
Subject: Platform recommendation/tradeoffs?

Posted by [smithjp](#) on Wed, 12 Apr 1995 07:00:00 GMT

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I am about to order some flavor of IDL (Mac or Unix) and I'm wondering if anyone can help me gauge just how much performance I loose by getting the Mac product. (This saves me enough money to buy a Q630 cpu)

I have a SG Iris Indigo with lots of memory and some disk space that I could be using for IDL, or I could put it on the aforementioned Q630. If intense image processing were among my requirements it would be a pretty easy decision, but the data that I'll be working on is basically about 16 or 32 128x128 matrices - not too big of a problem from a graphic standpoint (I suppose I would rarely need to look at more than 1 128x128 image at a time, for instance)

This problem has a lot of number crunching - 128x128 non linear least squares fits of at least 4 parameters per fit.

Any comments? Any experience using IDL on a 68040?

TIA, Joe Smith

Subject: Re: Platform recommendation/tradeoffs?

Posted by [kid](#) on Fri, 14 Apr 1995 07:00:00 GMT

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In article <3mhc42\$6lt@mozo.cc.purdue.edu>, smithjp@sage.cc.purdue.edu (Joseph Smith) wrote:

> I am about to order some flavor of IDL (Mac or Unix) and
> I'm wondering if anyone can help me gauge just how much performance
> I loose by getting the Mac product. (This saves me enough money
> to buy a Q630 cpu)

Hi Joe -

I've been using IDL on a Mac IIfx for the last month or so and on a Sun SPARCstation 10 for the last couple years. I also had a chance to run the native demo version of IDL on a PowerMac 7100/66 (my quick and informal testing put the PowerMac at about 75% the speed of the SS-10). The Mac IIfx runs IDL pretty well on applications that don't require a lot of memory or disk access. I have one (lots of 16-bit graphics and array manipualtions) that I was playing with today that requires about 60 MB of RAM (the IIfx only has 20 MB, so the rest was VM). As I expected, performance was pretty poor, but it ran correctly.

If you already have the Q630, I think it would be adequate for what you are intending to run on it. If not, I'd get a PowerMac instead. You can download a Mac demo version (10 minute not 30 day due to Mac license managers) from gateway.rsinc.com to try out on your Q630 to get a decent idea.

--

Rhonda Schienle
Email: kid@visdata.com
Licensed Massage Therapist on California's Central Coast

Subject: Re: Platform recommendation/tradeoffs?
Posted by [ps](#) on Sat, 15 Apr 1995 07:00:00 GMT
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Chris Jacobsen (jacobsen@xray1.physics.sunysb.edu) wrote:

: The CPU in a pentium is within hailing distance of the CPU of new
: unix workstations. If that's the only issue, a PC is a good platform
: for IDL in terms of bang for the buck.

: For me, a big issue is memory. For image processing,
: we will frequently end up with several 1024x1024 complex floating
: point arrays at 8 MB memory each. We can afford to have one \$10,000
: unix workstation with 128 or even 256 MB of memory and a half-dozen
: X terminals so that one or two people can do image processing at any
: moment. We cannot afford to put 128 MB of memory in each of half a
: dozen PCs. Also, nobody ever screws up AUTOEXEC.BAT and CONFIG.SYS
: on the unix workstation...

So get the PC, put 128MB and Linux to it. IDL 4.0 is announced for Linux
Then connect your XTerms to it and enjoy.

Peter

----- Peter 'PIT' Suetterlin -----
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Subject: Re: Platform recommendation/tradeoffs?
Posted by [gurkan](#) on Mon, 17 Apr 1995 07:00:00 GMT
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In article <3mllmh\$97r@adam.cc.sunysb.edu>, Chris Jacobsen
<jacobsen@xray1.physics.sunysb.edu> wrote:

> The CPU in a pentium is within hailing distance of the CPU of new
> unix workstations. If that's the only issue, a PC is a good platform
> for IDL in terms of bang for the buck.

I know this isn't alt.intel.vs.the.world, but which CPU of which new
workstation is which P5 within hailing distance of? A low-end
SPARCstation? An AlphaStation 250 4/266? A 60 MHz P5? 100 MHz?

> For me, a big issue is memory. For image processing,
> we will frequently end up with several 1024x1024 complex floating
> point arrays at 8 MB memory each. We can afford to have one \$10,000
> unix workstation with 128 or even 256 MB of memory and a half-dozen
> X terminals so that one or two people can do image processing at any
> moment. We cannot afford to put 128 MB of memory in each of half a
> dozen PCs. Also, nobody ever screws up AUTOEXEC.BAT and CONFIG.SYS
> on the unix workstation...

Actually, for a single user, the PC or Mac platform often makes more
sense, simply because the memory is cheaper and the single user can do the
image processing whenever he/she wants to.

It's really a question of what octane, memory, and display options
your application(s) require(s).

Joe Gurman

--

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| Federal employees are still prohibited from holding opinions while|
| at work. Therefore, any opinions expressed herein are somebody |
| else's. |

Subject: RE: Platform recommendation/tradeoffs?
Posted by [mallozzi](#) on Tue, 18 Apr 1995 07:00:00 GMT
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>> I know this isn't alt.intel.vs.the.world, but which CPU of which new
>> workstation is which P5 within hailing distance of? A low-end
>> SPARCstation? An AlphaStation 250 4/266? A 60 MHz P5? 100 MHz?

I ran IDL's time_test on a Pentium 90, and it took ~17 seconds. I then
ran it on a DEC Alpha, and it took ~35 seconds. Grant it, the Alpha had
about 40 processes going at the time, but the point is, the Pentium 90

is mighty quick.

Subject: Re: Platform recommendation/tradeoffs?

Posted by [Fergus Gallagher](#) on Tue, 18 Apr 1995 07:00:00 GMT

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I have recently taken delivery of a new SPARCstation 20, primarily for running IDL applications. I was a bit dismayed to see that my TIME_TEST benchmark was about 17.5 secs.

Earlier entries in this thread have shown pentiums running better than this (15 secs, if I recall)

Have I wasted my money? Or is TIME_TEST not a good measure. Obviously, my SPARCstation has more memory (64Mb + 64Mb virtual) but I could have bought this amount on memory for a pentium and still saved enough for a jolly to Bali.....in fact, I need a PC too, for running WP apps amd the like (no WABI comments, please), so I estimate I could have saved about =A38k (\$12k)

As I am "sole user" on my system, configuration issues aren't really a problem.

Comments, anyone?

Fergus

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Fergus Gallagher	
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http://uh.nmt.ac.uk/bnsc/fgg.html	

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Subject: Re: Platform recommendation/tradeoffs?

Posted by [velt](#) on Wed, 19 Apr 1995 07:00:00 GMT

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In article <D70BB9.6u1@mv.mv.com>, kennealy@mv.mv.com (Jack Kennealy) writes:

> daft@debussy.crd.ge.com (Chris Daft) writes:

>

>> I second the request for some comparison of IDL's performance on

>> various CPUs.

Our test results:

===== IDL =====

IDL performance test (TIME_TEST and GRAPHICS_TIMES)

Notes:

(1) cd to a local disk before running the test, e.g. /tmp

(2) use the second run (swap already allocated)

(3) maybe do a .run time_test before running.

	computations	graphics
SS20/61/SX, 96MB, Solaris 2.3	14.2s	3.4s
Solaris 2.4	13.2s	
SS10/51/SX, 96MB, Solaris 2.4	16.7s	4.9s
SS10/dual 90MHz Hypersparc,		
96MB, Solaris 2.3	13.8s	2.7s
160MB, Solaris 2.4	13.7s	2.9s
SS10/51/GX, 96MB, SunOS 4.1.3	14.8s	4.0s
690MP/4proc/TGX,		
128MB, SunOs 4.1.3	44.6s	7.7s
SS2/1proc/GS 64MB SunOs 4.1.3	48.2s	15.2s
Sun IPC/CG3 32MB SunOs 4.1.3	72.5s	

Robert Velthuizen (velt@rad.usf.edu),
Digital Medical Imaging Program of the
H. Lee Moffitt Cancer Center and Research Institute at the
University of South Florida, Tampa FL 33612.

Subject: Re: Platform recommendation/tradeoffs?

Posted by [sterner](#) on Thu, 20 Apr 1995 07:00:00 GMT

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velt@rad.usf.edu (Robert Velthuizen (DMIP)) writes:

> Our test results:

> ===== IDL =====

> IDL performance test (TIME_TEST and GRAPHICS_TIMES)

> Notes:

> (1) cd to a local disk before running the test, e.g. /tmp

> (2) use the second run (swap already allocated)

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```
>
>               computations  graphics
> SS20/61/SX, 96MB, Solaris 2.3  14.2s    3.4s
>               Solaris 2.4   13.2s
> SS10/51/SX, 96MB, Solaris 2.4  16.7s    4.9s
> SS10/dual 90MHz Hypersparc,
>       96MB, Solaris 2.3   13.8s    2.7s
>       160MB, Solaris 2.4  13.7s    2.9s
> SS10/51/GX, 96MB, SunOS 4.1.3  14.8s    4.0s
> 690MP/4proc/TGX,
>       128MB, SunOs 4.1.3  44.6s  7.7s
> SS2/1proc/GS 64MB SunOs 4.1.3  48.2s    15.2s
> Sun IPC/CG3 32MB SunOs 4.1.3  72.5s
```

Let me add one more machine:

HP 9000/735 140Mb HP-UX A.09.05 10.1s 2.3s

Ray Sterner sterner@tesla.jhuapl.edu

The Johns Hopkins University North latitude 39.16 degrees.

Applied Physics Laboratory West longitude 76.90 degrees.

Laurel, MD 20723-6099

WWW Home page: <ftp://fermi.jhuapl.edu/www/s1r/people/res/res.html>

Subject: Re: Platform recommendation/tradeoffs?

Posted by [ps](#) on Mon, 24 Apr 1995 07:00:00 GMT

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Ray Sterner (sterner@strdev.jhuapl.edu) wrote:

: velt@rad.usf.edu (Robert Velthuisen (DMIP)) writes:

: >Our test results:

: >===== IDL =====

: >IDL performance test (TIME_TEST and GRAPHICS_TIMES)

: >Notes:

: > (1) cd to a local disk before running the test, e.g. /tmp

: > (2) use the second run (swap already allocated)

: > (3) maybe do a .run time_test before running.

```
: >
>               computations  graphics
> SS20/61/SX, 96MB, Solaris 2.3  14.2s    3.4s
>               Solaris 2.4   13.2s
> SS10/51/SX, 96MB, Solaris 2.4  16.7s    4.9s
```

```

: >SS10/dual 90MHz Hypersparc,
: >      96MB, Solaris 2.3  13.8s    2.7s
: >      160MB, Solaris 2.4  13.7s    2.9s
: >SS10/51/GX, 96MB, SunOS 4.1.3  14.8s    4.0s
: >690MP/4proc/TGX,
: >      128MB, SunOs 4.1.3  44.6s  7.7s
: >SS2/1proc/GS 64MB SunOs 4.1.3  48.2s    15.2s
: >Sun IPC/CG3 32MB SunOs 4.1.3  72.5s
: Let me add one more machine:
: HP 9000/735 140Mb HP-UX A.09.05 10.1s    2.3s

```

Although maybe not completely comparable, as it is PV-WAVE (still waiting for the IDL-Version) using the time_test of IDL 3.61a:

```

486DX/2-80 16MB Linux 1.2.5 30.2s    7.8s (1MB S3 card 8bit)

```

```

----- Peter 'PIT' Suetterlin -----
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```
