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SUBJ: Observations on Certification of System 1.9 with Webber's Page Control Added

1. The certifier run produces 94 lines of output per process, 376 lines total
If I/O is taking 50 ms/line at present, it accounts for almost 19 seconds of the 360.

2. The certifier run produces 1914 characters of output per process, requiring about 127 seconds to type, at 15 char/second. Since the observed running times are currently about 250 seconds per console, and the cpu time is about 90 sec/console, we observe

   a. There is very little "waiting" for service. Computation time and typing time ≈ total run time. (For each process.)

   b. Further reductions in computation time are not going to be fully reflected in total running time, since typing time will not be reduced.

3. Virtually all "ready" messages indicate a real waiting time of 15 seconds or less. That is, response is good, with 4 hyper-active processes. One can argue that with an average 60 second "think" time inserted between each of the ten commands issued by each process, there would be time available for 600/90 = 7 additional processes with the same good response

   Thus we may conclude that we can run 11 processes with good response, perhaps 15 with mediocre response, if they all follow the flush/echo/print script.

4. Each process got 90 segment faults, and 660 linkage faults. This amounts to 7.5 links snapped per segment. It appears that it would be wise to pay more attention to post binding.

5. There are always about 720 "GIM-sized" interrupts observed. There are 376 lines typed on the typewriter. One concludes that we may be getting 2 interrupts/line typed. The new typewriter DIM may have a significant payoff if the old one used such a clumsy strategy. (The interrupt time is trivial, but one wonders what the TW DIM did in response to all those interrupts.)