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JUL 16 1975
J. H. SALTZER

F O R U M L I S T

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G.M. LUNDBERG

J.G. REGESTER

PROF. J. SALTZER

R.E. SHOEMAKER

J.R. STEINBERG

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Honeywell

TO: List of Attendees

cc: List

SUBJECT: FORUM Minutes for July 1, 1975

ATTENDEES: G. Ackerman-Lewis P.B. Kelley
 R.J. Chevalier E.D. Kleinow
 R.M. Gross R.A. Roach

Hardware - E.D. Kleinow

*Memory Problems-

SCU-C Store-B had hard failure caused by power surge on 6/19/75. FED spared out a bit but problem reoccurred. Engineering in Phoenix suggest a board swapp to correct parity errors.

SCU-A Store A&B had parity errors over this past weekend. FED couldn't find solid error but suspects this may be a memory failure rather than controller.

*PRT 301-

Stacker switch problems again. FED rebuilt switch unit.

*DN 355-

FCO required for scheduled software release has been installed. This FCO relates interval timer.

*MTH 500's-

False Power Off status is being reported to the system from time to time. This has been happening since the new IOI was installed. Noel Morris wants a BOS dump when it happens again.

Software- R.A. Roach

*Systems Installed

MSS .25.8
MSS 25.8A
MSS 25.9
MSS 25.9A
MSS 25.9B Crashed on installation this AM.

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Software Con't

*CISL has asked for increased system installation rate.
ie: from approximately 1 every 10 days to 1 every 5
days (or better)

A handwritten signature in dark ink, appearing to be 'RJC', written over the typed name 'RJC/at'.

RJC/at

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Massachusetts Institute of Technology
Programming Development Office
Cambridge, Massachusetts 02139

To: Forum Attendants
From: Grace E. Ackerman-Lewis
Date: July 1, 1975
Subject: Multics Availability June 14 - June 25

Summary of Lost Time

	# of Crashes	Crashes	Time Lost Other	Total
	-----	-----	-----	-----
Hardware:	3	1:26	0:00	1:26
Software Suspected:	3	1:10	0:00	1:10
Operations:	0	0:00	0:46	0:46
-----	-----	-----	-----	-----
Total:	6	2:36	0:46	3:22

Total lost time/Scheduled up time = 3:22/303:00 = .010 (99.9% up time)

June month-to-date lost time = 8:29

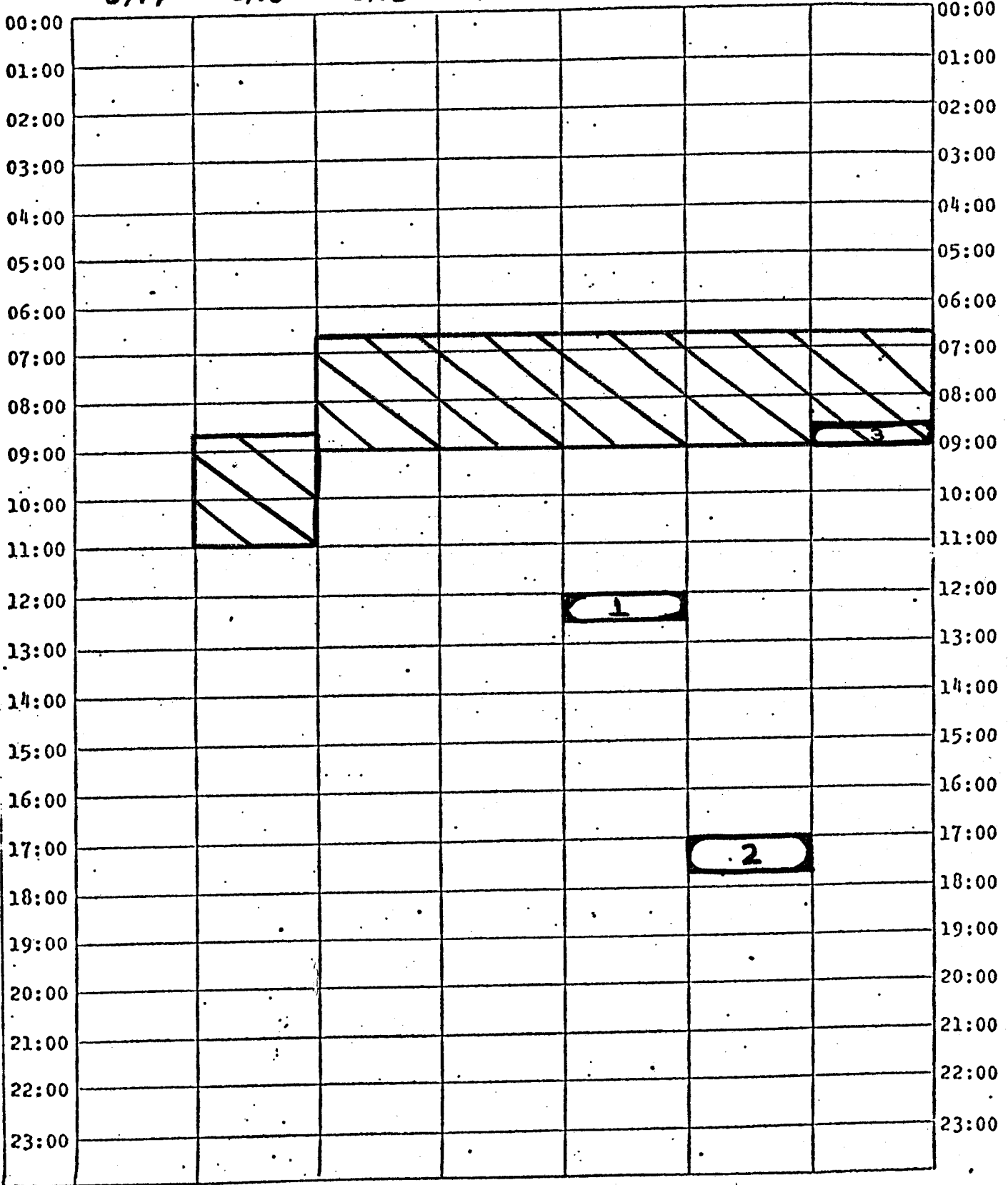
Down At Time Lost Up At

1 12:04 06/18 - 12:29 06/18 Crash, ERF 322
2 16:59 06/19 - 17:40 06/19 Crash, ERF 323
3 08:45 06/20 - 08:54 06/20 Crash, ERF 324
4 09:00 06/23 - 09:36 06/23 Crash, ERF 325
5 14:13 06/23 - 14:30 06/23 Crash, ERF 326
6 09:00 06/24 - 09:28 06/24 Crash, ERF 327

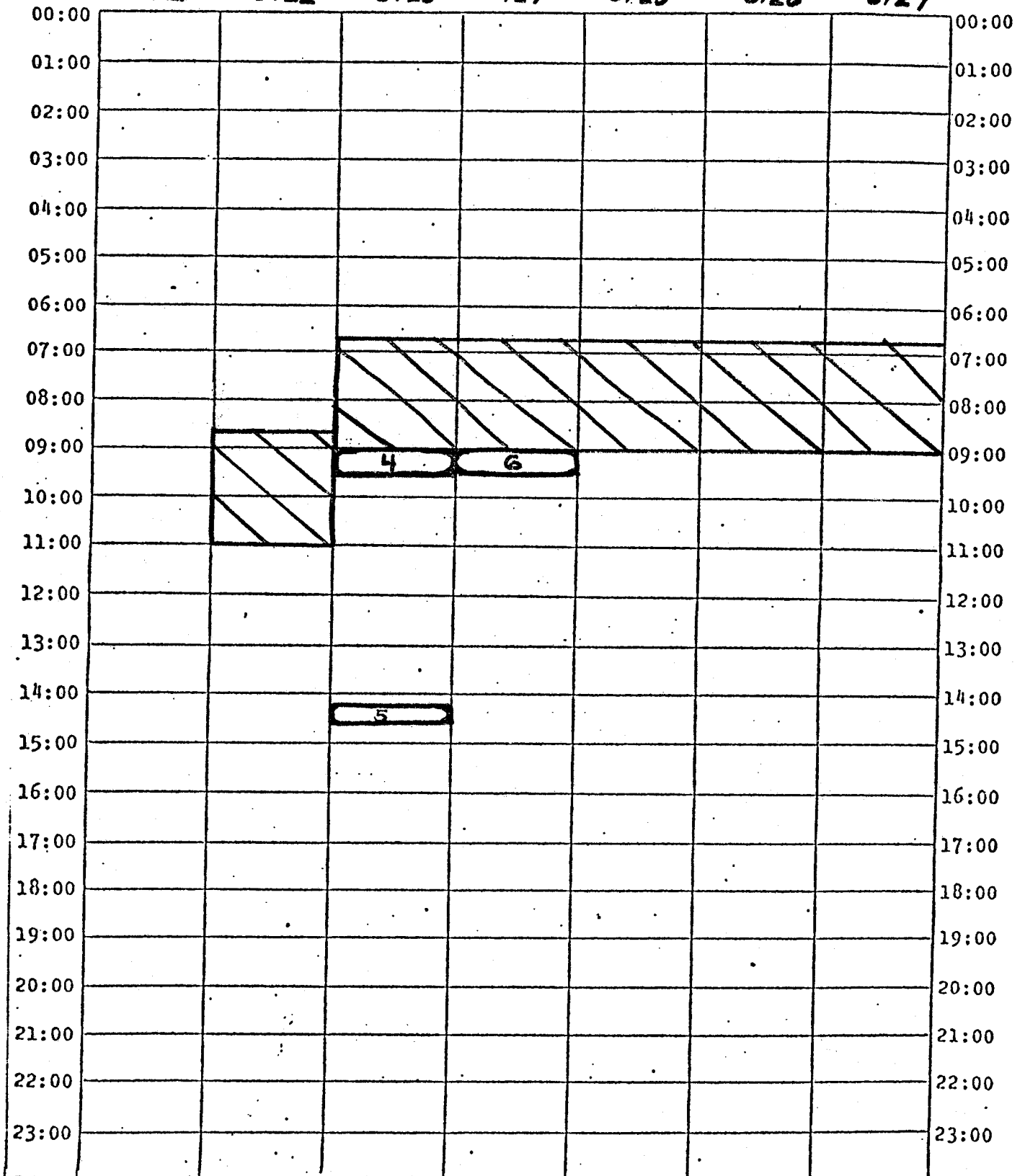
Time Lost
Due to

00:25 S? Att. crawl-out with non-dir lock set
00:41 H Parity errors SCU-C
00:09 H Problem adding CPU-B
00:36 H Problem adding CPU-B
00:17 S? Attempt to destroy a process failed
00:28 S? del_dir_tree_error

Saturday 6/14 Sunday 6/15 Monday 6/16 Tuesday 6/17 Wednesday 6/18 Thursday 6/19 Friday 6/20



Saturday 6/21 Sunday 6/22 Monday 6/23 Tuesday 6/24 Wednesday 6/25 Thursday 6/26 Friday 6/27



To: Administrative Distribution
From: Grace Ackerman-Lewis
Date: July 1, 1975
Subject: Multics Crash Analysis for June 14, - June 25

Total number of crashes = 6 (ERF's 322 - 327)

Hardware:

Parity errors SCU-C
Problem adding CPU-B

1

2

Total:

3

Software Suspected:

Crawl-out with non-directory lock set
Attempt to destroy a process failed
Init_branches problem

1

1

1

Total:

3

#	sys.	date	time	type	brief explanation
327	25.7a	06/24/75	09:00	S?	del_dir_free error
326	25.7a	06/23/75	14:12	S?	Attempt to destroy a process failed
325	25.7a	06/23/75	09:00	H	Trouble fault CPU-8
	25.7a	06/22/75			NO CRASHES
	25.7a	06/21/75			NO CRASHES
324	25.7a	06/20/75	08:45	H	Trouble fault CPU-8
323	25.7a	06/19/75	16:59	H	Parity errors SCU-C
322	25.7a	06/18/75	12:03	NVA	Attempted crawlout with non-dir lock set
	25.7a	06/17/75			NO CRASHES
	25.7a	06/16/75			NO CRASHES
	25.7a	06/15/75			NO CRASHES
	25.7a	06/14/75			NO CRASHES

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372 05/05/75 1 *** Attempt to boot fails if process dirs left after previous shutdown (fix found)
365 03/12/75 1 Inst Security bug allowing user to patch PDS
357 02/21/75 1 *** Several timing loops for 355 timeouts are too short (with cache processors)
356 02/21/75 1 dmw Bug(s) exist in Network locking software -> psss timeouts

373 05/21/75 2 *** salvager (regular) fails to detect active segments (need to run long salvager)
367 03/25/75 2 Inst status with "-md" option also gives bit count, records used and max length
361 03/02/75 2 MCS Output to one terminal can end up in another user's input buffers (MPRF 8035)
352 01/14/75 2 ??? Deletion of GPU appears to result in clobbered words (ERFS 207 & 208)
350 01/02/75 2 m1g Users who hangup may not be logged out
348 12/03/74 2 Security problems in the automatic creating of home directories
346 11/25/74 2 Inst Backup bombs when handling dir with mst indicator on but no inferior segments (See 11/23/74)
339 10/10/74 2 ??? bug in traffic controller (-> Idle loops)
318 07/25/74 2 MCS tty dlm seems to be able to go blocked for output and forgets to wakeup

376 05/22/75 3 Printer dlm does not indent lines containing tabs correctly
375 05/22/75 3 printer dlm does not raise hood when out of paper
374 05/21/75 3 *** pmuiparity_check prints out wrong address of the parity error (see online for 05/21 1600)
371 04/12/75 3 *** delete_dir can not delete directories with lower ring segments (gives misleading message)
370 04/12/75 3 *** set_acl says "no match" if satisfying entry names all in lower rings
369 04/10/75 3 Shutdown with 3 CPUs may result in a loop (stz used to clear lock, should be stac)
366 03/22/75 3 user can get into loop creating/destroying processes thus tying up system.
364 03/02/75 3 msla 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 cname_$file)
360 03/02/75 3 *** Salvager appears not to flush its logging buffer when finished (errors absent from log)
359 03/02/75 3 EXL compiler faults if used for 1st time after debug has listed object code (fixed with prelinking)
358 02/27/75 3 rab 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 any error is encountered while processing (security problem?)
353 01/14/75 3 *** delete_dir fails if safety switch is on
347 12/03/74 3 I/O driver ignores -ln option when -ol is used
338 09/26/74 3 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
325 08/27/74 3 ??? IO.SysDaemon was charged for a large negative amount of cpu time (08/26/74)
324 08/27/74 3 tvv message coordinator can lose a wakeup and then stops printing
323 08/21/74 3 tac 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 iteration)
320 07/26/74 3 tac Initializer's alarm clock can fail and doesn't resync properly. (see online for 07/26/74)
315 07/24/74 3 amk Long salvager (after clean shutdown) is detecting bad filemap checksums
305 07/02/74 3 MCS logout messages get lost due to timing problems in tty dlm
302 06/29/74 3 cross directory retrievals sometimes fail (see RAR for details)
282 05/05/74 3 mam qedx fails to find expressions like /a.bc.*a.bd/ in strings like "a.bc a.b a.bd"
268 03/05/74 3 rsc IO Daemon prints an lengthy error message when request deleted from under it
258 02/11/74 3 shw 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)
238 03/18/74 3 Inst timer_manager_ may not properly reset alarm calls if called more than once from same loc (VI)
216 11/29/73 3 Inst System crashes on attempts to wire a page in a RMS
180 09/01/73 3 *** retrieve does not accept control files with 50 names as documented (limit about 20) (Documentation change)
179 09/01/73 3 *** retrieve sometimes requires full primary path names (supposed to accept alternate names) (Documentation change)
148 07/26/73 3 Inst absentee or I/O message segments can get truncated by ms salvager with no messages
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 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 m1g hardwired Terminate do not get identified correctly when turned on after system is up (on 150 baud)
297 10/29/73 4 ??? iss has not been updated for 6180 libraries

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This segment contains a list of known CPU hardware bugs/deficiencies.

084			
083	06/13/75	***	2
082	04/19/75	***	2
081	01/15/75	Inst	2
080	01/15/75	ENG	2
079	10/14/74	ENG	2
078	10/14/74	Inst	2
077	10/14/74	***	2
076	09/05/74	Inst	
075	08/26/74	Inst	
074	08/05/74	Inst	
073	05/02/74	***	1
072	05/02/74	Inst	1
071	05/02/74	***	2
070	03/25/74	Inst	
069	03/18/74	Inst	
068	03/11/74	Inst	
067	02/14/74	Inst	
066	02/14/74	Inst	
065	02/13/74	Inst	
064	02/12/74	Inst	
063	02/06/74	Inst	
062	02/04/74	Inst	
061	01/24/74	Inst	
060	01/12/74	Inst	
059	01/12/74	Inst	
058	01/12/74	Inst	
057	01/03/74	Inst	
056	01/03/74	Inst	
042	10/13/73	Inst	

CSL causes 2-bit shift at boundsfault boundary (PHAG-PG070)
 IPR faults occur if target string of move (etc) is zero length.
 CMPN does not always work
 CMPC sometimes fails
 Bounds faults not being recognized on decimal instructions (PHAG-PE036, PHAG-PG060)
 Ring alarm faults are only sampled at RTC0 time (PHAG-PE052)
 Packed pointer load faults (FC0 released)
 CMPC sometimes fails at page boundaries.
 MLR sometimes stores extra fill characters.
 CMPC sometimes fails with multiple page faults.
 MLR (CMPC, etc) will not work with 1048576 characters.
 ADMP sometimes fetches operand from even word instead of odd.
 CMPB fails with certain bit offsets not on character boundaries.
 XED'd instructions fail to do indexing correctly (PHAG-PE052)
 MLR and CMPC place fill characters in last few words at page bdry
 MPR gets overflow on -2**35 Inst -2**35.
 MLR sometimes places 8 zeros near page boundary.
 MVN gets fixedoverflow when moving 02.
 MLR sometimes changes a single character to fill character at page boundary.
 MLC moves 8 characters extra at page boundary.
 CMPC fails at connect fault time processing fill chars.
 CSL instruction fails across boundfault boundaries.
 MVT sometimes fails if take page fault on table.
 MLR gets op-not-completes.
 MLR get no-write-permission by miscalculating TSR.
 CMPC sometimes gives wrong results.
 MLR instruction fails across boundfault boundaries.
 SREG gets op-not-complete if at end of page.
 CI and/or SC modification does not always work.

The severity of the problem is interpreted as follows:

1. Severe, the problem is holding up system progress.
 2. Medium, the problem is annoying but can be circumvented.
 3. Slight, the problem is not very serious.
- ***. Fix known, awaiting installation.

(END)

Multics availability for last week to 06/21/75 2359.0

Table with columns: Time, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Time. Rows list various time slots and system status (e.g., 100001, 100301, 101001, etc.).

Multics availability for last week to 06/28/75 2359.0

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Time
00000	12.0 2 384 2.0	10.0 2 384 2.0	13.0 2 384 2.0	14.0 2 384 2.0	11.0 2 384 2.0	15.0 2 384 2.0	crash	10000
00030	11.0 2 384 2.0	12.0 2 384 2.0	13.0 2 384 2.0	12.0 2 384 2.0	11.0 2 384 2.0	15.0 2 384 2.0	crash	10030
00100	10.0 2 384 2.0	11.0 2 384 2.0	10.0 2 384 2.0	14.0 2 384 2.0	9.0 2 384 2.0	15.0 2 384 2.0	crash	00100
00130	9.0 2 384 2.0	11.0 2 384 2.0	9.0 2 384 2.0	13.0 2 384 2.0	7.0 2 384 2.0	16.0 2 384 2.0	crash	00130
00200	10.0 2 384 2.0	11.0 2 384 2.0	9.0 2 384 2.0	9.0 2 384 2.0	7.0 2 384 2.0	14.0 2 384 2.0	7.0 1 256 2.0	00200
00230	9.0 2 384 2.0	10.0 2 384 2.0	11.0 2 384 2.0	9.0 2 384 2.0	6.0 2 384 2.0	13.0 2 384 2.0	5.0 1 256 2.0	00230
00300	7.0 2 384 2.0	8.0 2 384 2.0	10.0 2 384 2.0	9.0 2 384 2.0	8.0 2 384 2.0	10.0 2 384 2.0	5.0 1 256 2.0	00300
00330	7.0 2 384 2.0	8.0 2 384 2.0	9.0 2 384 2.0	10.0 2 384 2.0	8.0 2 384 2.0	8.0 2 384 2.0	5.0 1 256 2.0	00330
00400	7.0 2 384 2.0	8.0 2 384 2.0	9.0 2 384 2.0	9.0 2 384 2.0	7.0 2 384 2.0	8.0 2 384 2.0	5.0 1 256 2.0	00400
00430	7.0 2 384 2.0	8.0 2 384 2.0	8.0 2 384 2.0	8.0 2 384 2.0	6.0 2 384 2.0	8.0 2 384 2.0	5.0 1 256 2.0	00430
00500	7.0 2 384 2.0	9.0 2 384 2.0	7.0 2 384 2.0	8.0 2 384 2.0	6.0 2 384 2.0	8.0 2 384 2.0	5.0 1 256 2.0	00500
00530	7.0 2 384 2.0	7.0 2 384 2.0	6.0 2 384 2.0	6.0 2 384 2.0	6.0 2 384 2.0	7.0 2 384 2.0	6.0 1 256 2.0	00530
00600	8.0 2 384 2.0	6.0 2 384 2.0	6.0 2 384 2.0	6.0 2 384 2.0	5.0 2 384 2.0	8.0 2 384 2.0	6.0 1 256 2.0	00600
00630	8.0 2 384 2.0	6.0 2 384 2.0	6.0 2 384 2.0	5.0 2 384 2.0	5.0 2 384 2.0	8.0 2 384 2.0	6.0 1 256 2.0	00630
00700	8.0 2 384 2.0	shutdown	shutdown	0.0 1 384 2.0	5.0 2 384 2.0	crash	6.0 1 256 2.0	00700
00730	7.0 2 384 2.0	shutdown	shutdown	shutdown	328	crash	6.0 1 256 2.0	00730
00800	crash	41.0 1 256 2.0	shutdown	shutdown	23.0 1 256 2.0	crash	6.0 1 256 2.0	00800
00830	crash	326	shutdown	shutdown	crash	crash	5.0 1 256 2.0	00830
00900	crash	326	shutdown	shutdown	crash	crash	5.0 1 256 2.0	00900
00930	crash	326	shutdown	11.0 2 384 2.0	14.0 2 384 2.0	13.0 2 384 2.0	7.0 1 256 2.0	00930
01000	crash	15.0 2 384 2.0	22.0 2 384 2.0	29.0 2 384 2.0	20.0 2 384 2.0	22.0 2 384 2.0	6.0 1 256 2.0	01000
01030	10.0 2 384 2.0	36.0 2 384 2.0	34.0 2 384 2.0	35.0 2 384 2.0	27.0 2 384 2.0	25.0 2 384 2.0	9.0 1 256 2.0	01030
01100	12.0 2 384 2.0	36.0 2 384 2.0	38.0 2 384 2.0	35.0 2 384 2.0	32.0 2 384 2.0	34.0 2 384 2.0	14.0 1 256 2.0	01100
01130	12.0 2 384 2.0	38.0 2 384 2.0	45.0 2 384 2.0	33.0 2 384 2.0	36.0 2 384 2.0	37.0 2 384 2.0	15.0 1 256 2.0	01130
01200	12.0 2 384 2.0	47.0 2 384 2.0	48.0 2 384 2.0	38.0 2 384 2.0	36.0 2 384 2.0	38.0 2 384 2.0	17.0 1 256 2.0	01200
01230	10.0 2 384 2.0	36.0 2 384 2.0	49.0 2 384 2.0	40.0 2 384 2.0	35.0 2 384 2.0	39.0 2 384 2.0	18.0 1 256 2.0	01230
01300	10.0 2 384 2.0	33.0 2 384 2.0	46.0 2 384 2.0	44.0 2 384 2.0	40.0 2 384 2.0	38.0 2 384 2.0	19.0 1 256 2.0	01300
01330	12.0 2 384 2.0	32.0 2 384 2.0	43.0 2 384 2.0	46.0 2 384 2.0	37.0 2 384 2.0	42.0 2 384 2.0	16.0 1 384 2.0	01330
01400	10.0 2 384 2.0	32.0 2 384 2.0	37.0 2 384 2.0	48.0 2 384 2.0	35.0 2 384 2.0	36.0 2 384 2.0	18.0 1 384 2.0	01400
01430	10.0 2 384 2.0	32.0 2 384 2.0	38.0 2 384 2.0	43.0 2 384 2.0	35.0 2 384 2.0	32.0 2 384 2.0	18.0 1 384 2.0	01430
01500	10.0 2 384 2.0	26.0 2 384 2.0	31.0 2 384 2.0	40.0 2 384 2.0	39.0 2 384 2.0	33.0 2 384 2.0	18.0 1 384 2.0	01500
01530	10.0 2 384 2.0	35.0 2 384 2.0	41.0 2 384 2.0	40.0 2 384 2.0	42.0 2 384 2.0	36.0 2 384 2.0	18.0 1 384 2.0	01530
01600	9.0 2 384 2.0	38.0 2 384 2.0	40.0 2 384 2.0	40.0 2 384 2.0	39.0 2 384 2.0	35.0 2 384 2.0	17.0 1 384 2.0	01600
01630	10.0 2 384 2.0	38.0 2 384 2.0	41.0 2 384 2.0	37.0 2 384 2.0	37.0 2 384 2.0	34.0 2 384 2.0	17.0 1 384 2.0	01630
01700	10.0 2 384 2.0	327	41.0 2 384 2.0	40.0 2 384 2.0	45.0 2 384 2.0	39.0 2 384 2.0	17.0 1 384 2.0	01700
01730	12.0 2 384 2.0	327	44.0 2 384 2.0	40.0 2 384 2.0	51.0 2 384 2.0	42.0 2 384 2.0	16.0 1 384 2.0	01730
01800	13.0 2 384 2.0	7.0 2 384 2.0	48.0 2 384 2.0	42.0 2 384 2.0	50.0 2 384 2.0	46.0 2 384 2.0	16.0 1 384 2.0	01800
01830	13.0 2 384 2.0	30.0 2 384 2.0	49.0 2 384 2.0	45.0 2 384 2.0	53.0 2 384 2.0	47.0 2 384 2.0	13.0 1 384 2.0	01830
01900	12.0 2 384 2.0	44.0 2 384 2.0	48.0 2 384 2.0	44.0 2 384 2.0	53.0 2 384 2.0	44.0 2 384 2.0	14.0 2 384 2.0	01900
01930	12.0 2 384 2.0	47.0 2 384 2.0	47.0 2 384 2.0	45.0 2 384 2.0	51.0 2 384 2.0	47.0 2 384 2.0	14.0 2 384 2.0	01930
02000	13.0 2 384 2.0	45.0 2 384 2.0	51.0 2 384 2.0	47.0 2 384 2.0	53.0 2 384 2.0	40.0 2 384 2.0	13.0 2 384 2.0	02000
02030	13.0 2 384 2.0	40.0 2 384 2.0	50.0 2 384 2.0	50.0 2 384 2.0	56.0 2 384 2.0	47.0 2 384 2.0	13.0 2 384 2.0	02030
02100	13.0 2 384 2.0	42.0 2 384 2.0	51.0 2 384 2.0	45.0 2 384 2.0	53.0 2 384 2.0	47.0 2 384 2.0	13.0 2 384 2.0	02100
02130	15.0 2 384 2.0	42.0 2 384 2.0	55.0 2 384 2.0	43.0 2 384 2.0	50.0 2 384 2.0	46.0 2 384 2.0	14.0 2 384 2.0	02130
02200	15.0 2 384 2.0	40.0 2 384 2.0	56.0 2 384 2.0	43.0 2 384 2.0	56.0 2 384 2.0	47.0 2 384 2.0	14.0 2 384 2.0	02200
02230	14.0 2 384 2.0	34.0 2 384 2.0	49.0 2 384 2.0	42.0 2 384 2.0	54.0 2 384 2.0	45.0 2 384 2.0	15.0 2 384 2.0	02230
02300	14.0 2 384 2.0	35.0 2 384 2.0	42.0 2 384 2.0	37.0 2 384 2.0	49.0 2 384 2.0	40.0 2 384 2.0	16.0 2 384 2.0	02300
02330	14.0 2 384 2.0	38.0 2 384 2.0	35.0 2 384 2.0	36.0 2 384 2.0	42.0 2 384 2.0	34.0 2 384 2.0	15.0 2 384 2.0	02330
02400	12.0 2 384 2.0	37.0 2 384 2.0	34.0 2 384 2.0	37.0 2 384 2.0	35.0 2 384 2.0	31.0 2 384 2.0	12.0 1 384 2.0	02400
02430	12.0 2 384 2.0	43.0 2 384 2.0	31.0 2 384 2.0	29.0 2 384 2.0	33.0 2 384 2.0	26.0 2 384 2.0	13.0 1 384 2.0	02430
02500	11.0 2 384 2.0	35.0 2 384 2.0	31.0 2 384 2.0	26.0 2 384 2.0	29.0 2 384 2.0	18.0 2 384 2.0	11.0 1 384 2.0	02500
02530	9.0 2 384 2.0	32.0 2 384 2.0	28.0 2 384 2.0	30.0 2 384 2.0	25.0 2 384 2.0	16.0 2 384 2.0	13.0 1 384 2.0	02530
02600	10.0 2 384 2.0	31.0 2 384 2.0	25.0 2 384 2.0	25.0 2 384 2.0	25.0 2 384 2.0	16.0 2 384 2.0	11.0 1 384 2.0	02600
02630	10.0 2 384 2.0	23.0 2 384 2.0	26.0 2 384 2.0	18.0 2 384 2.0	24.0 2 384 2.0	17.0 2 384 2.0	11.0 1 384 2.0	02630
02700	11.0 2 384 2.0	22.0 2 384 2.0	28.0 2 384 2.0	16.0 2 384 2.0	24.0 2 384 2.0	19.0 2 384 2.0	11.0 1 384 2.0	02700
02730	10.0 2 384 2.0	14.0 2 384 2.0	30.0 2 384 2.0	14.0 2 384 2.0	25.0 2 384 2.0	14.0 2 384 2.0	9.0 1 384 2.0	02730
02800	10.0 2 384 2.0	12.0 2 384 2.0	25.0 2 384 2.0	15.0 2 384 2.0	21.0 2 384 2.0	14.0 2 384 2.0	11.0 1 384 2.0	02800
02830	10.0 2 384 2.0	15.0 2 384 2.0	23.0 2 384 2.0	17.0 2 384 2.0	23.0 2 384 2.0	14.0 2 384 2.0	11.0 1 384 2.0	02830
02900	10.0 2 384 2.0	16.0 2 384 2.0	20.0 2 384 2.0	19.0 2 384 2.0	23.0 2 384 2.0	13.0 2 384 2.0	10.0 1 384 2.0	02900
02930	9.0 2 384 2.0	18.0 2 384 2.0	20.0 2 384 2.0	17.0 2 384 2.0	22.0 2 384 2.0	13.0 2 384 2.0	10.0 1 384 2.0	02930
03000	10.0 2 384 2.0	20.0 2 384 2.0	20.0 2 384 2.0	17.0 2 384 2.0	17.0 2 384 2.0	12.0 2 384 2.0	12.0 1 384 2.0	03000
03030	11.0 2 384 2.0	20.0 2 384 2.0	20.0 2 384 2.0	20.0 2 384 2.0	16.0 2 384 2.0	14.0 2 384 2.0	10.0 1 384 2.0	03030
03100	10.0 2 384 2.0	18.0 2 384 2.0	20.0 2 384 2.0	17.0 2 384 2.0	15.0 2 384 2.0	11.0 2 384 2.0	10.0 1 384 2.0	03100
03130	11.0 2 384 2.0	21.0 2 384 2.0	19.0 2 384 2.0	16.0 2 384 2.0	16.0 2 384 2.0	11.0 2 384 2.0	11.0 1 384 2.0	03130
03200	12.0 2 384 2.0	19.0 2 384 2.0	18.0 2 384 2.0	16.0 2 384 2.0	17.0 2 384 2.0	11.0 2 384 2.0	11.0 1 384 2.0	03200
03230	13.0 2 384 2.0	19.0 2 384 2.0	19.0 2 384 2.0	16.0 2 384 2.0	16.0 2 384 2.0	11.0 2 384 2.0	13.0 1 384 2.0	03230
03300	12.0 2 384 2.0	17.0 2 384 2.0	23.0 2 384 2.0	19.0 2 384 2.0	24.0 2 384 2.0	11.0 2 384 2.0	12.0 1 384 2.0	03300
03330	12.0 2 384 2.0	17.0 2 384 2.0	21.0 2 384 2.0	22.0 2 384 2.0	20.0 2 384 2.0	8.0 2 384 2.0	13.0 1 384 2.0	03330
03400	12.0 2 384 2.0	18.0 2 384 2.0	20.0 2 384 2.0	18.0 2 384 2.0	19.0 2 384 2.0	10.0 2 384 2.0	13.0 1 384 2.0	03400
03430	12.0 2 384 2.0	19.0 2 384 2.0	16.0 2 384 2.0	17.0 2 384 2.0	21.0 2 384 2.0	12.0 2 384 2.0	13.0 1 384 2.0	03430
03500	12.0 2 384 2.0	14.0 2 384 2.0	16.0 2 384 2.0	12.0 2 384 2.0	17.0 2 384 2.0	9.0 2 384 2.0	12.0 1 384 2.0	03500