TO: Multics Performance Log
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SUBJECT: Performance Clues to follow up

Clue

1. Why does page fault time distribution and mean vary drastically among systems between 2.2 and 2.3?

2. Why are there an average of 20 links snapped per command?

3. Why are there an average of 75 wall crossing faults per command?

4. Why is ring one linkage segment so heavily used? (implies ~1000 calls/command)

5. Why do linkage faults take ~60 ms to handle? handle?

6. Why does process creation take 40 seconds and cause 700 wall crossings
   182 linkage faults
   84 segment faults
   and 550 page faults?

7. Wall, link, page, and segment faults account for 32 seconds of process creation. Where do the other 8 go?

8. Why do wall crossings in one direction (presumed inward) require 4.6 ms?

9. Why do some outward returns take much longer than others?

10. Why are there many page faults which require $\geq 30$ ms to handle?

11. Why do some segment faults require as much as 10 seconds to handle?
12. Why are there an average of 200 page faults per command?

13. Why is the average of 200 page faults per command the same in the typical user script as it is in the "flush-echo" script?

14. Why do some linkage faults require 500 ms to handle?

15. Why does new file system still have 24k of wired-down procedure?

16. Why are segment fault handling times much greater in console sessions than in certification runs?

17. Why are there a few 300 ms page faults?

18. Why do typewriter interrupts require an average of 11 ms to handle?