

F O R U M L I S T

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OCT 24 1975

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Honeywell

TO: List of Attendees

cc: List

SUBJECT: Forum Minutes for October 8, 1975

ATTENDEES: E. D. Kleinow L. J. Ryan J. R. Steinberg
 G. Ackerman-Lewis R. J. Chevalier W. J. Burner
 P. B. Kelley R. A. Roach W. J. Flaherty

Hardware -E.D.Kleinow

Processors

- . Processor-B PD board had intermittent failures. FED found problem to be a loose wire. Eventually this board had to be replaced. Board was ordered on Sunday night (10-5-75) arrived, and was installed, this morning.

Processors are running at this time.

- . CD board chip failed. FED replaced.

Memory

- . Parity problem still exists. FED will schedule time for memory schmoo this week. Approximately 4 hours time to do this work.

DSU190

- . Spare 190-B had new head installed. FED T&D's ran successfully.
- . Area 7 shut down. Pack-on switch had to be adjusted.

PRT301

- . Ribbon problem caused mechanical malfunction. FED had to retime printer.

Punch

- . Power supply capacitor failed and was replaced by FED.

Tapes

- . Heads replaced in 4 units, experiencing problems with 3M tapes. Units seem to run fine with older tapes but are very high (300-500 errors) on these tapes.

Leo will review 3M history to see if a trend can be recognized.



Tapes - continued

- . New LA firmware should be running. FED has it but hasn't had a successful test yet.
Kleinow will contact Phoenix for more information.

Software - D. Jordan

- . MSS 27.06 running.
- . No significant software problems to report.

Billerica

- . Billerica ready to move 20K records to MIT as soon as the next DSU190 arrives.
- . PRT201 ready to ship from Billerica on Thursday.







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To: Forum Attendants
From: Grace E. Ackerman-Lewis
Date: October 8, 1975
Subject: Multics Availability September 22 - October 5

Summary of Lost Time

| | # of Crashes | Crashes | Time Lost Other | Total |
|---------------------|-----------------|---------|--------------------|-------|
| | ----- | ----- | ----- | ----- |
| Software: | 1 | 0:10 | 0:00 | 0:10 |
| Hardware: | 3 | 12:30 | 0:00 | 12:30 |
| Hardware Suspected: | 1 | 0:20 | 0:00 | 0:20 |
| Not Yet Analyzed: | 4 | 2:11 | 0:00 | 2:11 |
| Other: | 1 | 0:20 | 0:00 | 0:20 |
| ----- | ----- | ----- | ----- | ----- |
| Total: | 10 | 15:21 | 0:00 | 15:21 |

Total lost time/Scheduled up time = 15:21/180:00 = .086 (91.4% up time)
Total lost time/Unattended time = 4:14/124:00 = .034 (96.6% up time)
September lost time = 17:15/12:40 (Scheduled up/Unattended time)
October month-to-date lost time 14:09/01:02 (Scheduled up/Unattended time)

Down At Time Lost Up At

1 10:45 09/25 - 11:23 09/25 Crash, ERP 400
2 08:57 09/26 - 09:20 09/26 Crash, IRP 401
3 15:19 09/28 - 15:33 09/28 Crash, EFP 402
4 06:50 10/01 - 08:54 10/01 Crash, IRP 403
5 09:01 10/01 - 10:10 09/01 Crash, IRP 404
6 10:11 10/01 - 10:31 10/01 Crash, EFP 405
7 18:37 10/01 - 19:30 10/01 Crash, IFF 406
8 09:59 10/02 - 10:26 10/02 Crash, ERP 407
9 05:43 10/03 - 19:54 10/03 Crash, IRP 408
10 10:53 10/04 - 11:19 10/04 Crash, EFP 409

Time Lost
Due to

C0:38 NYA Attempt to terminate initializer process
C0:20 H? System trouble fault CPU-A
00:14 NYA Attempt to stop initializer process
C2:04 H Parity errors, CPU-E processor to SCU
C1:09 H Parity errors, SCU-C Stor A&B
C0:20 ? Wrong version of the firmware was loaded
C0:53 NYA Return to BOS, no message
00:27 H Processor E APU errors
11:56 H SCU-A parity errors
C0:26 NYA Return to BOS, no message

Monday
9/29

Tuesday
9/30

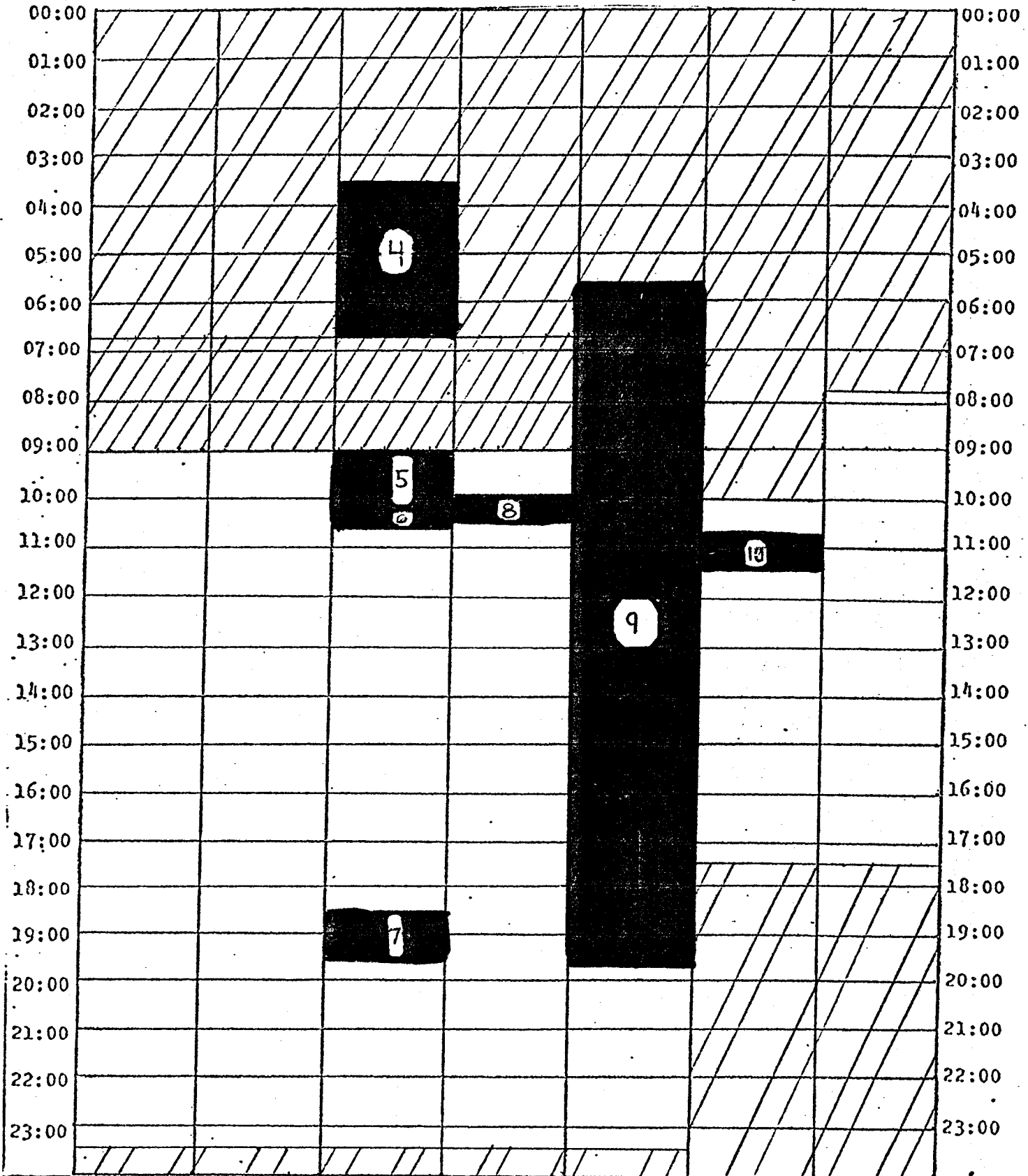
Wednesday
10/1

Thursday
10/2

Friday
10/3

Saturday
10/4

Sunday
10/5



To: Administrative Distribution
From: Grace Ackerman-Lewis
Date: October 8, 1975
Subject: Multics Crash Analysis for September 22 - October 5

Total number of crashes = 14 (ERFs 400 - 409)

Hardware:

| | |
|--------------------------------------|---|
| Parity errors CPU-B | 1 |
| Parity errors SCU-C Stor A&B | 1 |
| Processor B errors in appending unit | 1 |
| Parity errors CPU-B processor to SCU | 1 |

Total: 4

Hardware Suspected:

System trouble fault CPU-A

Total: 1

Not Yet Analyzed:

| | |
|--|---|
| Attempt to terminate initializer process | 1 |
| Attempt to stop initializer process | 1 |
| RTB, no message | 2 |

Total: 4

Other:

| | |
|---------------------------|---|
| Wrong firmware was loaded | 1 |
|---------------------------|---|

Total: 1

| # | sys. | date | time | type | brief explanation |
|-----|-------|----------|-------|------|--|
| 409 | 27.0b | 10/04/75 | 10:53 | NYA | Return to EOS, no message |
| 408 | 27.0a | 10/03/75 | 05:43 | H | SCU-A parity errors |
| 407 | 27.0a | 10/02/75 | 09:55 | H | Processor B appending unit errors |
| 406 | 27.0a | 10/01/75 | 18:53 | NYA | Return to EOS, no message |
| 405 | 27.0a | 10/01/75 | 09:30 | ? | Wrong version of firmware was loaded |
| 404 | 27.0a | 10/01/75 | 09:01 | H | Parity errors SCU-C Stor A&B |
| 403 | 27.0a | 10/01/75 | 03:33 | H | Parity errors CPU-B processor to SCU |
| | 27.0a | 09/30/75 | | | NC CRASHES |
| | 27.0a | 09/29/75 | | | NC CRASHES |
| 402 | 27.0a | 09/28/75 | 15:19 | NYA | Attempt to stop initializer process |
| | 27.0a | 09/27/75 | | | NC CRASHES |
| 401 | 27.0a | 09/26/75 | 08:57 | NYA | System trouble fault CPU-A |
| 400 | 27.0x | 09/25/75 | 10:40 | NYA | Attempt to terminate initializer process |
| | 27.0x | 09/24/75 | | | NC CRASHES |
| | 26.5 | 09/23/75 | | | NC CRASHES |
| | 26.5 | 09/22/75 | | | NC CRASHES |

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384 09/11/75 1 1TT-can overflow very easily, leading to system crashes
356 02/21/75 1 dimw Bur(s) exist in network; leading software -> pxxx timeouts
383 08/21/75 2 copyrigh_archive fails if archive longer than 64k
381 08/21/75 2 shv shutdown with 2 CPUs may not work (depends on which CPU is used for shutdown)
350 01/02/75 2 njr users who hangup may not be logged out
348 12/03/74 2 tac security problems in the automatic creating of home directories
382 08/21/75 3 add_copyrigh will not work with several recent source types
300 07/30/75 3 srh delete_acl with no args deletes user's access to working dir (!PRF 8588)
378 07/30/75 3 mam qedx won't edit some long (>64k) segments (!PRF 8591)
375 05/22/75 3 nlm printer dim does not raise hood when out of paper (if in nap mode or printing head sheet)
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 shv user can get into loop creating/destroying processes thus tying up system.
364 03/02/75 3 srh msia does not handle star convention properly (!PRF 8010)
362 03/02/75 3 srh delete_name gives incorrect error message on a msgc (bug in cname_$file)
359 03/02/75 3 bsr initialize_peak_limits leaves old (possibly dangerous) limit table on an error (missing seg)
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 rab initialize_peak_limits fails if any error is encountered while processing (security problem?)
338 09/26/74 3 bsq restarted printer requests indicate a zero charge ($0.00)
324 08/27/74 3 tvv message coordinator can lose a wakeup and then stops printing
322 08/21/74 3 command_processor can get fatal process errors (with some cases of iteration)
315 07/24/74 3 srh long_saverer (after clean shutdown) is detecting bad filemap checksums
282 05/05/74 3 mam qedx fails to find expressions like /a.bc.ta.bd/ in strings like "a.bc a.b a.bd"
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 rrb renaming directories does not terminate them and can cause serious problems

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*** - fix completed (to be installed)

Inst - fix installed

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

| CR# | Date | Severity | Description |
|-----|----------|----------|---|
| 083 | 06/13/75 | *** | CSL causes 2-hit shift at boundsfault boundary (PHAG-PC070) |
| 082 | 04/19/75 | *** | IPR faults occur if target string of move (etc) is zero length. |
| 081 | 01/15/75 | INST | CMRN does not always work |
| 080 | 01/15/75 | ENG | CMPC sometimes fails |
| 079 | 10/14/74 | ENG | Bounds faults not being recognized on decimal instructions (PHAG-PC036, PHAG-PC060) |
| 078 | 10/14/74 | INST | Ring alarm faults are only sampled at RICD time (PHAG-PC052) |
| 077 | 12/14/74 | *** | Packed pointer local faults (PCO released) |
| 076 | 09/05/74 | INST | CMPC sometimes fails at page boundaries. |
| 075 | 08/26/74 | INST | MIR sometimes stores extra fill characters. |
| 074 | 08/05/74 | INST | CMPC sometimes fails with multiple page faults. |
| 073 | 05/02/74 | *** | MIR (CMFC, etc) will not work with 1048576 characters. |
| 072 | 05/02/74 | INST | MIR (CMFC, etc) will not work with 1048576 characters. |
| 071 | 05/02/74 | *** | ADMP sometimes fetches operand from even word instead of odd. |
| 070 | 03/25/74 | INST | CMFB fails with certain bit offsets not on character boundaries. |
| 069 | 03/18/74 | INST | XIP'd instructions fail to do indexing correctly (PHAG-PC052) |
| 068 | 03/11/74 | INST | MIR and CMPC place fill characters in last few words at page bdry |
| 067 | 02/14/74 | INST | MPV gets overflow on -2**35 inst -2**35. |
| 066 | 02/14/74 | INST | MIR sometimes places 8 zeros near page boundary. |
| 065 | 02/13/74 | INST | MVN gets fixedoverflow when moving 02. |
| 064 | 02/12/74 | INST | MF sometimes changes a single character to fill character at page boundary. |
| 063 | 02/06/74 | INST | MIR moves 8 characters extra at page boundary. |
| 062 | 02/04/74 | INST | CMPC fails at connect fault time processing fill chars. |
| 061 | 01/24/74 | INST | CSL instruction fails across boundfault boundaries. |
| 060 | 01/12/74 | INST | MVT sometimes fails if take page fault on table. |
| 059 | 01/12/74 | INST | MIR gets op-not-completes. |
| 058 | 01/12/74 | INST | MIR get no-write-permission by miscalculating TSR. |
| 057 | 01/03/74 | INST | CMPC sometimes gives wrong results. |
| 056 | 01/03/74 | INST | MIR instruction fails across boundfault boundaries. |
| 042 | 10/13/73 | INST | SFIG 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 09/27/75. 2359.0

Table with columns: Time, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Time. Rows list times from 0000 to 2330 with associated status codes and numbers.

