

Time differences between computers

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1 Time test results

On 01SEP01 a set of tests on the internal timer provided by Microsoft in their Visual Basic package was done. These are the results.

Perrin's Computer running Windows 7										
Time ms	-40	-20	0	+20	+40	-40	-20	0	+20	+40
	1 Second Run					10 Second Run				
100	16	11	10	8	7	161	107	92	81	71
200	6	6	5	5	4	59	54	50	43	41
300	4	4	4	4	3	38	36	33	31	30
400	3	3	3	3	3	27	26	25	24	23
500	3	3	2	2	2	22	21	20	19	19

Data Acquisition computer running Windows XP										
Time ms	-40	-20	0	+20	+40	-40	-20	0	+20	+40
	1 Second Run					10 Second Run				
100	17	13	10	9	8	167	125	100	84	72
200	7	6	5	5	5	63	56	50	46	42
300	4	4	4	4	3	39	36	34	43	30
400	3	3	3	3	3	28	27	25	24	23
500	3	3	2	2	2	22	21	20	20	19

Eric's laptop computer running Windows XP										
Time ms	-40	-20	0	+20	+40	-40	-20	0	+20	+40
	1 Second Run					10 Second Run				
100	16	11	10	8	9	160	102	92	80	72
200	6	6	5	5	4	59	54	49	42	40
300	4	4	4	4	3	38	36	32	31	30
400	3	3	3	3	3	27	26	25	24	23
500	3	3	2	2	2	22	21	20	19	19

¹\$Header: Times.tex: Revision: 1: Author: ehamilton: Date: 09/10/2010 11:51:37 AM\$

⁴tocdepth = 4

⁵\$Header: Times.inc: Revision: 1: Author: ehamilton: Date: 09/10/2010 11:51:07 AM\$

Note

Interperting these results goes as follows with this sample line.

Time ms	-40	-20	0	+20	+40	-40	-20	0	+20	+40
	1 Second Run					10 Second Run				
100	16	11	10	8	7	161	107	92	81	71

1. The central time loaded into the timer was for **100**ms.
2. The lowest time, **16/161**, was for 60ms, $100 - 40 = 60$.
3. The next lowest time, **11/107**, was for 80ms, $100 - 20 = 80$.
4. The base time, **10/92**, was for 100ms, $100 \pm 0 = 100$.
5. The first higher increment, **8/81**, was for 120ms, $100 + 20 = 120$.
6. The second higher increment, **7/71**, was for 140ms, $100 + 40 = 140$.
7. There were two runs:
 - 7.1 The first set had a duration of one second at each setting of the timer.
 - 7.2 The second set had a duration of ten seconds at each setting of the timer.
 - 7.3 No run of 100 seconds was done due to the time involved.
8. Each value in the table body is the count of timer “time outs” during the run time, of either 1 or 10 seconds.
9. Each run was synchronized to a transition of the system clock.

1.1 OS Version and Platform data

1. Perrin’s computer:
 - 1.1 OSVersion = 6.01 (Windows 7)
 - 1.2 OSPlatform = 2
2. Data Analysis and Eric’s computer:
 - 2.1 OSVersion = 5.01 (Windows XP)
 - 2.2 OSPlatform = 2