



South Bay Apple MUG

Macintosh

August-September 2012

A Monthly CUPFUL for South Bay Apple Mac User Group Members

Answering Questions about Sandboxing

by Rich Mogull, TidBits, June 25, 2012

edited for space by Pete Myers & P Townsend

Apple is in the midst of a major transition with the Mac platform. As users flock to the Mac, it's only natural that criminals will follow - that growing market share makes the Mac community a sufficiently lucrative target. But it's clear Apple recognizes this risk. Taking lessons from the currently malware-free world of iOS, Apple has been enhancing the security of Mac OS X since the release of Mac OS X 10.5 Leopard, slowly at first, and more significantly of late.

Apple's strategy relies on five technical pillars: enhancing the foundational security of Mac OS X; hardening Safari (Web browsers being the most common avenue of attack today); encouraging apps to use sandboxing techniques to limit attack vectors; keeping the Mac App Store as free of malicious applications as possible; and, with 10.8 Mountain Lion, using Gatekeeper to reduce the ability of attackers to trick users into running downloaded malicious applications.

But we shouldn't think of this as just an ever escalating technical battle. Apple's real goal with these changes, especially with the combination of the Mac App Store, sandboxing, and Gatekeeper, is to disrupt the economics that keep the bad guys in business, rather than fighting a never ending series of one-off skirmishes.

As Uncle Ben said, "With great power comes great responsibility." Apple's moves toward a more-controlled (by Apple) experience on Mac OS X scare some users, and they could be problematic for many developers. The challenge for Cupertino will be to strike, and maintain, the right balance between control and freedom. That is, if they want to maintain the innovative heart that has made the Mac so appealing since 1984.

Let's take a look at sandboxing, the Mac App Store*, and Gatekeeper in particular, since they offer both the most promise for preventing attacks and the most risk for the soul of the Macintosh. (Note- see full article online for discussion of Gatekeeper and the Mac App store, <http://tidbits.com/article/13071>

What is sandboxing? -- Practically speaking, sandboxing prevents applications from doing unexpected things to your computer. Sandboxing encompasses a set of techniques to isolate applications and minimize what they can do on your Mac. The idea is that some applications could harm your computer, either deliberately or if an attacker compromises them, and putting these apps in a "sandbox" limits the potential damage. A sandboxed application is allowed to interact with the rest of your computer only through a strict set of rules that specify what actions it can perform. Sandboxing has been around for a long time and is already in use in Mac OS X, Windows, and other operating systems.

Here's a simplified explanation of how it works. A normal, non-sandboxed application has full access to everything on your computer, which can include reading and writing files anywhere on the file system, sniffing and sending network traffic, watching everything you type, controlling your camera and microphone, and more. Even if an app isn't programmed to use all those capabilities, there is nothing in the operating system to limit what it can do. Thus, one of the most common ways to attack a computer is to find an application with a vulnerability, exploit that vulnerability to inject malicious code into the application, and then use the application to run the malicious code to perform further actions. *Continued on page 7*

Our next SBAMUG meeting
August 29: iOS Devices
Presented by a Panel of SBAMUGers

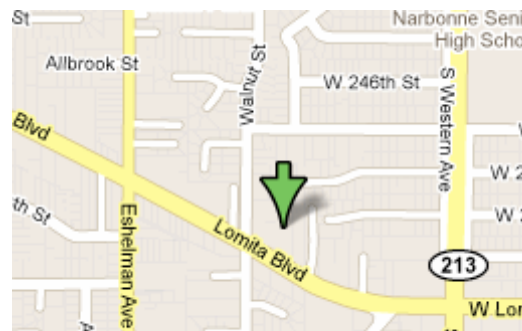
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Welcome to the SBAMUG South Bay Apple Mac User Group

Members, friends and colleagues are invited to attend our monthly meetings. The \$35 annual membership dues entitle you to receive this monthly newsletter by mail or online, plus many more benefits (page 8). To become a member or get more info please check our website.



Lomita Veteran's Hall,
1865 Lomita Blvd, Lomita

Meetings: Lomita Veteran's Hall,
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SBAMUG Monthly Calendar – August 29 - IOS Devices (iPad, iPhone): A Panel of SBAMUG members talk about using these devices

September 26 - Mountain Lion

****Read this newsletter online (active hyperlinks!) at <http://www.sbamug.com/newsletter.html>* ***

SBAMUG Meeting Format:

6:30—7:30 p.m. Questions & Answers and Sharing:
Everyone is welcome, beginners encouraged
7:30—7:45 p.m. 'iSocial' – shoot the Mac breeze
with others over a cookie
7:50—9:00 p.m. Announcements and iProgram

***Refreshments provided; donations appreciated!*

Submit suggestions for topics or speakers, or articles, ideas & original artwork for this newsletter by the last Wednesday of each month. Articles may be edited to fit space. Submit to: ptownsend@sbamug.com

Other Meetings:

- 1st Sat. Core Group 10 a.m. – Location variable. Ask at the meetings or email: info@sbamug.com
- Special interest groups (SIGs): Ask at the meetings or email: info@sbamug.com
- Last Sat.- Northrop Grumman-Ham Radio & Computer Swap Meet, 7--11:30 a.m. Meet at SE corner of Marine/Aviation Blvd, Redondo Beach
- Los Angeles Portable Users Group: Mac OS X, iPhone, iPod, MacBook, etc., <http://www.lapug.org/>
- Find more <http://www.apple.com/usergroups/>

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Membership Report –134 members

Please wear your membership card as your name tag at our monthly meetings.

Thank You Member Renewals: S/MSgt. Samuel Peters, Hyim Levy, Cleve Hildebrand.

Contact Membership Chair CW Mitchell for any corrections: cwmitchell@sbamug.com. Renew at the meetings or by mail.

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PD-CD JIM PERNAL AUGUST 2012 PUBLIC DOMAIN CD

Nine items this month. I'm noticing that programs such as the Adium one below, will list earlier versions that can run on older versions of Mac OS X. While this is convenient, it also means the developer is no longer planning to support earlier versions of OS X.

Acorn-4.zip Bitmap image editor. New trim out select feature added. Has image filters and works with layers. OSX 10.6.6 or better Intel only Shareware \$49.95

Adium_1.5.2.dmg King of free instant message clients. Handles AIM, ICQ, MSN Yahoo, Google Talk, Novell and others. Bug fixes in this version. OSX 10.6.8 Intel only.

CocktailMLE.dmg Cocktail Mountain Lion edition. Latest utility to clean, repair, and optimize your OSX 10.8 operating system. \$14.00

MacGourmet-3.2.4.zip Dynamic recipe manager. Create and edit recipes. MobileMe support since it has gone away is deleted in this version. OSX 10.8 support added. OSX 10.6 or better Intel Shareware \$29.00

Mactracker_6.5.zip Database of all mac model specifications along with printers, keyboards, iPods, cameras, printers. Scanners, you name it as long as it was an Apple product. Latest new Macs added to this version. PPC/Intel OSX 10.5.4 or better. Free

NoiseMachine.dmg White noise generator to block out workspace noise. OSX 10.6 up to 10.8. Intel only. Shareware \$4.95

Pacifist_3.0.6.zip Utility program to extract just one or a few programs out of a full up installer package. Just grab that file you or someone else deleted. OSX 10.4.11 or better PPC/Intel. Shareware \$20.00

PXC1.3.zip Pixel Check. A checker program for LCD's with bad pixels, You can have it turn on all red, blue, green, all black or all white pixels to see if you have issues. OSX 10.7 or better. Freeware.

SyncFoldersFree.dmg Sync contents of folders. Easy backup to USB or remote drives. Free as in the title. OSX 10.7

CD for this month will be at the August 2012 meeting, labeled as the July-August CD. I'll see you at the August meeting.

Jim Pernal, PD Editor

App of the Month

This comes by way of the email group.

One of the members writes, I'm looking for a simple text-editor/word-processor for the iPad. I have "Notes" and it's OK. Pages seems like overkill and I don't have iCloud on my iMac. And the text-editor must not require the Internet.

Another email group member responds: SimpleNote is free, and has a web interface: <http://simplenoteapp.com>

Notational Velocity also provides the ability to write with a stylus: <http://notational.net>; <http://itunes.apple.com/us/app/notability-take-notes-annotate/id360593530?mt=8>

How does the SBAMUG use your annual dues?

Rent for the meeting place, newsletter printing & mailing, hardware & software, PO box rental, etc. We save a lot through volunteers.

Sparked by the Email Group, the August Core Group discussed the future use of dues and possible adjustment.

The Core Group decided to maintain the \$35 annual dues (a bargain really!) to ensure financial stability. We focused on meeting, presentation and communication needs. Things like moving club info to the cloud (instead of buying a new or upgraded computer), hardware and software to support presentations, and hardware so our equipment can communicate. We also talked about Meetup Group as a way to get new members.

The Core Group noted that members versus meeting attendance (around 3:1 or 4:1) means the value of the club for those who seldom attend must be the newsletter and Email Group.

Another need is updating and enlivening the SBAMUG website. A great volunteer opportunity to learn and create.

Attend the next Core Group. It's really quite rousing.

Subscribe to the email group by sending an email to everybody-on@sbamug.com)

P. Townsend, Editor

Mac 911

by Christopher Breen, Macworld

Locating and dispensing with old applications

Reader Chas Hamilton has come down with a case of spring-cleaning fever. He writes:

I was just looking at my Applications folder that contains hundreds of apps and realized that there are a lot of old things in there that I never used. I came up with the clever idea to sort my applications by the date they were last opened so that I could toss out old apps. (I figured that if I hadn't touched something in the last two years I wasn't likely to.) I'm running Snow Leopard and the problem is that when I open my Applications folder and choose View -> View Options, the option to view files by Last Opened is grayed out. Is there some way to make it active?

You're correct, Apple disabled that option in Snow Leopard. I've attempted to edit the com.apple.finder.plist file in order to make it active with no luck (though you can edit this file to enable other view options).

Open the Applications folder and then press Command-F. In the resulting search window click on Applications at the top of the window so that you're searching that folder. Configure the pop-up menus at the top of the window to read Last Opened Date is Before X/X/2010 (a date approximately two years ago). Click the Plus button to create another condition. Configure this one to read Kind is Application. (You do this because your Applications folder may contain files that haven't been opened in the last two years.)

The list below should contain only those applications that you haven't opened in the last two years. If you don't see a Last Opened column in this window, press Command-J to bring up the view options window and enable the Last Opened option (which, in this case, does work). With this column visible you can then sort the list by date, making it easy to locate those applications that you really, really haven't used lately.

Naturally, before tossing out these less-favored applications you'll want to examine them carefully so that you don't discard something that you anticipate needing some day. Note that if you're running Lion, this isn't an issue as Date Last Opened is enabled in view options.

Empty the #\$&@! trash already!

Reader Jim Young has a trash that's starting to stink up the place. He writes:

I found that I was running out of space on my hard drive so I located some large files and tossed them in the trash. But when I tried to empty the trash I received a warning indicating that the trash couldn't be emptied because of a ~8003 error. I really need to empty the trash but it won't respond. What can I do?

I wouldn't bother trying to learn what that specific ~8003 error means. The Mac can throw up all kinds of error codes and very few of them make sense (or have much published about them). Instead, just assume something's mucked up and go from there.

We'll start with general muckage. Launch Disk Utility (/Applications/ Utilities), select your startup drive in the left side of the window, click the First Aid tab, and click Verify Disk. Disk Utility will perform a check of your startup volume looking for any obvious errors. If it finds any errors, boot from another volume (in Lion this can be the Recovery HD partition, in earlier versions of the Mac OS, boot from the latest OS X installer disc). Again, run Disk Utility from this new volume, select your regular startup volume, and click Repair Disk.

With luck, everything will be repaired, you'll return to your startup drive, and be able to empty the trash. Without that luck, you may have to turn to a sterner utility such as Alsofts' \$100 Disk Warrior.

You say that Disk Utility found no problems yet you still can't empty the trash. If you like pushing buttons, return to Disk Utility, select your startup volume, choose First Aid, and click the Repair Permissions button. Any luck? I thought not.

If you're at the end of your rope in a "For cryin, out loud, Chris, just tell me how to empty the dratted trash already because I'm pretty sure this is a case of a corrupt file" kind of way, okay, here's the answer. Download a utility that ignores OS X's objections and takes out the trash like you asked it to. There are a variety of these tools – all of which plaster a nice GUI on Unix commands. The one I prefer is Titanium Software's Onyx. It's free and it works. What more could you ask for?

Launch Onyx and allow it to run a couple of tests on your drive. Once those tests come up negative select the Utilities tab, click the Trash tab in the window, and make sure that the Delete option is selected. Click on Execute and Onyx should go where the Mac OS refused to and empty the trash.

Just to be sure that the problem's root isn't deeper down in the system, quit Onyx, toss a file you don't need in the trash, and empty the trash. If it flushes as expected you should be good to go.

Remotely transfer iPhoto images to iPhone

Reader Robert Zavod would like greater access to his photos from his iPhone. He writes:

When using my iPhone on the road, I'd like to access my iMac and its iPhoto library and move some of the images in that library to my iPhone. Is there a way to do that?

Continued on page 5

Rumors & Stuff

by Phil Russell, CMUG

When you are moving an iPad app from screen to screen, do you get a blurry snap back with the app staying in place? The approved way of moving an app is to drag the app JUST to the edge of the screen and hold it there. The next screen will appear and you can continue the drag.

I told you about this long ago, but it is worth repeating. If you want a longer note than convenient to put into an item's title text, use Spotlight Comments. Plenty of room there for a lot of text. To do this, highlight the item and press Command + I (Get Info under the File menu) and type your text under Spotlight Comments.

Try the iPad Academy for iPad

hints, <<http://ipadacademy.com/category/ipad-tips-tutorials>>

There is a red line in the iPad's scrubber bar indicating how far into a song you are. You can drag that line to skip to any location in the song. As you drag slide your finger downward on the screen, the scrub rate slows down.

To send SMS-like messages in iPad:

- In Settings select Messages
- Turn iMessage ON.
- In Receive At enter your Apple ID and your email address or addresses.
- To send a message, open the Messages app icon, enter a name of a contact after To:.
- Contacts will appear as you type.

If you cannot send the message to a contact using this email address, the contact will appear against a red background with an exclamation mark at the end. Type Subject where it says Subject.

Your message will be typed on the very next text space just below the Subject line. Tap the camera to add a photo to the message.

When you failed to bookmark a site on your iPad, you can get to it using History. To do this in Safari tap the Bookmarks icon (looks like an open book). Under Bookmarks tap History and select the site you want from the list which appears.

You can make sites you visit frequently in Safari have special privileges. These are called web clips. To add a site you visit often, go to that site and select Add to Home Screen instead of Add Bookmark. The result is an icon which appears among your app icons. Of course you can also add a bookmark if you wish. *Cont'd on page 6*

Mac 911, continued from page 4

Yes. There are a couple of ways to approach this. The first is the dead-simple way (recently suggested to me by reader @snaab via Twitter) and the second is my original method, which can be more broadly helpful for communicating remotely with your Mac but is more complicated. We'll start with the simple solution.

On your iPhone download a copy of Tunaverse Media's free Blinq Photo app. On your Mac, travel to Tunaverse's website and grab an equally-free copy of Blinq for Mac. Fire up the Mac client and create an account (this requires that you create a username and password and enter an email address). Once your account has been created you'll be asked whether you'd like Blinq to use your iPhoto or Aperture library. Choose iPhoto.

Now shift over to your iPhone, launch the Blinq app, and log in with the account you just created. In a short while, your Mac will appear as one of Blinq's photo sources. Tap on the computer icon to view your iPhoto albums. Tap an album or event, select an image, and from the Action menu at the bottom-right of the screen choose Save to Photos App. The image is then copied from your iPhoto library to your iPhone. Regrettably you can choose to copy only one image at a time.

Now for the more complicated way.

That more complicated way is a two-step conundrum. The first is that you must find a way to access your iMac. The second is moving the images you want to your iPhone. We'll take them in order.

Although it really should go without saying, for this to work your iMac must be running. Also, you must have an iCloud account and the latest version of iPhoto. You additionally must select iCloud in Settings on your iPhone and enable Photo Stream.

Now that we have that straightened out, you'll next need an iOS app that allows you to connect to and control your Mac remotely. There are a variety of these apps. I've used Edovia's \$20 Screens VNC, the \$20 iTeleport for iPad, and the \$3 Splashtop Remote Desktop for iPad and each can do the job, both on the same local network as your computer and from across the Internet.

What these apps do is show you your iMac's screen on your iOS device. Using one gesture or another, you then navigate that screen just as you would if you were sitting in front of the computer.

Now that you can do that, remotely launch your copy of iPhoto on your iMac. Navigate to the images that you'd like to eventually see on your iPhone and select them. Move to the Share menu and choose Photo Stream. The images you selected will be uploaded to iCloud's Photo Stream.

All you have to do now is wait for iCloud to work its magic. Eventually the images you selected in iPhoto will appear in the Photos app on your iOS device within its Photo Stream album.

Learn how to compress an image to create a small file for uploading to a web site or sending via email. You can use iPhoto's export function for this. Go to Export under the File menu and you find this, fig. 01, and choose quality and size.

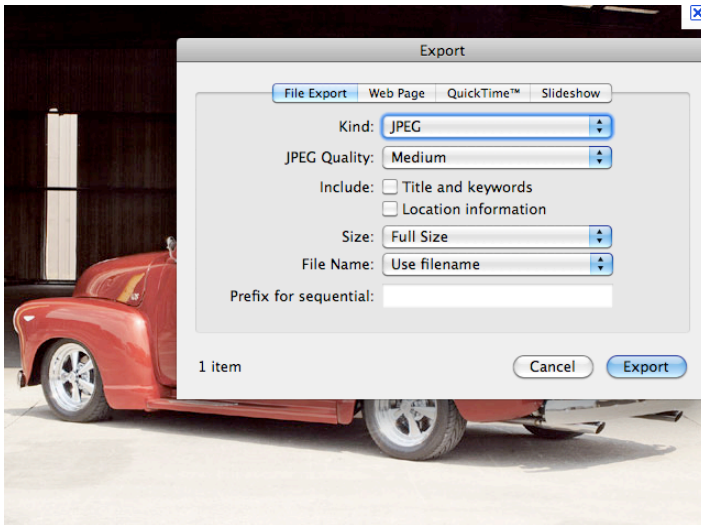


Fig. 01. Exporting an image

If the image is not in your iPhoto library, then you can also use Preview to create a compressed version without buying any new software. Go to the Tools menu to do this, fig. 02.

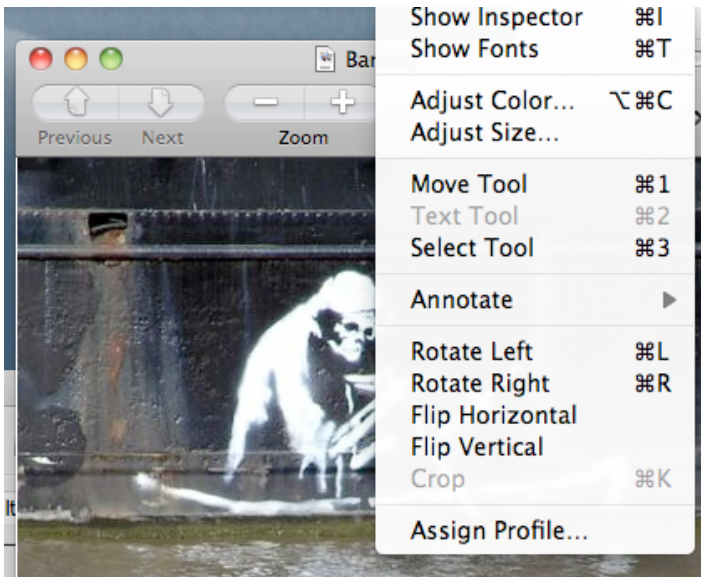


Fig. 02. Adjusting Size

Are you looking for a simple way to take pictures on an iPhone and upload them to one of the major photo sharing services, without much hassle? The official Flickr app does that. It makes it simple to upload pictures from a camera roll directly from an iPhone to Flickr.

If the owner of a Mac account is incapacitated or is otherwise not available, you can get into the account using an Apple Software Restore disc (included with newer Macs) or a Mac OS X Install disc. Complete instructions are available at <http://kb.wisc.edu/page.php?id=3853>.

A fascinating page of links to Mac videos can be found at <http://macmost.com/video-list>. There are more than 600 videos shown. Each keyword category contains 3 to 63 or more videos. Some categories are Automator, Email, Backing Up, iCal, iPad, Mail, Podcasting and 45 more categories.

Do you want to learn how to wrap text in Pages around an unusual shape? Go to <http://macmost.com/wrapping-text-around-custom-shapes-in-pages.html>. Gary Rosenzwein of MacMost will explain how in four and a half minutes of video.

The “Rule of Thirds” one of the first things that budding digital photographers learn about in classes on photography and rightly so as it is the basis for well balanced and interesting shots. However that rules are meant to be broken and ignoring the rule of thirds doesn't mean your images are necessarily unbalanced or uninteresting. But if you intend to break a rule you should always learn it first to make sure your breaking of it is all the more effective!

The basic principle behind the rule of thirds is to imagine breaking an image down into thirds (both horizontally and vertically) so that you have 9 parts, fig. 03.



Fig 03. Rule of Thirds

You can see how the rule of thirds works on an iPad. Click Camera. Now under the Options button and select Grid ON (only available when in back picture mode - taking photos away from your face). Once the Grid is ON, the rule of thirds lines will appear in both back and front facing modes.

With this grid in mind the ‘rule of thirds’ now identifies four important parts of the image that you should consider placing points of interest in as you frame your image.

The theory is that if you place points of interest in the intersections or along the lines, then your photo becomes more balanced and will enable a viewer of the image to interact with it more naturally, fig. 04. *Continued on page 7*

In contrast, a sandboxed application doesn't run with full access. Instead, it executes inside a restricted container that is isolated from the rest of your Mac. Thus, if an attacker were to exploit a vulnerability in the app and inject malicious code, that code would be limited to the sandbox.

That might work for simple, standalone apps like casual games - Angry Birds could be sandboxed easily. But for more complex programs, sandboxing has some obvious problems, like saving files and accessing the network. To work around this problem, each individual application can be given a set of "entitlements" that allow the app limited access to other parts of your Mac.

For example, a fully sandboxed app with no entitlements can save files only into its own directory, but with an entitlement, it can be given permission to save files anywhere in your home folder (which is still safer than the app being able to save a file anywhere on the file system). iOS apps are heavily sandboxed, which is why apps can't access each other's files. iOS offers no entitlement to access shared files other than photos, so we're forced to copy files from app to app using the Open In command.

This particular limitation in iOS, to be blunt, sacrifices usability for security. But at least most apps in iOS don't create or manipulate documents (although that's changing, thanks to the iPad). On the Mac, where far more applications are document-centric, and where the entire user experience revolves around the Finder, such a system would be a major disaster that would immediately drive every professional user to Windows. It would become impossible to use multiple apps to make changes to the same document without making a vast number of copies, and keeping track of which change was in which copy would be a nightmare. As a result, Apple has created more possible entitlements for Mac apps than for iOS apps, but sandboxed apps are still far more restricted than their non-sandboxed brethren.

The overall goal is the same - to ensure an application can't do too much damage to your system, either by design or if it's compromised by an attacker. But since the needs of Mac users are different than the needs of iOS users, it's hard to figure out the right balance of restrictions and entitlements.

Why is sandboxing so important? -- As operating systems have become harder to exploit, attackers have started targeting specific applications. We see more attacks against Adobe Acrobat and Flash, Microsoft Office, Java, Web browsers, and QuickTime than we do against Mac OS X and Windows themselves. That's why, for example, Apple now sandboxes parts of Safari and QuickTime, Google sandboxes Chrome, and Adobe sandboxes Reader and Acrobat (only on Windows).

Take Google Chrome. It is widely considered the most secure Web browser available, due to its heavy use of sandboxing. Chrome even embeds and sandboxes its own version of Adobe Flash to reduce the chance of a Flash exploit taking over a computer. That's why I uninstalled Flash from my Mac and view Flash-using sites exclusively with Chrome.

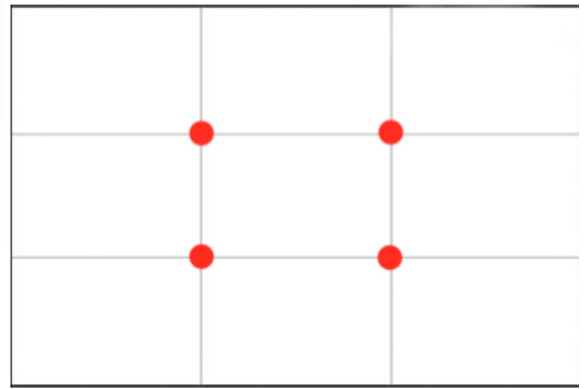


Fig. 04 Grid

Studies have shown that when viewing images that people's eyes usually go to one of the intersection points most naturally rather than the center of the shot - using the rule of thirds works with this natural way of viewing an image rather than working against it.

Sandboxing isn't a panacea. Some entitlements may allow an attacker to do bad things outside the sandbox. Also, sandboxes themselves are software and may be cracked. But, at a minimum, the sandbox adds yet another layer an attacker has to get past before getting a foothold on your Mac, even if the application inside is vulnerable and exploited.

To put it bluntly, based on the nature of attacks today, sandboxing is likely the future on every computing platform.

As of 1 June 2012, all new apps and major updates in the Mac App Store must be sandboxed. Is there a downside to mandating sandboxing? -- Absolutely. Not every application can meet the sandboxing requirements.

How does restricting where my apps come from improve security? -- Most users never change the defaults on their Macs. Limiting which applications can launch to those that come from the Mac App Store means you're getting only apps that are vetted by Apple. Many of those are also sandboxed; eventually all will be. But not all programs can meet the Mac App Store's sandboxing requirements.

###

PERIODICALS

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- E-mail group help
- Monthly newsletter
- Use our Wiki
- Free web space & e-mail on our server
- Build your own website
- Create your own blog
- Special merchant discounts \$\$\$
- Occasional swaps, free software, raffles

<http://www.sbamug.com/join.html>

Or, contact Membership Chair
CW Mitchell at
cwmitchell@sbamug.com

SBAMUG Membership Application

South Bay Apple Macintosh User Group provides you with a local source of shared knowledge & experience through monthly meetings, trainings & monthly newsletter.

Individual & family membership: \$35/year payable to SBAMUG

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Address: _____

City: _____ State: _____ Zip: _____

Phone: (_____) _____

Email Address: _____

Special interest: _____

Model of Macintosh you use most: _____

How did you hear about SBAMUG: _____

Comments: _____

Signature: _____

Date: _____

**Bring your Application and Fee to our General Meeting or Mail to:
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