Subject: Hydra is FAST
Posted by hojtsy on Mon, 10 Apr 2006 09:35:38 GMT
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I tested Hydra settings on a P4 2800 Mhz with 2 Hyper Threading units. Compilation times for recompiling the CodeMetric example:
1 Thread: 2.30
2 Threads: 2.12
3 Threads: 2.02
4 Threads: 1:17
5 Threads: 1:13
6 Threads: 1:10
7 Threads: 1:16
8 Threads: 5:51

It seems that it is good to set thread count higher than number of CPU cores. Best result was achieved with 6 threads.

Subject: Re: Hydra is FAST
Posted by mirek on Mon, 10 Apr 2006 09:57:37 GMT
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hojtsy wrote on Mon, 10 April 2006 05:35I tested Hydra settings on a P4 2800 Mhz with 2 Hyper Threading units. Compilation times for recompiling the CodeMetric example:
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It seems that it is good to set thread count higher than number of CPU cores. Best result was achieved with 6 threads.

Quite interesting, we have (with AMD and Tom with AMD X2) found that performance starts to degrade when you have more threads than CPUs....

I recommend double-checking these results, I think there is something wrong with them. We have never achieved better than 50% speed improvement for 2 real cores and also the jump between 7 and 8 threads is highly suspicious...

Mirek

Subject: Re: Hydra is FAST
Posted by hojtsy on Mon, 10 Apr 2006 10:59:19 GMT
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I rerun these test. The results seems to vary greatly. In the second run the winner was 2 threads, and in the third run winner was 3 threads but only with a small amount ahead of 2 threads.

1 Thread: 2.30 1.27, 1.30
2 Threads: 2.12, 1.10, 1.14
3 Threads: 2.02 1.13, 1.13
4 Threads: 1:17 1.12, 1.19
5 Threads: 1:13 1.12, 2.52
6 Threads: 1:10 2.32
7 Threads: 1:16
8 Threads: 5:51

I did all these tests the same way, by clicking the bomb icon in the same example after modifying the thread setting. Maybe some of the wild time values could be caused by some files becoming old enough between test runs to used in BLITZ compilations, but even with that the results are quite inconsistent. I suppose this could be tested automatically by compiling with every thread setting 10 times, and averaging, but I don't have the patience for that. Given all this inconsistency the only conclusion I can make is that 2 threads was always faster than 1 thread.

Subject: Re: Hydra is FAST
Posted by mirek on Mon, 10 Apr 2006 12:55:38 GMT
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hojtsy wrote on Mon, 10 April 2006 06:59I rerun these test. The results seems to vary greatly. In the second run the winner was 2 threads, and in the third run winner was 3 threads but only with a small amount ahead of 2 threads.

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Well, those results look much more believable....

In fact, if you take best resutls, it now looks like 2 and more threads a little bit faster than single one (something one would expect on HT CPU), but not by large margin.

Still, I have not seen compile times so much erratically changing yet....

Mirek

Subject: Re: Hydra is FAST
Posted by mirek on Tue, 11 Apr 2006 21:34:53 GMT
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Thinking about it... is that Prescott? What about thermal throttling?

Mirek
