

FORUM LIST

W.J. Burner
C.T. Clingen
J.W. Gintell
Prof. J. Saltzer
R.E. Shoemaker

R.J. Chevalier
R. Daley
J.G. Regester
G.M. Lundberg
D. Clark

Honeywell

To: List of attendees

cc: List

Subject: FORUM Minutes for 17, June, 1975

Attendees: G. Ackerman-Lewis E.D. Kleinow J.R. Steinberg
R.M. Gross R.A. Roach
D.M. Jordan L.J. Ryan

Hardware - E.D. Kleinow

- . Memory Problems - SCU-C Store B. Had intermittent parity errors. FED changed ZB Board on 11, June, with no recurrence of problem since.

SCU-A Store A. High voltage power supply failed. Replacement unit in from Phoenix.
- . Processors - Roach reported failure of CSL instruction on metering runs. CISL looking into this condition.
- . Firmware - Problems with tapes since new version of software and/or firmware. Jordan will contact Noel Morris.

Software - D.M. Jordan

- . MSS 25.7A installed
- . Bug #365 (scurity bug) has been fixed.
- . All start-up crashes relating to adding a CPU have been analyzed (6 month history). All but a couple traced to the start-up fault problem. No troubles have occurred since swapping boards between CPU's.
- . Noel Morris will try to get PRT Hood pop-up change made during July.
- . Priority 1 bugs.
 - . 357 Submitted
 - . 365 Fixed
 - . 372 Fix known but not submitted.

Other

- . All in house DSU190's are now on-line. Any disk problem will result in total system down time until it is fixed.

R.M. Gross
for:

RJC/caa R.M. Gross



Massachusetts Institute of Technology
 Programming Development Office
 Cambridge, Massachusetts 02139

To: Forum Attendants
 From: Grace E. Ackerman-Lewis
 Date: June 17, 1975
 Subject: Multics Availability May 31 - June 13

Summary of Lost Time

	# of Crashes	Crashes	Time Lost Other	Total
	-----	-----	-----	-----
Hardware:	3	3:20	0:00	3:20
Operations:	0	0:00	1:19	1:19
-----	-----	-----	-----	-----
Total:	3	3:58	1:19	4:57

Total lost time/Scheduled up time = 4:47/1/5:00 = .027 (97.3% up time)

May lost time = 14:03

June month-to-date lost time = 4:57

Down At Time Lost Up At

1 09:00 06/06 - 09:18 06/06 Crash, ERF 319
2 15:16 06/07 - 13:04 06/08 Crash, ERF 320
3 14:56 06/10 - 15:44 06/10 Crash, ERF 321

Time Lost
Due To

00:18 H Parity errors SCU-C
21:48 H Mem-A STR-A dropped power
00:48 H Parity errors SCU-C

Saturday
6/17

Sunday
6/18

Monday
6/19

Tuesday
6/20

Wednesday
6/21

Thursday
6/22

Friday
6/23

Time	Saturday 6/17	Sunday 6/18	Monday 6/19	Tuesday 6/20	Wednesday 6/21	Thursday 6/22	Friday 6/23
00:00							
01:00							
02:00							
03:00							
04:00							
05:00							
06:00							
07:00		2 (con.)					
08:00							
09:00							
10:00							
11:00							
12:00							
13:00							
14:00							
15:00				3			
16:00							
17:00							
18:00							
19:00							
20:00							
21:00	2						
22:00							
23:00							

Information Processing Center

Multics availability for last week to 06/14/75 2359.0

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Time
0000	321	10.0 1 320 2.0	7.0 2 384 2.0	shutdown	17.0 2 384 2.0	18.0 2 384 2.0	11.0 2 384 2.0	0000
0030	321	11.0 1 320 2.0	10.0 2 384 2.0	shutdown	14.0 2 384 2.0	15.0 2 384 2.0	10.0 2 384 2.0	0030
0100	321	10.0 1 320 2.0	10.0 2 384 2.0	shutdown	17.0 2 384 2.0	13.0 2 384 2.0	10.0 2 384 2.0	0100
0130	321	9.0 1 320 2.0	11.0 2 384 2.0	shutdown	17.0 2 384 2.0	12.0 2 384 2.0	9.0 2 384 2.0	0130
0200	321	8.0 1 320 2.0	9.0 2 384 2.0	shutdown	9.0 2 384 2.0	11.0 2 384 2.0	9.0 2 384 2.0	0200
0230	321	9.0 1 320 2.0	7.0 2 384 2.0	shutdown	10.0 2 384 2.0	10.0 2 384 2.0	8.0 2 384 2.0	0230
0300	321	6.0 1 320 2.0	7.0 2 384 2.0	shutdown	8.0 2 384 2.0	11.0 2 384 2.0	8.0 2 384 2.0	0300
0330	321	9.0 1 320 2.0	7.0 2 384 2.0	shutdown	8.0 2 384 2.0	10.0 2 384 2.0	8.0 2 384 2.0	0330
0400	321	7.0 1 320 2.0	8.0 2 384 2.0	shutdown	8.0 2 384 2.0	9.0 2 384 2.0	8.0 2 384 2.0	0400
0430	321	7.0 1 320 2.0	7.0 2 384 2.0	shutdown	7.0 2 384 2.0	8.0 2 384 2.0	8.0 2 384 2.0	0430
0500	321	5.0 1 320 2.0	7.0 2 384 2.0	shutdown	6.0 2 384 2.0	7.0 2 384 2.0	7.0 2 384 2.0	0500
0530	321	5.0 1 320 2.0	6.0 2 384 2.0	shutdown	6.0 2 384 2.0	6.0 2 384 2.0	7.0 2 384 2.0	0530
0600	321	6.0 1 320 2.0	6.0 2 384 2.0	shutdown	5.0 2 384 2.0	7.0 2 384 2.0	7.0 2 384 2.0	0600
0630	321	6.0 1 320 2.0	6.0 2 384 2.0	shutdown	4.0 2 384 2.0	7.0 2 384 2.0	7.0 2 384 2.0	0630
0700	321	6.0 1 320 2.0	6.0 2 384 2.0	shutdown	4.0 2 384 2.0	6.0 2 384 2.0	7.0 2 384 2.0	0700
0730	321	0.0 1 320 2.0	5.0 2 384 2.0	shutdown	0.0 1 384 2.0	6.0 2 384 2.0	6.0 2 384 2.0	0730
0800	321	shutdown	321	shutdown	41.0 1 256 2.0	crash	6.0 2 384 2.0	0800
0830	321	shutdown	shutdown	2.0 1 384 2.0	41.0 1 256 2.0	shutdown	6.0 2 384 2.0	0830
0900	321	shutdown	shutdown	41.0 1 384 2.0	41.0 1 256 2.0	shutdown	6.0 2 384 2.0	0900
0930	321	shutdown	shutdown	41.0 1 384 2.0	41.0 1 256 2.0	shutdown	6.0 2 384 2.0	0930
1000	321	8.0 2 384 2.0	15.0 2 256 2.0	17.0 2 384 2.0	13.0 2 384 2.0	10.0 1 384 2.0	6.0 2 384 2.0	1000
1030	321	26.0 2 384 2.0	22.0 2 256 2.0	22.0 2 384 2.0	14.0 2 384 2.0	18.0 2 384 2.0	6.0 2 384 2.0	1030
1100	321	31.0 2 384 2.0	25.0 2 256 2.0	25.0 2 384 2.0	22.0 2 384 2.0	23.0 2 384 2.0	8.0 2 384 2.0	1100
1130	321	33.0 2 384 2.0	27.0 2 256 2.0	33.0 2 384 2.0	27.0 2 384 2.0	28.0 2 384 2.0	9.0 2 384 2.0	1130
1200	321	38.0 2 384 2.0	38.0 2 256 2.0	39.0 2 384 2.0	25.0 2 384 2.0	32.0 2 384 2.0	9.0 2 384 2.0	1200
1230	321	43.0 2 384 2.0	38.0 2 256 2.0	43.0 2 384 2.0	34.0 2 384 2.0	37.0 2 384 2.0	10.0 2 384 2.0	1230
1300	321	42.0 2 384 2.0	36.0 2 256 2.0	46.0 2 384 2.0	32.0 2 384 2.0	38.0 2 384 2.0	11.0 2 384 2.0	1300
1330	321	43.0 2 384 2.0	39.0 2 256 2.0	41.0 2 384 2.0	34.0 2 384 2.0	37.0 2 384 2.0	11.0 2 384 2.0	1330
1400	321	39.0 2 384 2.0	40.0 2 256 2.0	43.0 2 384 2.0	38.0 2 384 2.0	38.0 2 384 2.0	15.0 2 384 2.0	1400
1430	321	39.0 2 384 2.0	39.0 2 256 2.0	40.0 2 384 2.0	39.0 2 384 2.0	43.0 2 384 2.0	17.0 2 384 2.0	1430
1500	321	37.0 2 384 2.0	36.0 2 256 2.0	45.0 2 384 2.0	39.0 2 384 2.0	42.0 2 384 2.0	16.0 2 384 2.0	1500
1530	321	35.0 2 384 2.0	36.0 2 256 2.0	43.0 2 384 2.0	28.0 2 384 2.0	34.0 2 384 2.0	17.0 2 384 2.0	1530
1600	321	38.0 2 384 2.0	38.0 2 256 2.0	42.0 2 384 2.0	23.0 2 384 2.0	39.0 2 384 2.0	17.0 2 384 2.0	1600
1630	321	37.0 2 384 2.0	38.0 2 256 2.0	36.0 2 384 2.0	32.0 2 384 2.0	35.0 2 384 2.0	15.0 2 384 2.0	1630
1700	321	37.0 2 384 2.0	35.0 2 256 2.0	37.0 2 384 2.0	32.0 2 384 2.0	35.0 2 384 2.0	13.0 2 384 2.0	1700
1730	321	14.0 1 320 2.0	40.0 2 384 2.0	39.0 2 384 2.0	32.0 2 384 2.0	39.0 2 384 2.0	13.0 2 384 2.0	1730
1800	321	18.0 1 320 2.0	35.0 2 384 2.0	35.0 2 256 2.0	30.0 2 384 2.0	39.0 2 384 2.0	14.0 2 384 2.0	1800
1830	321	17.0 1 320 2.0	35.0 2 384 2.0	37.0 2 256 2.0	46.0 2 384 2.0	47.0 2 384 2.0	14.0 2 384 2.0	1830
1900	321	17.0 1 320 2.0	44.0 2 384 2.0	33.0 2 256 2.0	41.0 2 384 2.0	44.0 2 384 2.0	14.0 2 384 2.0	1900
1930	321	20.0 1 320 2.0	49.0 2 384 2.0	39.0 2 256 2.0	45.0 2 384 2.0	44.0 2 384 2.0	14.0 2 384 2.0	1930
2000	321	22.0 1 320 2.0	52.0 2 384 2.0	40.0 2 256 2.0	36.0 2 384 2.0	44.0 2 384 2.0	15.0 2 384 2.0	2000
2030	321	23.0 1 320 2.0	54.0 2 384 2.0	crash	48.0 2 384 2.0	37.0 2 384 2.0	16.0 2 384 2.0	2030
2100	321	23.0 1 320 2.0	50.0 2 384 2.0	crash	45.0 2 384 2.0	36.0 2 384 2.0	16.0 2 384 2.0	2100
2130	321	20.0 1 320 2.0	43.0 2 384 2.0	crash	48.0 2 384 2.0	42.0 2 384 2.0	15.0 2 384 2.0	2130
2200	321	22.0 1 320 2.0	40.0 2 384 2.0	crash	48.0 2 384 2.0	42.0 2 384 2.0	15.0 2 384 2.0	2200
2230	321	22.0 1 320 2.0	44.0 2 384 2.0	9.0 1 256 2.0	44.0 2 384 2.0	46.0 2 384 2.0	15.0 2 384 2.0	2230
2300	321	24.0 1 320 2.0	42.0 2 384 2.0	26.0 2 256 2.0	44.0 2 384 2.0	45.0 2 384 2.0	17.0 2 384 2.0	2300
2330	321	24.0 1 320 2.0	49.0 2 384 2.0	27.0 2 256 2.0	45.0 2 384 2.0	44.0 2 384 2.0	17.0 2 384 2.0	2330
2400	321	26.0 1 320 2.0	49.0 2 384 2.0	36.0 2 256 2.0	45.0 2 384 2.0	44.0 2 384 2.0	15.0 2 384 2.0	2400
2430	321	24.0 1 320 2.0	51.0 2 384 2.0	35.0 2 256 2.0	46.0 2 384 2.0	47.0 2 384 2.0	15.0 2 384 2.0	2430
2500	321	26.0 1 320 2.0	44.0 2 384 2.0	33.0 2 256 2.0	46.0 2 384 2.0	47.0 2 384 2.0	15.0 2 384 2.0	2500
2530	321	24.0 1 320 2.0	50.0 2 384 2.0	35.0 2 256 2.0	41.0 2 384 2.0	50.0 2 384 2.0	14.0 2 384 2.0	2530
2600	321	25.0 1 320 2.0	35.0 2 384 2.0	35.0 2 256 2.0	41.0 2 384 2.0	45.0 2 384 2.0	12.0 2 384 2.0	2600
2630	321	23.0 1 320 2.0	36.0 2 384 2.0	35.0 2 256 2.0	39.0 2 384 2.0	48.0 2 384 2.0	14.0 2 384 2.0	2630
2700	321	22.0 1 320 2.0	29.0 2 384 2.0	33.0 2 256 2.0	32.0 2 384 2.0	43.0 2 384 2.0	10.0 2 384 2.0	2700
2730	321	23.0 1 320 2.0	33.0 2 384 2.0	32.0 2 256 2.0	28.0 2 384 2.0	31.0 2 384 2.0	8.0 2 384 2.0	2730
2800	321	23.0 1 320 2.0	30.0 2 384 2.0	26.0 2 256 2.0	21.0 2 384 2.0	27.0 2 384 2.0	9.0 2 384 2.0	2800
2830	321	12.0 1 320 2.0	27.0 2 384 2.0	24.0 2 256 2.0	16.0 2 384 2.0	26.0 2 384 2.0	9.0 2 384 2.0	2830
2900	321	13.0 1 320 2.0	27.0 2 384 2.0	24.0 2 256 2.0	20.0 2 384 2.0	22.0 2 384 2.0	8.0 2 384 2.0	2900
2930	321	15.0 1 320 2.0	25.0 2 384 2.0	23.0 2 256 2.0	19.0 2 384 2.0	17.0 2 384 2.0	10.0 2 384 2.0	2930
3000	321	16.0 1 320 2.0	28.0 2 384 2.0	22.0 2 256 2.0	18.0 2 384 2.0	15.0 2 384 2.0	12.0 2 384 2.0	3000
3030	321	15.0 1 320 2.0	26.0 2 384 2.0	20.0 2 256 2.0	19.0 2 384 2.0	15.0 2 384 2.0	12.0 2 384 2.0	3030
3100	321	17.0 1 320 2.0	26.0 2 384 2.0	21.0 2 256 2.0	18.0 2 384 2.0	14.0 2 384 2.0	11.0 2 384 2.0	3100
3130	321	18.0 1 320 2.0	20.0 2 384 2.0	19.0 2 256 2.0	18.0 2 384 2.0	14.0 2 384 2.0	11.0 2 384 2.0	3130
3200	321	17.0 1 320 2.0	20.0 2 384 2.0	19.0 2 256 2.0	19.0 2 384 2.0	14.0 2 384 2.0	11.0 2 384 2.0	3200
3230	321	15.0 1 320 2.0	17.0 2 384 2.0	17.0 2 256 2.0	19.0 2 384 2.0	14.0 2 384 2.0	11.0 2 384 2.0	3230
3300	321	17.0 1 320 2.0	16.0 2 384 2.0	16.0 2 256 2.0	18.0 2 384 2.0	19.0 2 384 2.0	11.0 2 384 2.0	3300
3330	321	14.0 1 320 2.0	15.0 2 384 2.0	15.0 2 256 2.0	20.0 2 384 2.0	16.0 2 384 2.0	10.0 2 384 2.0	3330
3400	321	14.0 1 320 2.0	14.0 2 384 2.0	14.0 2 256 2.0	22.0 2 384 2.0	16.0 2 384 2.0	11.0 2 384 2.0	3400
3430	321	12.0 1 320 2.0	14.0 2 384 2.0	shutdown	22.0 2 384 2.0	15.0 2 384 2.0	11.0 2 384 2.0	3430

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

084					
083	06/13/75	***	2	CSL causes 2-bit shift at boundsfault boundary (PHAB-PG070)	
082	04/19/75	***	2	IPR faults occur if target string of move (etc) is zero length.	
081	01/15/75	Inst	2	CMPC does not always work	
080	01/15/75	ENG	2	CMPC sometimes fails	
079	10/14/74	ENG	2	Bounds faults not being recognized on decimal instructions (PHAB-PE036, PHAB-PG060)	
078	10/14/74	Inst	2	Ring alarm faults are only sampled at RTCD time (PHAB-PE052)	
077	10/14/74	***	2	Packed pointer load faults (FCO released)	
076	09/05/74	Inst		CMPC sometimes fails at page boundaries.	
075	08/26/74	Inst		MLR sometimes stores extra fill characters.	
074	08/05/74	Inst		CMPC sometimes fails with multiple page faults.	
073	05/02/74	***	1	MLR (CMPC, etc) will not work with 1048576 characters.	
072	05/02/74	Inst		ADWP sometimes fetches operand from even word instead of odd.	
071	05/02/74	***	2	CMPC falls with certain bit offsets not on character boundaries.	
070	03/25/74	Inst		XED'd instructions fail to do indexing correctly (PHAB-PE052)	
069	03/18/74	Inst		MLR and CMPC place fill characters in last few words at page bdy	
068	03/11/74	Inst		HPY gets overflow on -2**35 Inst -2**35.	
067	02/14/74	Inst		MLR sometimes places 8 zeros near page boundary.	
066	02/14/74	Inst		MVN gets fixedoverflow when moving 02.	
065	02/13/74	Inst		MLR sometimes changes a single character to fill character at page boundary.	
064	02/12/74	Inst		MLR moves 8 characters extra at page boundary.	
063	02/06/74	Inst		CMPC fails at connect fault time processing fill chars.	
062	02/04/74	Inst		CSL instruction fails across boundfault boundaries.	
061	01/24/74	Inst		MVI sometimes fails if take page fault on table.	
060	01/12/74	Inst		MLR gets op-not-completes.	
059	01/12/74	Inst		MLR get no-write-permission by miscalculating ISR.	
058	01/12/74	Inst		CMPC sometimes gives wrong results.	
057	01/03/74	Inst		MLR instruction fails across boundfault boundaries.	
056	01/03/74	Inst		SREG gets op-not-complete if at end of page.	
042	10/13/73	Inst		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)

To: Administrative Distribution

From: Grace Ackerman-Lewis

Date: June 17, 1975

Subject: Multics Crash Analysis for May 31, - June 13

Total number of crashes = 3 (ERF's 319 - 321)

Hardware:

Parity errors SCU-C
Memory-A STR-A dropped power

2
1

3

#	sys.	date	time	type	brief explanation
25.	1a	06/13/75			NO CRASHES
25.	1a	06/12/75			NO CRASHES
25.	1	06/11/75			NO CRASHES
321	25.6	06/10/75	14:50	H	Parity errors SCU-C Store "B"
25.	6	06/09/75			NO CRASHES
25.	6	06/08/75			NO CRASHES
320	25.6	06/01/75	16:20	H	Mem-A STR-A dropped power
319	25.6	06/06/75	09:00	H	Parity errors SCU-C
25.	6	06/05/75			NO CRASHES
25.	6	06/04/75			NO CRASHES
25.	6	06/03/75			NO CRASHES
25.	6	06/02/75			NO CRASHES
25.	6	06/01/75			NO CRASHES
25.	6	05/31/75			NO CRASHES

