
Subject: Dual Core Apple "MacBook", and RSI's Mac Intel plans

Posted by [JD Smith](#) on Tue, 10 Jan 2006 19:59:42 GMT

[View Forum Message](#) <> [Reply to Message](#)

Apple just announced a new Intel-based, dual core "MacBook", using the newly announced "Core Duo" chip. Check it out here:

<http://www.apple.com/macbookpro/>

This looks like the ultimate IDL mobile workstation. Now, the question is, will IDL 6.3 be offered as a Universal Binary for the Mac? Since we know RSI never really put much into Altivec (if anything at all), it would seem to me that a port to Intel for Mac would be as simple as clicking the "Compile Universal Binary" box. Given how many Powerbooks I see floating around at conferences, I think they should strongly consider ticking that box. This machine will sell.

Since they are compiling IDL with GCC, we should see similar performance as available on similarly-equipped Linux systems (it's the same exact compiler). Since GCC was such a woeful underperformer for PowerPC, the speed advantages would be multiply compounded. I would guess the new MacBook would offer IDL performance up to 5 times as fast as the current Powerbook G4 (for problem sizes which can take advantage of both cores). All that, and a shiny metal case too (not to mention the built-in video-cam).

Anyone have the inside scoop?

JD

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans

Posted by [JD Smith](#) on Thu, 12 Jan 2006 18:19:08 GMT

[View Forum Message](#) <> [Reply to Message](#)

On Thu, 12 Jan 2006 09:18:35 -0500, Matt Feinstein wrote:

> On 11 Jan 2006 08:07:11 -0800, phaccount@nycap.rr.com wrote:

>

>> I am thinking that Apple on Intel may be a demise of Linux.

>>

>> I for one, a linux and wintel user, would love to switch to Apple and

>> have the best of linux and the decent of mictel (microsoft+intel). If

>> the hardware price comes down some, a part of the linux folks may

>> switch to apple. Apple may then see a surge in computer, scientific

>> and engineering applications that partially drove linux forward.

>

> The killer option is a Windows/OS X dual-boot workstation, but it

- > looks like that won't happen for a while. The various items I've read
- > are somewhat unclear, but, apparently, dual-boot XP+OS X is not a
- > possibility with the new macs because of BIOS/firmware issues. However
- > Vista+OS X will be possible and, IMO, poses a major threat to linux.

I'd say OSX/Linux dual boot poses a threat to Windows ;). And I guarantee we'll see Linux on these boxes faster than Windows...

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [Richard French](#) on Fri, 13 Jan 2006 01:07:12 GMT

[View Forum Message](#) <> [Reply to Message](#)

I've just started a thread on the RSI User forum.

<http://www.rsinc.com/forum/ForumSearch.asp?urlCategory=2>

If others chime in, it might help to generate a response.
Dick French

1423:IDL on Dual Core Apple "MacBook":

I would like to know RSI's plans for porting IDL to the new Apple Intel platforms. Many research scientists use Mac OSX platforms, and since Apple is going the way of Intel, I hope that RSI will announce its intentions to port IDL to Mac/Intel in the near future.

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [Phony Account](#) on Fri, 13 Jan 2006 13:34:25 GMT

[View Forum Message](#) <> [Reply to Message](#)

Continuing this way-of-topic thread that I started ...

I am not sure (due to my ignorance): I wonder if Apple and Intel may hardcode some OS dependence in the chips. That way, Apple may ensure that people don't pirate its OS and port it to Dell's.

And, again (my ignorance), if I have apple with BSD Unix underneath, why would I need Linux on the same machine?

Mirko

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans

Posted by [cgguido](#) on Fri, 13 Jan 2006 15:54:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

Not really an inside scoop but, from
<http://www.rsinc.com/services/techtip.asp?ttid=3635#macintel> :

"When Will RSI Support Mac OS X on Intel?

Now that the new Mac OS X machines running on Intel have been released, RSI can investigate the process of supporting this new system. Necessary software components need to first come together; namely, the third-party software that RSI uses needs to be fully supported and tested on the new Mac. IDL 6.3 will not be tested or supported on the Mac for Intel architecture.

IDL will support Mac on the Intel platform as soon as it is feasible. Unfortunately, it is still too early to know exactly when that will be. We will keep this FAQ up to date as we know more in the near future."

So there you have it. If this takes as long as it took for them to decide to stick with Red Hat (after their '2003 survey'), then linux on a MacBook Pro might be the better option for some time to come !!!
Crap!

G

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans

Posted by [Ricardo Bugalho](#) on Fri, 13 Jan 2006 16:57:08 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi,
the reason is that Apple's Intel iMacs aren't PC compatible. Apple ditched the legacy IBM PC and it's BIOS. Instead they went EFI, a firmware standard created by Intel a few years ago.

The only Windows versions that supports EFI are the Itanium ones (all Itanium systems use EFI) and only Windows Vista will bring support EFI on x86(-64) systems. Therefore, it won't boot.

On Thu, 2006-01-12 at 09:18 -0500, Matt Feinstein wrote:

- > On 11 Jan 2006 08:07:11 -0800, phaccount@nycap.rr.com wro
 - > The killer option is a Windows/OS X dual-boot workstation, but it
 - > looks like that won't happen for a while. The various items I've read
 - > are somewhat unclear, but, apparently, dual-boot XP+OS X is not a
 - > possibility with the new macs because of BIOS/firmware issues. However
 - > Vista+OS X will be possible and, IMO, poses a major threat to linux.
-
-

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [Ricardo Bugalho](#) on Fri, 13 Jan 2006 16:58:57 GMT
[View Forum Message](#) <> [Reply to Message](#)

Many people like Apple's fine laptops but dislike Mac OS X, specially in the performance field.

On Fri, 2006-01-13 at 05:34 -0800, phaccount@nycap.rr.com wrote:

- > And, again (my ignorance), if I have apple with BSD Unix underneath,
 - > why would I need Linux on the same machine?
-

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [JD Smith](#) on Fri, 13 Jan 2006 17:56:06 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Fri, 13 Jan 2006 15:55:32 +0000, Ricardo Bugalho wrote:

- > Hello,
- > a couple of points, depending on your interest: - Mac OS X for Intel won't
- > emulate AltiVec. So, if IDL makes any use of it, IDL might not run. OTOH,
- > unlike SSE, AltiVec never supported double precision so it's likely IDL
- > won't use it. - If you don't care about Mac OS X and just want Apple's
- > tradicional quality in laptops, you might be able to install Linux on it.

It turns out IDL does use a small bit of AltiVec on a very few basic operations. I had thought it used none, but was corrected. So this means that IDL likely will **not** run under Rosetta (the new on-the-fly PPC->Intel translator). The main question is, does IDL run on a G3 processor? It certainly used to, back in the day, so it probably still does, which means when Rosetta tells IDL it is a G3, it may well fall back on some slower code and not choke. SSE is another kettle of fish. In a year's time, probably well over 75% of IDL's user base will be running on the same processor architecture. Thinking about using SSE/SIMD is probably a good idea (and they are).

JD

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [JD Smith](#) on Fri, 13 Jan 2006 18:00:30 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Tue, 10 Jan 2006 12:59:42 -0700, JD Smith wrote:

- > it would seem to me that a port to Intel for Mac would be as simple
 - > as clicking the "Compile Universal Binary" box.
-

One issue I overlooked: IDL comes with many 3rd party tools, like the license manager, the IDL Assistant, etc., which themselves would have to be ported (or run well enough under code translation, which I expect they indeed would). So it's not really a simple one box check and you're done operation. Plus there turns out to be a small amount of Alitvec that would have to be ripped out/coded around (but given they already likely code around for pre-Altivec chips like G3, not to mention their Intel code base, I doubt that's a major hurdle).

JD

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [Karl Schultz](#) on Fri, 13 Jan 2006 19:38:30 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Fri, 13 Jan 2006 10:56:06 -0700, JD Smith wrote:

> On Fri, 13 Jan 2006 15:55:32 +0000, Ricardo Bugalho wrote:
>
>> Hello,
>> a couple of points, depending on your interest: - Mac OS X for Intel won't
>> emulate Altivec. So, if IDL makes any use of it, IDL might not run. OTOH,
>> unlike SSE, Altivec never supported double precision so it's likely IDL
>> won't use it. - If you don't care about Mac OS X and just want Apple's
>> tradicional quality in laptops, you might be able to install Linux on it.
>
> It turns out IDL does use a small bit of Altivec on a very few basic
> operations. I had thought it used none, but was corrected. So this
> means that IDL likely will *not* run under Rosetta (the new
> on-the-fly PPC->Intel translator). The main question is, does IDL
> run on a G3 processor? It certainly used to, back in the day, so it
> probably still does, which means when Rosetta tells IDL it is a G3, it
> may well fall back on some slower code and not choke.

IDL makes a run-time check to detect Altivec. So, if the emulation layer faithfully reports no Altivec as it should, then IDL shouldn't execute any Altivec instructions.

If this fails, one can still use the CPU command to turn off vector processing. Also, see !CPU.

Karl

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans

Posted by [Kenneth P. Bowman](#) on Fri, 13 Jan 2006 22:29:19 GMT

[View Forum Message](#) <> [Reply to Message](#)

In article <pan.2006.01.13.17.56.06.516548@as.arizona.edu>,
JD Smith <jdsmith@as.arizona.edu> wrote:

> On Fri, 13 Jan 2006 15:55:32 +0000, Ricardo Bugalho wrote:
>
>> Hello,
>> a couple of points, depending on your interest: - Mac OS X for Intel won't
>> emulate AltiVec. So, if IDL makes any use of it, IDL might not run. OTOH,
>> unlike SSE, AltiVec never supported double precision so it's likely IDL
>> won't use it. - If you don't care about Mac OS X and just want Apple's
>> traditional quality in laptops, you might be able to install Linux on it.
>
> It turns out IDL does use a small bit of AltiVec on a very few basic
> operations. I had thought it used none, but was corrected. So this
> means that IDL likely will *not* run under Rosetta (the new
> on-the-fly PPC->Intel translator). The main question is, does IDL
> run on a G3 processor? It certainly used to, back in the day, so it
> probably still does, which means when Rosetta tells IDL it is a G3, it
> may well fall back on some slower code and not choke. SSE is another
> kettle of fish. In a year's time, probably well over 75% of IDL's
> user base will be running on the same processor architecture.
> Thinking about using SSE/SIMD is probably a good idea (and they are).
>
> JD

This is from one of the Mac rumor sites:

> In a note to clients on Friday, American Technology Research analyst Shaw Wu
> said checks with sources indicate that the upcoming release of Mac OS X
> 10.4.4 for Intel runs well, with noticeable improvements to the Rosetta
> PowerPC emulation environment that improve backward compatibility with
> AltiVec support.
>
> "We believe this will alleviate concerns that older software that hasn't been
> ported to Intel will run well without a recompile," Wu wrote.

But I suspect this is minor compared to ensuring that third party
software runs.

Ken Bowman

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans

Posted by [Wolf Schweitzer](#) on Tue, 17 Jan 2006 16:16:06 GMT

[View Forum Message](#) <> [Reply to Message](#)

Gianguido Cianci wrote:

- > IDL 6.3 will not be tested or supported on the
- > Mac for Intel architecture.

Thanks for this update!

After an Apple developer told me 1 1/2 years back, indirectly, "not to wait" for a fully 64-bit OS, and after one could sense the reluctance on RSI's side, I don't regret having abandoned Apple for workstation strength computing.

Most importantly, working on X11 isn't THAT different from working on Linux or AIX. We talked about "hard reasons" to buy OS X based machines recently; real (hard) reasons to us OS X are not Open Office 2.0, web browsing, e-mail, web-based mySQL/pHp-packages, statistical software or The Gimp (they all are available / run on Windows or Linux cheaper and faster) - but mostly entertainment or creative sound packages such as iTunes, Reason 3.0 Synthesizer Software. So for such, or for any other - irrational - reason, I definitely love OS X.

As my G4 Powermac is getting extremely "old" in that it doesn't keep up with the computing speeds that I need in IDL for some applications, I now run IDL 6.2 on a Suse Linux 10 / AMD-workstation at home, and the performance is simply great. Dynamic frequency scaling makes the workstation perform with a minimum of ventilation noise otherwise as processor frequency is scaled down on idle. I got myself that Fujitsu Siemens Celsius v830, and it's a great machine. You really get more hardware options (your choice of AMD Opteron processors, up to dual 280; up to 32 GB RAM; 4 drive bays; several bays for slot/tray loading drives) - where Apple doesn't offer nearly that much for even DOUBLE the price on their G5 powermac platform. That RSI seems to support Linux / AMD 64-bit in the foreseeable future was a great decision that suits me just fine.

Conversely, no notebook of any brand really says "power programming enabled", so all they can be used for is solving some smaller problems. For now, that's done on existing investments without sweats (Powerbook). For at least 2-3 years, PPC based Macs will be still widely supported, so I quite honestly don't see why there should be a particular big pressure "right now". Right now, one could also consider the Centrino Duo notebooks by Dell (up to 1920 x 1200 pixels resolution, better than any notebook Apple sells), or the Acer Travelmate 8200 (up to 4 GB RAM, better than any notebook Apple sells).

It is really to be hoped that we will see Apple's OS X on Fujitsu Siemens, Dell or Acer, on IBM replacing AIX, within the next 2-3 years. If not, we hope at least for KDE to continue to be user friendly.

Wolf.

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [dbowman](#) on Fri, 20 Jan 2006 22:29:04 GMT

[View Forum Message](#) <> [Reply to Message](#)

I've just posted the following to the RSI User Forum, but thought I'd also share it with this group. Let the flames begin! :-)

I've been using IDL for over ten years now. My field (earthquake seismology) is also heavily populated by mac users, and always has been. Most of my colleagues switched from IDL to Matlab back when RSI abandoned the mac. The subsequent port to X11 has never been truly satisfactory. Many of the great features of IDL 5.1 never made it to *nix - things like a quality built-in editor with syntax highlighting.

I understand that emacs is the programmers' preferred way to do code, and that IT types inexplicably like Windows. However, IDL claims to be a *scientific* visualization and analysis package. If RSI really wants scientists to use their product, then they should be responsive to what *scientists* want, rather than what's popular with software engineers. That means things like Mac/Intel and <gasp> Direct Graphics.

Honestly, the only reason I haven't switched to Matlab (which is more responsive to scientists) is that it would take me far too long to port all my legacy code. This is not a good way to keep a user-base happy!

David Bowman

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [news.qwest.net](#) on Fri, 20 Jan 2006 23:13:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

<dbowman@fullerton.edu> wrote in message
news:1137796144.257630.54020@g14g2000cwa.googlegroups.com...

...

> If RSI really wants
> scientists to use their product, then they should be responsive to what
> *scientists* want, rather than what's popular with software engineers.
> That means things like ... <gasp> Direct Graphics.

...

> David Bowman

Aha, another potential member of "La Resistance".

(shhhh, we cannot talk of this here...)

-anonymous

Subject: Re: Dual Core Apple "MacBook", and RSI's Mac Intel plans
Posted by [Kenneth P. Bowman](#) on Sat, 21 Jan 2006 00:36:17 GMT
[View Forum Message](#) <> [Reply to Message](#)

In article <1137796144.257630.54020@g14g2000cwa.googlegroups.com>, dbowman@fullerton.edu wrote:

> I understand that emacs is the programmers' preferred way to do code,
> and that IT types inexplicably like Windows. However, IDL claims to be
> a *scientific* visualization and analysis package. If RSI really wants
> scientists to use their product, then they should be responsive to what
> *scientists* want, rather than what's popular with software engineers.
> That means things like Mac/Intel and <gasp> Direct Graphics.
>
> Honestly, the only reason I haven't switched to Matlab (which is more
> responsive to scientists) is that it would take me far too long to port
> all my legacy code. This is not a good way to keep a user-base happy!

I like his opinions *and* his last name.

Ken Bowman
