is received and work is complete. Leo says it should be done this week.

\*FORUM- Meeting date switched to alternate Wednesdays at 10AM effective July 30, 1975.

RJC/at

A handwritten signature or set of initials, possibly 'RB', written in black ink. The signature is stylized and appears to be a cursive or shorthand form.



Massachusetts Institute of Technology  
Programming Development Office  
Cambridge, Massachusetts 02139

To: Forum Attendants  
From: Grace E. Ackerman-Lewis  
Date: July 30, 1975  
Subject: Multics Availability July 12 - July 27

Summary of Lost Time

	# of Crashes	Crashes	Time Lost Other	Total
	-----	-----	-----	-----
Hardware:	1	0:09	0:00	0:09
Hardware Suspected:	1	0:39	0:00	0:39
Software:	2	0:58	0:00	0:58
Software Suspected:	1	0:23	0:00	0:23
Other:	1	9:46	0:00	9:46
Not Yet Analyzed:	3	14:31	0:00	14:31
-----	-----	-----	-----	-----
Total:	9	26:26	0:00	26:26

Total lost time/Scheduled up time = 26:26/303:00 = .087 (91.3% up time)

July month\_to\_date lost time = 56:40



Saturday  
7/26

Sunday  
7/27

Monday  
/

Tuesday  
/

Wednesday  
/

Thursday  
/

Friday  
/

00:00							00:00
01:00							01:00
02:00							02:00
03:00							03:00
04:00							04:00
05:00		8 cont.					05:00
06:00							06:00
07:00							07:00
08:00							08:00
09:00							09:00
10:00							10:00
11:00		9					11:00
12:00							12:00
13:00							13:00
14:00							14:00
15:00							15:00
16:00							16:00
17:00							17:00
18:00							18:00
19:00							19:00
20:00							20:00
21:00							21:00
22:00							22:00
23:00	8						23:00

To: Administrative Distribution  
From: Grace Ackerman-Lewis  
Date: July 30, 1975  
Subject: Multics Crash Analysis for July 12, - July 27

Total number of crashes = 9 (ERF's 342 - 350)

Hardware:

Parity errors	1
	-----
Total	1

Hardware Suspected:

Probable associative memory problem	1
	-----
Total	1

Software:

Bug in 26.0 (ARDS lines do not work)	1
Bug in hsla_man	1
	-----
Total	2

Software Suspected:

Probable bug in copy_mst (no dump)	1
	-----
Total	1

Environment:

Air conditioning failure	1
	-----
Total	1

Not yet analyzed:

Attempt to stop initializer process	1
Idle loop	1
Emergency interrupt from 355A	1
	-----
Total	3

```

372 05/05/75 1 *** Attempt to boot fails if process dirs left after previous shutdown (fix found)
357 02/21/75 1 Inst Several timing loods for 355 timeouts are too short (with cache processors)
356 02/21/75 1 dmw Bug(s) exist in Network locking software -> pxxx timeouts

373 05/21/75 2 *** salvager (regular) fails to detect active segments (need to run long salvager)
361 03/02/75 2 Inst Output to one terminal can end up in another user's Input buffers (MPRF 8035)
350 01/02/75 2 mlg Users who hangup may not be logged out
348 12/03/74 2 rac security problems in the automatic creating of home directories

376 05/22/75 3 NIOD printer dim does not indent lines containing tabs correctly
375 05/22/75 3 NIOD printer dim does not raise hood when out of paper
374 05/21/75 3 Inst pmultiparty check prints out wrong address of the parity error (see online for 05/21 1600)
371 04/12/75 3 Inst delete_dir can not delete directories with lower ring segments (gives misleading message)
370 04/12/75 3 Inst set_acl says "no match". If satisfisfying entry names all in lower rings
369 04/10/75 3 Shudown with 3 CPUs may result in a loop (stz used to clear lock, should be stac)
366 03/22/75 3 shx user can get into loop creating/destroying processes thus tying up system.
364 03/02/75 3 srh mria does not handle star convention properly (MPRF 8010)
362 03/02/75 3 sbh delete_name gives incorrect error message on a msg (bug in chname_stille)
360 03/02/75 3 *** Salvager appears not to flush its logging buffer when finished (errors absent from log)
359 03/02/75 3 Initialize_peek_limits leaves old (possibly dangerous) limit table on an error (missing seg)
358 02/27/75 3 rfb EXL compiler faults if used for 1st time after debug has listed object code (fixed with prelinking)
354 02/12/75 3 rfm Initialize_peek_limits fails if adx error is encountered while processing (security problem?)
353 01/14/75 3 Inst delete_dir fails if safety switch is on
347 12/03/74 3 NIOD I/O driver ignores -in option when -pl is used
338 09/26/74 3 NIOD restarted printer requests indicate a zero charge ($0.00)
337 09/26/74 3 NIOD IO Daemon restarts can start at wrong request if more than one cycle is being saved
324 08/27/74 3 tvv message coordinator can lose a wakeup and then stops printing
323 08/21/74 3 Inst Users log out but remain in who table; also, process dirs not always deleted
322 08/21/74 3 srh command_processor_ can get fatal process errors (with some cases of lforation)
315 07/24/74 3 *** Long salvager (after clean shutdown) is detecting bad filemap checksums
305 07/02/74 3 Inst logour messages get lost due to timing problems in tty dim
302 06/29/74 3 cross directory retrievals sometimes fail (see RAR for details)
282 05/05/74 3 mam qeac fails to find expressions like /a.b.c.*abd/ in strings like "a.b.c a.b.d"
268 03/05/74 3 NIOD IO Daemon prints an lengthy error message when request deleted from under it
258 02/11/74 3 *** Boot cold won't work if too much disk storage (dies on fsdct page fault)
240 01/10/74 3 NSS lock does not handle directory deletions well. (may result in seg fault -> crawlout)
141 07/22/73 3 *** >system_library_tools should be removed from default search rules
129 07/07/73 3 rgb remaining directories does not terminate them and can cause serious problems

377 05/22/75 4 *** out of disk (E191) syserr message has a \000 on the end
363 03/02/75 4 Inst unbump fails to do its function completely (user logged out on new_proc - MPRF 8019)
336 09/26/74 4 NIOD IO Daemon's save request does an automatic start
307 07/02/74 4 mlg hardwired terminals do not get identified correctly when turned on after system is up (on 150 baud)

*** - fix completed (to be installed)
inst - fix installed

```

(END)



Massachusetts Institute of Technology

Information Processing Center

Multics availability from 07/13/75 0000.0 to 07/18/75 2200.0

Table with columns: Time, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Time. Rows list time slots from 0000.0 to 2330.0 with corresponding availability data for each day of the week.

Massachusetts Institute of Technology  
Information Processing Center

Mutlits availability for last week to 07/26/75 2359.0

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Time
100001	10.0 2 384 2.01	12.0 2 384 2.01	17.0 2 384 2.01	14.0 2 384 2.01	12.0 2 384 2.01	15.0 2 384 2.01	10.0 2 384 2.01	100001
100001	11.0 2 384 2.01	10.0 2 384 2.01	17.0 2 384 2.01	15.0 2 384 2.01	11.0 2 384 2.01	15.0 2 384 2.01	10.0 2 384 2.01	100001
100301	11.0 2 384 2.01	11.0 2 384 2.01	16.0 2 384 2.01	15.0 2 384 2.01	9.0 2 384 2.01	12.0 2 384 2.01	11.0 2 384 2.01	100301
100301	12.0 2 384 2.01	13.0 2 384 2.01	13.0 2 384 2.01	15.0 2 384 2.01	10.0 2 384 2.01	13.0 2 384 2.01	11.0 2 384 2.01	100301
101001	11.0 2 384 2.01	13.0 2 384 2.01	14.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	11.0 2 384 2.01	11.0 2 384 2.01	101001
101001	12.0 2 384 2.01	13.0 2 384 2.01	13.0 2 384 2.01	15.0 2 384 2.01	12.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	101001
101301	14.0 2 384 2.01	14.0 2 384 2.01	12.0 2 384 2.01	15.0 2 384 2.01	12.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	101301
101301	15.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	14.0 2 384 2.01	13.0 2 384 2.01	15.0 2 384 2.01	10.0 2 384 2.01	101301
102001	14.0 2 384 2.01	14.0 2 384 2.01	9.0 2 384 2.01	14.0 2 384 2.01	13.0 2 384 2.01	15.0 2 384 2.01	9.0 2 384 2.01	102001
102001	12.0 2 384 2.01	13.0 2 384 2.01	9.0 2 384 2.01	14.0 2 384 2.01	13.0 2 384 2.01	14.0 2 384 2.01	10.0 2 384 2.01	102001
102301	12.0 2 384 2.01	13.0 2 384 2.01	9.0 2 384 2.01	14.0 2 384 2.01	13.0 2 384 2.01	13.0 2 384 2.01	10.0 2 384 2.01	102301
102301	12.0 2 384 2.01	13.0 2 384 2.01	11.0 2 384 2.01	14.0 2 384 2.01	13.0 2 384 2.01	12.0 2 384 2.01	9.0 2 384 2.01	102301
103001	10.0 2 384 2.01	14.0 2 384 2.01	10.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	11.0 2 384 2.01	9.0 2 384 2.01	103001
103001	11.0 2 384 2.01	14.0 2 384 2.01	10.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	12.0 2 384 2.01	9.0 2 384 2.01	103001
103301	10.0 2 384 2.01	15.0 2 384 2.01	11.0 2 384 2.01	14.0 2 384 2.01	11.0 2 384 2.01	11.0 2 384 2.01	9.0 2 384 2.01	103301
103301	9.0 2 384 2.01	14.0 2 384 2.01	10.0 2 384 2.01	13.0 2 384 2.01	9.0 2 384 2.01	11.0 2 384 2.01	9.0 2 384 2.01	103301
104001	8.0 2 384 2.01	14.0 2 384 2.01	9.0 2 384 2.01	12.0 2 384 2.01	9.0 2 384 2.01	10.0 2 384 2.01	8.0 2 384 2.01	104001
104001	7.0 2 384 2.01	13.0 2 384 2.01	8.0 2 384 2.01	12.0 2 384 2.01	13.0 2 384 2.01	10.0 2 384 2.01	8.0 2 384 2.01	104001
104301	7.0 2 384 2.01	12.0 2 384 2.01	9.0 2 384 2.01	15.0 2 384 2.01	9.0 2 384 2.01	11.0 2 384 2.01	8.0 2 384 2.01	104301
104301	6.0 2 384 2.01	14.0 2 384 2.01	9.0 2 384 2.01	15.0 2 384 2.01	9.0 2 384 2.01	8.0 2 384 2.01	8.0 2 384 2.01	104301
105001	5.0 2 384 2.01	14.0 2 384 2.01	7.0 2 384 2.01	14.0 2 384 2.01	9.0 2 384 2.01	8.0 2 384 2.01	8.0 2 384 2.01	105001
105001	5.0 2 384 2.01	14.0 2 384 2.01	8.0 2 384 2.01	14.0 2 384 2.01	8.0 2 384 2.01	7.0 2 384 2.01	6.0 2 384 2.01	105001
105301	5.0 2 384 2.01	13.0 2 384 2.01	8.0 2 384 2.01	11.0 2 384 2.01	7.0 2 384 2.01	6.0 2 384 2.01	6.0 2 384 2.01	105301
105301	5.0 2 384 2.01	12.0 2 384 2.01	8.0 2 384 2.01	10.0 2 384 2.01	7.0 2 384 2.01	6.0 2 384 2.01	7.0 2 384 2.01	105301
106001	5.0 2 384 2.01	12.0 2 384 2.01	6.0 2 384 2.01	8.0 2 384 2.01	7.0 2 384 2.01	7.0 2 384 2.01	7.0 2 384 2.01	106001
106001	5.0 2 384 2.01	12.0 2 384 2.01	6.0 2 384 2.01	8.0 2 384 2.01	5.0 2 384 2.01	7.0 2 384 2.01	7.0 2 384 2.01	106001
106301	5.0 2 384 2.01	12.0 2 384 2.01	7.0 2 384 2.01	10.0 2 384 2.01	6.0 2 384 2.01	7.0 2 384 2.01	7.0 2 384 2.01	106301
106301	5.0 2 384 2.01	9.0 2 384 2.01	7.0 2 384 2.01	6.0 2 384 2.01	5.0 2 384 2.01	6.0 2 384 2.01	6.0 2 384 2.01	106301
107001	5.0 2 384 2.01	0.0 1 384 2.01	2.0 1 384 2.01	0.0 1 384 2.01	0.0 1 384 2.01	0.0 1 384 2.01	6.0 2 384 2.01	107001
107001	5.0 2 384 2.01	41.0 1 256 2.01	crash	shutdown	shutdown	shutdown	6.0 2 384 2.01	107001
107301	5.0 2 384 2.01	41.0 1 256 2.01	shutdown	shutdown	41.0 1 256 2.01	shutdown	6.0 2 384 2.01	107301
107301	5.0 2 384 2.01	41.0 1 256 2.01	shutdown	shutdown	41.0 1 256 2.01	shutdown	6.0 2 384 2.01	107301
108001	0.0 1 384 2.01	36.0 1 256 2.01	shutdown	shutdown	41.0 1 256 2.01	shutdown	6.0 2 384 2.01	108001
108001	shutdown	crash	shutdown	shutdown	0.0 1 256 2.01	shutdown	6.0 2 384 2.01	108001
108301	shutdown	crash	shutdown	shutdown	shutdown	shutdown	6.0 2 384 2.01	108301
108301	shutdown	crash	shutdown	shutdown	7.0 2 384 2.01	shutdown	7.0 2 384 2.01	108301
109001	shutdown	crash	shutdown	shutdown	10.0 2 384 2.01	shutdown	7.0 2 384 2.01	109001
109001	shutdown	crash	19.0 2 384 2.01	13.0 2 384 2.01	17.0 2 384 2.01	19.0 2 384 2.01	10.0 2 384 2.01	109001
109301	shutdown	16.0 2 384 2.01	27.0 2 384 2.01	19.0 2 384 2.01	22.0 2 384 2.01	347	10.0 2 384 2.01	109301
109301	shutdown	30.0 2 384 2.01	32.0 2 384 2.01	32.0 2 384 2.01	23.0 2 384 2.01	347	11.0 2 384 2.01	109301
110001	shutdown	37.0 2 384 2.01	35.0 2 384 2.01	34.0 2 384 2.01	36.0 2 384 2.01	347	12.0 2 384 2.01	110001
110001	shutdown	35.0 2 384 2.01	39.0 2 384 2.01	37.0 2 384 2.01	36.0 2 384 2.01	347	13.0 2 384 2.01	110001
110301	shutdown	40.0 2 384 2.01	39.0 2 384 2.01	41.0 2 384 2.01	44.0 2 384 2.01	29.0 1 384 2.01	13.0 2 384 2.01	110301
110301	shutdown	35.0 2 384 2.01	42.0 2 384 2.01	42.0 2 384 2.01	43.0 2 384 2.01	44.0 1 384 2.01	13.0 2 384 2.01	110301
111001	shutdown	41.0 2 384 2.01	45.0 2 384 2.01	48.0 2 384 2.01	49.0 2 384 2.01	46.0 1 384 2.01	12.0 2 384 2.01	111001
111001	13.0 1 384 2.01	43.0 2 384 2.01	39.0 2 384 2.01	45.0 2 384 2.01	47.0 2 384 2.01	44.0 1 384 2.01	13.0 2 384 2.01	111001
111301	14.0 2 384 2.01	42.0 2 384 2.01	41.0 2 384 2.01	43.0 2 384 2.01	50.0 2 384 2.01	50.0 2 384 2.01	14.0 2 384 2.01	111301
111301	15.0 2 384 2.01	41.0 2 384 2.01	42.0 2 384 2.01	42.0 2 384 2.01	51.0 2 384 2.01	49.0 2 384 2.01	13.0 2 384 2.01	111301
112001	15.0 2 384 2.01	45.0 2 384 2.01	43.0 2 384 2.01	39.0 2 384 2.01	47.0 2 384 2.01	crash	13.0 2 384 2.01	112001
112001	15.0 2 384 2.01	43.0 2 384 2.01	36.0 2 384 2.01	39.0 2 384 2.01	40.0 2 384 2.01	crash	13.0 2 384 2.01	112001
112301	16.0 2 384 2.01	45.0 2 384 2.01	39.0 2 384 2.01	36.0 2 384 2.01	36.0 2 384 2.01	crash	13.0 2 384 2.01	112301
112301	16.0 2 384 2.01	41.0 2 384 2.01	38.0 2 384 2.01	37.0 2 384 2.01	38.0 2 384 2.01	crash	14.0 2 384 2.01	112301
113001	16.0 2 384 2.01	44.0 2 384 2.01	36.0 2 384 2.01	33.0 2 384 2.01	42.0 2 384 2.01	crash	13.0 2 384 2.01	113001
113001	19.0 2 384 2.01	43.0 2 384 2.01	34.0 2 384 2.01	30.0 2 384 2.01	35.0 2 384 2.01	crash	15.0 2 384 2.01	113001
113301	17.0 2 384 2.01	43.0 2 384 2.01	40.0 2 384 2.01	35.0 2 384 2.01	35.0 2 384 2.01	crash	16.0 2 384 2.01	113301
113301	17.0 2 384 2.01	40.0 2 384 2.01	38.0 2 384 2.01	36.0 2 384 2.01	42.0 2 384 2.01	crash	17.0 2 384 2.01	113301
114001	16.0 2 384 2.01	47.0 2 384 2.01	40.0 2 384 2.01	41.0 2 384 2.01	43.0 2 384 2.01	crash	18.0 2 384 2.01	114001
114001	18.0 2 384 2.01	45.0 2 384 2.01	40.0 2 384 2.01	45.0 2 384 2.01	45.0 2 384 2.01	crash	19.0 2 384 2.01	114001
114301	17.0 2 384 2.01	42.0 2 384 2.01	45.0 2 384 2.01	47.0 2 384 2.01	44.0 2 384 2.01	crash	19.0 2 384 2.01	114301
114301	17.0 2 384 2.01	41.0 2 384 2.01	50.0 2 384 2.01	48.0 2 384 2.01	45.0 2 384 2.01	crash	17.0 2 384 2.01	114301
115001	19.0 2 384 2.01	44.0 2 384 2.01	48.0 2 384 2.01	45.0 2 384 2.01	45.0 2 384 2.01	crash	15.0 2 384 2.01	115001
115001	18.0 2 384 2.01	49.0 2 384 2.01	43.0 2 384 2.01	44.0 2 384 2.01	51.0 2 384 2.01	crash	16.0 2 384 2.01	115001
115301	17.0 2 384 2.01	52.0 2 384 2.01	40.0 2 384 2.01	49.0 2 384 2.01	50.0 2 384 2.01	crash	18.0 2 384 2.01	115301
115301	14.0 2 384 2.01	48.0 2 384 2.01	39.0 2 384 2.01	48.0 2 384 2.01	50.0 2 384 2.01	crash	18.0 2 384 2.01	115301
116001	14.0 2 384 2.01	44.0 2 384 2.01	36.0 2 384 2.01	50.0 2 384 2.01	45.0 2 384 2.01	crash	18.0 2 384 2.01	116001
116001	14.0 2 384 2.01	39.0 2 384 2.01	40.0 2 384 2.01	52.0 2 384 2.01	43.0 2 384 2.01	crash	17.0 2 384 2.01	116001
116301	18.0 2 384 2.01	34.0 2 384 2.01	48.0 2 384 2.01	47.0 2 384 2.01	44.0 2 384 2.01	crash	18.0 2 384 2.01	116301
116301	345	33.0 2 384 2.01	42.0 2 384 2.01	44.0 2 384 2.01	42.0 2 384 2.01	crash	18.0 2 384 2.01	116301
117001	345	33.0 2 384 2.01	38.0 2 384 2.01	41.0 2 384 2.01	41.0 2 384 2.01	crash	15.0 2 384 2.01	117001
117001	345	27.0 2 384 2.01	36.0 2 384 2.01	38.0 2 384 2.01	35.0 2 384 2.01	crash	20.0 2 384 2.01	117001
117301	8.0 1 384 2.01	31.0 2 384 2.01	34.0 2 384 2.01	36.0 2 384 2.01	34.0 2 384 2.01	crash	17.0 2 384 2.01	117301
117301	15.0 2 384 2.01	28.0 2 384 2.01	31.0 2 384 2.01	32.0 2 384 2.01	27.0 2 384 2.01	crash	17.0 2 384 2.01	117301
118001	13.0 2 384 2.01	24.0 2 384 2.01	24.0 2 384 2.01	34.0 2 384 2.01	346	crash	14.0 2 384 2.01	118001
118001	11.0 2 384 2.01	23.0 2 384 2.01	20.0 2 384 2.01	30.0 2 384 2.01	346	crash	11.0 2 384 2.01	118001
118301	12.0 2 384 2.01	23.0 2 384 2.01	19.0 2 384 2.01	26.0 2 384 2.01	12.0 1 384 2.01	crash	12.0 2 384 2.01	118301
118301	11.0 2 384 2.01	20.0 2 384 2.01	17.0 2 384 2.01	22.0 2 384 2.01	15.0 2 384 2.01	crash	13.0 2 384 2.01	118301
119001	11.0 2 384 2.01	17.0 2 384 2.01	19.0 2 384 2.01	19.0 2 384 2.01	18.0 2 384 2.01	crash	13.0 2 384 2.01	119001
119001	8.0 2 384 2.01	17.0 2 384 2.01	21.0 2 384 2.01	16.0 2 384 2.01	17.0 2 384 2.01	crash	14.0 2 384 2.01	119001
119301	7.0 2 384 2.01	18.0 2 384 2.01	20.0 2 384 2.01	12.0 2 384 2.01	17.0 2 384 2.01	crash	13.0 2 384 2.01	119301
119301	7.0 2 384 2.01	20.0 2 384 2.01	19.0 2 384 2.01	12.0 2 384 2.01	22.0 2 384 2.01	crash	16.0 2 384 2.01	119301
120001								