Parallels for MacIntels: It was Inevitable

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If you've been listening at all to the Apple commercials for the last couple of years, you might begin to believe that a Mac really is better than a PC. Granted, they are "cooler" and prettier, and smaller than a hulking PC, but is it truth or hype? Well, since I started working at Tallan, I've been given a MacBook Pro, with all the "fixin's" including a nice 23-inch Cinema flat panel. I had used a Mac before, but for 15 years before joining Tallan, I was a devoted PC guy. I know, you're wondering why this article is categorized under the Software heading if I'm going to talk about Macs and PCs. Well, trust me, it will be about operating systems and software ...

I know there are a lot of Mac devotees out there. And I have to concur, the Mac is a sweet machine. I was brought up on a Mac, so to speak. Actually, that's not entirely true, I was introduced to a Mac in college, and that's what I'm really referring to. Before that ... well, here's a little geek bio about my experience with computers. If you want to skip this portion, go down to the section "Meet the Future."

Computers in School

I started off learning BASIC for a week on a Radio Shack TRS-80 back in sixth grade (you know, those all in one terminal-looking thingies, where the keyboard and monitor were housed together). That was New York City's way of introducing computers to the educational system. And hard drives? Nope. Can you say 8.5 inch floppies? Yes, 8.5 inches. Soon however, the floppies came down to the 5 inch size. The next year in Junior High, I was introduced to the Commodore PET (a tiny little thing), where they tried to teach me more BASIC, and I completely failed to understand programming concepts. Actually what I misunderstood wasn't really the language, but that there was a syntax to the language. I didn't even know what syntax meant.

After the PET, came the Amiga that some friends owned, and then, after begging my dad for many months, my very own 16-color TRS-80, a computer housed in a bulky keyboard. Frankly, I wanted a real computer, but my dad wasn't going to pay $1000 for a new toy. So it was a cheapie from Radio Shack. It was basically something to type your own BASIC programs into. That is how I learned programming concepts in earnest, by following the introduction to BASIC book that came with it, and trying to type in all the programs in the back of the book. Then in High School, I got to work on the first IBM PCs. Still no hard drives, but we were doing cool things like hooking it up to a VCR with a BDC (Binary to Decimal Converter), and learning C (the language). At that time, other people were just starting to get their Apple IIe and IIc computers, and games were coming out on floppies which we all pirated using something called Pirates Chest, a floppy disk copier for copy-protected programs. This is where I began to fun computers could really be.

Meet the Future

It was the end of the eighties, and I can say, the computer revolution was clearly under way at that point. When I started college at the University of Michigan, they had just built a brand new computer center and filled it with the first real Apple Macintosh computers. Back then, Apple's logo was still the rainbow-striped apple. The first version of Microsoft Word had come out, Cricket was the graphing program of choice, and 780K 2.25-inch floppies were a student's best friend. Hard drives were now becoming the storage media of choice on a computer, but still everything was very expensive. I was finding out that the college was networked to other colleges, and even the campus-wide network could be used in ways most students (with the exception of the Engineers) probably didn't know. For instance, I would use the engineering computers on Michigan's North Campus to start writing a paper, save it to a place on the network (you had to know how to get there), and then finish it later in the day from somewhere on Central Campus. Doesn't sound like much now, but remember, this is somewhere about 1989-1990.

So when the popular media began buzzing about something called the World Wide Web soon after, I poo-poohed it, believing that it was just another extension of the good ole network I had already been using. Well, of couse, the more things change, the more they stay the same. Of course it was more networking, but the enormity of the concept didn't really hit me till much later on.

{mospagebreak title=Macs vs. PCs}

Macs vs. PCs

So just about the time I was graduating from Michigan with my Bachelor's in English, the Mac vs. PC war was just getting started. The factions split between those who needed to do data-intensive work (engineers), and those who wanted to write simple papers and create "pretty" looking documents for B-School. I had actually known nothing about PCs, except

that they really didn't do a whole lot that I wanted. The interface was basically a keyboard, and a mouse with a stupid blinking cursor. You wrote papers using the granddaddy of word processors called WordPerfect, and that was the choice of businesses in the day. Microsoft Word? No way, you wouldn't get hired if you didn't know how to use WordPerfect. Needed to create a graph? Uh-oh. Better get to a Mac, produce the graph, print it, and then cut it out with scissors and paste it into the blank space in your document printed on the dot-matrix printers that the PCs used.

But I stayed staunchly on the Mac side. I had no reason to use a PC, I wasn't an engineer anymore (I left engineering school to be an English major), and about the only thing you could really do with the PCs was to play some neat PC games. PCs were cool if you wanted to copy things like games, and back then Macs didn't have a whole lot of games except possibly card games and Mahjong. Boring.

So there were the people who insisted that Macs were the thing (the Literature & Arts people), and then there were the people who wanted to number crunch (the engineers). Engineers liked the Unix operating system, and the fact that they could get under the hood with a PC. Mac users really didn't want to get under the hood, they just wanted it to work like their mind worked. It was all about easy User Interface vs. freedom to manhandle your computing environment.

One thing was for certain. Macs were much more expensive to buy, up to twice as much more. So most people early on got PCs and pirated software. (Or, as a blip on the radar of computer history, remember the NEXT computer? Some people were buying these hoping to avoid the whole war altogether.)
From Just Pretty to Pretty Useful

However, what Macs did have is the fun side of work. I used to go to the Art and Architecture building to use their computers because they had MacPaint and some other neat graphic software. And on Central Campus they had just gotten a digitizing tablet, so the nights when I couldn't sleep I went there and played with that. Furthermore, if you recall the problem of having to cut and paste graphs and charts into your documents, Macs began to get software that was pretty phenomenal. FrameMaker 1.0, and PageMaker. Both did pretty much the same thing, but I couldn't figure out how to use PageMaker back then. It was kind of an odd concept (until later when I learned more about graphic design and paste-up). FrameMaker wasn't necessarily easy to use, but I found the user manual in the engineering computer labs and used that to do the thesis for my 6 credit independent study. It wasn't easy, as I said, but for the first time in my experience with computers, it presented the ability to merge the creation of graphs, charts and illustrations with plain, boring, text.

The desktop publishing revolution had begun!
PCs Come of Age

I keyed in on this early on, and as karma had it, I came across an article by a woman who had written that this was going to be the next big thing in the world, and investors ought to get on board quickly if they wanted to make some money on it. I had no money to invest, but I was smart enough to know a good thing when I saw one, so with all the experience I had with Macs during college, I pressed my dad with the idea that I needed a computer, and when he agreed, I set out to find one. Unfortunately, back then it was like the wild west, there were no real places to get a computer, most were being built by storefront shops, and the prices were steadily going up.

The advent of computer magazine publishing really spurred on a lot of interest in PC sales. Byte had been around for years, and was the real geek's choice, but PC Magazine began a kind of revolution to bring PCs to the masses. Computer Shopper magazine, which was used to be about 1.5 to 2 inches thick back then, was basically a gigantic catalog of all kind of boutique "clone" shops (as in IBM clones) and I used to buy it each month not only to find deals, but to actually learn more about computer hardware. Eventually, my first PC was built by a friend of the family, and it was with that that I learned how to use PageMaker to it's fullest. At that time PageMaker was on version 4, and it had broken out of the Mac environment, and onto PCs, because of the introduction of the Windows operating environment, which finally afforded a more graphical user interface that Mac users had enjoyed for so long. I started using Windows at the 3.1 version, but OS2 was also available, and some people were opting for that.

The problem was that it was difficult to choose, as even back then people were concerned about which OS would win out. Macs were selling well, but mostly to the graphic arts industry. Businesses didn't need graphics, and architects however, needed computing power, so MSDOS CAD on a PC was their weapon of choice. Eventually, of course, MSDOS got left behind for good. Oh wait, no. It's still in Windows, isn't it? Anyway...

Other graphics programs were also being introduced for PCs, like Corel Draw (vector illustration program), and (in my opinion) it's lesser competitor Canvas which allowed both bitmap and vector editing in one program. Photoshop was still in its nascent stages, perhaps version 1 or 2, but only available for Macs.

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A Matter of Perspective

When I got a job at a small design shop (my first "real" job), we used both Macs and PCs. That's when I learned that the Mac vs PC war was really a kind of perspective problem, though for years I knew it rationally, it was really made clear when I worked at that design shop because we had PageMaker and Quark XPress for both PCs and Macs. We had about 3 PCs, and 3 Macs (I think 2 were Quadras). The applications were necessary for both platforms because though we were a design shop, about half of our revenue resulted from doing "output" for clients who worked on different platforms. "Output" was the industry term back in the day, meaning a customer would bring a file to us so that it could be imaged onto resin-coated (RC) paper, or film, using the Agfa Imagesetter we had on premises. This was the intermediate stage of Desktop Publishing, where although you did a layout on a computer, commercial printers still did not have the ability to image the document straight to their Heidelberg (or whatever). It was necessary to send them RC paste-ups, or RRED ("right-reading, emulsion down") film, which they would use to create the printing plates. These days, many output houses have gone out of business because DTP these days means "direct to plate" not "desktop publishing."

But getting back to the perspective. The epiphany, if you will, came from using PageMaker and Quark on both the PC and the Mac: while using Quark on the Mac was very easy and intuitive, using it on a PC was near impossible because it was clunky, slow to respond, and the key combinations didn't make much sense when moved onto a PC. And it was the opposite for PageMaker. On the PC, PageMaker was a prince, but on a Mac it made you want to slit your wrists. Things moved slow, the machine just stopped (Mac's "dead" face icon), you had to reboot, or fonts were interfering with each other.

So here you had to world-class products, both of which were made to deliver professional results, yet the performance of each depended greatly on which platform you were using them on. Now I'm not talking here about the interface. That is a moot point now. Both programs had the same user menus regardless of platform, both had the same icons, and both worked pretty much the same way. It was really a matter of how the software was written, and how it performed based on what the programmers understood about the platform. Things like memory and page handling (what we now call virtual memory), and the connection to the graphic card's memory, these were things that were not working right. And that's what made the difference. Which platform was the software originally written for? That was the question you needed to ask before declaring that something didn't work right. And I could see that regardless of Mac's better interface for the OS, PageMaker was a complete failure on the Mac.
PCs at Stage 2

It was at about this same time that the PC market was beginning to settle a bit. The early boutique shops were now getting thinned out due to price wars and competition, and companies like Gateway and Dell were beginning to produce PCs that didn't require intimate knowledge of hardware to buy computers. The PC market was also getting cheaper again, and Macs were becoming the more expensive machine, again. You could also see some of the super retail stores, like CompUSA begin to build a loyal following, and were attracting the attention of the less-savvy home computer users. Though they now sell Apple products too, that's been a more recent development.

In the mid-90s people were finally beginning to see that not having a computer in the house could be detrimental to their careers. It was necessary to be able to edit work documents at home, and besides it was useful when you had all this other software, like tax prep applications and home remodeling programs; computers could actually be fun and useful. So popular use of computers finally began to push prices down even further, and competition began to heat up among the major computer sellers more and more once computers got out of the office and into homes. Still, most were looking at PCs due to their being inexpensive, and the plethora of easily copyable programs for the platform which could be shared among friends.

One of the differences that Mac fans kept touting was that graphics were better on a Mac than on a PC. And it was true. For a while. But companies like NVidia changed all that, and PC users now had just as good a visual base as a Mac. Audio was also getting better, and PCs were able to output broadcast audio and video to rival the more expensive Mac. Cheaper.

Apple was taking a beating, though most analysts and fans would deny this. So, if they weren't taking a beating, my question is how come they asked Steve Jobs back?

Apple Comes Back

Fast forward into the internet years. As people spent their time doing email, and surfing the Net via AOL, another revolution was happening in the computer world. The hardware wars were over. Companies began to realize that advances in computing wouldn't come from better graphics. There are only a few companies which survive because they offer best bang for the buck: Dell, Compaq, HP, Gateway, and now Sony and Acer, among a few other minor ones. The boutique shops and custom builders realized that they couldn't really compete with the money these larger companies brought with them, so they either disappeared or went into the parts, repairs and aftermarket arena.

Meanwhile, Apple, newly infused with Jobs iron-handed mantra about making their products beautiful, springs into the minds of home users by doing what it's always done best: make it pretty, and people will want one. So they went back to their roots of creating things that are functional as well as beautiful. User Interface was the keyword. They innovated, not only with new offerings of computers at different levels which were at par with the pricing models established by PC makers, but they themselves started being PC makers, really owning the term "personal computer" to establish themselves in the minds and hearts of those people who wanted to do the cool things that the Internet Age brought, like media anywhere, anytime. They also branched out to making more consumer products like the now famous iPod, and really connecting everyday users with the "cool technology" that was once only the domain of network-savvy professionals and graphics gurus.

They created more than just computers. They brought computing power the household by sneaking it in the back door with the kids. They went from being the company that graphic artists think of when deciding on a computer, to what the world considers as a real choice when thinking of technology for their homes.

There's just one problem left: Microsoft.{mospagebreak title=What's a Guy to Do?}

What's a Guy to Do?

It is interesting to note that while Apple started with the Motorola chip in the earlier Macs trying to separate themselves from Microsoft madness and other PC makers, they later moved to the PowerPC chip (surely after many people, including fans, complained about slowness of Apples compared to the then-speedier PC clones). The move cost them in terms of having to revamp all the software to take advantage of the new architecture. Moving to the Intel chip is yet another leap which will cost in software revamp once again, not only for them, but for all the companies that write apps for the Mac base. It's strange to see Apple, which was once trying to stay far from Microsoft's path, now embracing the same technology. Or is it?

It's a smart move actually. And in the same breath, it's something Microsoft will regret soon. Apple captured our imaginations, that's where they took the lead. Microsoft now is playing catchup with their Vista operating system, but again a day late, a dollar short. Why move to the Intel chip? Well, you can look on the Internet about all the reasons that the analysts provide, or that Apple itself has disclosed, but my personal theory is that this was a calculated move in order to dominate and overtake Microsoft. The strategy is simple. Get on the same chipset that most of your competitors use, and allow them to continue using their known environment within yours. That strategy is even more onerous for the OS makers who depend on having a stranglehold on the PC environment (Microsoft). Bootcamp, Apple's answer to running Windows on a Mac came shortly after an Internet contest which asked people to write software that would allow PC apps to run on the new Mac Intels. However, Apple now gives a nod to Parallels as a very powerful and convenient way to run a virtual PC on your Mac. The main difference between Bootcamp software from Apple and Parallels software is that one allows full, but discrete access to each OS (Bootcamp), while the other (Parallels) does exactly as it's name says, allowing you to run the Mac OS in tandem with Windows. You simply switch from one to the next at whim, when you want, on one screen, or you can devote each OS to a separate screen if you have more than one monitor (as I do with my MacBook Pro laptop screen and the Apple Cinema display). With Parallels, you run the Windows OS inside the Mac OS and run all your Windows native applications (that's the big thing); in other words, the Mac OS must load first, and then you can start Parallels and begin your Windows session, and then run all other apps as you would under Windows. The one disadvantage of this is that the most memory you can allot to the Windows environment is 50% of the machine's total memory. In my case, it's not bad at all, since I have 3 gigs of RAM on my Mac, 50% of that is like running any regular store-bought PC with 1 gig of ram.It's History, and It Will Get More InterestingIt was inevitable. With all the talk about which OS is better, which machine is a better productivity tool, and a broader understanding of User Interface Design and usability as relates to not just making things prettier, but more functional and allowing more businesses with public-facing products to increase market share, the merging of the OSes was inevitable. Just like with PageMaker on the PC and the Mac, I use the Mac for all my Photoshop and graphics work, and the PC side for all my Office applications. What does not bode well here is that Microsoft has constantly been a step behind Apple in its design (or copying, or emulating) of the user interface. They are probably too busy to write a whole new OS that can natively put a Widows environment on a Mac, or for that matter, run Mac's OS on a regular Intel chip PC. In fact, there have been attempts to do so from the Web community, but nothing stands out as being ultimately successful. But if Microsoft wants to retain control of the PC, it better find a way to meld with a Mac on it's own terms.Things are bound to get interesting in the next few years.