Jump Desktop Controls your Mac/PC from your iOS/Android Devices, by podfeet

Jump Desktop was the subject of a screencasts online video at our March 2019 meeting. I am including Allison Sheridan's narrative on this app in the newsletter this month for those who would like a hard copy and/or didn't totally understand the video (it was fast-paced, as are most of Allison's presentations).

For a long time I've wanted an app that would allow me to control my Mac from my iPad. The problem to be solved is pure laziness. While I run/walk over 9 miles a day, the idea of going up the stairs to do something quickly on my laptop when I'm all comfy in my easy chair in front of the TV is exhausting. Maybe because I've walked 9 miles already?

In any case, it would be slick to be able to have my 12.9″ iPad act like a Mac. I've heard Dave Hamilton of the Mac Geek Gab talk often about Screens and how well it works for him. When I had a SetApp subscription I gave it a whirl and it didn't do what I wanted. I wish I'd documented the problem, but it's possible the version in SetApp was limited in some way. In any case, I never went forward with a purchase of Screens.

This week, Tim Chaten of Club Nintendo and the iPad Pro Podcast mentioned on Twitter that he uses an app called Jump Desktop from jumpdesktop.com to control his Mac from his iPad. I hadn't heard of Jump Desktop before, so I decided to check it out.

Pricing

The first thing to like is that Jump Desktop is only $15 for iOS. The second thing to like is that it's available for Android too, and it can control both Macs and PCs. If you buy it for iOS it works on all of your iOS devices to drive all of your Macs and PCs. If you buy it on Android, it

works on all of your Android devices to drive all of your Macs and PCs. If you use iOS and Android though, you have to buy a license for each.

Installation

Jump Desktop requires two components. You buy the mobile app as described, and then you install

Aug 28 Meeting
Table Top or Potpourri

The main presentation will be a table top (several simultaneous presentations) or a potpourri (one presentation at a time). A possible topic is Pinterest/Social Media led by Nancie Silver. Other topics will be chosen between now and Aug 28. If you have any preference for the format, or suggestions for the topic and/or presenter, send an email to info@sbamug.com. Your suggestions may not incorporated into this meeting due to time constraints, but will certainly be considered for future meetings.
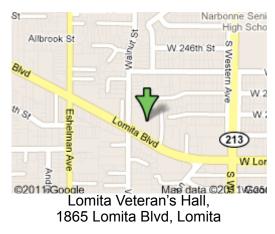
Meetings: Lomita Veteran's Hall,
1865 Lomita Blvd, Lomita
Mail: PO Box 432, Redondo Beach, CA
90277-0432
Phone: (310) 644-3315
Email: info@sbamug.com

Welcome to the SBAMUG
South Bay Apple Mac User Group

Members, friends and colleagues are invited to attend our monthly meetings (usually the last Wed. of the month). 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 visit our website sbamug.com

Lomita Veteran's Hall,
1865 Lomita Blvd, Lomita

SBAMUG Monthly Calendar
Aug 28: Table Top or Potpourri
Sep 25: TBD

SBAMUG Meeting Format:
6:30—7:30 p.m. Questions & Answers and Sharing: *Everyone* is welcome, beginners encouraged
7:30—7:50 p.m. 'iSocial' – shoot the Mac breeze with others over a cookie*
7:50—8:00 p.m. Announcements
8:00—9:00 p.m Program
Refreshments provided; donations appreciated!
Submit suggestions for topics or speakers, or articles, ideas & original artwork for this newsletter to pjmyerz@gmail.com by the last Wednesday of each month. Articles may be edited to fit space.

Other Meetings:
- Tue (6 days after last Wed) - SBAMUG Core Group, 7:30 pm. Join FaceTime SBAMUG community, or email: info@sbamug.com.
- 3rd Thu every other month - InDesign User Group, 7pm at various locations in LA area, laidug.com
- Last Sat. each month - 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., .lapug.org/

Officers & Volunteers:
President: Kent McDonald
VP: open
Secretary: Nancie Silver
Treasurer: CW Mitchell
Directors at Large: Dave Nathanson, Arnold Silver, George Wilde, Joan King, Pete Myers
PD Disk Editor: Jim Pernal
Membership: CW Mitchell
Member Development: Pete Myers
Programming: Kent McDonald
Greeter: open
Server Director: Dave Nathanson
Newsletter: Pete Myers, Bill Berks
USPS Liaison: CW Mitchell
Refreshments: Arnold Silver/Andy Paroczai

Membership Report – 85 members!
Please wear membership card as your name tag - you may notice your first name is in larger letters on your card - so it can be used as a name tag at the meetings.:)
Welcome New Members*:
Thank You Member Renewals: Pam Townsend, Mary Lou Diete, Dave Nathanson, Samuel Peters, Larry Sidor, Robert Kent McDonald
If your name is not spelled right or your expiration date is wrong, contact cwmitchell@sbamug.com for correction. Or contact CW for everything membership, dues and benefits. Please watch for your renewal letter, then sign and date it and return it with $35 check (in enclosed self-addressed envelope) or bring letter with payment (cash, check, PayPal) to meeting.

SBAMUG August 2019 Shareware

This is the August shareware article. Six items this month. One is available from the Mac App store, the others from the vendor's website, with the link included in each description.

CoconutBattery 3.8: Program that gives you information on your battery's health. It gives information on items like charge cycles, present capacity, temperature, and charging wattage. MAC OS 10.11+. Free. https://www.coconut-flavour.com/coconutbattery/

CAPO 3.7.4: Capo lets you slow down your favorite songs so you can hear the notes and learn how they are played. Loop at slower speeds. OS X 10.12+ Free. https://supermegaultragroovy.com/products/capo/mac/

EtreCheck 6.0.2: Program that displays information about your mac. Removes personally identifiable info. You can paste this into messages on the Apple support forums and ask for help. EtreCheck will automatically alert you to serious problems like adware, insufficient RAM, or a failing hard drive. OSX 10.9+. Free with an optional in app purchase. https://www.etrecheck.com

Harvest 2.1.15: Program that lets you track your time. Project and task selection dropdown with autofill. OSX 10.13+. Free at the Mac App store.

iCab 5.8.6: Alternative web browser. Has a Kiosk mode and pop-up blocking. OS 10.7+ .$10.00. http://www.icab.de/index.html

TypeIt4Me 6.2.1: Expands your abbreviations as you type. iCloud Syncing. OSX 10.9+. $19.99. https://www.ettoresoftware.com/mac-apps/typeit4me/

See you at the August meeting.

Jim Pernal PD Editor

Chat Room

Following up on the July discussion of 32 bit apps, two alternative tools for scanning your hard drive are Etrecheck and Go64. Both are free (Etrecheck has in-app purchase option). I tried Go64 and it completed its scan in just two minutes, giving me a nice display of my 32 bit apps. (I had 100 of them). It gives you these options for each:
- Launch App
- Reveal in Finder
- Move to Trash
- Go to Website
- Web Search

The Move to Trash option is grayed out for all Apple, Inc. apps. I don't know why.

My favorite Mac shortcut got buried in the many that Kent presented at the July meeting. This is it: Gain control of the URL bar -When browsing the web, Instead of clicking into the URL bar, you can hit *Command-L* to move your cursor to URL bar and highlight all text in it. Then you can type the first few letters of your next destination and go there without using the mouse.
Another wonderful shortcut is *Command-Tab* in Finder which shows you all your open apps.
And finally, use *Command-k* to to add a web link to selected text in a document.

Tech Education

The city of Manhattan Beach offers free technology classes on Thursdays at 10:00 AM most Thursdays at the Joslyn Center, 1601 N Valley Dr. There are iPhone and iPad classes for beginners and advanced users. Dayle Eisenhauer is the volunteer instructor.

MacStar Computers in Anaheim has posted a series of free YouTube videos titled *Using Mac for Beginners*. There are currently eight videos, each about 10 minutes long. Check 'em out at gomacstar.com

There is a ton of stuff here at Cal State Dominguez and the cost is reasonable: Osher Lifelong Learning at CSUDH https://www.yumpu.com/en/document/read/62684702/summer-2019-olli-catalog

Jump Desktop Connect on your Mac/PC. There are two ways to connect to your desktop. You can do it manually which is a big fat pain. I read the instructions (clearly created in Clarify a long time ago) and got bored a third of the way through.

The other option is called Automatic and it's designed for people who don't want to fool around with network settings and complex configurations. As nerdy as the NosillaCastaways are, if there's an easy path and a hard one … which one would you pick?

The automatic installation is so fast and easy that I didn't even get a chance to do screen captures before it was done! I had to kill it and start over to remember how to do it. Armed with the app installed on the mobile device, you launch Jump Desktop Connect on your PC/Mac. Jump Desktop Connect has one main button that says Add a User.

Tap Add a User and you'll be directed to click a link that opens your web browser to create an account with Jump Desktop or to authenticate if you already have an account. Simply authenticating changes Jump Desktop Connect to say that your email address can now remotely access this computer.

Back on the mobile device, in Jump Desktop you'll now see a happy button with the name of your computer just begging to be selected. Tap it once and in a few seconds you'll be rewarded with this cool smoke coming out of a black background and then you'll see your desktop screen. Ok, maybe the smoke is cheesy but I think it's cool.

The main thing I'm trying to convey is that it's about 30 seconds to set up Jump Desktop to access your computer. The crazy thing is that this setup process also allows you to access your computer from your mobile device when it's not even on the same network.

Security

And that brings us to the security portion of this review. Jump Desktop is a true RDP and VNC client. They say that they use SSH and TLS for secure transfer of data which is all the right words. When I was first reading their website, I noticed they referenced the deprecated SSL in one place, but the current standard of TLS on their FAQ page. I tweeted them, and in less than an hour they wrote back, acknowledged the mistake (it really is TLS), AND fixed the website. I have to say that's pretty great response time.

I also found a setting that allowed me to protect my connection to my Mac with the biometrics of IOS. On my iPad, it now requires my fingerprint to get into my Mac. If I'd done it on my iPhone X, it would require Face ID to get into my Mac. Pretty cool.

Let's Play With It!

Now that it's installed and we've talked about security, can we finally play with it? The first thing I'd like to say is that it's really responsive, at least within my WiFi network. The question you might be asking is how well can you actually drive a Mac with an iPad driven by your big fat finger?

Jump Desktop has several solutions to the problem. If you tap at the top of the screen, there's a menu that will flip down with a wrench icon (or spanner as my British friends say). In this menu, you have five different gesture profiles. Next to each gesture profile is a little "I" that when tapped gives you instructions on how that gesture works.

I don't want to go through every one of these gestures, but I'll explain the first one, which is called standard. I mentioned the big fat finger problem; how do you tap the tiny red dot that closes a window? With the Standard gesture, you get a little circle that follows your finger around, but the mouse cursor is actually above a bit from your finger. This allows you to see the cursor and move it without obscuring it from your big fat finger. Once in place, you can tap the little circle to click the mouse.

As you might suspect, a double click is accomplished with a double tap of your finger. On the Mac, I already use a two-fingered tap to right click on a trackpad, and the gesture is the same on Jump Desktop's standard gesture profile. You can also use a long tap to right click or on an iPhone you can use 3D Touch.

And maybe most important of all, you can pinch to zoom in and out with two fingers. There's one trick with the pinch to zoom: you can't put both fingers down at the same time. Tap one finger down and then the other and then drag them apart. That took me a lot of trial and error to figure out. You can then use a two or three-fingered drag to pan around on screen. Pinch to zoom is pretty darn important. Heck, with a 12.9″ iPad to a 27″ monitor it's still really important.

Left mouse drag is a little trickier for me. Two quick taps and drag (without lifting after the first tap) and you can drag a window around. I can get used to it I'm sure. The one thing I haven't cracked the code on yet is how to select a section of text. I can double tap a word and select, but I can't drag from there to get the rest of the words because it enables the drag the window around gesture we just described. Sometimes it does work but it doesn't get the front of the word I started with. I'll have to keep practicing I guess.

You can use a two-fingered scroll like on a trackpad. However, like pinch to zoom, you have to put one finger down first and then the second and then drag to scroll. If you don't, you'll find yourself panning as described earlier. Oddly the default scroll behavior is backward to natural scrolling that we have on more modern versions of macOS and on the iPad. Luckily a quick trip to the high-level settings and I found a way to reverse it so it's more natural, especially on an iOS device.

Keyboard Control

One of the things I worried about with a Remote Desktop connection to my Mac was how it would deal with my multiple monitors. I shouldn't have fretted a bit with Jump Desktop. In order to explain how it works, I want to talk about keyboards first. I know, that's counterintuitive but bear with me.

If you're going to use your iPad like a Mac, you really need a keyboard. There's a button in the upper left and one in the bottom right that will bring up an on-screen keyboard. Above the standard keys is a row of new keys that you can slide from right to left. Depending on where you stop scrolling this row of keys, you'll see an entirely new sets of keys giving different functionality.

Let's start with something easy – one set of keys is the function keys. Another set is for the keys you might see to the right on an extended keyboard. You've got arrow keys, page up/down, home, end, and delete. It's also got escape and tab, along with shift, control, option, and command.

The last set of keys is where things get really interesting. One key shows a display with an arrowed circle on it. If you tap that key the iPad screen will instantly switch between all of the displays on your Mac. I really do mean instantly. I've got my internal laptop monitor and two displays attached and it's really nice to be able to just tap between them with this key.

There's a copy icon and a clipboard icon that save you having to right click (two-fingered tap) to copy and then paste. There's a little key icon with an arrow going up, and its job is to type in passwords. Not sure when I'd use it but it's interesting. Still going along we've got two icons to flip right and left between spaces, a magnifying glass to pop up Spotlight, an icon to enable Mission Control so you can see all windows, and a full-screen button. That one is really useful since even with the nice gesture profile it's still kind of hard to tap that tiny green button to go full screen. The last two icons look like they'd zoom in and out but at least with the standard profile they don't seem to do anything at all.

There are another few keys highlighted in blue that give you big onscreen panels of buttons all at once. I won't drudge you through describing each of these, but they're useful combinations of keys you might want to have up at the same time.

The last point I wanted to make about this set of scrolling keys is that if you have a keyboard attached to your iPad, you can have just these keys showing and not the onscreen keyboard. It's really the best of both worlds and done in a way I've never seen before.

Settings

There's so much to discover in Jump Desktop. I could spend a lot of time in Settings alone but I'll try to hit just the high points. If you're wondering if Jump Desktop can do something, it's worth spending some quality time in Settings. Every single setting has an explanation underneath it which is awesome.

They've got a few appearance options that change how the new connection starts up. For example, you can change whether it opens zoomed partway in to fill the screen. Each time you connect to a new computer, it gets saved on the main page. You can choose in Settings to have the list synced through iCloud. I tested it out and found my computer on my 2nd iPad as soon as I opened Jump Desktop for the first time after installation.

They've got some advanced keyboard settings like Numlock when connecting to an RDP server (no idea what that's for!). If you like to use the keyboard shortcuts available on the iPad when working on the Mac, make sure you keep the Macros switch turned on. For some reason they let you switch the left and right alt-keys, which must be a Windows thing.

When Tim Chaten tweeted about using Jump Desktop, he mentioned that he uses a mouse on his iPad to control his Mac. In Settings, you'll find Mouse & Gestures which is where you can connect to a physical mouse. You can't use just any old mouse, they've got a list of supported mice, but it's a total of 2 mice, the Swiftpoint GT which is $100 after their $50 off coupon (yikes!)and the Citrix X1 mouse which is much more reasonably priced at $60. The GT does look really interesting though. It's a strange little design for ergonomics that they say is like holding a pen.

In the same Mouse & Gestures section of Settings, you can change your pointer speed, reverse scroll direction so you get natural scrolling, and change some settings for that pricey Swiftpoint mouse.

If you plan on using Jump Desktop on your iPhone, you can turn on or disable 3D Touch. They've got a setting for Haptic Feedback and it's turned on by default. Underneath it says it's for a right mouse click and available on devices with Taptic Engine. I know the Mac Trackpad has Taptic feedback and so does the Apple Watch, but I don't think the iPad does. I couldn't feel anything in any case. I did notice that a right mouse click puts a cool blue circle emanating from your finger. Not sure why but I liked it.

There are a few Security Settings of note. You can prevent your iPad from sleeping or locking while connected to a computer. They put it under Security because you probably want to disable that function if you're in an office environment where you may walk away from your mobile device. You can have Jump Desktop auto reconnect to the last computer you used as well, but in my experience that didn't actually work.

I mentioned earlier that you can lock Jump Desktop so that it requires your biometrics (or passcode) and that's done in settings. You can even lock the settings themselves with an administrative password. If you share your iOS device I'd turn that on for sure.

Bottom Line

I have to say I'm enjoying the heck out of Jump Desktop and I'm sure I'll be using it a lot. As I was working on this review, I had my 12.9″ iPad Pro on my desk connected to my Mac and zoomed in on MarsEdit as I was writing. I found it was actually a much more comfortable place for me to read along with my typing than looking up at my computer monitors! I know that's a really weird use case, but I liked it!

Check out Jump Desktop from jumpdesktop.com if you're looking for a really easy way to connect into your Mac or PC from your iOS or Android devices. If you're interested in controlling one computer from another, not just from a mobile device, Jump Desktop has apps for that as well.

Collecting Your Thoughts Is Good. Organizing Them Is Even Better, by J. D. Biersdorfer

Today's apps, services and hardware make it easy to jot, sketch and save the things that inspire you. Far beyond simple typed text, you can now save photos, audio and video clips, web links, sketches and more — all on your smartphone.

Whether the task is making a simple grocery list or organizing a complex projects like a home renovation, there is a note-taking program for you. Here's how to sort through the options and get started.

Step 1: Sample Google Keep or Apple Notes

New to digital note-taking? You can ease into it with a freebie from Google or Apple. Google offers Google Keep. If you're on the Apple side of the fence, you have the Notes app for iOS, as well as a desktop version for Macs and online in iCloud.com. With both, you can retrieve your files on any device — as long as you are online, logged in to your user account with the company and set to sync.

Step 2: Add Text, and More

Google Keep and Apple's Notes apps easily handle basic text input, but can do so much more, too — like saving images and web links into your notes, which can be helpful for detailed projects like a kitchen remodel or genealogical research. Each app has a text search function, so you can quickly round up all the websites and notes you've saved that contain your keywords, like "chicken" or "turkey" when you're trying to find a specific poultry recipe.

With Google Keep, you can organize notes with labels and colors.Labels, like "Work" or "Personal," help organize notes you take for different parts of your life. Color-coding your notes makes it easier to visually recognize and group them on screen — for instance, the notes on all the hotels you've researched for a vacation could be blue and the potential restaurants to visit orange.

You can also capture nearby audio within a note, or record a voice memo and have it automatically transcribed. For photos containing signs and words, use the Grab Image Text command; Keep's optical-character recognition technology converts text in images into editable, searchable type.

Apple's Notes app has a few tricks of its own, like quick formatting for checklists. You can also make a new note and tap the encircled plus (+) button in the tool bar to see a menu with a command for scanning a document into a note with the device's camera. The same menu has additional options for importing or snapping a photo, or adding a sketch.

To learn all the features for each app, check out the online guides for Google Keep and Apple's Notes.

Step 3: Try Out Other Apps

Don't care for the manufacturer's software? You have plenty of third-party programs in the app stores. Microsoft's OneNote app, part of its Office software suite, is popular and available for Android and iOS.

Other apps include Evernote, which offers features like note templates, a Web Clipper tool for saving pages from a browser and the ability to search handwritten notes. It has been around since 2008 and has free limited and full subscription plans, with apps for Android, iOS, Mac and Windows. Bear (free and subscription plansfor iOS and Mac) uses elegant typography and text-formatting shortcuts in its notes. The very basic but free Simplenote (Android, iOS, Windows, Mac and Linux) is also among the many alternatives.

Step 4: Go Back to 'Paper'

If you don't want to ditch the pen and paper entirely, no problem. You can still organize those notes with digital tools.

Several products help move your physical notes to the digital world. Many are aimed at visual professionals (and can cost around $200), like the notebook maker Moleskine's Smart Writing System, which uses a traditional notebook and special pen to capture your handiwork and cloud-syncs it all to a tablet. Smartpens, like those from LiveScribe and NeoLAB, and Wacom's Bamboo smartpads also digitize handwriting and sketches from paper.

Less expensive tools include the Rocketbook line of paperlike notebooks (starting at $16), with a free app that scans the pages to a variety of cloud services.

On a budget but still want to digitize your scribbles as a backup? Pick up a cheap paper notebook for a buck or two at the drugstore and use your phone's camera to snap and store page pictures.

Whichever note-taking method you use, the online backup function keeps your collection safe, with tools to search and sort it. After all, making all those notes won't do you any good if you can't find them later.

https://www.nytimes.com/2019/07/10/technology/personaltech/collecting-your-thoughts-is-good-organizing-them-is-even-better.html

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Customer Service

You may remember that I try to avoid trips to the Apple Store (see the SBAMUG Newsletter of April 2019). So when I wanted to compare the iPhone 8 Plus and the iPhone XR, I tried a few alternatives. Here's a rundown.

Best Buy, 3675 PCH, Torrance
There were no iPhones on display. The salesperson found two in a cabinet, but they were not charged, so I couldn't see them in operation. Then he tried to sell me something called an iPhone X rather than an XR.
Grade: F

AT&T, 3737 PCH, Torrance

They had a few iPhones on display. They quoted me $80 for two lines with 3GB shared data, which is less than the 8GB ($40 for one line) I have now.
Grade: C

T-Mobile, 4135 PCH, Torrance
They had three iPhones on display. The salesperson showed me how to get back to the home page on the XR, which has no home button. She quoted me a price of $90 for two lines, rather than the advertised $70.
Grade: B

Verizon, 1753 S Elena, Redondo Beach
They had three iPhones on display, but the models were not identified. I asked the salesperson to show me how to call Siri without a home button. He called Siri, but did not show me how he did it. Then he asked for my mobile phone number and passcode. I declined and he got angry.
Grade: F

Deviceland, 20790 Hawthorne, Torrance
They don't sell iPhones.
Grade: Incomplete

Because Internet, Understanding the New Rules of Language, by Gretchen McCulloch

A look at how our digital world is transforming the English language: Language is humanity's most spectacular open-source project, and the internet is making our language change faster and in more interesting ways than ever before. Internet conversations are structured by the shape of our apps and platforms, from the grammar of status updates to the protocols of comments and @replies. Linguistically inventive online communities spread new slang and jargon with dizzying speed. What's more, social media is a vast laboratory of unedited, unfiltered words where we can watch language evolve in real time.

Even the most absurd-looking slang has genuine patterns behind it. Internet linguist Gretchen McCulloch explores the deep forces that shape human language and influence the way we communicate with one another. She explains how your first social internet experience influences whether you prefer "LOL" or "lol," why sparkly tildes succeeded where centuries of proposals for irony punctuation had failed, what emoji have in common with physical gestures, and how the artfully disarrayed language of animal memes like lolcats and doggo made them more likely to spread.

Because Internet is essential reading for anyone who's ever puzzled over how to punctuate a text message or wondered where memes come from. It's the perfect book for understanding how the internet is changing the English language, why that's a good thing, and what our online interactions reveal about who we are.

The author writes All Things Linguistic, a daily blog. She co-hosts the podcast Lingthusiasm. You can buy her book new for $20 on Amazon or $2 used on eBay.

How to upgrade RAM in a Mac, by Jack Oughton

Upgrading the RAM in your Mac can provide a significant boost to performance, as well as equipping the machine to run demanding software in the future.

On older models this is actually a very simple procedure, and if you use third-party RAM from companies such as Crucial you'll find the cost quite affordable too. Modern Macs are a different story, and there are plenty of pitfalls you need to avoid - which is why we've put together this guide.

Random Access Memory (RAM) is a temporary storage medium used by your Mac's CPU. Essentially, it's a short-lived storage space where data for processes is kept whilst you're running them. Your CPU can access the data stored in RAM far faster than it can information held on a hard drive for example. This makes it vital to the smooth operation of your Mac.

So, is it a good idea to upgrade your RAM? Well, in many instances - yes. Put simply, RAM upgrades are one of the cheapest and easiest ways to get new life out of an old Mac. And for many models, the only tool you'll need is a small screwdriver.

Without taking a look at your Mac's Activity Monitor at peak usage, it's impossible for us to say how much RAM you really need. As a rule of thumb, 16GB is probably the most that anyone who's not into video editing or running multiple virtual machines will need. But this is for today - a better question, perhaps, would be how much will you need years from now?

The basic principle behind Mac future-proofing is making your current hardware powerful enough to deal with the inevitable increase of software demands over the next few years. And it's always better have a little more than you need rather than less.

Our advice would be to always bear this in mind when you are buying a new Mac. There are various build-to-order options when you purchase a new Mac from Apple, and you should get as much RAM as you can afford.

This article continues with the details on which Macbooks, iMacs, Mac Minis, Mac Pros and iMac Pros can be upgraded, the risks and ease/difficulty of the task for each, what type of RAM you will need, where to buy it, how to perform the upgrade and how to run a memory test after replacing your RAM. Read the full article at https://www.macworld.co.uk/how-to/mac/upgrade-ram-mac-3484328/

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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.

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Bring your Application and Fee to our General Meeting at Lomita Veteran's Hall
or Mail to our PO Box (see page 2 for our address)