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Volume 6 Issue 9

# Masthead

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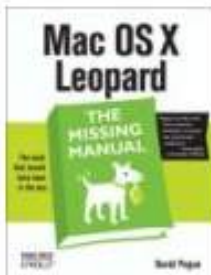
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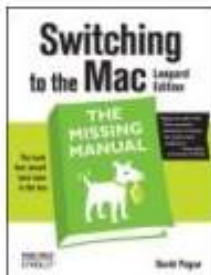
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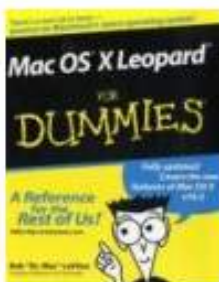
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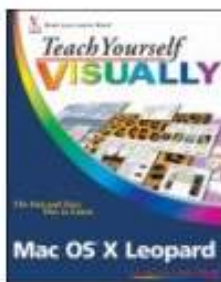
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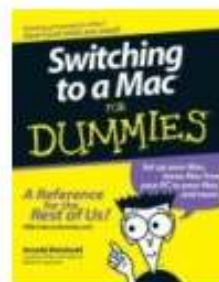
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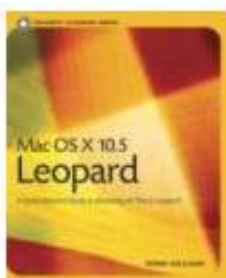
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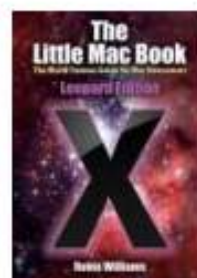
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PES is currently developing courses addressing inventive energy-related topics that are inadequately covered elsewhere. These courses and workshops will serve as the foundation of our Academy. We invite course recommendations and other contributions.

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# Columns

.....	16
<i>Letter from the CEO</i> .....	16
August Events.....	16
<i>According to Hoyle</i> .....	22
Objective-C for C++ Programmers, Part I .....	22
<i>doc_Babad's Macintosh Tips - A Macintosh Tip or Three</i> ...	30
September 2008 Edition .....	30



## Mars Report

mac os x software addict

.....	39
<i>A Close-Up Look At Today's Web Browsers: Comparing Firefox, IE 7, Opera, Safari</i> .....	39
<i>The Northern Spy</i> .....	73
Fall Follies.....	73
<i>An Open Letter to Scott Kelby</i> .....	78
A Task Still Undone for the Salavation of PC Switchers .....	78

# Books

.....	80
<i>iPhone 3G Portable Genius</i> .....	80
<i>iPhone: The Missing Manual</i> .....	82
<i>Mac OS X Leopard: QuickSteps</i> .....	84

# Greenware

.....	86
<i>Biogas Handbook, 4th edition</i> .....	86
<i>A Declaration of Energy Independence: How Freedom from Foreign Oil Can Improve National Security, Our Economy, and the Environment</i> .....	88
<i>Energy Efficient on the Olympic Peninsula</i> .....	93
<i>Fuel Cell Projects for the Evil Genius</i> .....	98
<i>The Myth of the Oil Crisis</i> .....	100



# Hardware

.....	103
<i>Falcon SG Series Online Uninterruptible Power Supply (UPS) Plus 800 VA to 6KVA – When only the best will do.....</i>	<i>103</i>
<i>Pinnacle Video Capture for Mac, aka Dazzle.....</i>	<i>109</i>
<i>Sena Cases – iPhone 3G – Style meets Functionality .....</i>	<i>111</i>
<i>TatSkinz – "Protective Body Art" for your devices.....</i>	<i>114</i>

# Software

.....	116
<i>TheSkyX.....</i>	<i>116</i>
<i>Advertisers Index.....</i>	<i>125</i>
Apple Corporation.....	125
Amazon.com - macCompanion Store .....	125
AprèsVin.....	125
Century Roofing.....	125
Concert or the Living Waters Live H20 .....	125
Evo Networks .....	125
H20 Hybrid Pro.....	125
Mac20.....	125
OxySilver .....	125
PESWiki.....	125
3-Rivers Synergy Centre .....	125
<i>Advertising Information .....</i>	<i>126</i>
Statistical Analysis .....	126
Advertising with macCompanion.....	127
Site Ad Rate .....	127
Affiliations .....	127
Sponsorships.....	127

# Columns

## Letter from the CEO

### August Events

By Robert L. Pritchett

It has been quite an interesting month, starting out with the Tesla Conference in Albuquerque, New Mexico, prepping for the Alternative Energy User Group meeting, trying to keep pace with PESWiki site information and updates, being on a Paranormal radio program, staff shuffling mostly due to Email comments regarding the current political situation in the US (think "Obamacide" and "Palin-drome") and general health issues. Yes, we all could use some quality prayer time. Some of us need divine intervention. Seriously.

Steven Fyffe said his review in this issue would be his last for us. He will be sorely missed. I loved his columns.

### MacBook Pro and iPhone Status

Anyway, the MacBook Pro I'm using is getting quite a workout and so is the iPhone 3G. Both got used extensively at the Tesla Conference, especially the wireless connectivity and the iPhone camera. iPhone AT&T connectivity sucked big time. Some things worked better using the University of New Mexico wireless network than at the incredible hotel, and vice versa.

The next heavy use will probably be at the Walla Walla Sustainable Living Fair, Sept 19-20 - <http://www.sustainablelivingcenter.com/>. I get to do another booth there for Pure Energy System Networks. Maybe the EcoVan will show up too - <http://www.ecovan.org>.

On that note, promised iPhone app software for doing both audio and video recording is still forthcoming (read "not Apple authorized yet"). Each time "Cyndia" is added, it gets blown away by the next iPhone update, so iPhone software development apps keep disappearing (read Ruby for Rails).

I did get an authorized version of Final Cut Pro, version 6 loaded on this miracle machine, so expect some comments on that in the October issue of *macCompanion* and some broken promises regarding Final Cut books will also be fulfilled. (Sorry, publishers!)

And I have Adobe CS4 beta loaded, but can't talk much about it yet. Stay tuned!

And any and all donations to the magazine through PayPal will continue to be solicited and gratefully accepted. We have to get our credit card debt zeroed out. Can you believe 35.39% !?!? THAT's criminal! Please help us reduce our debt load ASAP before we are wiped out.

## ExtraOrdinary Technology Conference

I was permitted to be Sterling Allan's proxy, representing Pure Energy Systems Network at the ExtraOrdinary Technology Conference - [http://peswiki.com/index.php/Events:2008:ExtraOrdinary\\_Technology\\_Conference](http://peswiki.com/index.php/Events:2008:ExtraOrdinary_Technology_Conference) held at the University of New Mexico for 4 days from July 31 through August 3, 2008.

I was so impressed by what I saw and heard, I became a premium member of the Tesla Society before the conference sessions ended.

I added a photo gallery and posted a few business card contacts on the PESWiki website with other pictures, links and information discussed by each of the presenters at the conference. (Some pictures sadly did not turn out as well as I had hoped, but I was using an iPhone 3G camera and I didn't hold it steady sometimes. My apologies to those who posed for me anyway.)

I had a PES Network booth that got moved around 3 times in the University of New Mexico Student Union Building, until I ran out of brochures and business cards. I didn't expect so many folks to be there at the conference. I may have counted around 400.



## Personal Contacts

Steve Elswick asked for me to help with the Tesla Tech website – <http://www.teslatech.info>

Robin Lamb asked me to be on X-Squared Radio - <http://www.x2-radio.com/>, which was done with Brooks Agnew August 10, 2008 for 2 hours. That was incredibly exhilarating!

Dr. Leonard Horowitz - <http://www.tetrahedron.org/> has asked that I help him with his promo video for his <http://www.liveh2o.org/> Concert for the Living Waters, Love H2O Summer Solstice June 19-21, 2009 - <http://www.liveh2o.org/>. He saw what I was doing on PESWiki during the Conference and liked the near-real-time work I was doing. Afterwards I went to his residence near Sandpoint, Idaho and I now have his copy of Final Cut Pro officially registered and loaded on my machine. He was using an older MacBook Pro at the conference.

We were told that our computers and wireless access were interfering with the communication systems. We shut everything down for the rest of the conference sessions, but it didn't make any difference as far as we could tell. Cellphones also had difficulty working inside the main conference room.



## Principles and Practices

Working at Pure Energy Systems Network jives with the doctrines and principles of the Gospel that I grew up with. One of which is following the admission of Paul the Apostle, wherein he said; "We believe all things, we hope all things, we have endured many things and hope to be able to endure all things. If there is anything virtuous, lovely, or good report or praiseworthy, we seek after these things.

I also believe in the principle of doing good to all men. These are Judeo-Christian beliefs I hold dear.

We offer hope and positive experiences with alternative energy solutions in a world of doom, gloom and fear by forces intent on taking away free agency. I love being with people who are of like-minded goodness and with goodwill towards all mankind. There are more of us than there are those who are against us.

## Spiritual Manifestations, Positive Influences and Common Ground

Many at the ExtraOrdinary Technology Conference apparently held those same God-based beliefs and felt the overall experience to be rather spiritually uplifting. How could it possibly have happened at a technology conference?

Michael Riversong, another New Energy Congress member, set the tone by acting as Master of Ceremonies during the conference and he played both the flute and harp as a "Biblical Bard" with his music. He also uses a MacBook.

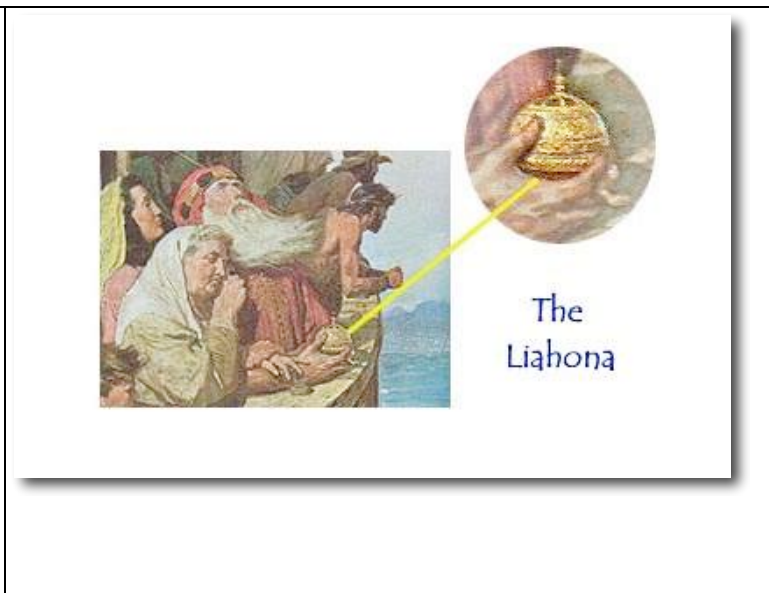
Many of the presenters at the Tesla Tech conference understood that their spiritual side correlates to the physical side and they did this by looking at magnetism as a spiritual force and electricity as a physical force. That was a new concept and the "a-hah" light kicked on inside me. None of the presenters were apologetic for their beliefs. So refreshing!

I also found many there who shared my beliefs and we got along great as Christians, Jews and Muslims. We found common ground.



Even Fadia Jamal-Eddine, a new Tesla Tech Team member with a Muslim background, enjoyed our conversation as we expressed our common beliefs and concerns for humanity.

From my perspective, I saw what was being discussed as a homogenized gospel. Where I saw the "love and light of Christ", we talked of magnetism as a force. Instead of "wickedness", we talked of dark energy. Instead of "salvation and eternal justice", we talked to the welfare of Paul Pantone and heard about many other "Paul Pantones" in a crooked, corrupt judicial system. We also "gave alms" (legal defense fund donations) to help his legal process move forward - <http://www.geetfriends.net/persecution/persecution.htm>. What is happening to him and to many others is indeed criminal. It could happen to anyone who is legally labeled as "incompetent". How do you "disprove" incompetence?



Being "in tune with the Spirit" was discussed while holding the faith-based Moe Joe Cell. Moshe Daniel called it having a positive attitude in order for the Moe Joe Cell to work right. We know of a similar device that only worked well when those who were holding it didn't have a spirit of contention with them. It was known as the Liahona in the Book of Mormon and made of brass. So the Moe Joe Cell appeared to be feasible to me. Moshe spent time talking about the spiritual aspects and concepts behind his development of this 3-dimensional Joe Cell. It is composed mainly of nickel. If nothing else, it makes a pretty good bell.

Alma in the Book of Mormon - <http://scriptures.lds.org/> said that indeed, angels do visit men and women and children on earth. After hours, we spoke about off-world messengers as we looked into the night sky with night scopes provided by Ed Grimsley. Yes, these heavenly messenger do exist. We may have possibly discovered how they travel from a presentation Moray King, Thursten Ludwig, John Milewski and Harvey Fiala touched upon, by harnessing magnetic force.

Brooks Agnew discussed Magnetic Plasma bullets, Tibetan Stuca, the Aurora Borealis and 4<sup>th</sup>-dimensional stargates and elaborated a little on those in our X-Squared Radio discussion, August 10<sup>th</sup>. The Stuca information was enlightening. Tesla took the information known to man for centuries and did something with it.

James Bare spoke of pulsed electromagnetic healing and Rife-Bare devices and John Milewski expanded on the subject by talking about Ormus atoms and healing the spirit before healing the body. I discovered why Chicken soup (whole chicken) is good for the soul. It's the Ormus in the bone marrow that heals the spirit.

Dr. Leonard Horowitz spoke of the perfect circle of sound, the ninth core creator frequencies, Vortex-based mathematics, Solfeggio tones and the effects of prayer on water. He also invited us to the "Concert for the living waters" during the summer solstice. This was all new to me, but made perfect sense in my mind.

I just found that to be so cool and Leonard Horowitz brought things together that resonated with me. Remember, my father was an orchestra director and I performed in a few with him as a bass and cello player.

## **Practical Matter(s)**

Omar Amin spoke of parasites. Right before lunchtime. My take away from his presentation was, I'm never going to lay down on the beach naked, kiss pets or eat uncooked meat.

Harvey Fiala said; "The speed of gravity is probably instantaneous", but I learned that magnetic force is 10 billion times faster than the speed of sound from John Milewski in his Superlight presentation.

Ron Nott is selling off his business with his lightning dissipator after a generation of running that business successfully. Want a blue nightlight? Get one of his lightning dissipators. It looks like a stainless steel Fuller brush with bristles flayed out. The military and others have purchased his super-simple systems for nearly 2 decades.

Tai Robinson, another NEC member spoke of turning gas stations into fuel stores with his rapid-fire presentation on multiple fuel systems.

Thorsten Ludwig discussed the on-going Casimir effect and research outside the US.

I loved David Yurth's comments on Maxwell's original Electrodynamics Equations. So why are they not being taught in our US Universities today? And I did capture his talk on the dynamics of self organizing criticality from Zero Point to Infinity. Who said; "To Infinity and Beyond"?

John Milewski's report on SuperLight and Magnetite was fantastic. I want to get some magnetite and spread it around our garden areas to see a 6-fold increase in production like he showed. I also think we can take up the challenge and figure out how to better harness magnetic force, especially when the magnetic poles on earth reverse again.

I'm going to have to revisit Moray King's discussion of "Water Clusters" and Cavity Quantum Electrodynamics.

Prior to this event, I had never heard of "Orgone" except as being a State south of "Washington", but I became familiar with it as it was discussed in more than one presentation. Yes, it can be measured. I also was introduced to Vortex effects. That also was new to me. Get some water twirling between magnets from one soda bottle to another and voila!, you've got energized water. It is not a concept that is all wet after all.

And guess what you can do with a little water and paper? Valeriy Maesotsenko has created a company around the M-Cycle through indirect evaporative cooling. Yes, "Way Cool Tech"! Can the process be reversed to generate heat? I think he is happy just getting Coolerado Coolers going and turning garbage heat into gold.

And Alchemy was also discussed and we heard how black sand can be turned into Rhodium by cooking it in a microwave oven for 45 minutes. Joe Milewski may have overstated it, but he claimed he could turn \$20 USD of this sand into \$10K USD of Rhodium. I still want to get a source something less than 150 tons from Eastern Canada to add magnetite to our garden.



You have to watch Charles Ostman sip energized water as he motor-mouths through nanotech companies and technologies and does his "oh by the way" in segueing that into high tech transportation with rotorless and wingless craft and the special material used in magnet motor technologies to fly these machines without noise without pollution and zipping quickly from place to place. The UFOs we saw in formation in the night sky the evening before are now IFOs.

Roulette Smith had fun at our expense saying we lacked common sense by staying up so late each night talking to each other. We learned from the guy who was first in identifying AIDs and showing how Epstein Barr Virus can be triggered to cause autistic children. I didn't know about Karposi's sarcoma or that there were a least 39 diseases that can affect memory. I've always said that if we could bottle common sense we could become millionaires because it really is not so common. He asked what is Common Sense and apparently came up with a device to help down to the path of figuring out how to circumvent the triggering of T Cells in misspelling molecules. We will probably hear more about the Preliophic Moleculator.

## **Socializing**

I could not possibly have gotten around to so many people who have such diverse backgrounds and lives over 4 days, but we did have representation from at least 4 of our own New Energy Congress (NEC) members – Michael Riversong, Charles Bensinger (whom I did get to finally meet on Day 3), Tai Robinson (whom I did get to sit and talk with during the evening meetup regarding Paul Pantone) and myself.

I also enjoyed the conversations I had with those I was able to meet with. And the feedback from the Tesla Tech Team has been positive, as they have read what we have posted so far on PESWiki.

What an exciting mind-expanding experience this has been for me. I can only thank Sterling Allan for letting me go in his place. He said it would be a good experience. That is an understatement.

BTW, if you want a full set of the DVDS from these and other presenters, they cost \$400 at <http://www.teslatech.info>.

## **Wrap Up**

Like I said, it has been quite an eventful August. What did you do with *your* Summer?

Please buy stuff from our affiliates and advertisers and donate to *macCompanion* Magazine to help keep it going strong.

If only each reader donated a dollar, we would be floating in a boatload of money (around 2 million a month). Think about it and then do something about it. ;^)

# According to Hoyle...

## Objective-C for C++ Programmers, Part I

September 2008

by Jonathan Hoyle

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macCompanion

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This month we examine the Objective-C language from a C++ perspective. Although there are a large number of Objective-C books written for the beginner, these are inappropriate to advanced C++ programmers as they tend to belabor elementary concepts. Advanced Objective-C books are equally as unhelpful, as these are geared toward those already fluent in the language. The intention behind the next series of articles is to give the competent C++ programmer an understanding of how to translate what he or she already knows into this foreign dialect. Unlike languages such as Java, PHP, Ruby and others, Objective-C's bizarre syntax is so unusual, that it often puts off developers who would otherwise be interested in learning it.

The goal of this series is to offer a "*translator*" of sorts, defining Objective-C terms and practices in terms of C++ equivalents (or near equivalents). We begin this month with Objective-C classes: how they are *called*, *declared* and *defined*. For each Objective-C syntax introduction we give, C++ code examples will be demonstrated as much as possible.

For those looking for more complete documentation for understanding Objective-C from a C++ perspective, I heartily recommend reading Pierre Chatelier's *From C++ to Objective-C* [ <http://ktd.club.fr/programmation/fichiers/cpp-objc-en.pdf> ].

### What Do Those Damn Brackets Mean Anyway?

When C++ programmers see Objective-C code for the first time, they are often taken aback by the bizarre use of square brackets [ ]. In C++, as with C, square brackets are used almost exclusively for array indexing. But in Objective-C, it has a very different use: it encloses an object's invocation of a method. In most modern languages, the syntax for method invocation involves the dot operator. You can think of the C++ call:

```
object.method();
```

as *loosely* equivalent to Objective-C's:

```
[object method];
```

The former syntax is fairly standardized among most all modern languages. The latter was borrowed from the object oriented language *SmallTalk* and is rarely seen outside of

Objective-C development. Note that these calls can be nested, so that the Objective-C line:

```
[[[object method1] method2] method3];
```

is the same as:

```
object.method1().method2().method3();
```

Though such long nestings is generally considered poor style in C++ (not to mention dereferencing function returns), it is common practice in Objective-C, so you better get use to it.

One of the most crucial differences though is that this Objective-C syntax is actually a form of *message-passing*, not exclusive to method invocation. In C++, method() must be a member function of the class that object is an instance of. If not, the line object.method(); would fail to compile. In Objective-C, method() need not be defined for class of which object is an instance. There may be any number of potential runtime resolutions to the line [object method];. For this reason, Objective-C users need to be less reliant on their compiler catching careless mistakes. A typo such a [object mehtod]; will not generate the compiler error that object.mehtod(); would.

## Pass the Function Parameters, Please...

In the above example, method() took no parameters; so how do you handle methods which do? This is where things get a little complicated. Fortunately, passing a single parameter to a method is simple enough though: whereas in C++ the parameter is placed within the function's round brackets:

```
object.method(parameter);
```

in Objective-C, the parameter is separated by the method name by use of the colon:

```
[object method:parameter];
```

With two or more parameters, it can get a bit messy (particularly from a C++ perspective). Rather than use generic terms, it's better to illustrate with a more specific example. Let's say you have a class called Graph containing a method that obtains the distance from origin for any point in the plane. The C++ code for such a function might look something like this:

```
distance = myGraph.GetDistanceFromOriginXY(xCoord, yCoord);
```

In C++, additional parameters are separated by commas. In Objective-C however, the actual function name itself is split up:



```
distance = [myGraph GetDistanceFromOriginX: xCoord Y:
yCoord];
```

Rather than comma separated, Objective-C method parameters are preceded by tags which are essentially part of the method name itself. In general, a call of the form:

```
[foo bar1:parm1 bar2:parm2 bar3:parm3];
```

can be thought of as the Objective-C equivalent to the standard C++:

```
foo.bar(parm1, parm2, parm3)
```

in which the C++ method `bar` is morphed into the Objective-C method tags `bar1`, `bar2`, `bar3`.

## Objective-C Class Declarations

So now you know how to translate Objective-C calling code. That (believe it or not) is the easy part. If you are creating your own classes, you must *declare* and *define* these functions. Even if you are not creating them yourself, you may have need to read and understand the implementation of these calls.

Let's begin with class declarations. Class declarations are what you typically find in C++ header files. Below is a typically generic C++ class declaration which we will use as our basis for porting to Objective-C:

```
class MyClass: public MyBaseClass
{
    public:
        MyClass();
        virtual ~MyClass();

        int PublicMethod();
        void PublicMethod(int myParm);
        void PublicMethod(double myParm);
        void PublicMethod(int myParm1, int myParm2);

        static short StaticMethod();

    protected:
        long ProtectedMethod();

        double mProtectedMemberData;

    private:
        int mPrivateMemberData;
```

```
};
```

As you can see, **MyClass** has the usual items that you would expect one to have: a constructor, a destructor, both public and protected methods, protected member data, and even a private member variable. We see that **MyClass** is derived from **MyBaseClass**. You'll note that the function **PublicMethod()** is overloaded with four prototypes. Finally, note that we have added a static member function. This is nothing fancy and could be the outline for many C++ classes you run into.

This is how this same class might be declared in Objective-C:

```
@interface MyClass: MyBaseClass
{
    @protected:
        double mProtectedMemberData;

    @private:
        int mPrivateMemberData;
}

-(int) PublicMethod;
-(void) PublicMethod: (int)myParm;
-(void) PublicMethod2: (double)myParm;
-(void) PublicMethod: (int)myParm1: (int)myParm2;
+(short) StaticMethod;
-(long) PublicMethod3;
@end
```

Okay, getting past the alien looking syntax, let's examine this line by line. In C++ class declarations are extensions to struct declarations from C, with the added ability to include functions as members. In Objective-C, a class declaration is quite different, living between the calls **@interface** and **@end**. The **@** symbol is used throughout Objective-C to alert the language parser that this is non C-like syntax.

The first line

```
@interface MyClass: MyBaseClass
```

is straightforward enough to understand. Note though the missing word **public** from the inheritance. This is because in Objective-C, class inheritance can only be public. Furthermore, Objective-C does not support multiple inheritance as C++ does.

Next comes the member data:

```
{
    @protected:
        double mProtectedMemberData;
```

```

        @private:
            int mPrivateMemberData;
    }

```

Again you'll note the similarity with C++, except with the strange @ prefix. Although it is poor C++ programming style, you may also have public member data, and as you might expect, in Objective-C it would be preceded by the tag `@protected:` .

Unlike in C++ however, Objective-C member functions do not co-mingle with member data. They are listed separately as follows:

```

- (int) PublicMethod;
- (void) PublicMethod: (int)myParm;
- (void) PublicMethod2: (double)myParm;
- (void) PublicMethod: (int)myParm1: (int)myParm2;

```

The first thing you'll note is that member function declarations begin with a - followed by the return type in parentheses, followed in turn by the function name. If there are function parameters, they are listed colon-separated with (once again) the type in parentheses followed by the name.

You'll notice is that the third C++ prototypes for `PublicMethod()` has been given a different name. This is because Objective-C, like C, is limited to requiring each function name to be unique. The first method's name (as you would expect) is simply `"PublicMethod"`. The second one's name is `"PublicMethod:"`, that is, with a colon suffix indicating a single parameter. To avoid a name conflict, the third prototype was renamed, so that its official name would be `"PublicMethod2:"` rather than `"PublicMethod:"`. The final prototype fails to conflict since its official name is `"PublicMethod::"`.

Static methods are declared similarly to non-static methods, except with a + prefix:

```

+ (short) StaticMethod;

```

Finally, we come to the protected C++ member `ProtectedMethod()`. Unfortunately, all Objective C member functions are public. No protected or private functions are allowed. For this reason, we changed the name of this function:

```

- (long) PublicMethod3;

```

And now we reach the end of the declaration with `@end`.

You'll notice that we have intentionally skipped the constructor and destructor in our port of `MyClass`. In Objective-C, these concepts are replaced by initialization and allocation and will be the focus of next month's column. For now, let us pretend they do not exist and we will return to them next time, I promise.

## Objective-C Class Definitions

Once a class is *declared* in a header file, it must then be *defined* in a source file. In C++, this is typically a file using a .cpp extension (alternatively .cp or .cc). In the example of `MyClass`, we would usually find the class declaration in a file called `MyClass.h`, the definition in `MyClass.cpp`, and near the top of the latter file, we would expect to find the line:

```
#include "MyClass.h"
```

Each method of `MyClass` would be defined separately within `MyClass.cpp`, examples of which include:

```
int MyClass::PublicMethod()
{
    ... // Actual code
}

void MyClass::PublicMethod(int myParm1, int myParm2)
{
    ... // Actual code
}
```

In C++ , methods are defined just like standard C functions, with the exception that the class name and double colon prefixes the method name. `MyClass::` places the method name `PublicMethod()` within the scope of the class `MyClass`. This form of scope resolution is used without C++, not just for classes but for namespaces as well.

By now, it should come as no surprise that Objective-C methods are not defined anything like C++ methods, and that the strange @ symbol will be key. Although Objective-C header files retain the .h suffix, Objective-C source files typically use a .m suffix. The inclusion directive is also different, so near the top of `MyClass.m`, we would find:

```
#import "MyClass.h"
```

The main difference between the Objective-C `#import` directive and the standard C `#include` is that the former suppresses multiple inclusions. To achieve this same affect, C programmers have often use macros to avoid multiple inclusion, as follows:

```
// MyClass.h header file

#ifndef MYCLASS_H
#define MYCLASS_H
```



```
... // Class declaration

#endif // MYCLASS_H
```

Objective-C's `#import` makes this redundant.

Analogous to method declarations, Objective-C method definitions must be enclosed within an `@implementation` scope. The definitions themselves follow the syntax of the declaration, as the following example shows:

```
@implementation MyClass

-(int) PublicMethod
{
    ... // Actual code
}

-(void) PublicMethod: (int)myParm1: (int)myParm2
{
    ... // Actual code
}

// Remaining method definitions
...

@end
```

## Conclusions So Far...

This month we have learned how to define, declare and call Objective-C class methods. Yes, Objective-C is very different syntactically. And indeed it is sometimes a little hard on the eyes. But much of this is due to its legacy and age. Modern languages have come about during a time when the dot syntax has become standardized. In the 1980's when Objective-C was being developed, C++ was also in its infancy, so there was no way of knowing which convention would win out. The Objective-C 2.0 standard (2007) has made some small steps to remedy this problem, but there is still a long way to go.

Like learning to speak a foreign language, it takes time and effort to develop fluency.

**Coming Up Next Month:** More of our investigation of Objective-C from a C++ perspective. See you in 30!

**To see a list of all the According to Hoyle columns, visit:**  
<http://www.jonhoyle.com/maccompanion>

# doc\_Babad's Macintosh Tips - A Macintosh Tip or Three...

September 2008 Edition

By Harry {doc} Babad © 2008



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The software related tips were tested on a 2.8 GHz Intel Core 2 Duo iMac with 2 GB 667 MHz DDR2 SDRAM; running under Macintosh OS X OS X 10.5.4

**Disclaimer:** When briefly reviewing share-freeware I will often use the developers' product, functions and features descriptions. All other comments are strictly my own and based on testing. Why need I rewrite the developers' narratives, if they are clearly written?

This month I continue sharing my almost stumbled upon or homegrown tip related finds with you. As the occasion warrants, some of the Tips I share come from Paul Taylor's Hints & Tips column <http://www.mac-hints-tips.com/>, and are used with his permission. Where I use any one else's tips for this column, I acknowledge both their source and their contributors. Yes, I do write down and share some of the tips I've discovered while Macin' around.

Oh, I almost forgot! Unless otherwise noted, all the tips and tidbits I share, where appropriate, work on my computer. If I don't own the software but if the tip sounds interesting, I'll so note that information at the end of that specific write-up.

-----  
**Tips I've provided this month, as always in a random order, include:**

- Desktop Drive Icons Moved After Restart
- Sending Bulk Emails a Non-Spammy Way
- How-To: Making Files and Folders Hidden
- Work With Preview icons in Get Info Windows
- Help Menu Does Not Work; Fixes
- File Naming Dos and Don'ts
- Safari Browser Windows Madness
- Resizable Partitions In Mac OS X Tiger and Leopard.
- *Directly Accessing the Downloads Folder*

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## Desktop Drive Icons Moved After Restart

Question: *Several users have noticed an issue in which mounted drive appear in different locations upon reboot. MacFixIt forum member [pgwerner](#) writes: "I've been having a bit of a problem with my desktop drive icons jumping around to different parts of the desktop when the system is rebooted. I was hoping this would go away when I upgraded from 10.3.9 to 10.5.3, and while icons are now more stable, the problem hasn't gone away entirely."*

Response:

This problem has occurred, in particular, for users who have upgraded from previous versions of OS X, and could be from a corrupt hidden ".DS\_Store" file in the desktop folder.

### Fixes

*Remove the .DS\_Store file from the desktop folder* — The Finder uses ".DS\_Store" files to store organization and display information about Finder windows and content and keeps one in the every folder, including the Desktop, for this purpose. Use the following command in the terminal to remove the .DS\_Store file on the Desktop (The Finder will recreate a healthy .DS\_Store file when needed): `sudo rm ~/Desktop/.DS_Store`

**Use drive alias files on the desktop** Instead of showing drives on the desktop, create alias files of the drives and put those on the desktop instead. Then in the Finder preferences in the "General" section, uncheck the "Hard disks" and "External disks" options.

MacFixIt Daily Newsletter

<http://www.macfixit.com/article.php?story=20080721115856873>

Monday, July 21 2008

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## Sending Bulk Emails a Non-Spammy Way

We are hosting an event at our office next month and are inviting 500 people. How can I use Apple Mail to send out 500 emails and make sure that they won't be marked as spam? Also, how can I see if a particular recipient has opened an email?

There's no guarantee that your email messages won't be marked as spam on the recipient's end, because you never know what sort of spam filters are in place. And if you're sending a large number of messages from your email account, your own ISP may mark your messages as spam before they even get to their final destination.

To further compound your dilemma, there's no way to reliably track what happens to your email after it's sent—without going through the hassle of embedding a different server-side image into each one of your messages and checking your server logs to see which images have been viewed. And even then, many email programs block server-side images unless the recipient specifically chooses to view them. Instead of trying to do all of this yourself, your best bet is to use one of the many reputable email-marketing companies on the Internet, such as Constant Contact (<http://www.constantcontact.com>) or Emma (<http://www.myemma.com>).



These companies have developed relationships with major ISPs to help ensure that their messages are not marked as spam at the server, and they stay up-to-date on antispam legislation and regulations to make sure that your email messages comply. They can also help you track whether your recipients have read your emails or forwarded them onto others by managing server-side images for you. And best of all, they'll help you create professional-looking templates so that your emails have maximum impact when they're viewed.

Mac|Life Tip of the Day by Scott Rose  
<http://www.maclife.com/print/2146>

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### **How-To: Making Files and Folders Hidden**

*By default, there are many hidden system files, which users can interact with albeit directly, in Mac OS X. The restrictions prevent inadvertent tampering with files that need not be accessed by the average user. For example, upon opening "Macintosh HD" there are four obvious folders: Applications, Library, System, and Users; however, in reality there are many more in that location.*

### **MacFixIt Solution**

To see these folders, open the terminal and type the following command (replace "Macintosh HD/" with the name of the desired volume):

```
ls -p /Volumes/Macintosh HD/
```

This will output a list of the files and folders at the root of "Macintosh HD", and put slashes by the names of all directories.

Users may wish to take advantage of the feature and create personal hidden folders for many reasons including keeping some data relatively private from others who may use the same user account. In order to do this, follow these steps:

Open the Terminal application  
Type the following, followed by a single space: `chflags hidden`  
Locate the desired file or folder in the Finder

Drag the folder to the terminal, and the command should complete itself as such:  
`chflags hidden path_to_file_or_folder`

Pressing enter after the full path has been entered should hide the item from view in the Finder. To reverse this process, repeat the process from step 1 and use "nohidden" instead of "hidden" in the command.

NOTE: While this command can be used to unhide the system files and folders that are hidden by default, doing this is not recommended, as they can accidentally be targeted for modification or deletion. This is especially true in a multi-user environment.

Doc Sez: Alternatively you can check MacUpdate Site for *Hide Folders {Protect Folders}* simply check *Folders* for a larger number of varied tools for working with you visible and invisible folders.

MacFixIt Daily Newsletter  
<http://www.macfixit.com/article.php?story=20080724113741991>  
Thursday, July 24 2008

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### **Work With Preview icons in Get Info Windows**

Apple added a small feature to OS X 10.4 that not many people know about: you can now do things with the Preview section of the Get Info window. In earlier OS X releases, the image shown in Preview wasn't really usable for anything other than, well, a preview. But in 10.4, that Preview image now behaves (with one minor exception) exactly as icons in window title bars do—you can use the Preview section to move, copy, or create an alias of a file, just as you can with the small icons in a Finder window's title bar.

With any file (except a movie file; that's the exception I'll discuss shortly) or folder selected in the Finder, choose File -> Get Info, and then click the triangle next to the Preview section to make the icon visible (see image below). With the Preview icon visible, you can now move, copy, or make an alias to the associated file or folder. Specifically, here's what happens when you do any of the following:

Drag the icon to a new location: If you drag to a location on the same volume, you'll move the file or folder. If you drag to another volume, you'll create a copy. If you want to copy to a new location on the same volume, hold down Option before you drag. Command-Option drag the icon to a new location: Regardless of whether the destination is on the same volume or not, this action will create an alias to the original file or folder.

Command-drag the icon to a new location on another volume: Move the original file or folder to the new volume, erasing the original in the process.

These are the exact same shortcuts you can use with title bar icons—and they also work in the Inspector (hold the Option key then choose File -> Show Inspector). Because every rule needs an exception, QuickTime movie files don't follow these rules.

But for everything other than movie files, it's nice to have the ability to work with the files as you can in the title bar of a "real" Finder window.

Mac OS X Hints by Rob Griffiths  
Macworld – July 10, 2007  
<http://www.macworld.com/weblogs/macoshints/2007/07/getinfopreview/index.php?pf=1>

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## Help Menu Does Not Work; Fixes

*In some cases, the Help Menu may cease, either completely or partially, to function. While users may be able to search for help topics, the topics may either not appear or not display when clicked on. For one user, the latter was the case: Apple Discussions poster [randykimo](#) wrote: "I recently bought an Intel iMac with Leopard 10.5.4; however, the Help menu doesn't seem to work. I get the drop down menu, can enter a term in the search box, and see a list of topics. However, clicking on any of the topics does nothing."*

**MacFixIt Answer** — There are several approaches to fixing this problem, though for this user the one that worked was reinstalling the Help Viewer from the installation disk.

### Fixes

**Throw out relevant Help Viewer settings files** The Help Viewer utilizes three preferences files and one cache file that can be removed, triggering a reset. These files are located in the user's preferences folder (/Users/username/Library/Preferences/) and are labeled as follows:

com.apple.help.plist  
com.apple.helpui.plist  
com.apple.helpviewer.plist

Delete these files. In addition, go to the /Users/username/Library/Caches/ folder and throw out the folder labeled "com.apple.helpui". Then restart (or logout and log back in) to have the help viewer and support files reload and reset themselves.

**Run a permissions fix on the drive** Open "Disk Utility" located in the /Applications/Utilities/ folder, and run a permissions fix on the hard drive.

**Reinstall the Help Viewer** Use the application [Pacifist](#). [<http://www.versiontracker.com/dyn/moreinfo/macosx/12743>] Next, insert your Leopard or Tiger installation disc and locate the Help Viewer application thereon using Pacifist and force a reinstall.

**Reinstall the operating system** For users who have just purchased their computers, performing a reinstall of the operating system fresh from the provided installation DVDs may be a desirable alternative. See our [tutorial](#) for instructions on doing so.

MacFixIt Daily Newsletter  
<http://www.macfixit.com/article.php?story=20080728084637248>  
Monday, July 28 2008

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## File Naming Dos and Don'ts

Every day you do this task without giving it a second thought: naming files and folders. Yes, it's easy to name things in as x, but there's a bit more to it than meets the eye.

*Don't Start with a Period* — If you try to use a period at the beginning of a file or folder name, the Finder will let you know that such a name is "reserved for the system" (it makes any file or folder whose name begins with a period invisible in the Finder).

*Don't Use a Colon* — You can't use a colon (:) *anywhere* in an item's name. That's because Mac as x uses the colon to indicate a directory (or folder) in the as x file system—for example, Applications: Utilities. If you try, you'll get a somewhat cryptic error message about the length of the item's name and its included punctuation (see "Illegal File Names"). The object's name won't change.

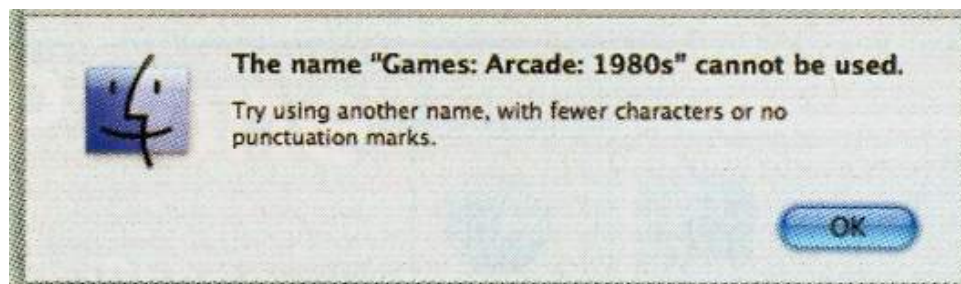
If you try to use a colon in a file name when you're saving from within a program, most of the time your Mac will replace the colon with a minus sign (-). In some programs, such as Microsoft Word, you'll just hear a beep and the colon won't appear.

*Do Create Cross-Platform-Friendly Names* — Even though the colon is the only character you can't use in as x, you might want to avoid some others: the asterisk (\*), angle brackets « and», double-quotation marks ("), forward and backward slashes (/ and \), the semicolon (;), the pipe (|), and the question mark (?). Microsoft Windows XP reserves all these characters for its own use, so putting them in as x file names may cause problems if you then send those files to Windows XP users.

*Do Keep It Short* — The Mac limits how long your file name can be. Thankfully, the limit is quite high—255 characters. That's longer than this paragraph!

*Do Give Descriptive Names* — Instead of pushing that 255-character limit, use names that make things easier to find. For instance, while Beef Recipe may seem like a perfectly adequate file name, it won't seem quite so precise when you reach Beef Recipe #17. Instead, try something more specific, like Braised Beef with Broccoli [5 stars].

∫ — If you see this odd-looking error message, chances are you tried to use a colon (:) in a file's or folder's name. OS X forbids the use of some characters in names.



Mac OS X 101  
Macworld (lost the link/mia culpa; doc.)

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**Safari Browser Windows Madness** — If you sometimes find your desktop cluttered with multiple browser windows, try using tabs in Safari.

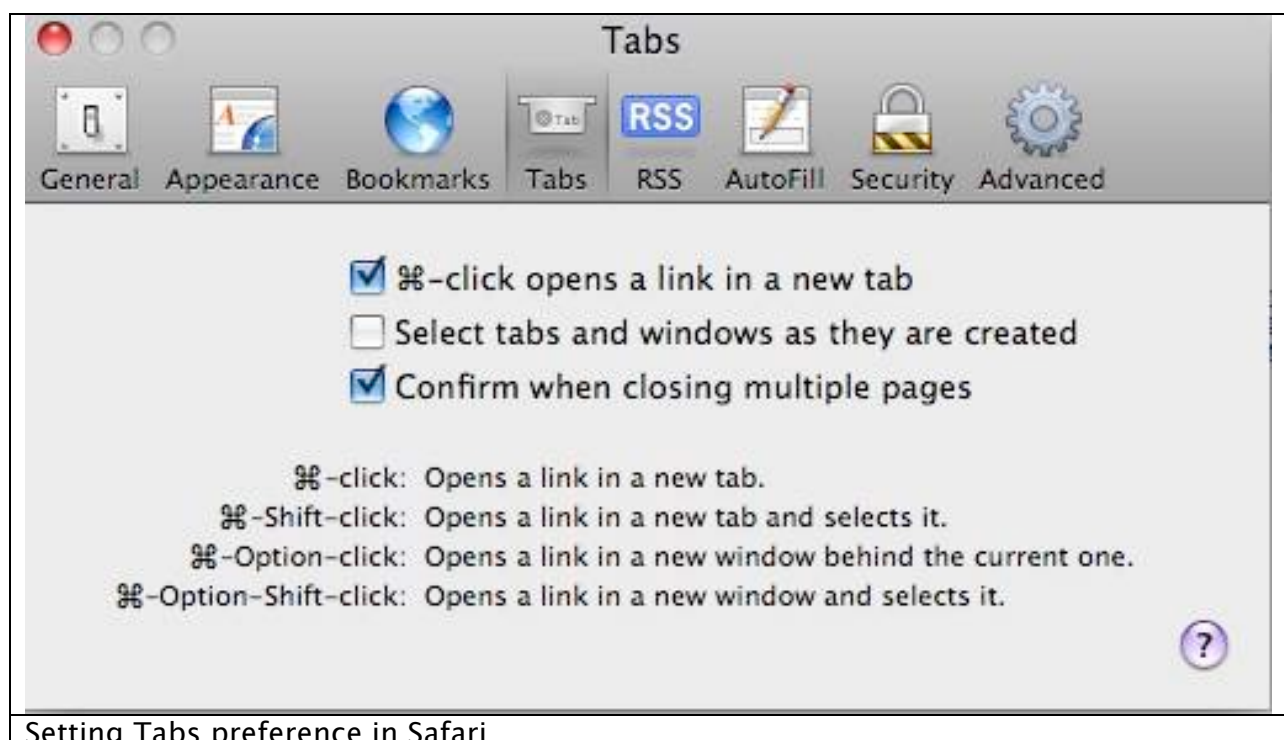
Tabs let you open multiple web pages in a single Safari window, so you can easily flip between them. They're one of the best ways to amp up your web-browsing experience — especially once you've tamed them via a few simple key commands. This tip covers the basic moves.

First, make sure Safari is configured for tabbed browsing. From the Safari menu, select Preferences and click on the Tabs icon. Select the "Opens a link in a new tab" option, but leave the others unchecked for now. But take a moment to read the fine print, since it covers some of the tricks we're about to tackle.

Now open a web page in Safari and try it out. Click on a link while pressing the Command key, and the link opens in a new tab nestled behind the current page. Holding down Command-Shift creates a new tab and brings the new page to the front. You can also open an empty tab by typing Command-t, then type in a URL or load a bookmarked web page. To close a tab, select it and type Command-w, or click on the small x on the left side of the tab.

You can reorder tabs within the Tab Bar simply by dragging them to the left or right. And you can switch from one tabbed page to another via key commands: Type Command-shift-] (or Command-Shift-Right Arrow Key) to move forward to the next tab to the right, and Command-shift-[ (or Command-Shift-Left Arrow Key) to go to the next tab to the left.

For more cool tab tricks, try Control-clicking on any tab. Or simply right-click Mighty Mouse, and use the contextual menu that appears to create new tabs, close them, move them to new windows, reload them, or bookmark them. Note that Command-T brings up a new tab.



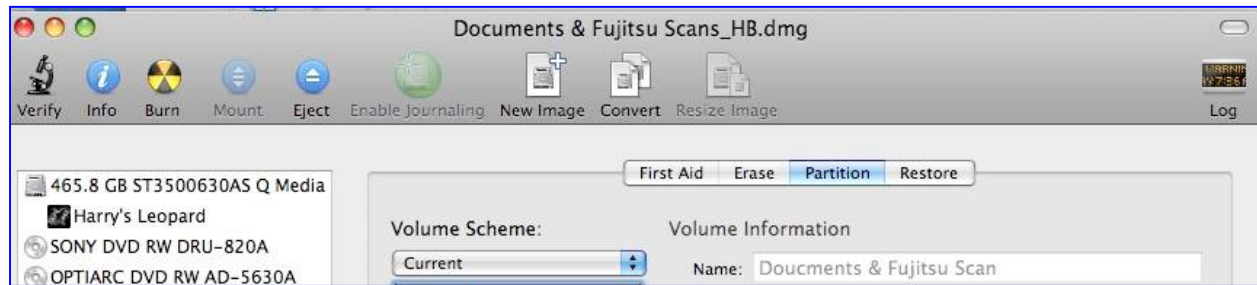
Setting Tabs preference in Safari

By Phil Russell, Corvallis (OR) MUG Member  
August Mouse Droppings - Used by CMUG Permission

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### Resizable Partitions In Mac OS X Tiger and Leopard

One of the big under-the-hood features that was lacking in Tiger was the ability to create and resize partitions without reformatting a hard drive. *Disk Utility* now offers complete support for resizing partitions as well as adding and deleting partitions without reformatting, as long as the disk has a GUID Partition Table (the default option for Intel-based Macs).



By Phil Russell, Corvallis (OR) MUG Member  
August Mouse Droppings - Used by CMUG Permission

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### Directly Accessing the Downloads Folder

Reader Charles Bilkin is unsatisfied with a Safari feature, he writes: *When I used Safari running under Tiger, my downloads would go to the Desktop. Now that I'm using Leopard, they go into the Downloads folder. I know that my Desktop is cleaner now, but I don't like having to open my Downloads folder whenever I want to get a file I've downloaded. Is there some way to turn this off?*

Sure, just open Safari's preferences, click the General tab, and, from the Save Downloaded Files To pop-up menu, choose *Other*. In the sheet that appears, navigate to the Desktop folder in your user folder and click Select. Files you download will appear on the Desktop.

But before you do that, consider this: Perhaps you can have both easy access to your downloaded files and a clearer Desktop. Like so:

Enter an address like this in Safari's Address field:  
file:///Users/yourusername/Downloads

(Naturally yourusername would be the name of your user account.)

Drag the small icon of the Downloads folder that appears just to the left of the address

into the Bookmarks Bar and name it something like Downloads. Now when you want quick access to files you've downloaded, just click this new Downloads bookmark. When you do, the Downloads folder opens in the Finder.

Similarly, in Safari's Downloads window you can quickly get to your downloaded file by clicking the Magnifying Glass icon next to its name. The Finder comes to the fore with the Downloads window open and your file highlighted (unless it's a disk-image file that was automatically opened, in which case clicking this icon takes you to the window that shows you all the mounted volumes on your Mac). I also make it a point to drag the Downloads folder into a Finder window's Sidebar so that I can quickly open it from any Finder window.

Mac 911  
*by Christopher Breen, Macworld Magazine*  
Jun 2, 2008

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That's all for this month... Remember  
Where there's a will, there's almost always a way, especially if work on Googling it!

Harry {doc} Babad



## *A Close-Up Look At Today's Web Browsers: Comparing Firefox, IE 7, Opera, Safari*

*Published July 25th, 2008*

*By Leland Scott*

<http://www.musingsfrommars.org/2008/07/close-up-look-at-todays-web-browsers.html>

My, we've come a long way in browser choices since 2005, haven't we? It's been a very heady time for programmers who dabble in the lingua franca of the World Wide Web: HTML, JavaScript, Cascading Style Sheets, the Document Object Model, and XML/XSLT. Together, this collection of scripting tools, boosted by a technique with the letter-soup name "XMLHttpRequest," became known as "Ajax." Ajax spawned an avalanche of cool, useful, and powerful new web applications that are today beginning to successfully challenge traditional computer-desktop software like Microsoft Word and Excel. As good as vanguard products like Google's **Maps**, **Gmail**, **Documents**, and **Calendar** apps are, one only has to peek at what Apple has accomplished with its new **MobileMe** web apps to see how much like desktop applications web software can be in 2008.

That this overwhelming trend toward advanced, desktop-like applications has happened at all is the result of the efforts of determined developers from the Mozilla project, which rose from the ashes of Netscape's demise to create the small, light, powerful and popular Firefox browser. The activity of the Mozilla group spurred innovation from other browser makers and eventually forced a trend towards open standards that made the emergence of Ajax possible.

This article starts with a brief history of web browsers and then jumps into a look at the feature set of the four primary "modern" web browsers in 2008.



The comparison of browser features begins by listing the core features that all these browsers have in common. The bulk of the article lists in detail "special features" of each browser and each browser's good and bad points, as they relate to the core browser characteristics. Following that, I present some recent data on the comparative performance of these browsers.

The article concludes with recommendations I would make to organizations interested in making the switch from IE6 in 2008.

## **Web Browsers in 2008: A Brief History**

In 2008, web designers and programmers can finally see the light at the end of the very long, dark tunnel that began with the first browser wars of the late 1990's. That war introduced "browser incompatibility," as both Netscape and Microsoft struggled to establish their own, incompatible standards. At that time, the standards approved by the **World Wide Web Consortium** (w3c) were somewhat skimpy and behind the times in terms of what those companies wanted to do.

It wasn't long before the w3c approved a standard for JavaScript, which Netscape had introduced a couple of years before, as well as a standard for CSS Level 2.0, which was to be a major advance in the "designability" of web pages. CSS 2.0 promised an end to the ubiquitous use of "font" tags, invisible graphics, and HTML tables on which designers relied to convert their ideas, typically developed using visual design tools such as Photoshop, to HTML. However, those new standards were too late, since Microsoft was making aggressive use of its monopoly on corporate desktops to promote Internet Explorer at the expense of Netscape. That effort, of course, eventually succeeded, and Microsoft was found guilty of antitrust violations (though never effectively punished for them).

Even though IE eventually garnered a monopoly in corporate browser usage equal to Windows' monopoly as an operating system, web programmers and designers who developed content for the general public were still obliged to support two completely different and incompatible "standards," neither of which was truly standards-compliant.

The dual nature of the browser market caused programmers to shy away from JavaScript and CSS entirely, since it was too much of an effort to deploy them in a way that would render well on both browsers. Unfortunately, this meant that the state-of-the-web art remained stuck in 1998 until just the last couple of years, when Mozilla's Firefox and Apple's Safari browsers began slowly whittling away at IE's dominance.

Like earlier versions of Internet Explorer, IE 6, introduced in 2001 as part of Windows XP, maintained its own set of proprietary standards that largely ignored the leadership of standards bodies like the w3c. At that time, they could afford to do so since there was virtually no competition left. However, by 2004, Firefox had emerged from the open-source Mozilla group (which evolved from Netscape's decision to open-source the Netscape browser code) as a very interesting, lightweight browser that prided itself on close adherence to w3c standards.

Meanwhile, in Europe, the Opera browser was moving in the same direction as Firefox--toward full implementation of w3c standards for JavaScript and CSS 2. In 2005, Opera became a totally free browser choice, where previously it had used advertising as a source of revenue for non-paying customers. At this point, Opera became a more significant player, which, despite its very small market share outside of Europe, continues today.

In 2003, Apple introduced Safari 1.0 for Mac OS X, and shortly thereafter Microsoft ceased support of Internet Explorer for the Mac platform. Safari was based on the open-source code used for the Linux browser Konqueror, and in 2005 Apple released the core Safari code--its "rendering engine"--as open source through establishment of the **WebKit** project. Since then, the WebKit team has made rapid progress in adopting w3c standards and bringing its code base up to the state-of-the-art as defined by those standards. Safari is the dominant browser on Mac OS X, with Firefox a strong second, and the increasing market share of Mac OS X in the last couple of years has resulted in corresponding increases in the market share of Safari. Now that Safari is available for Windows and is being used for Apple's iPhone platform, Safari's market share will likely continue to rise in coming years.

In 2007, Microsoft finally responded to the growing competition from Firefox and Safari, and released Internet Explorer 7.0 in concert with its release of Windows Vista. Although IE 7 maintains a significant lag behind the other browsers in adopting open standards, it has made important improvements over IE 6. And the early beta releases of IE 8, accompanied by assurances from Microsoft's technical engineers, suggest that IE 8 will make even more significant improvements in becoming standards-compliant.

It is the convergence of these trends that is causing that glow at the end of the tunnel at last. With the demise of IE 6 (whose market share is rapidly collapsing), the final major remnant of the ugly browser war of 1998-2000 will be a thing of the past. Since Microsoft appears serious about getting IE 8 to market in less than the 6 years that elapsed between IE 6 and IE 7, web developers can be hopeful that their use of JavaScript, CSS, and HTML will no longer be a struggle to find the right "hack" to accommodate all the browser choices out there. At that moment, the web will finally be ready to evolve into the platform that Java aspired to, but never managed to become: A platform on which developers can build applications that are agnostic both of the user's client and of their operating system.

That outcome is a win-win for everyone... except, perhaps, Microsoft, since it will bring to fruition the open Internet it has tried so long to keep at bay.

The next section of this report will look in detail at the feature set of the four primary "modern" web browsers in 2008, by market share. Following that, the report presents some recent data on comparative performance for these browsers, and finally I conclude with a brief set of recommendations. The browsers have all been tested primarily on a Windows Vista Ultimate platform, and the recommendations are geared to organizations that have been relying on IE 6 or IE 7 as their default browser. Safari, Firefox, and Opera have also been tested on a Mac OS X 10.5 "Leopard" system.

## Comparison of Browser Features

This section looks in detail at the many features that both bind and distinguish the four browsers included in this study:

- **Firefox 3.0**
- **Internet Explorer 7.0**
- **Opera 9.5**
- **Safari 3.1**

The first part of this section pulls together all of the features these four browsers have in common. This set of features can be considered a baseline that defines what a "modern" browser can do. Naturally, some of the browsers are more "modern" than others, so they go far beyond these features in distinguishing themselves from the others.

For each browser reviewed, the write-up begins with a list of the browser's "Special Features"--that is, its features that are unique or especially distinguishing. Following that, each browser's features are listed in comparison with each other in a list of "Good Points" and "Bad Points." Each item in these lists is categorized using the set of "Baseline Features" below.

### **BASELINE FEATURES**

#### *Accessibility settings*

Ability to define page colors and page fonts.

Ability to set personal style sheets.

Ability to easily resize fonts.

#### *Ad blocking*

Ability to prevent automatic loading of page images.

#### *Bookmark management*

Ability to set bookmarks for web pages visited

Ability to organize bookmarks into folders.

Ability to arrange bookmarks in a special toolbar. Toolbar can contain folders of bookmarks as well as individual links.

Ability to import and export bookmarks as HTML.

#### *Configuration management*

All of the tested browsers support use of a proxy server and use of an automated configuration file on the network for applying browser settings.

### *Connection settings*

Ability to define proxy and SSL (secure socket layer) settings, as well as supported HTTP protocols.

### *Developer tools*

Ability to identify errors (JavaScript at a minimum) when loading a web page.

### *Downloads management*

No common features.

### *History tools*

Ability to view browser history by date and to sort history items.

Ability to search stored history items.

### *Home page settings*

Ability to set home page and define basics about what browser shows when opened.

### *Page information details*

Ability to view page HTML source.

### *Privacy settings*

Ability to define basic settings for cookies.

Ability to define how long history items are stored, or whether they're stored at all.

### *RSS feed management*

Ability to subscribe to and view RSS feeds.

Pages that contain RSS feed information are identified with special symbol or option.

### *Search engine support*

Web search field located in the browser toolbar.

Web search options include some basic customization.

### *Search-in-page tools*

Ability to find words in the current web page.

### *Security settings*

All browsers offer the ability to turn off JavaScript and plugins.

Ability to block pop-up ads/windows.

Ability to define level of encryption.

### *Standards support*

Support for HTML 4.0

Support for CSS 1.0

Support for JavaScript/EcmaScript

Support for DHTML



Support for XMLHttpRequest  
Support for Rich Text Editing  
Support for basic image formats (JPEG, GIF)

*Tab management*

Support for tabbed browsing (viewing web pages in tabs rather than individual windows)  
Ability to rearrange tabs by drag/drop  
Ability to direct links and new pages to tabs rather than windows

The following matrix summarizes my analysis of each browser. The "positive" aspects of each are indicated with a light-green gradient, and where the positives are exceptionally strong, you'll see a darker green gradient. Likewise, the "negative" aspects are indicated with a light-red gradient, and negative traits that are especially bad have a darker red gradient. Where the background is white, the browser basically meets the baseline expectations listed above.

### **Matrix of Web Browser Functionality**

Browser Characteristics	Firefox 3.0		IE 7.0		Opera 9.5		Safari 3.1	
	Positives	Negatives	Positives	Negatives	Positives	Negatives	Positives	Negatives
Accessibility					Positive			
Bookmark management	Positive	Negative		Negative	Positive	Negative	Positive	Negative
Configuration mgmt	Positive		Positive		Positive			
Connection settings	Positive		Positive		Positive			
Developer tools		Negative		Negative	Positive		Positive	
Downloads management	Positive			Negative	Positive		Positive	
History tools	Positive			Negative	Positive	Negative	Positive	
Home page settings			Positive					
Page information details	Positive			Negative		Negative	Positive	
Privacy settings			Positive	Negative			Positive	Negative
RSS feed management		Negative	Positive		Positive		Positive	
Search engine support	Positive		Positive		Positive			Negative
Search-in-page support	Positive			Negative		Negative	Positive	
Security settings	Positive		Positive	Negative	Positive	Negative		Negative
Standards support	Positive	Negative	Positive	Negative	Positive	Negative	Positive	
Tab management	Positive		Positive	Negative		Negative	Positive	
Usability	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative

## **FIREFOX 3.0**

### **Special Features**

**Firefox** lets users search within a page simply by typing (without invoking search function), a very useful feature.

Ability to tag bookmarks and history items, and to organize those items using tags.

Best range of add-ons that can provide a greatly expanded feature set.

Ability to apply "themes" to customize the browser's look and feel.



### **Good Points**

#### *Bookmark management*

Firefox's import function is very good and easy to use... not only does it import bookmarks, but most other browser settings as well (cookies, history, etc.) However, on the Mac it imports only from Safari, and on Windows it supports only IE and Opera.

Bookmark folders offer option of opening all links at once in a single window.

Users can drag page links into folders on the bookmark bar directly, rather than having to visit the bookmark management page to do so. (Safari also has this feature.)

#### *Connection settings*

Fine-grained tools for customizing security and connection settings.

#### *Download management*

Full-featured Downloads window allows you to find downloads on your hard drive, open downloads, and search them. The window also displays the time/date of the download.

#### *History tools*

Excellent history panel with lots of options for sorting/viewing and searching, as well as support for tagging history items.

#### *Page information details*

Great page info panel with all the detail you'd want.

### *Search engine support*

Easy to use, customizable web-search field on toolbar, which includes optional "suggest" feature. Like IE, Firefox users can also import new search engines from a web page.

### *Search-in-page tools*

Excellent in-page search functionality.

### *Security settings*

Fine-grained tools for customizing security and connection settings.

### *Standards support*

Support for most non-basic web standards, including:

- CSS 2.1
- XHTML
- PNG, SVG
- HTML Canvas
- DOM 1, DOM 2
- Minimal CSS 3.0

### *Tab management*

Supports dragging URLs to tab bar to open new pages.

Offers the option of saving currently open tabs for the next session.

### *Usability*

Firefox's Preferences window is very similar to Opera's. It has grown more complex over the years, but retains the deliberate simplicity it adopted as distinguished from the full-blown Mozilla browser it evolved from. Except for the label "Applications," its tabs are intuitive. As with the other implementations, one could argue about the emphasis placed on the various settings, but in general Firefox provides a very easy way to customize user settings.

Like Opera, Firefox is available for a wide variety of platforms, including Windows, Mac, Linux, and other Unix systems.

### *Other*

Open source code means browser improvements and security fixes come more quickly.

## **Bad Points**

### *Bookmark management*

No support for Safari bookmarks on Windows.

### *Developer tools*

Only basic developer tools in the default configuration.

### *RSS feed management*

Firefox's RSS implementation is noticeably weaker than that of the other browsers. While plugins exist to improve its support, this review looks only at the browsers' default options. One major problem with Firefox's RSS support is that if you choose to always use "Live Bookmarks" for a feed, without knowing what that means, you can't change your mind later on. Live Bookmarks are an inferior method of selecting items to read, since it doesn't show the textual summary or graphics that may be provided in the feed. Rather, it shows only the headlines. Further, I could find no way to manage my feeds by deleting them or organizing them into folders once I had subscribed. Even if you opt out of using Live Bookmarks from the get-go, Firefox places a large box at the top of each RSS feed page asking you whether you want to use Live Bookmarks. Firefox also provides no way for users to mark articles as "read," to sort or search articles, or whether to view headlines or full article summaries... options offered by all the other browsers.

#### *Standards support*

Only minimal support for major CSS 3.0 features, including lack of support for resizable text fields.

#### *Usability*

Plugins and themes require reliance on third-party developers, who may or may not update a given plugin or theme for a new version of Firefox.

They also require some user maintenance to keep updated, and users must restart the browser to install themes and plugins.

Like IE, Firefox does not preserve information entered on a form if you use the back button and then forward again. Anything you've entered is wiped out, unlike Opera and Safari.

Firefox is noticeably slower than the other browsers to launch and load the home page.

Firefox cannot open PDF files natively in the browser window without requiring a plugin.



## INTERNET EXPLORER 7.0

### Special Features

**IE 7** is the only browser that allows users to set more than one home page. IE7's tab implementation has a feature that the other browsers could benefit from: A view showing large thumbnails of all current tabs, along with their page titles. This feature is standard in Shiira, a WebKit based browser, but not in any other browser that I know of. (There is, however, a plugin for Firefox and one for Safari that accomplishes this.)



### Good Points

#### *Configuration management*

IE has a large number of settings to help system administrators customize the browser configuration for users.

#### *Connection settings*

Fine-grained tools for customizing security and connection settings.

#### *Privacy settings*

IE 7 has fine-grained tools for customizing privacy settings.

#### *RSS feed management*

A welcome addition to IE7 is its support for RSS feed subscriptions. Its implementation is quite good, and as with other browsers you can manage your subscriptions in the "Favorites/History" area.

#### *Search engine support*

IE 7 adds a search field to the toolbar. It can be customized, but comes with Live Search as the default rather than Google or Yahoo (the industry leaders). You can, however, customize the choice of search engines by visiting a Microsoft website and adding items to the list. This is a very easy process.

#### *Security settings*

IE 7 lets you disable each plugin individually, so you can easily disable Flash once it's installed. (However, even after installing Flash, IE 7 could not load any pages on the **website** I was testing.)

Fine-grained tools for customizing security and connection settings. IE 7 includes a "phishing" blocker, which should help users identify sites that attempt to steal user passwords by appearing to be standard e-commerce websites like Amazon, eBay, or banks.

### *Standards support*

Unlike IE6 and earlier, IE7 joins the other browsers in partially supporting the PNG-24 standard, which allows designers to use images with alpha transparency.

### *Tab management*

IE can bookmark a set of tabs into a folder.

### *Usability*

Design is clean and easy to understand for the most part.

Like Safari, IE 7 offers users the ability to email full page contents as well as page links.

## **Bad Points**

### *Bookmark management*

The "Favorites Center" is missing a couple of essential features:

There is no way to search your bookmarks (although you can search your history)

I couldn't figure out how to add folders to the list.

In addition, the process of changing URL's is cumbersome when compared with Safari or Firefox. For example, here is Firefox's excellent panel for managing history, tags, and bookmarks. It allows you to edit properties directly.

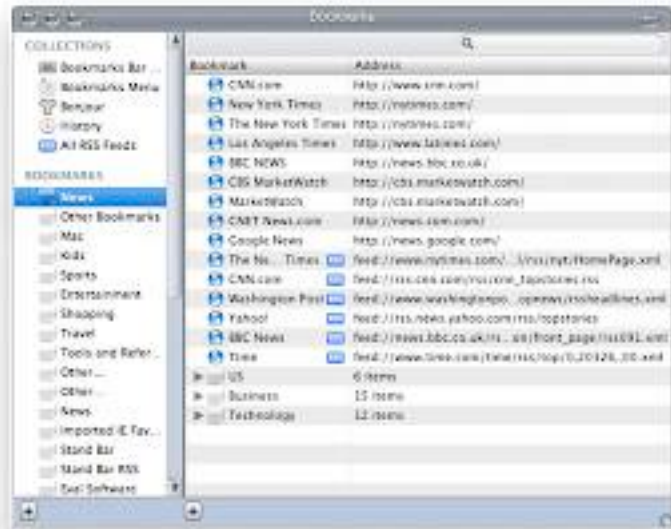
Likewise, here is Safari's view for the same functions (screenshot below that for Firefox). By contrast, in IE you have to right-click and select a Properties window to change a URL.



Another shortcoming of IE's Bookmarks implementation is its inability to let users open an entire folder of links at once. This has become standard practice for awhile on modern browsers, by allowing users to quickly access a group of websites they use frequently as part of a single activity. Firefox, Safari, and Opera all offer this option.

IE has very basic import/export functions for bookmarks. Like Safari, it requires users to browse the hard drive for the HTML bookmarks file to import. IE offers no other import features.

IE is the only browser that provides no way for users to search their bookmarks.



#### *Developer tools*

Only basic developer tools in the default configuration.

#### *Download management*

I couldn't find a way in IE to set a folder for Download files other than the default folder.

IE is the only browser that provides no "Downloads" window, by which users can see the files they've downloaded and navigate to and/or open those files.

#### *History tools*

I found it annoying that there is no way to view your page history without opening the Favorites window/sidebar. Firefox and Safari both have a top-level menu item called "History" that shows your visited-page history. The only tool provided is a pull-down menu adjacent to the URL address field--the same approach as Opera--but this isn't nearly as convenient or comprehensive. And unlike Opera's single-click access to history, IE 7 requires a multi-click approach, unless you keep its sidebar open all the time (which isn't as easy to do as in IE 6).

#### *Page information details*

Unlike most other browsers, IE7's source code view merely launches Notepad (which it's done since IE 3) and has no method for viewing the CSS or Javascript sources or for making changes to those and viewing results in the browser window. (This feature is standard in

Firefox and Safari.)

### *Privacy settings*

IE's cookie manager is buried in an "Advanced" panel within the Privacy options. Unlike the other browsers, IE offers no way to delete all cookies, delete individual cookies, search cookies, or even view stored cookies.

### *Search-in-page tools*

IE is the only browser that provides no way to identify all instances of search terms in the current web page.

### *Security settings*

Because of the very large number of malware exploits that have targeted Internet Explorer, especially since the release of IE 6 in 2001, the IE Security settings have become far too complicated for the ordinary user to comprehend. Even system administrators who wish to secure IE 7 would need to have some specialized training in order to do so.

The biggest problem with IE, which has also been one of the main reasons for its high adoption by IT shops, is its strong support for Active X controls. Because IE is so tightly woven into the Windows operating system, Active X programs present a huge security risk, and it is largely through this channel that viruses, worms, spyware, and other malware has infected Windows PCs over the years. IE 7 has a plethora of settings designed to minimize the risk of Active X programs, but given the amount of work required both on developers--to secure their Active X programs in order to run in IE 7--and on administrators--to apply settings that strike the appropriate balance for users between usability and security, ensuring security for IE remains a negative aspect of this browser.

### *Standards support*

Visiting some web pages--for example, the home page of the **National Science Foundation**--I found that IE 7 could not display the Flash content, so the home page wouldn't load. Apparently, there is a problem using Flash with IE7 under Vista. I noticed the warning about IE 7's "old" Flash player when visiting a number of websites that use Flash. On Windows Vista, IE7 was the only one of the browsers tested that could not load the NSF home page in its default configuration. Though Opera, Safari, and Firefox likewise did not have the Flash plugin, they displayed the static alternative (see top screenshot) and the rest of that page instead. Since nsf.gov uses Flash for its navigation bar, this means IE 7 cannot access any page on the NSF website.

## NSF Home Page in Opera, Firefox, Safari Without Flash Installed



## NSF Home Page in Internet Explorer 7 Without Flash Installed



## NSF Home Page in Opera, Firefox, Safari After Installing Flash



IE is the only browser that does not fully support CSS 2.0 standards.



IE does not support any CSS 3.0 features.

IE is the only browser that supports neither SVG images nor the HTML Canvas tag.

### *Tab management*

IE 7's tab implementation is similar to the existing standard but doesn't offer as many options for managing tabs when you right-click on one of them. (For example, Safari offers the option of letting you bookmark or reload the current set of tabs.)

### *Usability*

Most Windows users--and Mac users as well--will be disoriented by the absence of a menubar in the default configuration. You can add a menubar, but it doesn't appear at the top of the window as user's will expect. In this regard, IE 7 works a lot like Opera has for awhile. As a Mac user, it's interesting to note that the IE 7 model of eliminating each window's menubar is the same as the Mac OS's traditional approach. However, unlike the Mac approach, Windows Vista has no persistent, system-wide menubar, which on the Mac changes contextually depending on the currently active application. Removing the menubar from IE 7's windows is merely reducing, not enhancing, usability.

IE 7 departs from the standard browser design by removing the home button from the toolbar and moving the reload and "stop loading" buttons to an unexpected location. As a result, the URL field is far longer than is necessary, and the design creates a subordinate toolbar that could just as well be served by the missing menubar.

More than once, I was asked if I wanted to turn on "Sticky Keys," a rather annoying intrusion.

Users of IE6 and earlier will find using the sidebar more difficult. For one thing, there is no link to open it within the set of menu items. The sidebar opens up only by interacting with a new drop-down window that appears when you click on the Star icon (Favorites Center) at the left-hand of the tab bar (which doubles as the second toolbar).

IE 7's Preferences (Internet Options) window remains the worst of any major browser. It's cluttered, has nonintuitive section titles, and features an "Advanced" set of preferences that are virtually impossible to use. Why? First, the type is too small for many users to read, second, the various options are all treated as if they have equivalent importance (but they don't), and third, the view provides no explanation for what each option means. This window is the same as that in IE 6.

Like Firefox, IE does not preserve information entered on a form if you use the back button and then forward again. Anything you've entered is wiped out, unlike Opera and Safari.

IE 7 is the only one of the browsers tested that is not available for Mac OS X or any other operating system besides Windows.

## OPERA 9.5 Special Features

Ability to apply "themes" to customize the browser's look and feel. Even better than Firefox, **Opera** can display and apply themes in the live browser without having to be restarted.

A built-in, full-featured email client that integrates well with the browser content.

Opera has the best and most useful sidebar of any browser, and with 9.5 they've integrated it much better than before into the interface.



A built-in Notes tool for jotting down and storing notes. The tool lets you organize and search your notes.

Opera lets you tag RSS feeds with "labels."

Opera has a large inventory of available web widgets for various purposes, similar to those in Apple's Dashboard, Yahoo's widgets, and Microsoft's "gadgets," all of which run outside the browser. Unfortunately, Opera's widgets only work when Opera is running.

Opera is the only one of the tested browsers that displays page thumbnails of the web pages in each tab, a very useful feature.

The most customizable interface of any reviewed browser. Nearly every component of the interface can be rearranged, and there are a wide variety of buttons that can be added to or subtracted from each component. Further, Opera has a large stock of preset "setups" that comprise theme, button, and toolbar settings in one package.

A "Small Screen" view that reformats the page to emulate what a user would see on a smartphone-type display.

A "Links" function that pulls a list of all page links into a panel in the sidebar.

Opera has easily accessible tools for customizing preferences for individual websites.

Other unique features such as

- Trashcan history (for pages whose tabs you've deleted),
- "Speed dial," which lets you organize top bookmarks and see them each time you open a new tab, and
- A print preview feature that shows the print view immediately within the browser window.
- Robust session management, allowing you to save multiple sessions and return to them at another date.

## **Good Points**

### *Accessibility*

Opera has the most advanced and easiest to use tools for testing accessibility of any reviewed browser.

### *Bookmark management*

Great tools for managing bookmarks... good sort and search options.

Great new UI features... much more organized and logical from the get-go.

I like the toolbar icon in upper left, and the standard home/navigation buttons with the URL field. The new Opera standard skin is also great.

Folders in the bookmark bar can open all bookmarks at once in a single window.

Opera has the most options for exporting bookmarks... either all or selected, and either HTML or formatted ASCII.

Powerful and simple functions for importing bookmarks from other browsers--Firefox, IE, or Konqueror on Windows, and Firefox and IE on Mac OS X.

### *Connection settings*

Fine-grained tools for customizing security and connection settings.

### *Download management*

Full-featured "Transfers" window allows you to find downloads on your hard drive, open downloads, and search them. The window also displays the time/date of the download.

### *Developer tools*

Excellent built-in tools for web developers, including a JavaScript debugger

and DOM viewer.

#### *History management*

Great tools for managing browsing history... good sort and search options.

#### *RSS feed management*

Excellent built-in options for subscribing and viewing RSS feeds. Opera also lets you tag feeds with various "labels."

#### *Search engine support*

Full customization options for the toolbar search field, although the options are not as simple as those for Firefox and IE.

#### *Security settings*

Fine-grained tools for customizing security and connection settings.

#### *Standards support*

Support for most non-basic web standards, including:

- CSS 2.1
- XHTML
- PNG, SVG
- HTML Canvas
- DOM 1, DOM 2
- Minimal CSS 3.0

#### *Usability*

Opera's Preferences window is well organized and reasonably simple.

Like Safari, Opera preserves form information you've typed in case you need to go back a page or two and return to the form again. You can use the back button to revisit earlier pages and then the forward button to return to the form, and your entered data will still be there.

Opera includes a feature called "Wand," which lets users store and reuse data for any of the forms they fill in on the web. This feature is similar to Safari's "Autofill," though it's more complicated to use.

Opera offers a synchronization feature that lets users sync their browser data across different PCs that they use. This service is similar to that offered by Safari through Apple's for-fee .Mac (soon to be renamed "MobileMe") service.

Like Firefox, Opera is available for a wide variety of platforms, including Windows, Mac, Linux, and other Unix systems.

### **Bad Points**

#### *Bookmark management*

No support for Safari bookmarks on Windows, and import function doesn't cover history, cookies, passwords, etc. as does Firefox.

Opera is the only browser that doesn't have an option to bookmark all currently open tabs, though it does have powerful session management features that offer similar capabilities.

#### *History management*

I found it annoying that there is no way to view your page history without opening the History sidebar. Firefox and Safari both have a top-level menu item called "History" that shows your visited-page history. The only tool provided is a pull-down menu adjacent to the URL address field--the same approach as IE 7--but this isn't nearly as convenient or comprehensive. However, at least Opera provides a single-click tool in its sidebar to access history, unlike IE 7, which requires a multi-click approach unless you keep its sidebar open all the time (which isn't as easy to do as in IE 6).

#### *Page information*

Opera has no Page Info panel like Shiira or others that show in detail the resources loaded by the page.

#### *Search in-page*

Opera has no advanced, in-page search capability like that of Safari or Firefox. However, you can see all instances of search terms using a function hidden in the main search field on the toolbar.

#### *Security*

Opera is overly zealous in identifying "insecure" websites in its default state. It expects all web pages to be encrypted, and doesn't honor standard SSL certificates.

Setting many security preferences require knowledge that most web users don't possess.

#### *Standards support*

Little support for up-and-coming CSS 3.0 features.

#### *Tab management*

You can't drag URLs to the tab bar to open them, as you can in Safari and Firefox. There's also no contextual menu item to open the URL. Thus, the only option is copy and paste into the URL field.

#### *Usability*

Doesn't support drag and drop text from browser. This is a drag!  
Dragging image from browser gave me the URL rather than an image.  
Notes view has no formatting abilities.

Opera's mail client only supports ASCII text mail for formatting, though it can view HTML mail.

Opera cannot open PDF files natively in the browser window without requiring a plugin.



Some of Opera's "Advanced" preferences are not really that advanced, and I'd argue that individual tabs should be devoted to some of them rather than burying them here. For example, Opera devotes an entire tab to "Wand", which is their autofill implementation and another for "Search." Instead of these, most users would probably want to customize how the browser handles Tabs or Security more urgently. In addition, the tab labeled "Web Pages" is pretty meaningless and should probably be labeled "Appearance" or "Style" instead.

Opera's interface can be confusing at times... for example, if you have the "Manage bookmarks" page open and select "History" from the side panel, the "Manage bookmarks" page doesn't get replaced with the corresponding History page. This pattern recurs throughout the sidebar/full-page functions. To further confuse users, the access links/menus to full-page details for each sidebar item aren't located in equivalent places in the interface. Some are easy to find... others hard. They should all work the same way.

## SAFARI 3.1 Special Features

**Safari** features excellent drag/drop and copy/paste to word processing documents. Such copies preserve links and formatting. To the standard RTF Mac editor, TextEdit, such drags also include images and other media. Paste or drag to Apple Mail preserves almost an identical HTML copy of the original page. By contrast, the same page copied from IE 7 to Windows Mail loses most formatting while preserving links and images, but Wordpad, Microsoft's equivalent Rich Text editor, could only accept unformatted ASCII text. Neither Opera nor Firefox can copy and paste formatted HTML (with images) to word processing or RTF document editors. (See accompanying screenshots of the NSB home page. Shot on the left shows home page pasted into Apple Mail client. Shot on the right shows home page pasted into Windows mail.



Unique features such as

- Trackback, which makes it easy to get back to the web page that started a browsing session for a particular site (including Google searches),
- The ability to drag tabs from the tab bar to make new windows or to add them to other windows.
- On the Mac, Safari also features "WebClip," which lets you create live "widgets" from any part of a web page. This lets you easily view a given snippet--live--at any time without loading the web page in Safari.

Best support of advanced **CSS 3.0 features**, including native support for resizable text fields. In addition, Safari adopts the following CSS 3.0 standards:

Border image, which lets web page designers use a single image (either tiled or stretched) to create borders around box text.

Box-shadow, a previously difficult--but very popular--design element that puts a drop shadow on page elements.

Background-size, a technique that lets designers use a single background image for HTML page elements and resize the image as needed.

Multiple backgrounds, which lets designers specify multiple images to form a composite background for HTML page elements.

And many other advanced CSS techniques (some of which go beyond what's been drafted for CSS 3.0), including:

- Text shadows
- Transformations
- Animations
- Gradients
- Reflections
- Form styling

Support for "Private browsing," which makes it very easy to let someone else use your computer without compromising your personal information. When private browsing is turned on, webpages are not added to the history, items are automatically removed from the Downloads window, information isn't saved for AutoFill (including names and passwords), and searches are not added to the pop-up menu in the Google search box. Until you close the window, you can still click the Back and Forward buttons to return to webpages you have opened.

### **Good Points** *Bookmark management*

Very easy to use, integrated window for searching and organizing

bookmarks, history, and RSS feeds.

Folders in the bookmark bar can open all bookmarks at once in a single window.

Users can drag page links into folders on the bookmark bar directly, rather than having to visit the bookmark management page to do so. (Firefox also has this feature.)

Built-in synchronization of bookmarks through a .Mac ("MobileMe") account.

#### *Developer tools*

Support for offline data storage, enabling more robust web applications by putting database info on the client rather than requiring a round-trip to the server.

Top-notch built-in tools for web developers, similar to the Firebug add-on that's available for Firefox and much more powerful than Opera's native JavaScript debugger.

#### *Download management*

Full-featured Downloads window allows you to find downloads on your hard drive, open downloads, restart stalled downloads, and identify the download URL.

#### *History tools*

Very easy to use, integrated window for searching and organizing bookmarks, history, and RSS feeds.

#### *Page information*

Along with Safari's "Page Inspector," which developers can use for debugging and probing detailed information about a given page's or element's structure and metrics, you also get an amazing tool for inspecting the page's resources. Each script, CSS file, HTML component, and image is listed along with information on download times and size. Clicking on an item lets you see the file contents (images or source code). The Page Inspector also has a search feature by which you can search the entire set of data it includes. (Firefox has an add-on called Firebug that provides information very similar to Safari's Inspector... but it's not included as part of Firefox itself.)

#### *Privacy settings*

Safari has the easiest, most accessible tool for emptying your browser cache. When you need to free up memory, make sure you're pulling a fresh copy of a web page, or remove the cached pages on your hard drive for privacy reasons, Safari's "Empty Cache" item in the main menu is very handy. Firefox's analogous function is called "Private

Data," but without configuration in a sub-page of Firefox's preferences, this category includes a lot more data than simply the browser cache. Both Opera and IE 7 have this feature, but buried in various menus and preference panels and more obscurely named.

#### *RSS feed management*

Safari pioneered integration of RSS subscriptions into the web browser, and it still has the easiest and best RSS feed manager. Some reviewers consider Safari's inability to set separate "fetch" schedules for each feed a negative attribute; however, I'm not sure why anyone would want to do this nowadays. After all, the update schedule is really determined by the publisher of the feed... not by the end user.

Safari offers the option to view and subscribe to feeds through Apple Mail as well, but still use Safari when it's more convenient.

#### *Search in-page*

Safari has an excellent implementation of this feature, which was pioneered by the Firefox browser.

#### *Standards support*

Safari is the only browser that has passed the CSS "Acid 3" test developed by **The Web Standards Project**. Safari was also the first browser to pass the W3C's "Acid 2" test, which has now been conquered by all the browsers in this review except for IE 7. (See box "Acid 3 Test Results.")

As previously noted, Safari is far ahead of the other browsers in adopting image formats among the tested browsers. Besides the additional formats supported by Firefox and Opera, Safari also supports JPEG 2000 and TIFF images.

upcoming w3c standards for CSS 3.0.

#### *Tab management*

Safari is the only browser that lets you delete links from your bookmark bar simply by dragging them off. With the others, you can delete using a right-click action, but Safari's method is much faster since there's no menu to navigate with the mouse.

Supports dragging URLs to tab bar to open new pages.

Offers the option of saving currently open tabs for the next session.

#### *Usability*

Opera and Firefox both have a feature that lets you email the URL of the current page, but Safari goes one better and lets you email the entire page contents as well. IE 7.0 has this ability as well.

Safari has the best support for form "autofill" of any of the browsers. Opera comes in second,

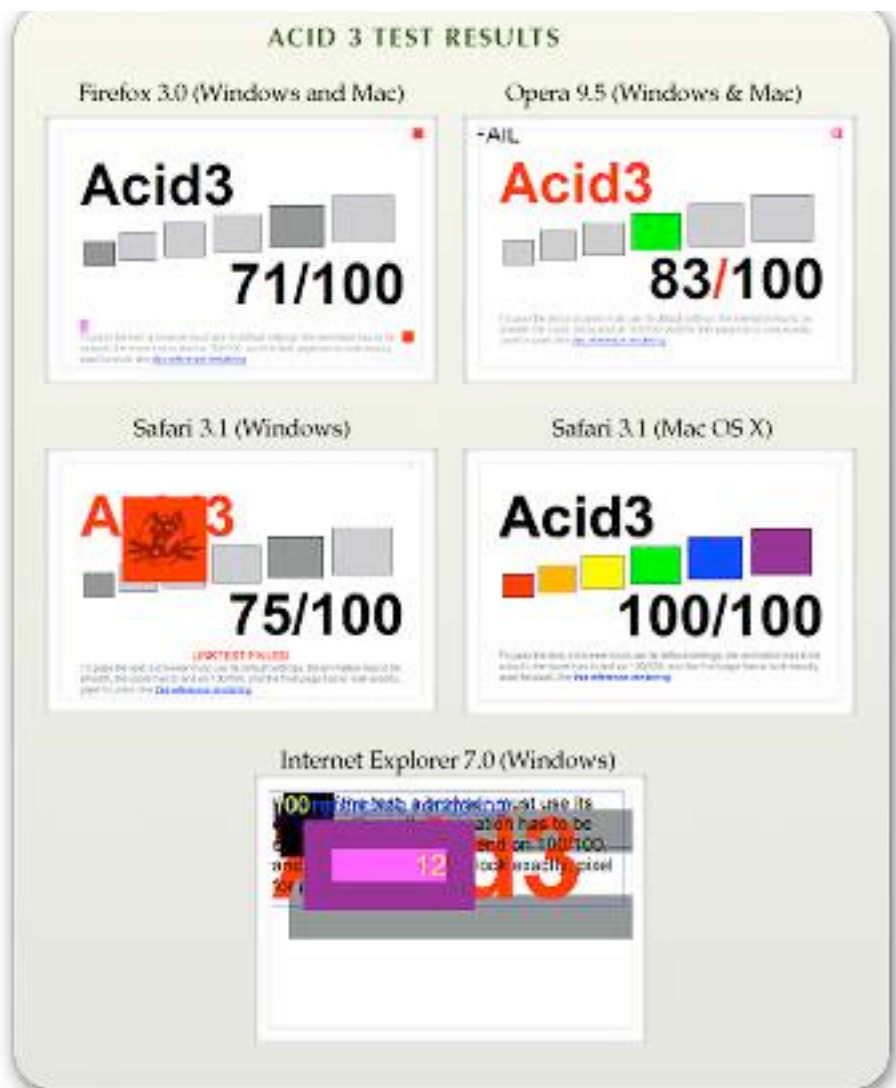
only because it's a bit more work to enable this feature. With autofill, Safari can fill in data on most web forms you've used before. On the Mac, Safari data is protected by a master password using the Mac OS X "Keychain" feature.

Preserves form information you've typed in case you need to go back a page or two and return to the form again. You can use the back button to revisit earlier pages and then the forward button to return to the form, and your entered data will still be there.

Safari has a feature that lets you reopen all windows from your last session.

On Mac OS X, Safari opens PDF files natively in the browser window without requiring a plugin, or they can be opened in the full-featured Preview application. On Windows Vista, Safari could not open PDF files in the browser window. In fact, like Firefox, IE 7, and Opera on Windows Vista Ultimate, Safari couldn't open PDF files at all without installation of the Adobe Reader.

Safari has a very simple set of Preferences with 8 clearly labeled sections: General, Appearance, Bookmarks, Tabs, RSS, Autofill, Security, and





Advanced. Users of the other major browsers may find the settings provided by Safari to be too sparse; however, as a Mac user I would argue that in general Windows software provides customizable settings that are far more complex than necessary. Safari provides settings for all major user requirements, without the distraction of having to decide on settings you don't really care about.

### *Other*

Safari is built on the open-source WebKit project, so, like Firefox, browser improvements and security fixes come very quickly. (The Opera team also innovates rapidly, but Microsoft's browser development has proceeded very slowly over the years.)

## **Bad Points**

### *Bookmark management*

Safari has very basic import/export functions for bookmarks. Like IE, it requires users to browse the hard drive for the HTML bookmarks file to import. Safari offers no other import features.

### *Privacy settings*

Relatively weak features for customizing privacy settings. However, Safari includes a unique "Private Browsing" option, described earlier.

### *Search engine support*

Search form on toolbar only supports Google and Yahoo. (Of course, those are the top two search engines today.)

### *Security settings*

Relatively weak features for customizing security settings.

Safari is the only browser that does not allow users to customize its popup-ad blocker settings.

### *Usability*

On Windows Vista, I found that Safari 3.1 sometimes had issues with its window display... the window seemed to frequently require refreshing in order to display the toolbar components correctly.

Safari's feature set on Windows isn't quite the same as on Mac OS X. The main missing features I noticed were support for in-browser PDF files without a plugin, support for bookmark synchronization, and availability of the Webclip feature.

Safari is only available for Mac OS X and Windows and has no support for Linux or other Unix systems.

## Browser Performance

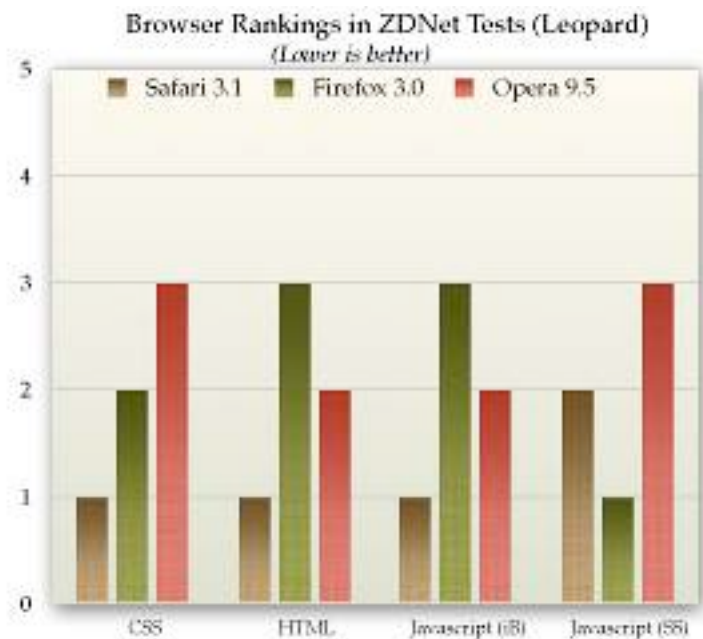
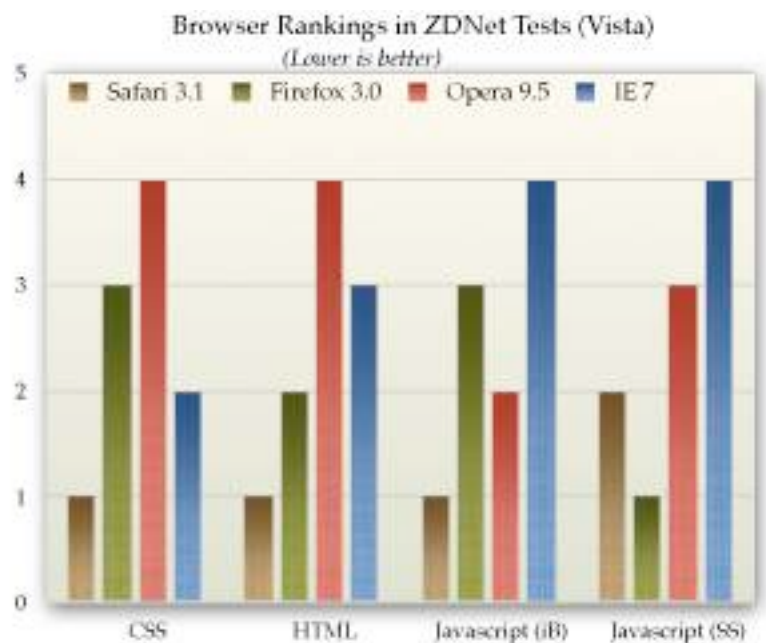
Measuring the performance of web browsers is an evolving science, and it seems that new tools for this purpose come out each year. There are three main measurements that these tests concentrate on:

- Speed of parsing JavaScript,
- Speed of parsing CSS, and
- Speed of loading HTML and graphics.

This section presents data from a few recent, representative studies that have analyzed these browser characteristics. Nearly all of them conclude that Safari is the fastest browser on both Windows and Mac OS X. Typically, Opera comes in second, followed by Firefox and IE 7.

### Z D N E T (MAY 2008)

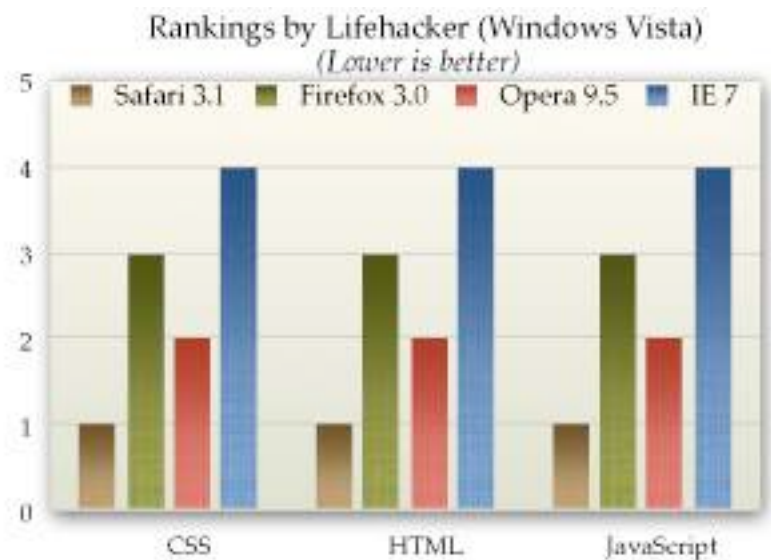
**This article**, written by ZDNet staff in Germany, covers all four of the browsers reviewed in this report, looking at the performance characteristics listed above as well as measures of memory management. The article provides in-depth data on the testing equipment and methodologies used and displays numerous informative



charts of the data results. The accompanying charts summarize ZDNet's data on JavaScript, CSS, and HTML page loads for each browser.

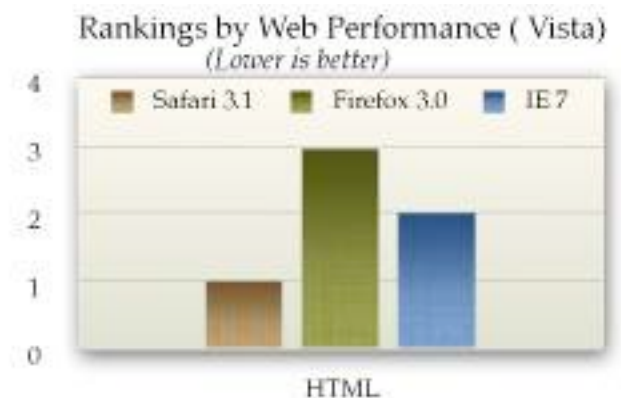
#### **LIFEHACKER (JUNE 2008)**

Lifehacker, an award-winning technology-oriented blog, published **a study** of browser performance in June, looking at a variety of measurements. Its results, which are less ambiguous than those of ZDNet, are summarized in the accompanying chart.



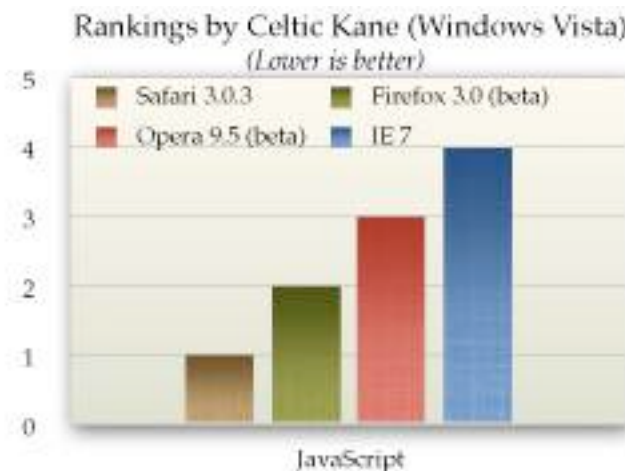
#### **WEB PERFORMANCE INC. (OCTOBER 2007)**

Web Performance, a company that produces for sale a variety of products designed to measure performance of web applications, conducted **a study** last October that--ironically enough--largely eschews the use of automated tools. Their tests were designed to measure performance as a typical user would perceive it. Web Performance's test concentrate exclusively on the speed with which the tested browsers load a set of predefined websites, and doesn't look specifically at JavaScript or CSS parsing. Further, its results are based on Firefox 2.0 (since 3.0 wasn't yet released) and on a beta version of Safari 3.0 (rather than 3.1). In addition, the study does not include Opera. The study's results cover load times using the browser cache as well as from the live servers, and it also presents data for load times when the browsers are pulling data from a LAN-based proxy server. The accompanying chart summarizes these results for the three tested browsers.



### CELTIC KANE (MARCH 2008)

From a respected web technology-related blog comes the **latest in a series** of tests looking at browser JavaScript speed. The author's previous tests have been widely cited and well documented. (The report page has a button that lets users run tests on their own browser to compare them to the report's benchmarks.) In the author's first test from August 2006 (before Apple had released Safari for Windows), the winner was Opera 9.0 (by a long shot), followed by IE 6 and Firefox 1.5. The previous test, from September 2007, found Opera 9.23 maintaining the lead, closely followed for the beta of Safari 3.0.3, IE 7, and--much further down the list--Firefox 2.0. The chart below summarizes results from the latest tests, conducted with the most recent browser releases in March 2008. He found that Safari 3.1 had taken the lead and was 1.5 times faster than Firefox 3.0 (a beta version), while finding that Firefox 3.0 had made an astounding performance leap over Firefox 2.0 in JavaScript parsing. The Opera 9.5 beta was nearly on a par with Firefox, while IE 7 was 3 times slower than Safari 3.1.



### CODING HORROR (DECEMBER 2007)

**JavaScript results** from this widely-read programmer's blog are based on the newly available SunSpider test, which by a wide consensus (based on its usage), is now considered to be the Rolls Royce of web browser JavaScript tests. One of the best things about this report is that the author takes some time to explain the meaning of the large range of individual metrics that the SunSpider test comprises. The chart below summarizes the results. A major finding that you can observe on the Coding Horror page but isn't reflected in the chart here, is that IE 7 is two times slower than Firefox 2.0 and four times slower than Opera, the front-runner in this test.

### ARS TECHNICA (APRIL 2008)

In response to the recent swelling of interest in comparing the speed of Safari (and its open-source cousin, WebKit) with that of the newly released Firefox 3.0, Ars Technica used the SunSpider test to take a look recently.

**Their test** only includes Firefox and Safari, leaving out Opera and, because it was run on an iMac, IE 7.0. Their test is one of the very few that also includes the nightly WebKit release, which typically runs several months ahead of Safari in its code base. Ars Technica found that WebKit was the fastest browser in parsing JavaScript, followed closely by Safari, and then--a good distance back--Firefox 3.0.

## **ADDITIONAL TEST RESULTS**

Zimbra.com: **And The Winner of the Browser Wars is....**

Computerzen.com: **Windows Browser Speed Shootout – IE7, Firefox2, Opera9, Safari for Windows Beta**

## **SUMMARY**

In nearly all of these tests, Safari is currently leading the pack on both Windows and Mac OS X systems in overall measurements of speed for loading web pages and for parsing JavaScript and CSS. For second place, the results are a mixed bag, with some studies showing Opera ahead and others showing Firefox. However, overall it appears that Firefox 3.0 has been given a major speed boost, and it tops the latest Opera release on Windows Vista. However, Opera remains significantly faster than Firefox on Mac OS X "Leopard."

Also not contested is the browser bringing up the rear in these tests. In virtually all of the recent browser tests, IE 7 measures significantly slower than the other modern browsers, especially in tests of JavaScript performance. That said, there are some tests of HTML-load performance that show IE 7 somewhat faster than Firefox 3.0.

## **Conclusions**

From a purely objective standpoint, based on the performance characteristics and feature set of each browser in this study, I would make the following recommendations to organizations seeking to get beyond their reliance on the outdated Internet Explorer 6.0, or to offer their employees the best browsing experience today:



**Eliminate support for IE 6** as soon as possible, since it is a legacy browser with a dramatically inferior feature set as well as inferior performance. Originally, I had planned to include a section here that would go into detail to explain IE 6's shortcomings. However, the reader will infer from the fact that none of the recent industry studies even include IE 6 in their analyses, and from IE 6's rapidly dwindling market share, that IE 6 will be totally obsolete soon. I predict IE 6's market share will drop below 10% in 12 months.

**Add support for Firefox 3.0 as your organization's primary browser.** Even though Firefox may not be the best browser in all categories, it is more familiar to those who have tried alternative web browsers, and its interface is not dramatically different from IE 6, so users can be migrated with minimal disruption. My only concern about Firefox is the many extensions that are available for that browser. Users will want to try these out, and it's not clear whether they will have the rights to do so in a tightly controlled network environment. Even if they do, users who have a large number of different extensions in their configuration could make support for that browser more difficult. Extensions can cause problems with the browser itself, and unknown extensions can make it more difficult for Help Desk personnel to determine the cause of problems that may arise. Extensions also increase the memory load required to support Firefox. My recommendation for this potential problem is that the organization's IT group canvas users and industry reports to determine a standard set of extensions that it will support. Beyond that, it may be wise to lock down Firefox so that users can only add further extensions with some sort of approval process.

If you still run Windows XP on users' desktops, I'd strongly recommend that you **make IE 7 available as a download** and encourage everyone to upgrade from IE 6. However, IE 7's quirky interface will likely cause confusion among users who will already have questions about the use of tabs and RSS feeds, thereby increasing the resource cost of supporting them in such a transition. In addition, because IE 7 is so far behind the other browsers in adopting and adhering to current web standards, development of experimental web interfaces for your Intranet will be difficult.

The Intranet is the best "sandbox" in which developers can try out new web technologies, adopting those that succeed in major internal web applications and rejecting those that do not. Therefore, it's very important that your primary web browser maintain parity with the state of the art in this regard.

**Make Safari 3.1 available as a download**, both for Mac users and for Windows users who want to try it out. Safari 3.1 is, by a variety of measures, the best web browser now available, and IT organizations should make such a browser available to its employees. Safari's interface is extremely simple and easy to use, so training and help costs should be minimal. Further, Safari's inclusion in Apple's iPhone makes it an interesting platform for application development--not only for internal use but possibly for customers as well. There will be an explosion in the availability of iPhone applications this year and next, and your organization could certainly be part of that by providing tools useful to staff and customers.

## **Bookmarks for Further Reading**

### *Browser History And Market Share*

Wikipedia: **Timeline of Web Browsers**

Wikipedia: **Usage Share of Web Browsers**

Net Applications: **Browser Market Share**

### *Comparative Performance Reviews (overall)*

ZDNet Australia: **Browser faceoff: IE vs Firefox vs Opera vs Safari**

**Web Browsers: Speed Testing the Latest Web Browsers**

**Apple Safari 3 Performance Testing - Web Performance**

### *JavaScript Speed*

**Web Browser Javascript Benchmark**

**The Great Browser JavaScript Showdown**

Ars Technica:

**Firefox 3b5 vs Safari 3.1 Round 2: Disable Extensions**

**Firefox 3b5 fastest browser on Mac OS X? Depends on the test**

**Squirrelfish**

**And The Winner of the Browser Wars is....**

### *Page Load Speed*

**Windows Browser Speed Shootout - IE7, Firefox2, Opera9, Safari for**

**Windows**

*Browser Feature Reviews*

**Browser Review | web browsers reviewed and compared**  
**Comparison of web browsers – Wikipedia**

*IE 6 Issues*

**Large select list slow in IE 6**  
**No, Internet Explorer did not handle it properly**  
**Explorer Exposed!**  
**Hixie's Natural Log: Buzz: Hallucinogenic drugs?**  
**internetexplorerbugs**

*Web Standards Compliance*

**The Web Standards Project**

CSS:

**Comparison of layout engines (CSS)**  
**Acid 3**

**IE 7 Conditional Comments** (working around problems with CSS in IE 7)

*Testing Tools*

**Webmaster's Browser Load Stopwatch**  
**SunSpider JavaScript Benchmark**



# *The Northern Spy*

## Fall Follies

By Rick Sutcliffe

Technology News and Views Since 1983

September 2008

### **Another shoe has dropped**

in the iPhone saga. The Spy's loyal reader might recall him mentioning once or twice (ahem) that the typical business model for readers (give away the software, sell the content) is broken with respect to Apple's distribution system. Well, OliveTree software (Bible readers) has brought out an iPhone version of their reader, and their interim attempt to make something, (anything) work merely demonstrates how badly flawed Apple's control freak setup is.

To start with, OliveTree was selling the reader bundled with content. Fair enough, but what if you wanted to: (a) buy more content? or (b) move your already purchased content from, say, your Treo to your iPhone? Nyet to both. Content worked only with the reader in the same bundle, and you could buy only bundles or upgrades thereof (which, to be fair, were promised). Books sold for another platform could not be moved to the iPhone.

The Spy's advice: If you use your smart phone for a reader even an appreciable fraction of the time, don't move to an iPhone until Apple comes up with a better system for selling content-dependent software. The current one simply won't do.

### **On the brighter side,**

the Spy notes that Apple's market capitalization has now exceeded Google's. To spin perspective on this, Apple's \$157B market cap is triple that of Dell (hello Michael), a mere \$12B behind IBM, and less than \$100B behind the dysfunctional MS. How the world does turn.

### **And, speaking of the Treo,**

the Spy sees that Palm recently brought out two new models. Perhaps there's life yet in the once-darling purveyor of smart phones. All that's needed now are a few contracts with phone companies to do bundling at reasonable cost, and a tad (OK, lots) more interest-generating buzz among software developers and customers. Oh, the Pro version is W\*nd\*ws Mobile only for now, with no sight on a PalmOS version. Big mistake in the Spy's view. If a company doesn't trust its own flagship software, who will believe they're in it for the long haul?

### **Upgrade-O-Mania**

Design Science recently brought out MathType6, the latest version of its mathematical equation editor on Mac OS X and now Leopard compatible. Cost for new customers is \$97. Upgrades are \$49. W\*nd\*ws versions are also available. MathType allows word processor users to enter complex equations right into their documents. The Spy uses it constantly for exams in Calculus, one of the first subjects most students encounter that must be understood to be done (such a radical concept).

Perhaps out of place in an upgrade section, but an alternative is the FreeWare LaTeXIt, at version 1.15, and that allows one to edit equations in LaTeX. In the case of NisusWriter and other LinkBack-enabled applications, this ability could be especially convenient, though the install is complex and takes a long time.

Andrew Trevorow now has an Intel version of OzTeX, his Mac implementation of Knuth's typesetting system, commonly used by academics for journal papers. Additional item here: The software is written in Modula-2 (Albert Wiedemann's p1 compiler), still one of the best notations ever devised, despite its lack of popularity these days. For information on the language, see the Spy's own text, or the language FAQ he sporadically maintains.

Meanwhile, on the hardware front, Canon is apparently poised to upgrade the 5D and 40D cameras to 5D (Mark ii) and 50D, respectively. Look for up to 12.2 MPix in the 50D, but the Spy has no regrets he bought the 40D this year, instead of waiting for more goodies. Such a camera!

Likewise, Apple appears ready to refresh the laptop line with newer Intel chips, refurbish the iPod line, bump the iPhone OS to 2.1, and (finally) include BluRay support with 10.5.6. iSlate/iTablet may be prototypically slouching toward Cupertino waiting to be born, but no one there is in a prophetic mood, even if all the rumour mills are.

An upgrade of sorts was announced by the FireFox folk, who've launched TraceMonkey, a JIT (Just-In-Time) compiler for ECMAScript (JavaScript) on the upcoming FireFox 3.1. Purportedly, performance can be boosted in some cases by an order of magnitude. Likewise, the late-August developer release of OS X 10.5.5 comes with a new preview of Safari 4.0 incorporating some HTML 5, and the latest SquirrelFish technology, also intended to provide dramatic ECMAScript speed ups.

Who cares about ECMAScript? Good question, Nellie. With the rush to Ajaxify web applications, the once nearly moribund scripting language has become a critically important, and these moves could give it a further big boost. Even without JIT, the Spy has been able to make his WebNameHost site much faster using Ajax and other ECMAScript techniques. Watch this one closely.

### **There is no truth to the rumour**

that the \$2M mid-August fire on Apple's Cupertino campus was caused by iSteve's lawyer becoming overheated over the latest lawsuit to hit the company--this one for false advertising concerning the iPhone2, which was touted as "twice as fast" and supposedly isn't, at least by some disgruntled customer's greedy reckoning.

### **The more things change department**

Yet another round of domain name scam letters have been making the circuit. Printed on stationery bearing names like "Domain Registry of ...", the letters warn the gullible that their domain name registration is about to expire and offer to renew it. What's wrong with this?

1. Part of the conditions of using the registry to determine whois information is that it not be used for solicitations. Repeated violations of this rule are the reason CIRA (.ca TLD operator) recently introduced a privacy policy that hides individual information from scrutiny. Other registries will eventually follow suit, a perfect example of legislation against stupidity.
2. The offered renewal price is usually three to four times as high as the industry standard, even if the letter does tout it as "discounted".
3. Renewal triggers a transfer of administrative control. Do you really want a fly-by-night operating on the fringes of the law controlling your domain?
4. People who uncritically believe anything stated in an unsolicited letter have entered a fantasy land created by the sender. The writer wants belief, support, and/or money from the reader. The idea that there is anything in it for the reader is an illusion.



### **Lethe Revisited (Once more with feeling)**

After putting one cat to sleep at the beginning of July for an excess of savagery, our other gentle old cat died a month later. She'd been off her feed a day or two, but seemed content. However, before we went to bed, we prayed that the Lord of Heaven, who sees every sparrow that falls, would take her quickly, rather than let her suffer--if she was to go. This we did, conscious of the fact that the last time we prayed thus, the cat in question died in my arms precisely on the "Amen". We didn't check before putting our heads down, but next morning this cat was dead too--for many hours. Most people I told the original story to over the years (and now on hearing this one) react with "Don't you pray for me if I get sick".

### **VCON is coming**

to the Compass Point Inn, Surrey BC (Canada). The thirty-third Vancouver Science Fiction, Fantasy, and Gaming Convention is October 3-5, and as usual, the Spy will be there, taking his lumps on various panels. Don't miss it.

### **The Retro Spy**

Ever buy version 1.0 of a device, and have to suffer techno-envy when the next model had more bells and whistles you wish you had waited for? In many cases, such as the Canon EOS 40D mentioned above, "going green" can be handled reasonably well. The 40D is too good a camera to be much upset. Other times, you eventually end up with a tool that doesn't match up well any more but are reluctant to scrap it and buy an expensive new one, so you limp along. Happens in lower tech, too. The Spy has a nice Makita ten-inch compound mitre saw bought the last time he built a house (sixteen years ago). He was an early adopter at the time, but one thing he's lately been wishing he had is a laser guide to throw down that nice line on the wood stock to know exactly where the cut is going. All the newer saws have them, and are far the better tools for it.

Enter Irwin Industrial Tool's retro-fit laser guide. Installation is a snap. Just remove the saw blade's tensioning washer, replace it with the guide, then tighten the bolt again. The beam lights automatically when the blade spins up, and the batteries are supposed to be good for 1.5 running hours or some 5K cuts. Slick. Much better than some bolt-on models with a mechanical switch, and that easily get out of alignment or broken. Makes the saw seem some sixteen years younger. Very nice, and highly recommended. Street cost in the frozen North is about \$45, but in the competitive U.S. about half that. (The RO factor extends to all industries.)

Innovations like this one remind the Spy why he thinks computers should be sold in the same stores as cordless drills, table saws, sanders, and air compressors.

## --The Northern Spy

Rick Sutcliffe, (a.k.a. The Northern Spy) is professor of Computing Science and Mathematics at Trinity Western University. He's written two textbooks and several novels, one named best ePublished SF novel for 2003. His columns have appeared in numerous magazines and newspapers, and he's a regular speaker at churches, schools, academic meetings, and conferences. He and his wife Joyce have lived in the Aldergrove/Bradner area of BC since 1972.

Want to discuss this and other Northern Spy columns? Surf on over to ArjayBB.com. Participate and you could win free web hosting from the WebNameHost.net subsidiary of Arjay Web Services. Rick Sutcliffe's fiction can be purchased in various eBook formats from Fictionwise, and in dead tree form from Bowker's Booksurge.

### URLs

The Northern Spy Home Page: <http://www.TheNorthernSpy.com>

The Spy's Laws collected: <http://www.thenorthernspy.com/spyslaws.htm>

The Spy's Shareware download site: <http://downloads.thenorthernspy.com/>

WebNameHost: <http://www.WebNameHost.net>

WebNameSource: <http://www.WebNameSource.net>

nameman: <http://nameman.net>

opundo: <http://opundo.com>

Sheaves Christian Resources: <http://sheaves.org>

Arjay Books: <http://www.ArjayBooks.com>

Booksurge: <http://www.booksurge.com>

Fictionwise: <http://www.fictionwise.com>

Olive Tree: <http://www.olivetree.com/iphone/>

Design Science (MathType):

[http://www.dessci.com/en/products/mathtype\\_mac/](http://www.dessci.com/en/products/mathtype_mac/)

OzTeX: <http://www.trevorrow.com/oztex/>

Modula-2.com: <http://www.modula-2.com/>

p1: <http://www.awiedemann.de/compiler/index.html>

VCon: <http://www.vcon.ca/>

Mozilla (FireFox): <http://www.mozilla.com/>

LaTeXIt: [http://ktd.club.fr/programmation/latexit\\_en.php](http://ktd.club.fr/programmation/latexit_en.php)

Irwin's Laser Guide:

<http://www.irwin.com/irwin/consumer/jhtml/detail.jhtml?prodId=IrwinProd100009>

# *An Open Letter to Scott Kelby*

## A Task Still Undone for the Salvation of PC Switchers

By Harry {doc} Babad © 2008



Scott or more formally Mr. Kelby,

As you are surely aware, the world of computing platforms is changing. PC users are either switching to the Macintosh for their home computer or trying to pressure their IT support to allow Intel Macintosh use at their work sites. Indeed, as perhaps implied but not predicted in your book *Macintosh: The Naked Truth*, the word is getting out. But despite the large number of *grrreat* books on the Mac OS and Leopard in particular, there is a key element missing. I hesitate to say it; a universal element is missing.

Although, for full disclosure reasons - I don't seem to admit bias - I am a fan of your writing. Indeed I've reviewed at least seven of your books for macCompanion. But as I wrote you in a likely "spam killed" eMail on the 22 December 2007, there's a knowledge gap that only you can fill.

Forget, at least for a shot time—call it a sabbatical: Photoshop, iPod, momentarily abandon photography and Karate... Reach out and help the poor lost Wintel colleagues or even lost strangers to become better and more enlightened Macintosh users. I know I'm asking a great deal but since the world PC users outnumber Macintosh users by about 20 to 1, think of the size of the potential audience.

The world needs a *Conversion Kit Book* Switching for Windows XP (or if you must and Vista) to /or Tiger /Leopard. Most of the recent books I've reviewed about Leopard (are not really suited for PC switchers. These include Maria Langer's VSG book or Robin Williams Leopard books for Peachpit; Kate Binder's book for QUE Publishing, your "The Mac OS Leopard Book" or the ebook series published by Tanya Engst. PC users keep switching to Macintosh; there should be a market out these for a "conversion" book. And of course there are all those opportunities to make gentle digs about what took them so-so long to see the truth.

If this doesn't feel right Perhaps A PC User Finds a Macintosh — The Naked Truth would do the job.

When I grow up (I'm 72 now) I'll likely switch from writing books and articles about nuclear energy and radiation and get a camera beyond the point and shoot device I now own for taking memorabilia snapshots (think Kodak). So perhaps your books can *edicate* me on photography, something I'm looking forward to.

Be well, don't let *them* muzzle you — puns and idioms are the highest for of language, especially if you can use them in more than one Language – say English and Techno Babel.

Harry aka doc\_Babad

# Books

## *iPhone 3G Portable Genius*

Reviewed by Dr. Eric Flescher



**Authors:** Paul F. McFedries and David Pabian  
<http://mcfedries.com/cs/content/iPhone3GPG.aspx>

**Released:** Aug 13, 2008

\$25 USD

**Pages:** 268

**ISBN-13:** 9780470423486

**Strengths:** Great layout, good use of bold text and nice large screenshots. The chapters are well produced and chock full of much helpful information.

**Weaknesses:** The purple-blue bar on the top of the pages with the title of chapters and number is a little too light and makes reading of the title a little difficult. It needs to be a shade darker.



### **Introduction**

The premise of this book series, extending your knowledge as a "portable genius (in a book)", is an extension of what you might do if you had to make an appointment with your nearest Apple store to answer questions, discover some trouble shooting problems or learn how to use your device more quickly and faster. While it is nice to made an appointment and talk with a genius (as I have done several times), sometimes a guidebook can really help " fill the gap", to get you up and running sooner. Well that is what these books are for and this particular book, iPhone 3G" Portable Genius, does a great job.

The authors have authored many books. David is a Mac enthusiast while Paul has sold over 2 million computer related books. Spans 11 chapters in 267 pages. They have combined their talents to make a guide sized book that will help you learn how to use this device to the fullest.

The chapter titles and numbers are on the top of the right pages inset inside a light purple-bluish strip. The text is in white but the only downside is that the color of the strip is on the light side and it makes reading the titles a little difficult but not too bad that you can't read them. Still in the next version, I hope they make it a little darker.

The layout is clear and bright, making for easy reading. Bold faced text, nicely sized colorful screenshots help reading and skimming the text to find what you want to know. The index is well done and a glossary helps the understanding of terms.

Learn how to configure the 3G, learn about the features quickly, and learning to efficiently utilize the web surfing feature as quickly as possible. Maximizing the email features, synching your iPhone with your computer are all here. The multimedia takes your iPhone to another level with Chapter 6 while the contacts and appointments helps to a great degree. Learning how to organize your life is a well done section while Mobile Me helps understand why and how to use it. The Apple store can help search, find and download more applications to be more productive and you can learn more here and now. Lastly you gain a better understanding about troubleshooting and taking care of your 3G.

### **Conclusion**

I recommend this book highly for those starting out with the new 3g or upgrading from other iPhones or other devices. Reading this book is like talking to one of the Genius guys at your Apple Store. This book is well organized and is extremely easy to read. The authors have integrated their information for this guide that is both visually appealing but provides helpful information along the way. You will find a wealth of fine information that will assist users learning how to use their 3G now. The step-by-step instructions don't leave you hanging. You are enticed into learning more and using this instrument immediately that will not only show off its versatility but how you can use the phone, in so many more ways, more quickly without a lot of angst.



# *iPhone: The Missing Manual*

Reviewed by Robert Pritchett

**O'REILLY®**

**Authors:** David Pogue and Derrick Story

O'Reilly

<http://oreilly.com/catalog/9780596521677/index.html>

**Released:** August 2008

**Pages:** 376

\$30 USD, \$39 CND

**ISBN-13:** 9780596521677

**Requirements:** iPhone 3G

**Strengths:** Provides what isn't really found elsewhere in one location.

**Weaknesses:** None found.



## Introduction

The new iPhone 3G is here, and New York Times tech columnist David Pogue is on top of it with a thoroughly updated edition of *iPhone: The Missing Manual*. With its faster downloads, touch-screen iPod, and best-ever mobile Web browser, the new affordable iPhone is packed with possibilities. But without an objective guide like this one, you'll never unlock all it can do for you.

In this new edition, there are new chapters on the App Store, with special troubleshooting and syncing issues with iTunes; Apple's new MobileMe service, and what it means to the iPhone; and Microsoft Exchange ActiveSync compatibility.

Each custom designed page in *iPhone: The Missing Manual* helps you accomplish specific tasks with complete step-by-step instructions for everything from scheduling to web browsing to watching videos. You'll learn how to:

- Use the iPhone as a phone -- get a guided tour of 3G's phone features and learn how much time you can save with things like Visual Voicemail, contact searching, and more

- Figure out what 3G means and how it affects battery life, internet speed, and even phone call audio quality.
- Treat the iPhone as an iPod -- listen to music, upload and view photos, and fill the iPhone with TV shows and movies
- Take the iPhone online -- learn how to get online, use email, browse the Web, and use the GPS
- Go beyond the iPhone -- discover how to use iPhone with iTunes, sync it with your calendar, and learn about The App Store where you can pick from hundreds of iPhone-friendly programs

Teeming with high-quality color graphics and filled with humor, tips, tricks, and surprises, *iPhone: The Missing Manual* quickly teaches you how to set up, accessorize, and troubleshoot your iPhone. Instead of fumbling around, take advantage of this device with the manual that should have been in the box. It's your call.

### **What I Learned**

Dang! There is a lot going on inside this thin miracle of technology!

This is the 2<sup>nd</sup> edition of this book and it is focused on the iPhone 3G.

I found out about the no-ring switch on the side of the iPhone, the hidden sensors and what they do, ways to use the magic of the keyboard and shortcuts that make it the best unit so far that acts like the long-awaited Dynabook.

### **Conclusions**

If you have an iPhone3 G, you might as well get this book to go with it. Missing is the eBook version.

# Mac OS X Leopard: QuickSteps

Reviewed by Robert Pritchett



Learn more. Do more.

**Author:** Guy Hart-Davis  
McGraw Hill

<http://www.mhprofessional.com/product.php?isbn=0071549781>

**Released:** June 2, 2008

\$20 USD, GBP £10

**ISBN:** 9780071549783



**Strengths:** Top-quality color-coded illustrations. Coffee-table quality.

**Weaknesses:** None found.

## Introduction

"Get started using Mac OS X 10.5 Leopard right away - the QuickSteps way.

Color screenshots and clear instructions show you how to use all the new and improved features available in this revolutionary operating system. Follow along and learn to customize your desktop, organize and store files, use email and Web applications and add hardware and software. You'll also get tips for enjoying photos, music, and movies, setting up a wired or wireless network and securing your system. Get the book that gets you up-and-running on Mac OS X Leopard in no time.

Use these handy guideposts:

- Shortcuts for accomplishing common tasks
- Need-to-know facts in concise narrative
- Helpful reminders or alternate ways of doing things
- Bonus information related to the topic being covered
- Errors and pitfalls to avoid

## What I Learned

Who would ever go to this much trouble to extol the virtues of any other Operating System? And so well organized, categorized, illustrated. This is the book for my dad, since he is still "learning" the Mac. I guess we need to update his system though. He's still on Panther.

## **Conclusion**

If you are new to Leopard, this is a great way to go if you don't want to watch Apple's much shorter Tutorial online.

## *Biogas Handbook, 4th edition*

Reviewed by Robert Pritchett



**Author:** David William House  
House Press

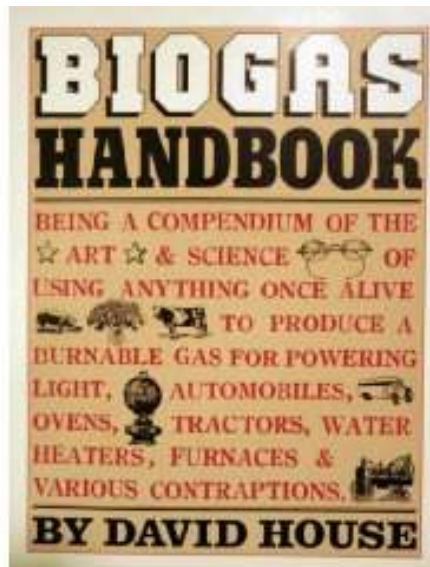
PO Box 167  
Aurora, OR 97002  
<http://www.completebiogas.com>

**Released:** October 5, 2006

**Pages:** 288

\$40 USD

**ISBN:** 9780915238470



**Strengths:** All about capturing methane.

**Weaknesses:** So much effort went into the book, that only one kind of generator was actually created by the author. But how many biogas generators do we need in our back yards?

### **Introduction**

The first edition of the book quickly established itself as the book on biogas generation. Now in a newly revised edition, David House brings together all the information, from the most theoretical scientific research to grassroots homescale trial and error.

Here are the detailed designs for generators and the knowledge, encouragement, imagination, and humor you will need to build a generator of your own. While biogas may not yet be a household word, you should consider it seriously if you believe in the future of alternative energy.

Use biogas for illumination, cooking, water heating, refrigeration, space heating, and to fuel vehicles.

There is much in this book in its 51 chapters and 21 appendices. It also has 90 figures and almost 60 tables, an index and two tables of contents (one brief, one comprehensive) for ease of finding items. As well, it contains information about growing algae for producing biogas (Chapter 18), and some possibilities regarding biohydrogen (Appendix 2).

## **What I Learned**

We are certainly throwing away much of what the earth would use to renew itself as we consume. It would be sooo easy to make bathroom humor about this book, because it deals with all those things we tend to shy away from (understandably) that stink, smell and generally get in the way, as we have sanitized and cleaned up anaerobic messes around us (think sewer scum, dirty diapers and other methy things).

But guess what? These biomasses carry a lot of energy and we have relearned how to reharness much of that energy from biomass and turn it into biogas. The other name for it? Natural Gas.

I'm tempted to say most of this book is charts, graphs and appendices. In reality, as a textbook, it also is chock full of other things for beginners, novices and newbees to the world of biomass regeneration and energy absorption.

There are 8 sections beginning with the basics of energy, math and biology, then going into how to "be good to our little bitty buddies" with parameters related to production, next up are substrates available for production, scrubbing out unwanted gases and leaving the end product sought for – Methane, working with anaerobics and troubleshooting and development of cultures, designing biogas generators, literally "grassroots" research into plans for small scale generators and a whole host of appendices (yes, 21 of them) on gas analysis, biohydrogen, effluent uses, gas production math, specific gravity, drill statistics, burner design, gas vital statistics, K and C values, steam treatment, heat transfer, decimals, fractions, geometry, trig, metric conversion, a simple method for temperature conversion, terms, chapter ending answers (yes, there were questions), a bibliography, an author afterword, contents, figures and tables and an index and authors (see, David didn't write it all himself!).

## **Conclusion**

Go ahead and digest the whole thing and see for yourself what comes out in the end. You don't need an antacid for biogas!



# *A Declaration of Energy Independence: How Freedom from Foreign Oil Can Improve National Security, Our Economy, and the Environment*

Reviewed by M. L. Lamendola



Author: Jay Hakes

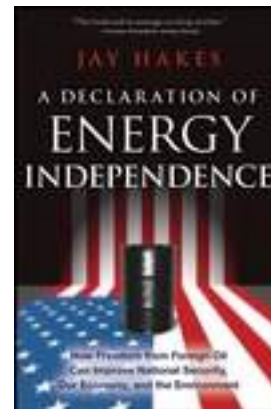
Wiley

Pages: 256

Released July 2008

\$28 USD

ISBN: 978-0-470-26763-9



**Strengths:** Offers various scenarios all of which would go far in helping the US out of the latest so-called Energy Crisis.



**Weaknesses:** Chapter 5 on Global Warming defies logic.

## **Introduction**

"If you've wondered about how America can break links between oil consumption, terrorism, and the war in Iraq, *A Declaration of Energy Independence: How Freedom from Foreign Oil Can Improve National Security, Our Economy, and the Environment* will show you how our country can gain energy independence and solve its energy crisis. Written by a top energy expert, this book outlines seven economically and politically viable ways America can more efficiently use and produce energy. Find out how carbon fuels negatively impact our lives and understand the political framework of the energy crisis."

All I can say is a healthy, hearty "Amen" to everything M. L. Lamendola of Merriam, KS wrote in his Amazon.com review of this book. I could not have written it better, so here is his review;

"Have you ever wondered why 80% of the cars in Europe have standard transmissions while 80% in the USA have automatics? While that question does not appear in this book, the answer does.

Jay Hakes is, by training and experience, a researcher and data cruncher. Given Hakes' background, I was surprised to find the text was so readable. I had expected wordy prose in passive voice, but it's not that at all. He presented a huge amount of information in the fairly tight space of 230 pages, and yet kept the narrative flowing.

Hakes uses his special qualifications to build the foundation for recommendations that are right on target. He also uses these qualifications to build the (strong) case for following those recommendations. While many people are in denial that there's an energy problem, the reality is we do have one. We also have a closely related pollution problem, largely from the same causes.

This book has one glaring flaw that I will discuss in detail at the end of this review. I don't want to start off discussing it because this book is, on the whole, an excellent work that provides a dose of reality and reason that is badly needed among our misrepresentatives in Congress as they go about their usual job of making poor public policy.

One of Hakes' core philosophies is that there is no silver bullet that will solve our energy problem. It's a complex problem with a myriad of causes. It requires a myriad of solutions.

One of those solutions is waste reduction. We can slash energy demand by simply being less wasteful. This doesn't mean extremist measures such as turning thermostats down to 55 degrees Fahrenheit in the winter, as recommended by Jimmy Carter. Other, more reasonable measures can cut energy demands significantly. Hakes provides an excellent overview of such measures. I won't list them here.

Millions of individuals and businesses are already implementing these (and other) measures to varying extents. There are economic and other pressures to make this happen. But even with waste reduction measures being increasingly adopted on a voluntary basis, there is plenty of room for improvement in this area--without becoming severe about it.

Hakes doesn't harp on conservation (buzzword today is "efficiency") as "the solution." Nor does he present some complex, integrated program or claim that only government or only the market can do the job. Instead, he presents several solutions that draw on government and the private sector, acting in their proper roles. Hakes is not a self-proclaimed expert with a personal agenda to push. Instead, he's produced a timely work of research that is, with the exceptions noted here, authoritative and well-substantiated.

So, what's actually in this book? It consists of three parts and fifteen chapters.

Part One consists of seven chapters, and it explains why our lack of energy independence is a problem. The first chapter explains how we got to the not very good position we find ourselves in now. Chapter Two shows how we won our energy independence in the late 1970s. Chapter 3 explains how we lost it again. I appreciate this particular sequence of chapters, as it builds the proper foundation for what follows.

Chapter 4 discusses the huge cost we pay militarily. What Hakes didn't point out is the USA spends more on its military than the next nine nations combined. Which explains quite a bit about why we are now the poorest nation in history, saddled with a debt approaching \$10 trillion.

Chapter 5 doesn't belong in the book. I provide a detailed excoriation of it at the end of this review.

Chapter 6 explains, correctly, why "market solutions" alone cannot solve our energy problems. Chapter 7 explains why liberals and conservatives can come together on it. That's the horizontal plane of the political arena. The vertical plane, which Hakes doesn't mention, consists of the statist and the libertarians (not referring to the Libertarian Party). Hakes correctly explains the proper role of government in helping to solve the energy dependence problem.

Part Two consists of another seven chapters, each of which describes a path to energy independence. I won't list the actual recommendations, because doing so is a bit like revealing the plot of a movie before the other person has seen it. I will say the prevailing technical literature supports the economics and feasibility of his recommendations (some tweaking may be required).

Part Three consists of Chapter 15. Here, Hakes discusses what he feels we need from public policy makers and from voters. But he errs in advising people to make energy an election issue. If you look at the history of elections in the USA, you will see we really have a single-party system. No matter which arm of the Demopublican Party gets "elected," we still end up with massive over-regulation, egregious overspending, and wars. So, you don't have the power of choice at the ballot (at least, not on the federal level where the big money is in play). Your only power there is the power of objection, and to exercise that power you cannot vote Republican or Democrat.

To get our misrepresentatives in Congress involved in good public policy related to energy (or anything else), you have reach their actual employers: the special interest groups that hire the lobbyists. You may not personally be able to afford a \$10,000 seat at a fund-raising dinner that gives you an audience with your misrepresentatives, but as a consumer you can lobby those who pay the lobbyists. You can vote with your dollars, for example, in buying a fuel-efficient car instead of an SUV and then send a letter (explaining your choice) to Public Relations at the auto companies you didn't buy from. That's just one example of the power you can wield to effect change.

Unfortunately, Hakes doesn't take this reality into account when he talks about public policy. That doesn't change the technical accuracy of his research or his recommendations. If he could wave a magic wand and make his recommendations simply happen, I'd be all for it.

### **Hakes and Global Warming**

While most of the book reflects thorough research and reasoned analysis, Hakes does have the religion of "global warming." When he's writing in the throes of religious fervor, all reason leaves him--and I mean that literally. While the rest of the book carefully builds arguments and backs statements with facts, "global warming" is presented as a self-evident truth that only infidels do not accept.

Hakes devotes an entire chapter (Chapter 5) to this particular theology and yet the few facts supporting it are cherry-picked and he spews a few discredited statements such as those about "consensus of scientists."

Rather than excising the material (which is unnecessary to the main points of the book), he defends this "faith-based" viewpoint by asserting such things as we don't really need the data and people pick on Al Gore instead of listening to his message (which, based on Al's behavior, is "waste as much as you can").

A huge danger in spreading this particular religion is it sets the stage for the carbon tax scheme, which will divert smart minds away from focusing on the problems of efficiency to focusing on how to game the new tax scheme. This diversion of rare resources is one of the big problems we have right now with that mess we call the Federal Income Tax (the tax code consists of 64,000 pages of absurdity). Anyone wishing to exacerbate our existing problems will find this new scheme very helpful.

Here are some facts not mentioned by Hakes:

Remember the August 2006 heat wave that killed so many people in Europe and the USA? We saw that heat wave coming, and not because of carbon dioxide levels. We knew it was coming because we could see a solar flare that was 50 earth diameters in size (the sun rotates, so we see some anomalies before we are in their path). That's an enormous amount of energy. Anything man can do is insignificant compared to that.

The sun so dwarfs the earth that if you were to use a basketball to represent the sun, you would not be able to see the earth with the unaided eye (unless you can see something only 1 millionth the size of that ball). A little variation of the sun causes a lot of variation here (and on Mars). Energy from the sun reaches us in only 8 seconds.

Mars has shown warming signs similar to our own (yes, we do have warming--but also cooling). Read about Mars warming, and you will see this. What do Mars and Earth have in common? Hint: it's not SUVs.

We have had record cold at both of our poles in recent years. Just this year, the military had to cancel a training exercise due to record low temperatures. Last year, icebreakers opened an Antarctic migratory channel (the size of Texas, if I recall) that had inexplicably frozen over--biologists said failure to do so would have caused massive kill-offs of Antarctic life. Why doesn't Hakes mention such things in his proselytizing and explain them away? It appears we have more weather cycling between extremes, rather than global warming or, as some assert, an impending ice age. Since contradictory data can support either claim, maybe another theory makes more sense?

I read that 80% of the record high temperatures over the past two centuries occurred before 1950, but couldn't trace that back to an authoritative source. What's a fact is that 1,000 years before the invention of the SUV Greenland was actually green and didn't have ice--much warmer than today. The remains of the grass huts are still there. And a mile under today's glacier are the remains of a lush forest.

Carbon in the air does not explain why we are seeing volcanic activity under the ice at both poles or why the poles themselves are moving (you can find the pole movement history online).

Using core samples, we have found past eras with markedly lower carbon and markedly higher temperatures. What's the correlation between carbon and temperature?

Hakes refers reverently to the infamous Rio conference on environmental issues, with no mention of the enormous piles of waste that conference generated or the fact that Al Gore chose a chartered jet instead of saving fuel and flying commercial like everyone else. Gore's motivation has nothing to do with "saving the planet" and everything to do with sating the outsized ego of Al Gore (and, of course, adding even more millions of dollars to his millions of dollars of net worth).

Hakes tries to nullify any objection to Al Gore by remarking that people like to hate Al Gore and so don't listen to him. No, we hate Al Gore precisely because we have listened to him and are downright sick of his blatant and voluminous lies. In 2006, Gore inflicted the world with a fraudumentary that should have been named, "It's Inconvenient for Me to Tell the Truth." Various analysts have produced rebuttals identifying 40+ errors of fact or outright falsehoods. That's hardly a work of nonfiction.

From a June, 2008 issue of The Week: "Al Gore's energy consumption at his spacious Tennessee home rose 10 percent in 2007, despite the installation of solar panels and more efficient light bulbs. Gore still consumes 50% more electricity every month than the average American does in a year."

Looks like Al doesn't believe his own spiel. Who should know better than Al himself that he's peddling absolute nonsense? He's telling us this in no uncertain terms, which is rather sporting of him. Hakes should forget about global warming, and we should all forget about Al Gore. We do not need these "ignore the data" theories or "make Al Gore rich" programs to drive home the point that we need to be better stewards of our resources.

I say this as a person who, unlike Al Gore, has a negative carbon foot print (yep, I absorb more carbon than I release). I've been on the "save energy" bandwagon since I was a little kid. That's because my parents realized money doesn't grow on trees. They were taught Depression era economics as kids, and they passed that thinking on to their kids. Waste not, want not. I have so structured my energy-conscious life that I buy gasoline only once every six weeks despite living in a Midwestern suburb with no mass transit."

## **Conclusion**

Great book with good solid scenarios we could pursue in obtaining energy independence.

# *Energy Efficient on the Olympic Peninsula*

Built by Michael C. Glaviano, PhD

Sometimes you stumble on a place, and you just have to live there. Sometimes you have a life-long goal that requires real effort to realize. We encountered both when we found a tiny town in the Far Pacific Northwest and decided to build an energy efficient, “solar home” there.

Being an engineer, I like lists. My wife indulges me in this. For years we maintained a list of weighted criteria to help us find a great place to live. Each year, we’d do research on the Internet and read about several places. For our summer vacation, we’d go to the place that looked best. Eventually we found a spot ‘way up on the Olympic Peninsula in Washington State.

How far up? We’re talking just under 42° north latitude, here. Natural beauty abounds. Deer romp and generally do deer stuff all over the place. Ditto crows and the occasional coyote. Orcas ply the waters of Puget Sound. Fog horns at night. Giant container ships sail past on their way to the Port of Seattle. You get the picture.

We’re both telecommuters. We looked for a small house that had the right layout for two home offices but couldn’t find much. We did, however, find a nice lot right in town. Great southern exposure. Walk to uptown or to the Sound. City utilities in place. We decided we’d take some time and have a house built. We were living in northern Colorado at the time, so we made many trips out here to interview contractors and go over plans with the architect. We knew that long-distance managing a project of this complexity and importance would be a real challenge.

Now we aren’t into ostentatious stuff at all. We wanted modest, homey, and energy efficient. After all, we’re thinking that we’d like to retire here someday, and it is just possible that energy prices could (ahem) continue to increase over the next couple of decades.

We found that lots of people heat with wood here. Natural gas isn’t even an option on the Peninsula. Some people use propane. Others go with all electric homes. The climate is not too challenging. Winters are pretty mild (a low of 20°F is a good design parameter). Summer highs in the high 80’s are cause for lots of complaining and discussion at the local coffee shop.

## **What We Did**

As far as our energy strategy goes, we decided on the following:

Use the south facing property to build a passive solar design. Put in lots of south facing glass. Overheating is not a problem in spring and fall, and we want to grab as much solar energy as we can on most days year ‘round. Put very little glass on the north. Shade the windows on the west side of the house with a garage and some trees.

Insulate, insulate, insulate. We used R-60 BIB (Blow In Bats) in the attic. R-30 in the walls. 0.29 U factor windows. Even the slab in the basement is insulated.

For HVAC, we chose a closed-loop-ground-source heat pump.



Basically, if you dig down about 6 feet, the soil temperature is always about 50°F. If you run heat exchange pipes at that depth, you can pull heat out of the ground all winter long. It's just about as efficient as it gets.

We decided that the ultra-tight building envelope merited some action to keep the indoor air quality high without opening a bunch of windows in January. To accomplish this, we added a "Heat Recovery Ventilator" (HRV) to the HVAC system. This is basically an air-to-air heat exchanger that uses waste heat from stale air to pre-heat fresh air drawn from outdoors. Although an HRV uses some energy, it claims to be over 90% efficient. Since my office is in the basement, we augmented the heat pump system with some radiant floor heat.

We have a small, efficient wood stove in the main living area of the main floor. On days with no appreciable sun, we can warm the main living area very nicely with this stove. Energy Star appliances.

Simple, inexpensive things count too. We used compact fluorescents in nearly every light fixture in the house. Since CF's are nearly six times more efficient than incandescent bulbs, this really adds up.

Switched plug strips all over the house to cut down on phantom loads. Since we were building the house from scratch we even put a switched circuit in the main living space so that we could power down the entire entertainment system. No energy leaks there. Finally, we put a 4 kW PV array on the south facing roof. Washington State has a very good renewable energy incentive program. While it's a big ticket item, putting in a good size array takes a big bite out of energy bills in an all-electric house.

## Performance So Far

We moved into our new place on the last weekend of March. Much of April was consumed with unpacking and setting up our household. I started careful tracking of energy use and energy generation in May. May was still very much a "heating month" on the north end of the Peninsula this year. Here are our results to date:

Month	Total Energy Consumed (kW-hr)	Energy Produced via PV Array (percent)
May	1406.7	35.2%
June	1103.5	44.1%
July	1242.3	49.2%

August started out hot and sunny and we had several days in which we generated more than half of our total energy usage with the array. Of course the weather here can get overcast and rainy, so we can't predict how the month will turn out. Old timers say that good weather often stays with us well into November. I hope they're right.

## **What We Have Learned**

We are satisfied with the overall energy performance of our home. We've learned quite a bit in the process of building it. Probably our biggest learning was that remote house building turned out to be even harder than we anticipated. The general contractor we chose was good with telephone and email and was very responsive. He also was enthusiastic about the project from start to finish and was basically great to work with. Had it been otherwise, the experience may have been somewhere between a nightmare and a disaster.

### **Do we plan to expand the energy systems?**

To answer this, we need to consider energy costs in the context of other operating expenses. Last month (July) our total energy bill was less than \$30. That's only about 25% of our monthly telecommunications expenses and less than half of our water bill, so from a purely financial perspective, I don't think we could justify another large expenditure for energy systems at this time. We might want to look at rain catchment first. It is pretty low-tech and will probably have a fast payback. My wife is, after-all, an avid gardener. Reducing our water usage has a stronger return on investment than other, more expensive energy system enhancements.

I think our biggest controllable energy expense is probably hot water. Here, we were at the mercy of local subcontractors who had limited experience with unusual systems. If we had a do-over, I might insist on a simpler hot water system with a solar thermal assist. If we do decide to expand our energy system, this would be the top priority.

### **Would we do the whole thing over again?**

The tight building envelope is a no-brainer. So is the passive solar design. We have both noticed many cool days when our house is cozy and warm with the heat turned off while some of our neighbors are obviously feeding their wood stoves as fast as they can.



The closed-loop-ground-source heat pump system was expensive, and in retrospect I wonder if we truly needed it. If the HVAC subcontractor had been willing to acknowledge that the house was designed to need little heat and then install a somewhat smaller system, the net expense difference would have been very small. As it turned out, the HVAC subcontractor insisted on his standard formulas for figuring out system size. This is a common problem with high efficiency houses. If we had been local and able to have face-to-face meetings, we might have been able to influence the subcontractor better. On the other hand, the system works beautifully, so I can't say that this is a mistake either.



The PV system has performed flawlessly and exactly as predicted for this locale. There were no surprises and the contractor was excellent. I'd do that again in a minute. Doubling the array size to 8kW would get us near the break-even point in energy usage.



## Conclusion

Our house is warm, light, and cheerful. It's also quiet, efficient, and modern. Overall, we enjoyed the process of building our home and are happy with the result. The house itself gives us hours of fun activities as we measure, design, plan, and build. We realize of course that not everyone has the time, energy or desire to interact with a home in this way, but we enjoy it a great deal.

What's next? Our next projects focus on serious gardening to produce fresh, healthy food. Taking transportation costs out of the food supply is one more energy saver. Fresh, tasty produce is just plain good. We have already added a greenhouse. This will enable us to start plants next January or February and may allow us to grow fresh tomatoes in the winter. I can hardly wait until I finish cultivating our main garden area...



# Fuel Cell Projects for the Evil Genius

Reviewed by Robert Pritchett



**Author:** Gavin D.J. Harper

**Publisher:** TAB Electronics

<http://www.mhprofessional.com/product.php?cat=113&isbn=0071496599>

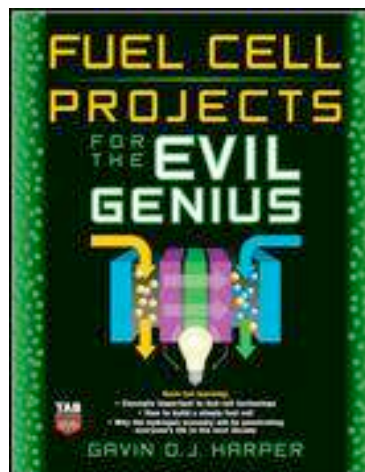
**Released:** April 25, 2008

**Pages:** 196

\$25 USD, \$31 CDN, £15 GBP, € Euro

**ISBN-13:** 9780071496599

**Audience:** Beginner/Intermediate/Advanced



**Strengths:** Offers a wide variety of fuel cell technologies to work with.

**Weaknesses:** Pitifully lax regarding cautions about dealing with toxic materials.

## Introduction

Go green as you amass power! *Fuel Cell Projects for the Evil Genius* broadens your knowledge of this important, rapidly developing technology and shows you how to build practical, environmentally conscious projects using the three most popular and widely accessible fuel cells!

In *Fuel Cell Projects for the Evil Genius*, high-tech guru Gavin Harper gives you everything you need to conduct practical experiments and build energizing fuel cell projects. You'll find complete, easy-to-follow plans that feature clear diagrams and schematics, as well as:

- Instructions for fascinating sustainable energy projects, complete with 180 how-to illustrations
- Explanations of how fuel cells work and why the hydrogen economy will impact our lives in the near future
- Frustration-factor removal—all the needed parts are listed, along with sources
- Science fair project ideas that are on the cutting edge of the latest technological developments
- *Fuel Cell Projects for the Evil Genius* gives you complete plans, instructions, parts lists, and sources to:
  - Understand how hydrogen could meet our energy needs in a post-carbon economy
  - Build a fuel cell car to race against your friends

- Build an intelligent fuel cell car which autonomously drives
- Build a simple fuel cell using adhesive bandages
- Hydrogen fuel your iPod
- Have a hydrogen barbecue-cook your food with zero carbon emissions!
- Discover how the amounts of hydrogen supplied to fuel cells affect the amounts of electricity produced

## **What I Learned**

I found this book to be much better than the one I reviewed last month on Solar Energy for the Evil Genius. I learned about the various kinds of fuel cell technologies available today and how I could make many of them myself.

In 2008 the author has not really tempered his "Global Warming™ Mantra (2008 has been the coldest year of the 21<sup>st</sup> Century so far worldwide).

Other than that, I really enjoyed sharing the information in this book at the Tesla Conference when discussing Hydroxy generation, the Moe Joe Cell, and Moray King's presentation on Hydrogen systems with other attendees.

The "band-aid" fuel cell was an inspiration.

My only concern was while reading about electrolytes and catalysts, there was precious little (if any) about protecting yourself from caustics.

## **Conclusion**

This is an excellent book on learning as much as possible on the topic in a "lab" environment. It got me excited about such things as the "Formula Zero" go-kart hydrogen race competition in Rotterdam, Netherlands that occurred in August.

## **Recommendation**

If speaking with other Tesla Conference attendees is any indication, this book is a seller and a keeper.



# The Myth of the Oil Crisis

Reviewed by Robert Pritchett



**Author:** Robin M. Mills

<http://www.oilcrisismyth.com>

Greenwood Publishing

<http://www.praeger.com/catalog/B36498.aspx>

**Released:** August 30, 2008

**Pages:** 336

\$25 USD, GBP £14

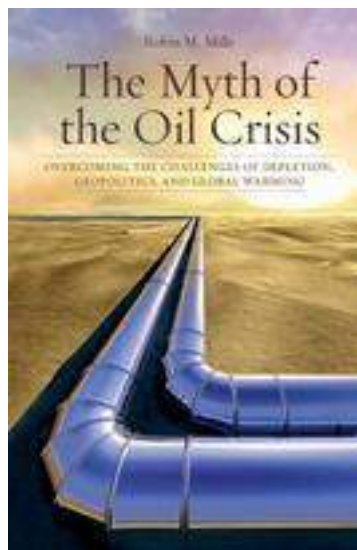
**ISBN-13:** 978-0-313-36498-3

**Strengths:** Real facts can't be disputed.

**Weaknesses:** Robin Mills still doesn't believe in Abiotic Oil, but does fully accept anthropomorphic climate change (Global Warming™).

Other Reviews:

[http://www.oilcrisismyth.com/index\\_files/Page709.htm](http://www.oilcrisismyth.com/index_files/Page709.htm)



## Introduction

"It seems self-evident to many that oil resources are on the verge of running out, that we are approaching 'peak oil', after which oil production will inevitably decline. 'End of oil' books, articles, blogs and TV shows proliferate. A complex of myths about oil has grown up that hamper us from making rational decisions about energy.

'The Myth of the Oil Crisis' establishes that, contrary to 'peak oil' arguments:

- Models used to predict 'peak oil' production are flawed, unscientific and have repeatedly failed in the past
- Global oil reserves are, overall, not heavily over-stated
- There is large remaining exploration potential around the world, in OPEC countries, new frontiers and even mature non-OPEC nations
- Resources of unconventional oil—heavy oil, oil sands, gas- and coal-derived liquids, biofuels and others—are enormous, much larger than the conventional oil endowment
- Unconventional oil can be produced fast enough to replace a decline in conventional oil
- Geopolitical issues and terrorism are not an insuperable threat to world oil supplies

- If necessary, oil consumption can be reduced dramatically even while living standards continue to improve
- New technologies and sensible policies can radically reduce the environmental impact of hydrocarbons and tackle climate change

With oil well over \$100 a barrel, drivers wince whenever they pull into the gas station and businesses watch their bottom lines shrink. "Watch out," say doomsayers, "it will only get worse as oil dries up." It's a plausible argument, especially considering the rate at which countries like China and India are now sucking up oil. Even more troubling, the world's largest oil fields sit in geopolitical hotspots like Iran and Iraq. Some believe their nations need to secure remaining supplies using military force, while others consider dwindling supplies a blessing that will help solve the problem of global warming. But wait--is it really the "end of oil"? Absolutely not, says geologist, economist, and industry-insider Robin Mills.

According to Mills, many ideas about petroleum depletion and its consequences are not just grossly overstated but plain wrong. Calmly and persuasively, he argues:

- The supply of oil and gas is much larger than imagined by the pessimists.
- Seeking political, military, or commercial control of oil supplies is unnecessary, self-defeating, and exorbitantly expensive.
- Oil is merely one convenient source of energy.
- Opportunities exist to decrease the global consumption of oil radically while maintaining a healthy economy.
- The environmental impact of fossil fuels is the most serious problem the world faces today. But a portfolio of solutions can solve it.

There is no other book by an industry insider that effectively counters the "peak oil" theory by showing where and how oil will be found in the future. There also is no other book by an insider that lays out an environmentally and geopolitically responsible path for the petroleum industry and its customers. *The Myth of the Oil Crisis*, written in a lively style but with scientific rigor, is thus a uniquely useful resource for business leaders, policymakers, petroleum industry professionals, environmentalists, and anyone else who consumes oil. Best of all, it offers an abundance of one commodity now in short supply: hope for the future."

## **What I Learned**

This book gives much-needed insight into what is and what is not instead of relying on works of fiction or political maneuvering to come to valid conclusions.

And it jives with the page I put up on PESWiki regarding North American Oil Fields –

[http://peswiki.com/index.php/Directory:North\\_American\\_Oil\\_Fields](http://peswiki.com/index.php/Directory:North_American_Oil_Fields)

Robin also as an "insider", defends turf by attempting to negate petroleum as a renewable resource and still promulgates it as a shrinking resource - just not fully exploited. Perhaps my article on the topic of Abiotic Oil would be enlightening?

<http://www.macompanion.com/macc/archives/April2008/Greenware/Fossil.htm>

Besides that little aside, this book is full of excellent meat for the oil debate table. I love the segregation and categorization of the "Five Schools of Thought"; Economists, Geologists, Mercantilists, Militarists, and Neo-Luddites and their definitions.

I appreciated very much the Abbreviations page that I referred to time and again for such Oilogopoly terms, such as boe (barrels of oil equivalent), EUR (Estimated Ultimate Recovery) and YtF (Yet to Find).

The various Figures and Table were well-placed and easy to read. The Notes, Bibliography and Index made this book a scholarly effort. In other words the printers did an excellent job editing and compiling this yet-to-become Classic.

My take-away is that just because we haven't drilled for petroleum in various places on earth doesn't mean it isn't there and the "shortage" in just about all instances is due to war and civil unrest and not due to depletion. Oh, that and the other war known as "Geopolitics" that keep us from exploiting resources, such as Gov. Sarah Palin of Alaska spoke of prior to her nomination for the Vice Presidency of the US.

## **Conclusions**

It has been videoed, debated and now in style it is in print regarding what is real and what is not about petroleum under the earth.

Just ignore the various "Climate Change" comments and move on. They don't really belong in the book, especially since it attempts successfully to dispel the Peak Oil™ Myth - [http://peswiki.com/index.php/Directory:Peak\\_Oil](http://peswiki.com/index.php/Directory:Peak_Oil), but it is time to bury the Global Warming™ Myth - [http://peswiki.com/index.php/Directory:Global\\_Warming](http://peswiki.com/index.php/Directory:Global_Warming) as well and stop promulgating it. But perhaps that will be forthcoming in another book.

# Hardware

## *Falcon SG Series Online Uninterruptible Power Supply (UPS) Plus 800 VA to 6KVA – When only the best will do*

Reviewed by Robert Pritchett



Falcon Electric, Inc.  
5106 Azusa Canyon Road  
Irwindale, California 91706  
Phone: 800-842-6940 (toll-free in the U.S.)  
626-962-7770  
Fax: 626-962-7720  
<http://www.falconups.com/>  
Two-Year Warranty



**List Prices:** <http://www.falconups.com/pdf/price%20list%20only.pdf>

**UPS Selection Guide:** [http://www.falconups.com/ups\\_table.htm](http://www.falconups.com/ups_table.htm)

**Online Selection Guide:** <http://www.falconups.com/selection-guides/online-ups-selection-guide.htm>

**Voltage and Frequency Converter Selection Guide:**

<http://www.falconups.com/selection-guides/frequency-converter-quick-selection-guide.htm>

**Software:** <http://www.falconups.com/software.htm>

**Communications Interface Guide:** <http://www.falconups.com/selection-guides/communications-interface-guide.htm>

**Tutorial:** [http://www.falconups.com/pdf-04-2004/sbs\\_ups\\_tutorial.pdf](http://www.falconups.com/pdf-04-2004/sbs_ups_tutorial.pdf)

**SG Series UPS Plus Brochure:** <http://www.falconups.com/pdf-04-2004/sg-brochure.pdf>

**Owner's Manual:** <http://www.falconups.com/SG1-3K%20USERS%20MANUAL.pdf>

**Strengths:** Power conditioning and strong UPS system. Falcon units are industrial grade products, built like tanks, and as reliable as it is humanly possible to make them. Excellent reputation.

**Weaknesses:** Power Management Software is not Mac-friendly. Fans are incredibly loud.

## Introduction

"Protect mission-critical applications and sensitive equipment from damaging high voltages with a Double Conversion Online UPS. This type of UPS converts the incoming utility alternating current (AC) to a filtered and regulated direct current (DC) and electronically regenerates a clean, new and tightly regulated AC source for use by your sensitive equipment. The double conversion technology removes utility voltage sags, high voltage transients, noise, frequency shifts and most forms of power pollution. Low cost Off-line and Line-interactive UPSs can't even come close to offering this level of protection." <http://www.falconups.com/pdf/Rolling%20blackouts-online-UPS-article.pdf>

"Known for their robust capabilities in mission critical applications, the SG and SSG Series were put to the test during a recent California storm that resulted in a power blackout at the Chaos Manor.

"When the big rains came to Los Angeles, we had power outages," Jerry Pournelle recalls. "The big one happened in the middle of the night. I happened to be working at the time. All of my major computer systems are protected by Falcon UPS boxes. First the lights blinked several times. Then they went off for about half a minute and returned. Finally they went off and stayed off. None of this had any effect on my computers: my online connections remained intact. There were no glitches whatsoever.

"I thought they might come back, but after several minutes I decided to shut down my computers in an orderly manner. This was no problem at all. I was now listening to a chorus of chirps as my Falcon UPS boxes complained bitterly that they had no input power. I went around to each and shut it down. Pushing a single button did the trick. Now all was quiet, and dark. Hours later, when the power returned, the Falcon UPS boxes woke themselves up. In half an hour, computing at Chaos Manor was back to normal."

"Falcon's SG and SSG Series feature a true regenerative double-conversion On-line design to provide the highest level of protection against the widest spectrum of power problems. Auto restart, a comprehensive front panel user interface, site wiring indicator and built-in surge protection make these UPSes some of the most robust on the market today. Special models feature a unique voltage/frequency converter option for worldwide applications, working well in harsh environmental conditions where there is poor frequency input.





Both the SG and SSG Series are able to provide a continuous, clean, tightly regulated power source from the most polluted incoming AC power, acting as electronic firewalls between incoming "dirty" power and sensitive micro-processor-based computers and automated systems found in industrial environments."

"With an on-line UPS, there's never a worry about whether the unit will switch to battery during a power failure, because the connected equipment is driven by the battery 100% of the time. There are also no worries about spikes, surges, and other artifacts of utility power, because the connected equipment never sees utility power directly. Instead, the dirty utility power is used only to charge the battery, which drives the connected load."

## What I Learned

I received the 1000KVA, 700Watt, SG1K-1T, 38-pound double-conversion online UPS unit for review. The list price is \$680.

You do not want one of these things under your desk if you want to be able to hear at all. These are server-room items and the server room better be sound-proof.

You get real used to quiet with Macs. I'd forgotten what it was like to be in proximity to very loud fans in computer equipment environments.

Frankly, I think the fan system is over-rated. These devices should be smart enough to drop the windflow and be proactive – unless these units are designed to run hot. If that is the case, they need to be redesigned along the "green environment" think. A variable windspeed indicator/auto-adjustor would be nice.

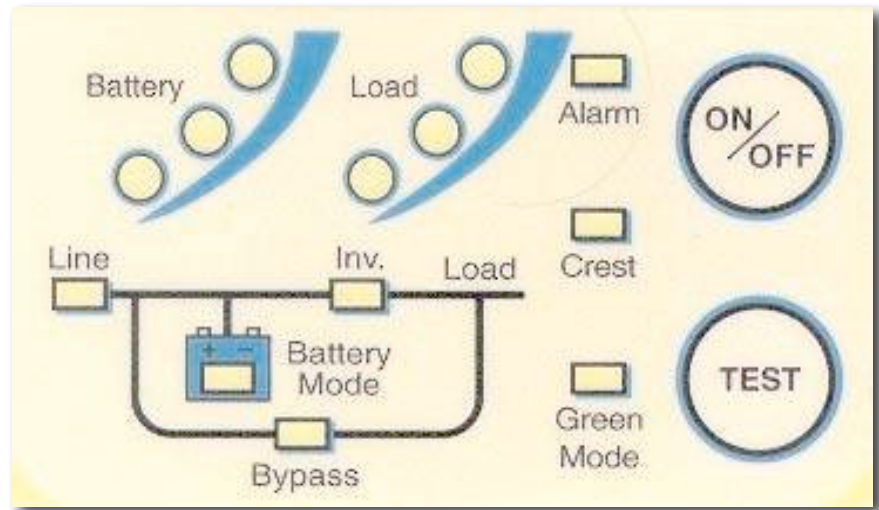
"In an Online UPS, the batteries are always connected to the inverter, so that no power transfer switches are necessary. When power loss occurs, the rectifier simply drops out of the circuit and the batteries keep the power steady and unchanged. When power is restored, the rectifier resumes carrying most of the load and begins charging the batteries, though the charging current may be limited to prevent the high-power rectifier from overheating the batteries and boiling off the electrolyte." Wikipedia





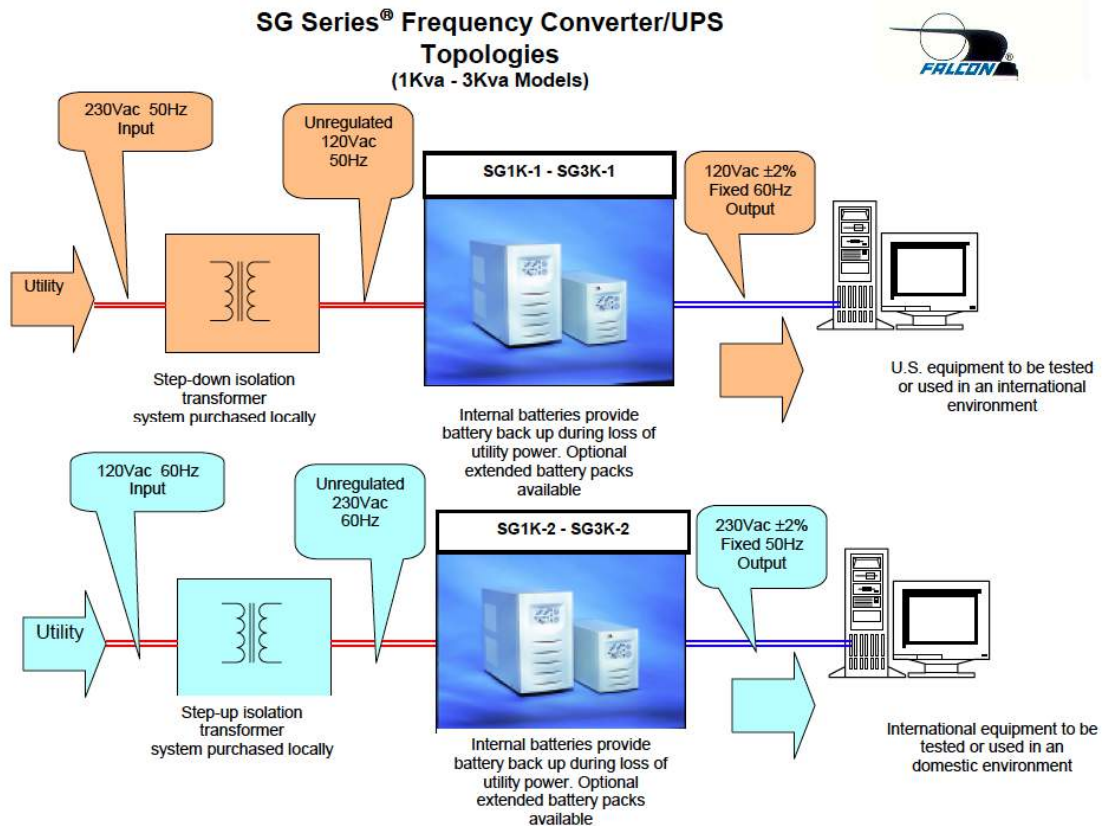
"The true advantage to the on-line UPS is its ability to provide an electrical firewall between the incoming utility power and your sensitive electronic equipment."

We have really dirty power here (Richland, WA) due to occasional popping/blowing transformers that are nearly 60 years old, new construction and new housing that taxes the heck out of an over-age energy distribution system that can't really handle the load.



**Note:** Don't plug laserjet printers into a UPS, because of the fuser heater units.

If you can access the units via DSL, then you can monitor these systems from literally anywhere in the world.



"All SG Series models have continuous duty inverters and support the addition of optional external battery/charger packs. With a factory modification and the addition of an external input transformer, SG Series models can be configured for use as voltage and frequency converters." That is why there is a "Plus" in the title of this UPS.

"With the supplied UPSILON® software, all SG Series UPS models support unattended shutdown, management, data logging, and self-diagnostics. The software supports MS Windows® 95, 98, NT, 2000, 2000 Server, ME, XP, Novell Netware® 5 & 6, LINUX and FreeBSD. UPSILON for UNIX supports most popular UNIX platforms and OS versions." The Mac OS X just isn't popular enough yet. The closest I've found is the



FreeBSD version with the User Manual from 2002 and developed by Mega System Technologies - <http://www.megatec.com.tw/Download.htm#UPSilon.Manual> for FreeBSD 1.0 and 2.0.

### Why an online UPS?

- **Full Generator Compatibility** - Double Conversion Online technology will take the dirtiest generator input and convert it into clean, computer grade power. Off-line and Line-interactive models will pass the noise and frequency shifts through to the connected equipment.
- **International Frequency Conversion** - Because this type of UPS generates a completely new AC output, some online units may be configured for 50Hz input, 60Hz output or the reverse. This cannot be done with any of the Off-line and Line-interactive products.
- **Longer Battery Runtimes** - Most Off-line and Line-interactive products will only provide a limited battery backup time of a few minutes, while online products typically offer optional battery packs that can increase the runtime up to several hours.
- **Input Power Factor Correction (PFC)** - All Off-line and Line-interactive UPS products on the market today do not offer input power factor correction. What does input PFC do? Simply stated, it is an electronic circuit that puts the incoming AC voltage and current in phase, irrespective of the connected equipment. This reduces the amount of input current required to operate the UPS and any connected equipment.

## **Conclusions**

If you live in a dirty power environment and you are using 3 or more pieces of sensitive electronics (computer systems, network deices, etc.), this is a good solution for a dedicated communications and equipment room. This would not be a good solution for an in-office environment where people work all day. The decibels on this gear is too high.

And if you work in a Mac environment, tweaking the remote monitoring software can be done on the UNIX side of a Mac.

## **Other Reading**

[http://en.wikipedia.org/wiki/Uninterruptible\\_power\\_supply](http://en.wikipedia.org/wiki/Uninterruptible_power_supply)

# Pinnacle Video Capture for Mac, aka Dazzle

Reviewed by Steven Fyffe



Pinnacle Systems

A division of [Avid Technology, Inc.](#)  
280 North Bernardo Avenue

Mountain View,  
California 94043

Tel: 650-526-1600

Fax: 650-526-1601

<http://www.pinnaclesys.com>

**Released:** Sept 2007

\$100 USD



**Strengths:** Easy to set up and use.

**Weaknesses:** It is an analog to digital converter, not an editor.



## Introduction

Juliet: "What's in a name? That which we call a rose By any other name would smell as sweet."  
[Romeo and Juliet \(II, ii, 1-2\)](#)

[Pinnacle Video Capture for Mac](#) is Dazzle for the Macintosh. A few years ago, the on-off, 1-0 digital age beamed down for video. All us geeky videographers jumped at the chance to convert their analog to digital video, for the sheer joy of watching their favorite episodes of Star Trek on their computer. Many of the early DV camcorders included a pass-through function, allowing you to convert analog VHS tapes into digital video. However, for those of us without one of those expensive cameras, we were not left in the analog wastelands. Along came Dazzle to the rescue ... well, at least for Windows users.

Pinnacle Video Capture for Mac is not as emotionally charged a name as Dazzle, but its name tells it all ... a rose by any other name smells just as sweet. Now, it is sweet indeed for Mac OS X users. Dazzle did not resurface as a fancy new device, with lots of bells and whistles. It is the same hardware which has been around for awhile, but now with Mac OS X software. Dazzle is still a sweet smelling rose. It is a reliable analog video to digital converter.

It reliably and efficiently does one thing, which its new name emphasizes. Pinnacle Video Capture for Mac does just that, it captures analog video for Macintosh users. Dazzle makes no claims to be a video editor. For that you would need Quick Time Pro or iMovie.

Dazzle has two analog video input ports, S-Video and composite (yellow). It also captures stereo RCA audio. If you have old VHS tapes and you want to digitize them, Dazzle will do the job. Those old analog camcorders could use a little Dazzle, if you are still using them. But it doesn't stop there. You can even use Dazzle to capture an analog video from a DVD player to quickly push it into your iPhone. Shucks, I was even able to capture live television broadcasts and DVR recorded programs using Dazzle. All you need is a device with either an S-Video or composite video output.

Speed is the biggest advantage of Pinnacle Video Capture for Mac, if you want to push those VHS tapes or DVDs into your video iPod, iPhone, or Apple TV as quickly as possible. I have used eyeTV for several years and it has many more bells and whistles than Dazzle, but every recording on an eyeTV must be exported out of its proprietary MPEG-2 format into a format compatible with an iPod or Apple TV. No need for that with Dazzle. Immediately, after Dazzle encodes the analog video at 29.97 frames-per-second in MPEG-4 format, the captured video is pumped into iTunes, ready to sync to your iPod or iPhone or to stream to your Apple TV. Considering that the resolution of the captured video is 640 x 480, I found the quality excellent on my fifth generation iPod. Of course, streaming a lower resolution video to my HDTV looks a little grainy.

You can burn DVDs using the MPEG-4 Dazzle captured video. The quality is also good, but if you have several videos you want to backup by burning DVD copies, you may want to consider other alternatives. I found that using Toast, it took hours and hours to encode the MPEG-4, before it even started the burning process. I usually backup my grandson's DVDs, and I found eyeTV is the speed demon for this function. Namely because eyeTV encodes them as MPEG-2 and within 25 minutes after recording a DVD, I can hand Jared his own copy of a DVD for his, not always gentle 6 year old hands. Again Dazzle can do the job, but the time it takes is much longer with Dazzle's MPEG-4 captured video, and there is no option to capture and encode at a higher resolution, unlike eyeTV.

As to cost, Dazzle is only \$99. If all you need is basic video capture, Dazzle is for you. If you need more bells and whistles than Dazzle provides, I suggest you consider eyeTV which costs between \$150 to \$200.

Taking into consideration the above stated limitations, Pinnacle Video Capture for Mac aka Dazzle is indeed a rose. Its software is easy to use. Just plug the analog video source into Dazzle. Plug Dazzle's connected USB 2 cable into your Mac. The software guides you through a couple steps to confirm your audio and video signals. Click record and the next thing you know, your digital video is in iTunes.

I hope you find this review helpful  
Steve Fyffe

# Sena Cases – iPhone 3G – Style meets Functionality

Reviewed by Robert Pritchett



SENA CASES  
14711 Bentley Circle #B  
Tustin, CA 92780  
Phone: (714) 505-8312  
Toll Free: (888) SENA-USA  
<http://www.senacases.com/Brands/iPhone-3G-Cases>

UltraSlim  
\$30 USD  
Leatherskin  
\$42.00 USD



**Blog:** <http://www.senacases.com/Blog>

**Strengths:** Real European Napa leather. Turkish craftsmanship. Quality stitching.

**Weaknesses:** None found.



## Introduction

After searching through some of the most coveted leathers in the world, Sena found the ultimate premium Napa calfskin leather in Italy and Turkey. The leathers are carefully hand-stitched to create the full line of cases.

Each case is “broken” in with its owner’s use. The leather is unique as it begins to form and customize to the owner’s particular usage routine.

**UltraSlim Pouch:** The UltraSlim Pouch is a novel approach for those who dislike the extra bulk some protective cases create. The UltraSlim is the leanest case ever designed for any mobile device. The slim curve hugging leather and micro suede lining is as close to naked as the iPhone can get. The UltraSlim Pouch is perfect for men carrying the iPhone in a pant or jacket pocket.

**LeatherSkin:** This form-fitting case is comprised of ultra-thin premium leather providing a soft layer of "skin" to gently protect devices from scratches. The fine, slender design offers a tight fit enhancing the curves of the device. Perfected for many of today’s most popular devices.

- Slim design
- Finest European Napa leather
- Velvet Lining
- Light and rigid protective layer
- Ratchet belt clip with removable tab
- iPhone earphone and speaker holes
- Proximity sensor opening
- Camera opening
- Charging port opening

The ULTRA-CLIP (or BELT-CLIP) versions of the cases have a little tab attached to the back of the case. This tab allows the case to be attached to the belt-clip. This tab is sewn to the back of the case and cannot be removed.

It has a spring-loaded mechanism that allows the device to be easily inserted and removed from the belt by using one-hand. However, unlike the regular spring-loaded clips, to place the device with Ultra Tab into the Ultra Clip, or to remove it from the Ultra Clip, you must turn the device 90-degrees (perpendicular to the clip). This all but eliminates the possibility of accidental "pop-outs". Once the device is seated in the clip, it will swivel 360-degrees like other swivel clips.



According to the manufacturer, The Ultra Clip can withstand pulling forces in excess of 130 pounds in any direction.

### **What I Learned**

I like quality. I love the smell of new leather. I like the idea that these cases are built to last and are not cheap knockoffs or imitation leather, but real solid leather with excellent stitching and sewn-in metal pieces.

They also went with a quality belt-clip company and added a tool to the kit for the option or not of using the belt clip add-on.

I received two items shown above. The UltraSlim Pouch really is a tight fit and I had to remove the TatSkinz to get the iPhone 3G to fit. And yes, it would be great in protecting the iPhone3G in a pair of pants.

I prefer using the LeatherSkin Case though. Why? Because it protects, looks classy and allows access to all openings and functions. And it doesn't get in the way, either.

But if I had a choice, I probably would have gone for the MagnetFlipper Case as a full protection, yet functional form.

### **Conclusion**

With Sena, style really does meet functionality.

# TatSkinz – "Protective Body Art" for your devices

Reviewed by Robert Pritchett

NLU Products  
748 Pioneer Road  
Draper, UT 84020  
801-495-3514

[http://www.tatskinz.com/iPhone\\_s/27.htm](http://www.tatskinz.com/iPhone_s/27.htm)

**Released:** July 2008

\$15 Each.

**Requirements:** iPhone, iPod Touch, iPod Classic and third generation Nano.

**Strengths:** Protects the devices adequately where they need protected. Can be interchanged without leaving stickiness on the devices.

**Weaknesses:** Doesn't cover the sides or ends.

## Introduction

TatSkinz are easy to apply. Just peel off the back and slap it on. Immediately your device has personality. TatSkinz will protect your device for a long, long...time.

<http://www.tatskinz.com/SearchResults.asp?Cat=4>

## What I Learned

I was making it more difficult than it really is and applied the back to my iPhone 3G, but not the front. It had holes in it and my iPhone did not. What I didn't understand, except only after reading the "iPhone The Missing Manual" book is that there are hidden sensors under the glass that need to see and the makers of TatSkinz understood that, but I did not. I was looking at the holes and called the company and made myself appear rather foolish because I didn't watch the online videos. I assumed the packages sent to me were for the iPod and not the iPhone. I was so wrong. The vinyl does not cover the sides or ends, only the front and back. Minimalist design.

Anyway, the vinyl protects the plastic from getting scratched and has the correct holes for the camera and the Apple logo and does a great job covering the front by acting as a bezel for the device. It does the job it was designed for. It doesn't slip off. And it really does make a unique device that soon will become ubiquitous, truly unique.



## **Conclusion**

You want something to protect the plastic iPhone from getting scratched? This will do it for the front and back.

Go to the site and look at the current prints.

# Software

## TheSkyX

Reviewed by Ted Bade



Software Bisque, Inc.  
912 Twelfth St.  
Golden, CO 80401

Sales: (800) 843-7599

International: (303) 278-4478

Fax: (303) 278-0045

<http://www.bisque.com/>

**Mac Version Released:** January 2008

\$99 USD (for \$149 you can get this program and another called Seeker).

[http://www.bisque.com/help/theskyx%20student/TheSkyX\\_Student\\_Edition.htm](http://www.bisque.com/help/theskyx%20student/TheSkyX_Student_Edition.htm)

**Forums:** <http://www.bisque.com/SC/forums/default.aspx>

**System Requirements:** 1.25 GHz G4 PowerPC or faster processor or 2 GHz Intel Core Duo or faster processor; Macintosh OS X version 10.4.8 or later; 1024 x 768 display resolution with millions of colors; 512 MB RAM; 64 MB video RAM; 520 MB disc space; Mouse or other pointing device; CD-ROM.

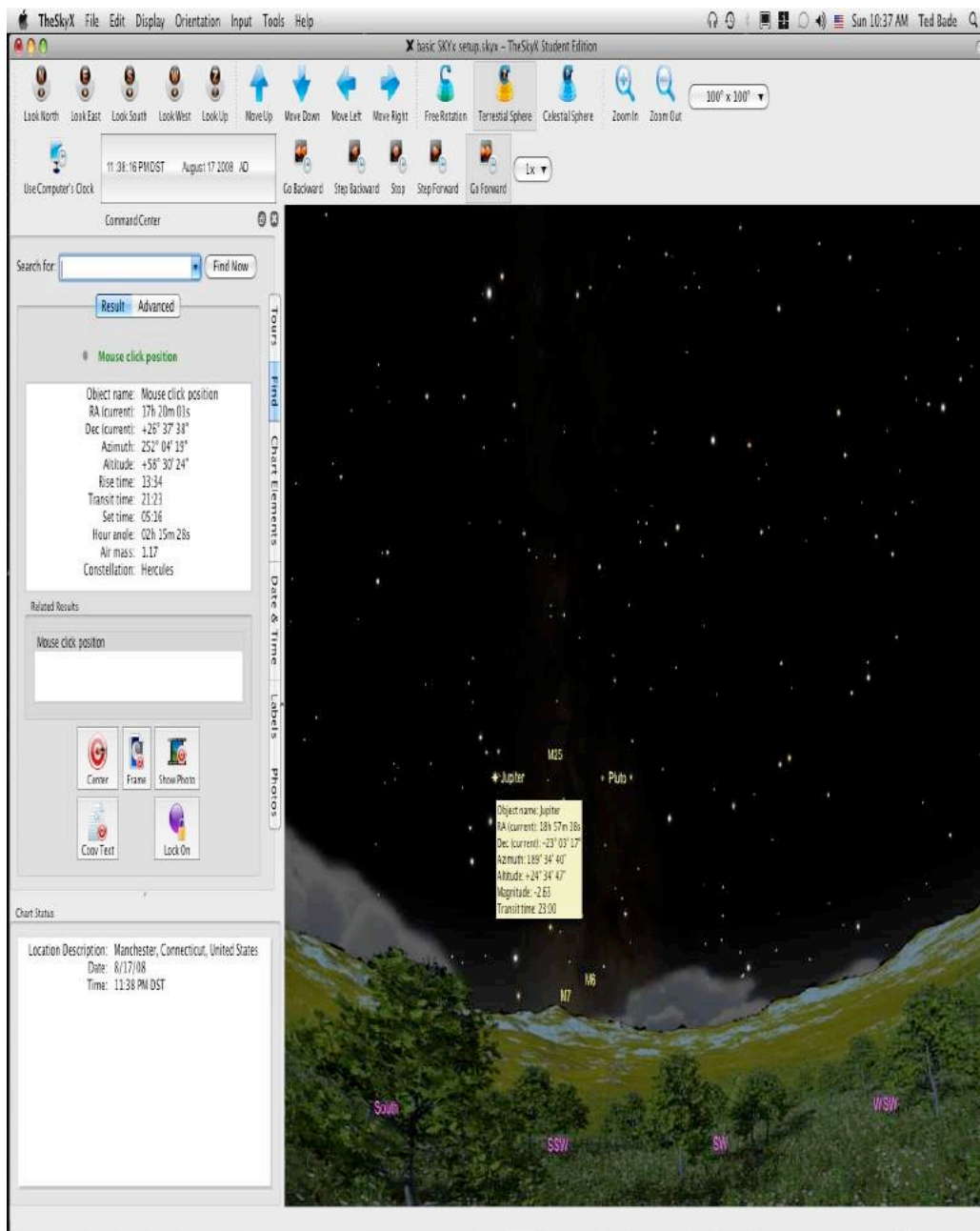
**Strengths:** Very easy to use, designed with the amateur in mind, easily set your location, easily generate a list of objects to view in the current sky, nice 3D view of the universe.

**Weaknesses:** Some issues with smaller 15" screen size, calendar program needs more features, issues with setting time, some issues with offering an image of objects.

For product information visit The SkyX software site.

## Introduction

TheSkyX is a new planetarium software program produced by Software Bisque, a company known for higher end Astronomy software products. With this program you can view a simulation of the sky near your house or anywhere else you can conceive, at what ever time, today, tonight, or 500 years ago. TheSkyX is easy to use, you can quickly find what is in the sky tonight (or any other night), locate objects of interest, and watch simulations of astronomical events. TheSkyX is fun to use and educational.



It is a sad testament that, in our modern age of powerful electronics and super computers, we cannot enjoy the simple things like the majesty of the night sky. Light pollution has stripped away the glory of the night sky and we are left with the merest echo of what is really there.



Luckily, TheSkyX can give us a peek at what the sky should be like. Sure, it can simulate your typical light polluted sky, but it can also give you a feel for what the sky would look like if there were no light pollution!

TheSkyX has all the controls and displays that one would expect of a planetarium software that runs on a home computer. You can set the coordinates to any place on earth and at any time, to see what is happening in the sky.

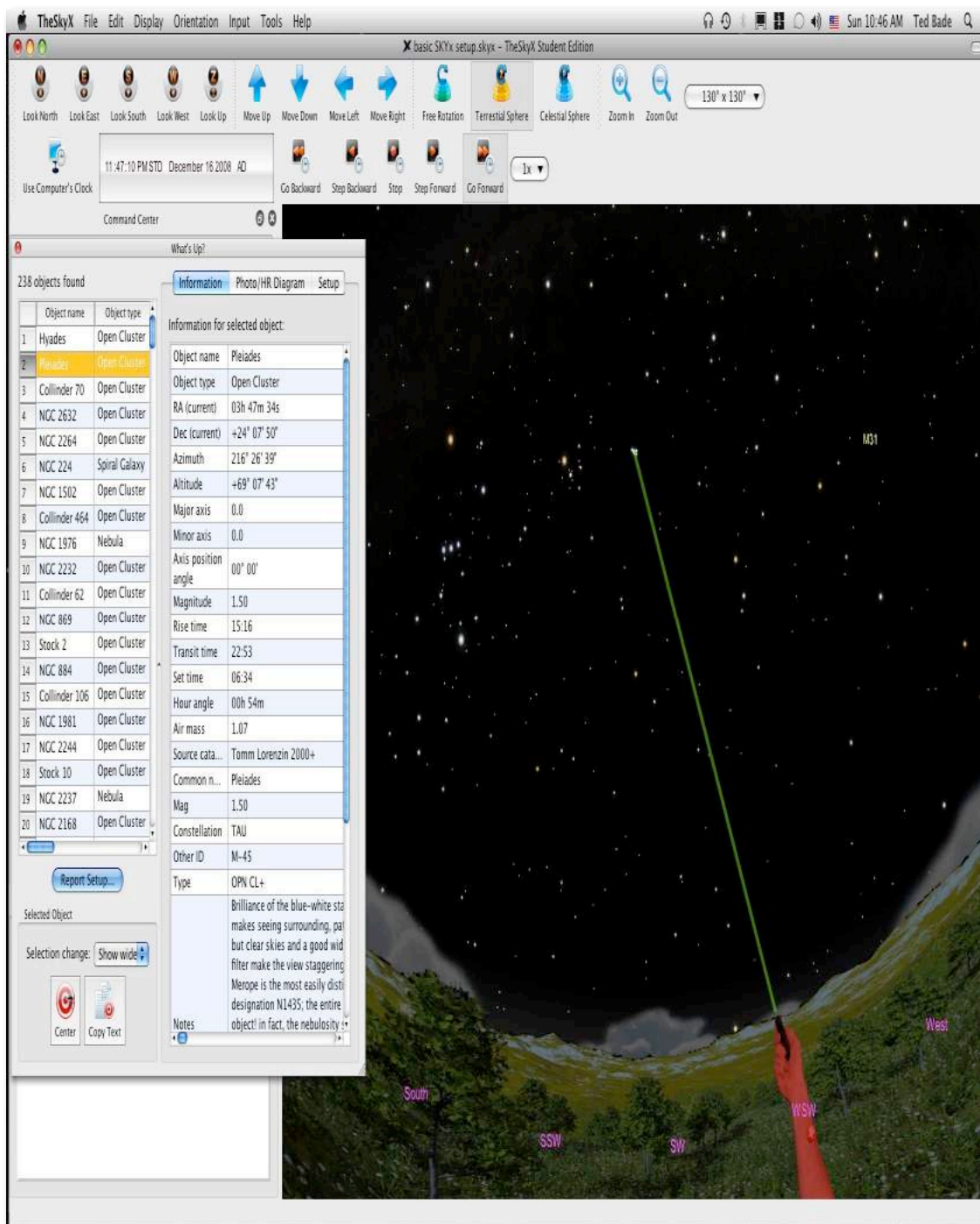
Or search for a particular object and find where it is in the sky (if it is at all). As with most programs like this, you can also view space as if from other places in the universe. For instance view the earth and moon from a distant point, say from Mars, or even the entire solar system from a point outside of it; nothing that we humans can really do. Yet because astronomers have figured out so much about our universe, we can simulate this view. TheSkyX also has a 3D view of stars in space. Using this view, you can see what the universe looks like from a distance of 1 or more light year distance from our sun.

Another nice feature of programs like this is the ability to speed up time. This gives one to the ability to observe astronomical events which would take days, months, or even years to observe. For instance, you can watch the progression of constellations across your backyard sky or see the interesting shape the sun draws as it moves position from day to day at the same time

In order to control the view of the sky in your back yard, you need to tell the program where you are and what time it is. TheSkyX can gather this information from your computer. I was amazed that when I first ran the program it knew grabbed both the general location and time from my computer, without my telling it to do so. Nice. You can also set your location using a US postal zip code. The most interesting way of setting the location is by it getting the location from your local internet provider. This worked well on my cable modem at home, but while traveling in Pennsylvania, the hotel's server told the program I was located in Indiana! Oh well. (that is probably where its server lives!)

As with all these programs, you can click on any object in the night sky and the program will give you information about the object. Where TheSkyX excels is it's ability to create a list of objects that are in the sky on a particular date. For the backyard astronomer this is very useful. You can filter the "What's up" list using different criteria. You can limit the list by viewing methods, like naked eye, binoculars, or small telescope. You can also choose which objects are left off the list. For instance, you want a list of what galaxies you might see tonight with a small telescope. Once the program generates the list, it provides all types of information about the objects. You can also organize the list by any of the column headings. For instance you can organize the list by constellation, magnitude, or object type, This will help the amateur with an observation session, since he or she will be able to position their viewing position to the best advantage for viewing most of the objects. While other programs I have used also perform similar functions, this programs method is very easy and more in line with how an amateur thinks rather than how a skilled astronomer does.

With the "What's up" table created, you can select an object on the list and have the program show you where in the sky it is. Provided you have the screen space, you can move the list off the sky view, click on an object on the list and a simulated laser pointer points out the object for you. You can also view a telescope image of the object if one is contained in the program.



While this program contains a number of photos, some of them don't want to show easily. For instance, when I searched for Jupiter (or if it comes up in the "What's up" list), there is an option to show a photo. No photo comes up in these modes, yet when I moved to the photo tab on the command center, there are a number of nice images of Jupiter.

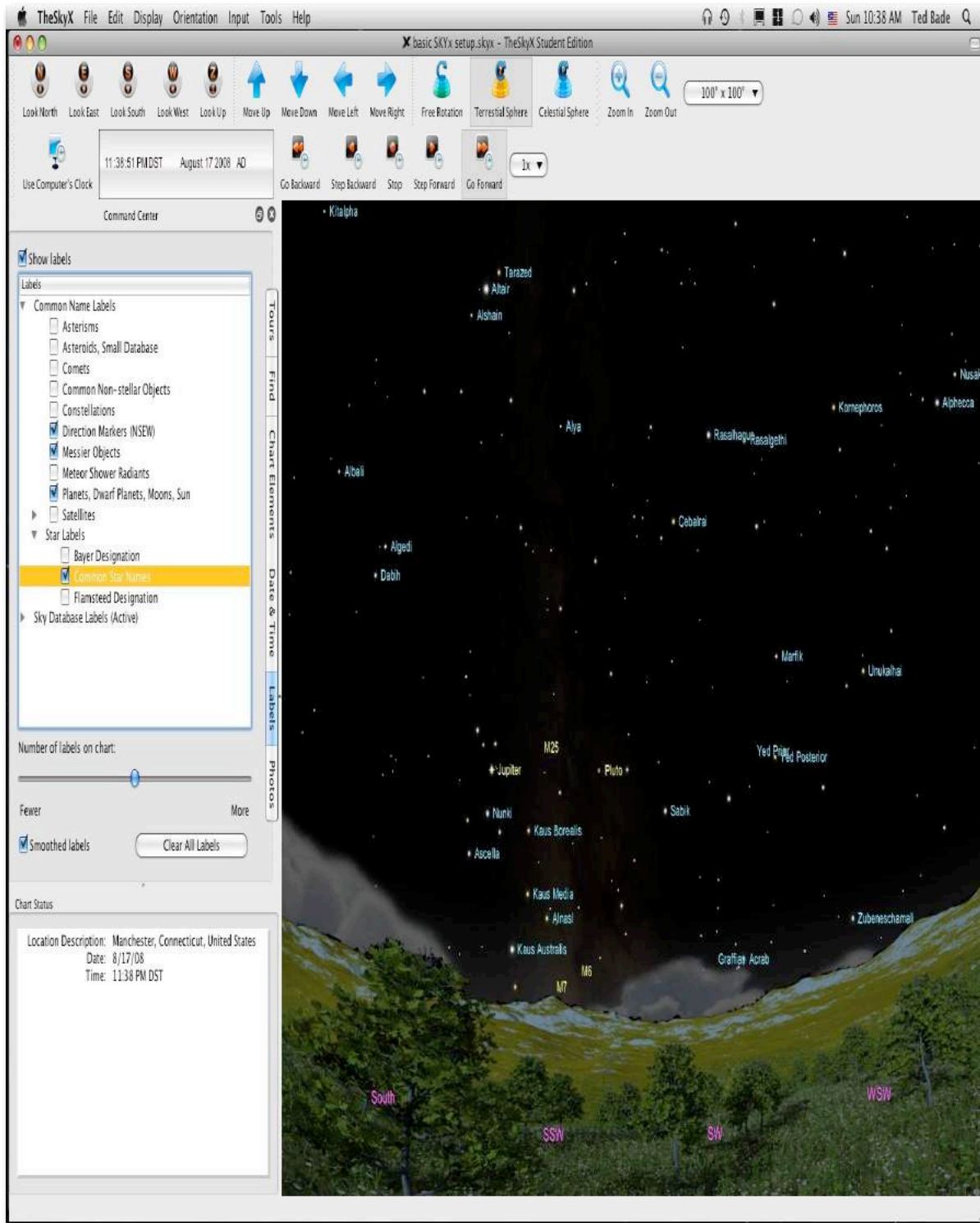
The program also displayed a very nice image of Jupiter when I zoomed in on this planet.

You can install TheSkyX on a Mac laptop (I tried it on my G4 PowerBook) and take the list of what's up outside with you. The program, as expected, has a night vision feature, that makes the screen look like it is illuminated with a red light. Red light doesn't reduce your night vision, so it is the light of choice when reading during an observation session.

I was a bit surprised that the program was unable to print out the “what’s up” table. While I usually take my laptop out when I am using my telescope, I don’t when I just bring out my binoculars. It would be nice to have a print out of the good binocular objects to take with me.

TheSkyX contains a library of all the objects one can see with the naked eye, binoculars, and amateur telescopes, providing a practical database for the student and amateur without bogging down the program with huge star catalogs. While some might think this is a bad part of the program, I think it makes the program a lot more user friendly. I am an amateur and need all the help I can get.

I found the program’s manual to be well written, very interesting, and a lot of fun to read. The person who wrote it has obviously had some experience dealing with people new to astronomy. This manual is a real gem! It is too bad that they don’t include a paper copy of it, just a PDF. I found that the manual not only explained how to use many of the many program’s features, but also explained a lot about astronomy and observing in general. However, I will say that this program appears to have a lot more potential than one would think from reading the manual. I would be happy to hear of a missing manual type book that digs into the features and powers of this program!



There are many pieces of information you can turn on concerning what is in the current sky view. You can turn on symbols and names for all the objects that are contained in the database. If you want to locate specific types of objects, it is easy to turn on their labels. You can turn on various representations of constellation figures from stick figures to full blown art. The program will show the Milky Way as a photo image or a drawn image.

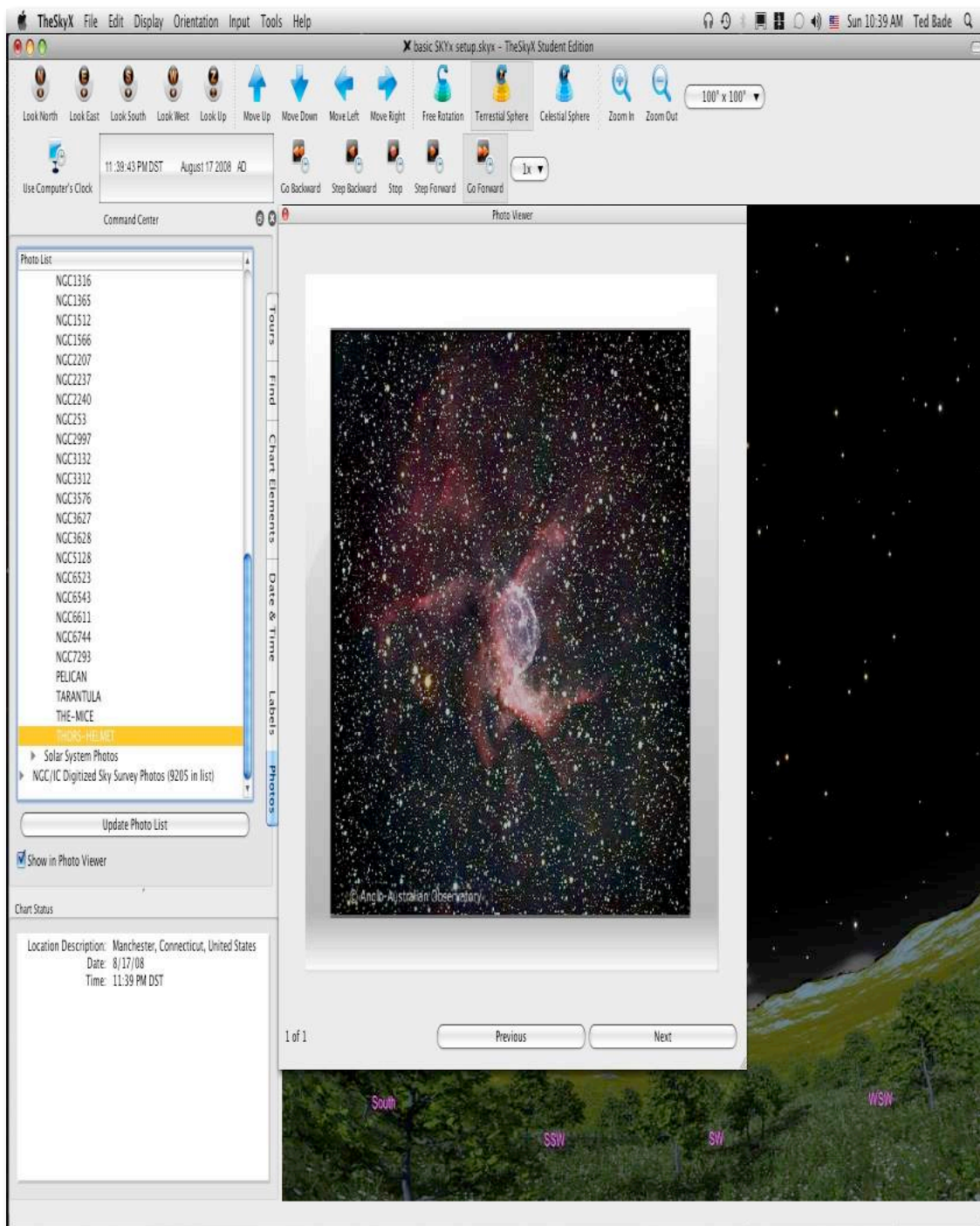
As with most programs like this, you can create simulations of astronomical events. Sometimes the simulations run at accelerated time speeds make it a lot easier to conceive a particular phenomena that might take months or years to happen. There are a number of these simulations included with the program. These simulations or tours demonstrate some aspect of astronomy using the special features of the program. For instance, if you were to watch the sun at the same spot and time each day for a year, you would see the path of the sun traces out a figure eight. This movement is called analemma. There is a nice simulation that shows the sun's path doing just this. There are other such shows you can watch and of course, you can make your own.

The calendar has the potential of a really nice feature, but it doesn't appear to be fully implemented. First of all, you can select a date to view by selecting a date on the calendar. You can also create and print a monthly calendar that show certain events that might be of interest to an astronomer. For instance the phase of the moon, and when the moon and sun rise and set. The program is also supposed to be able to add information about when to view Iridium Flares (light reflected off satellites that move quickly across the sky). However, when I choose to add this information all that happened was the images of the moon's phase disappeared. It would be nice if one was able to add other astronomical events such as conjunctions, eclipses, and meteor showers to this calendar. It would be wonderful if the calendar did all this!

Overall this is a very good program, but I did run into a few bugs as I tested it. It had some issues making text boxes big enough to show text on my 15" PowerBook but not on my desktop's 22" monitor. There was also an issue with how it decided what time it was based on the computer time. I live on the east coast of the USA, which is Eastern Standard Time and we currently are using Daylight saving's time. Our GMT time zone is GMT-5. This program sets its time one hour earlier than what I see on my computer. It also shows my GMT time zone as GMT-4. Apparently there is an issue getting the correct time zone for (at least) my time zone. A fix is on the works on this. It's a minor issue, since it is easy to change the time or the time zone to the correct the problem. The company's customer support people told me they were working on an update to correct a couple of the problems I found and would look into the others.

Just before this review was due, I had an opportunity to sit outside with my PowerBook and my binoculars and view a nice clear and dark night sky. So I took the opportunity to really try out TheSkyX. I found it very easy to manipulate this program to help me find my way through the stars. I found it's ability to easily change the zoom level from "Naked eye" to "Binocular" view a great help as I switched my viewing in the same way. I have used other programs and they can also be changed, but TheSkyX has easy controls. The "What's Up" list was very useful, but it kept getting in the way of the program's display of the sky. What this list needs is a way to hide and return it. Instead, the only option is to close the window and then recalculate the list when you want it back. Luckily this program remembers your last search, so it is just a matter of opening the search window and clicking the button.





Like a great road atlas, I was able to compare what was in the sky with what was on the screen and learn what I was viewing. I even managed to see a few of the brighter deep sky objects the program told me were there. It was a great session!



## Conclusions

TheSkyX is a good program, with a lot of power and abilities. It performs pretty well. I experienced no crashes or major problems, although there were a few minor ones. With a little work and a few modifications, TheSkyX will be an excellent choice for any student of Astronomy. It has an interface designed for the beginner, making it easy to control and understand how to use, but behind this is a lot of power. As the beginner advances, this program will still be very useful. It is a good choice if you are looking for an astronomy program.

Right now Software Bisque is offering a package that includes both TheSkyX and another program of theirs called Seeker as a bundle for \$149 US. Since both programs retail for \$99, this is a pretty nice discount. Next month, we will take a look at Seeker.

End Note: The ad for this program caught my eye, since their ad follows that of Apple's current advertising. The Ad shows the program running on two computers, one says "I'm a Mac" and the other says "I'm a PC". Not to mention the big black X! I wonder what Apple is thinking ☺

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[rpritchett@maccompanion.com](mailto:rpritchett@maccompanion.com)

We are the Macintosh® Professional Network (MPN), Limited Liability Corporation (LLC). MPN, LLC continues to evolve, ever since its creation in 1996 as a way to reach out to those who use computers for a living in an effort to make their lives easier and their work both enjoyable and profitable.

We also provide monthly book, hardware and software reviews at [macCompanion](#). We offer ways and means for folks to get comfortable using the Macintosh™ created by the Apple® Corporation in the multibillion-dollar computer industry. We know that bad software doesn't live long in the Mac™ environment. On the other hand, good computer equipment and software becomes great as the word spreads, and we are very good at helping to spread it. Our suggestions over the years have also helped improve many successful products in use today. Through kind and gentle efforts, we have been able to help many people move to better tools-of-the-trade so they can be more productive in their work.

Besides our website and consulting efforts, we also create *macCompanion* as a freely available PDF-based monthly. It averages about 100 pages per month. July 2006 was the 4th-year anniversary of this labor of love. The *macCompanion* staff is an all-volunteer team of writers and reviewers from many parts of the globe, and they also have a great wealth of knowledge and experience in their backgrounds. That base of talent also continues to keep growing as the Macintosh Professional Network expands.

## Statistical Analysis

We are very excited about our site statistics! The multilingual-capable [macCompanion](#) website is close to 2 million page views a month and readership continues to increase rapidly through our "whisper campaign".

We continue to get greater visibility every day. Many of the various 35 computer operating systems (with many moving towards the Mac® OS X™ environment), 115 online search engines, 269 countries and domains and 319 online robots have discovered us – and continue to do so. So far, over 201 other websites have also linked to us. Many of our readers have made our site one of their favorites. While nearly 70% of our readership stops by for a quick visit via RSS feeds, over 23% spend between 1/2 to 1 hours at a time going through over 250 different pages on our site (mostly archives). Many of those who quickly drop by, come to get the monthly PDF issue of *macCompanion*. Over 35GB of bandwidth was used in December 2005 alone for download purposes. Previous months have averaged around 20GB. Trend analysis indicates that will continue to increase as folks decide to "Move to the Mac".

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Well that's it for this issue. Please come back again next month!

The *macCompanion* Staff