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www.denverapplepi.com

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Denver Apple Pi Meetings (DAPI) with Individual Help Available are held from 7-9 pm at Applewood Community Church, 12930 W. 32nd Avenue, Golden 80401

On occasion, Applewood Community Church may have shelter/meal obligations. You will be notified by email if DAPI meetings are to be canceled.

Denver Apple Pi	2024 Meeting Schedule	
November 19		
December 17	Holiday Party!	

At the November 19th Meeting of the Denver Apple Pi

Lynn Maharas will give a presentation on Artificial Intelligence entitled *Intro to AI*. Following this first hour of the meeting, there will be time for a group discussion among members. In addition, member requests for technical assistance will be addressed in an adjoining room.

How to update your AirPods Pro to add hearing aid functionality

Taken from the Soundly Website. <https://www.soundly.com/blog/airpods-as-hearing-aids>

To create hearing aid functionality on your iPhone or iPad you must first update your Operating System to OS 18.1 or later.

Follow these steps to update:

Open Settings on your iPhone.

Tap General.

Select Software Update.

Your device will display the current OS version.

If an update is available, tap Update to install.

Update your iPhone or iPad OS if necessary.

Step-By-Step Guide: With your setup out of the way, it's time to turn your AirPods pro into a pair of OTC hearing aids.

Step 1: Connect Your AirPods if Needed

If this is your first time using your AirPods Pro 2, follow the setup instructions to pair them to your iPhone or iPad.

Step 2: Open Your Settings App

Tap on your AirPods (they should appear at the top of the list), then select

Take a Hearing Test.

How to access Apple's onboard hearing test:

Step 3. Proceed Through The Onboard Test

The test will first analyze your surroundings to ensure minimal background noise.

Next, it will play a tone to check that your AirPods are snug in your ears.

Apple checks your fit and surroundings to ensure optimal accuracy.

Apple's hearing test in progress.

Once everything is set, Apple's onboard test takes about five minutes, assessing each ear individually. Simply listen for the beeps in each ear and tap the screen each time you hear a sound. Your phone will automatically switch to Do Not Disturb during the test. Once the test is complete Apple will upload the results to Apple Health where you can see a history of all the tests you have taken.

Access previous tests in the Apple Health app.

Step 3 (Alt): Upload Your Professional Audiogram

If you have a hearing test from an audiologist, either in print or as a PDF, you can upload those results directly into Apple Health. Apple uses your device's camera to scan the printout and convert it into a compatible hearing test for use with AirPods.

To update your hearing results:

Tap Update Hearing Results.

Scroll to the bottom and select Add Hearing Test Result.

Choose Scan with Camera (recommended), or manually enter your hearing test values if preferred.

Scan a professional hearing test from your clinic.

Step 4: Customize Your Sound

Your AirPods Pro 2 hearing aids are now customized to your hearing.

To fine-tune your sound settings further, tap on Adjustments. Here, you can:

Increase hearing aid volume

Adjust the balance between the right and left ears

Modify the tone from darker (more bass) to brighter (more treble)

Reduce ambient noise levels

Additional features include Conversation Boost (which activates directional microphones for clearer speech) and Swipe Controls (enabling volume adjustments with a simple swipe on the device).

Use the Adjustments section to customize your sound settings.

You can also access these settings by tapping the ear icon in your Control Center and selecting Hearing Assistance. In this section, you can manage how your personalized audio applies to different media. Media Assist enables your hearing settings for streamed music, calls, and video by default, but you can toggle this off if needed. Swipe down to open your Control Center, then tap the ear icon to make adjustments.

How does the new M4 Chip change the MacBook Pro? (And should you use this chip change to jump on the AI bandwagon?)

Cult of Mac.com

M4 vs. M3 MacBook Pro comparison: What's different?

By Rajesh Pandeym, 6:48 AM, 11/6/24

As discussed in previous newsletters, the new M4 chip is required to use Apple Intelligence, aka the new Apple Artificial Intelligence introduced this past Fall, 2024.

Apple's MacBook Pro is the prototype other laptops in the industry emulate. While the exterior design of the new M4 chip computer shows no discernible differences to predecessors, it benefits from several interior changes. These laptops are faster, and more durable. The new M4 chip significantly improves the MacBook Pro's performance by offering a substantial boost in processing power, with faster CPU and GPU cores, leading to quicker application launches, smoother multitasking, and significantly improved performance for demanding tasks. Battery life is excellent. In addition, they offer the increased value of a 12MP Center Stage camera and a nano-texture display option.

There are no design and dimension differences between the M3 and M4 MacBook Pros. The newer M4 models follow the same design as the M3 with one improvement: the base M4 MacBook Pro now comes in the space black finish. Previously, you could only get this finish on the M3 Pro/Max models.

The new MacBooks' display size and technology remain identical to those of their predecessors with the exception of enhanced SDR brightness- a peak of 1,000 nits —

up from 600 nits on the M3 models. The HDR brightness remains unchanged at 1,600 nits. Apple's nano-texture glass is now offered, which reduces glares and reflections, a great benefit in outdoor use.

Apple's newest M4 chip is fabricated on Taiwan Semiconductor Manufacturing Company (TSMC) latest 3nm node *(introduced in late 2022 it's the industry's most advanced semiconductor technology, offering the best power, performance, and area)*. This not only allows for higher clock speed but also helps with efficiency. Apple proudly claims its the base M4 chip packs a 10-core CPU, two more than the M3. *(A 10 core processor has 10 processors in it. A 12 core processor has 12 processors in it. A core, as in a processor core, is an independent processor. It can run completely independently.)* The new chip sports four performance cores and six efficiency cores, the latter being two more than the M3. While both SoCs *(Systems on a Chip)* pack a 10-core GPU, the one on the M4 is more powerful.

Lastly, the M4 chip ships with 16GB of (faster) unified memory and gets 120GB/s of bandwidth. These improvements make the M4 chip faster than the M3 in almost all tasks.

Technical advances in more detail:

The 16-core Neural Engine *(Neural Engine is a series of AI accelerators designed for machine learning by Apple)* gets many underlying improvements. Apple claims a 3x performance boost over the M1 chip in Artificial Intelligence (AI) workloads.

Thanks to the M4 chip's enhancements, the entry-level 14-inch MacBook Pro can drive two external displays alongside its main display simultaneously. The M3 model can only drive two displays when the laptop's display is not in use.

With the M4 Pro chip, the performance leap proves even bigger. It ships with up to a 14-core CPU, *(Central Processing Unit)* featuring four efficiency cores and 10 performance cores. This provides a significant boost in multitasking performance. Apple claims the 20-core GPU is "twice as powerful as M4." Plus, the memory bandwidth is 75% higher, providing a massive performance boost.

All M4 Pro-equipped MacBook Pros ship with 24GB of memory as standard, up from 18GB on M3 Pro models. The additional memory will come in handy as Apple Intelligence gains new features. It is also possible to configure an M4 Pro MacBook Pro with up to 48GB memory versus the 36GB limitation on M3 Pro models. (!)

Early benchmarks indicate the M4 Pro MacBook Pros are faster than M2 Max/Ultra-equipped Macs. *(In 2023 M2 Ultra was the largest and most capable chip Apple ever created, and it made the new Mac Studio and Mac Pro the most powerful Mac desktops ever made to that date.)*. This shows just how powerful Apple's latest M4 MacBooks are.

The MacBook Pro with the M4 Pro chip features three Thunderbolt 5 ports.

M3/Pro MacBook Pro: Two Thunderbolt 4 ports (three Thunderbolt 4 ports on M3 Pro), HDMI port, SDXC slot, headphone jack, MagSafe 3 port, Wi-Fi 6E, Bluetooth 5.3

M4/Pro MacBook Pro: Three Thunderbolt 4 ports (Thunderbolt 5 on M4 Pro), HDMI port (with 8K output), SDXC slot, headphone jack, MagSafe 3 port, Wi-Fi 6E, Bluetooth 5.3

On the connectivity front, the M4 MacBook Pro has the same USB-C ports as its M3 predecessor. The base M3 MacBook Pro has two USB-C ports, the M4 model features three of them. On the M4 Pro and M4 Max MacBook Pro variants, the USB-C ports support Thunderbolt 5, which offers double the bandwidth of Thunderbolt 4.

The upgraded HDMI port can now drive external monitors of up to 8K resolution.

Camera: There is a **Center Stage upgrade**-*Center Stage using machine learning to help keep you centered in your video as you move around. With Desk View support, the video feed can show your desk, making it easier to hold online classes.*

M3/Pro MacBook Pro: 1080p FaceTime HD camera

M4/Pro MacBook Pro: 12MP Center Stage camera with Desk View support, 1080p HD video recording

Apple's newest MacBook Pros still do not have *Face ID*. However, the company upgraded the 1080p FaceTime camera to a new 12MP module in the M4 models.

As evident from the comparison above, Apple's M4 and M4 Pro MacBook Pros bring a major leap in performance and efficiency. The extra RAM and longer battery life are added bonuses. While the switch from M2 to M3 chips inside the MacBook Pro did not bring a major leap, that's not the case with the M4 refresh. All the changes combine to deliver a better user experience.

Are you wondering if you should upgrade to the 2024 MacBook Pro with M4 chip? The answer to this is simple. If you own an Intel-powered MacBook, this upgrade is significant. If you own an Apple silicon MacBook Pro, you might want to hold off another year before upgrading.

Note: Shopping for a new MacBook?

You may want to check out the Created Tech YouTube video

Which MacBook Should You Buy In 2024? (Buyer's Guide).
<https://www.youtube.com/watch?v=qq60jymEQy0>

How does the updated Mac mini Perform? (A review of the less expensive alternative to get an M4 Chip for AI)

Apple Mac Mini M4 review: a tiny wonder, *TheVerge.com*, Chris Welch, 11/7/24.

Apple Press Release, <https://www.apple.com/newsroom/2024/10/apples-new-mac-mini-is-more-mighty-more-mini-and-built-for-apple-intelligence/> 10/29/24

Note: The Mac Mini is a small desktop computer made by Apple. And that's it. The Mac mini ships without a screen, keyboard or mouse. As Steve Jobs said at its introduction, it's "BYODKM" (Bring Your Own Display, Keyboard, and Mouse). It's been in the Mac family since 2005, The Mac Mini—along with their larger, more powerful Mac Studio siblings—are the closest thing Apple sells to a traditional desktop PC. If you already have a monitor, keyboard, and mouse, pair them with a Mac Mini for a full-featured Mac that's far cheaper than a new MacBook or iMac.



When compared to the best-selling PC desktop in its price range, Apple Mac mini is up to 6x faster at one-twentieth the size. The standard M4 model, which includes a 10-core CPU, 10-core GPU, and the default 16GB of memory. The upgraded machine has 512GB of storage, which increases the price to \$799, but everyday performance should be identical to that of the base 256GB configuration. The regular M4 edition is recommended for anyone who wants a dependable desktop Mac — especially if you are satisfied with your present monitor, keyboard and mouse.

The 2024 Mac Mini's measures 5 inches wide, 5 inches deep, and 2 inches tall, and footprint is less than half that of the previous enclosure, which was designed around the Intel platform. It's not as small as an Apple TV 4K, as previously predicted. The new Mini puts some ports right on the front, whereas its predecessors require everything plug into the back. In back are three Thunderbolt 4 (USB 4) ports, HDMI, and a gigabit

ethernet jack that's upgradable to 10-gigabit speeds. The M4 Pro Mac Mini has even faster, brand-new Thunderbolt 5 connectivity, with theoretical data transfer speeds of up to 120Gb/s (three times faster than Thunderbolt 4). Despite its dramatically reduced dimensions, the Mini still retains an internal power supply, so no need to supplement with a power brick. to move it to the bottom of the machine near the rear left corner. The revamped thermal system for the Mini keeps the M4 model running quietly.

The \$599 Mini is the best value. Even the \$799 configuration I tested, with 16GB of memory and a 512GB SSD, seems reasonable. Neither can be upgraded later, so it's important to get the specs right when buying. Stepping up to 1TB of storage and 32GB of RAM brings the price to \$1,399.

As TheVerge.com outlines in their article, there is a contract to agree to in order to initially use the device Continue: Apple Mac Mini (M4)

Every smart device now requires you to agree to a series of terms and conditions before you can use it.

In order to get past the setup and actually use the Mac Mini, you are required to agree to:

The macOS software license agreement, which includes Apple's warranty agreement and the Game Center terms and conditions

These agreements are nonnegotiable, and you cannot use the machine at all if you don't agree to them.

There are also several optional agreements, including:

Location services

Using an iCloud account adds iCloud terms and conditions and Find My location services

Sending crash and usage data to Apple to help app developers

Allowing Apple to use your Siri transcripts to improve voice recognition

Apple Pay terms and conditions

The final tally is three mandatory agreements and six optional ones.

The new Mac mini is Apple's first carbon neutral Mac, marking a significant milestone toward Apple 2030, the company's goal to be carbon neutral across the entire carbon footprint by the end of this decade.

Mac mini is made with over 50 percent recycled content overall, including 100 percent recycled aluminum in the enclosure, 100 percent recycled gold plating in all Apple-designed printed circuit boards, and 100 percent recycled rare earth elements in all magnets. The electricity used to manufacture Mac mini is sourced from 100 percent renewable electricity. The packaging is now entirely fiber-based, bringing Apple closer to its goal to remove plastic from its packaging by 2025.

A blast from the past:

The iPhone wasn't Apple's first effort with mobile phones

<https://www.yahoo.com/news/blast-past-iphone-wasn-t-apple-first-effort-192058231.html>
yahoo.com, By Brad Reed 11/17/2014 at 12:20 PM MST



As we can see in this old Engadget article on the device, the long-forgotten Motorola phone was essentially an iPod that also happened to double as a mobile phone. It eventually released in September 2005 as the Motorola Rokr E1, a mobile phone that featured a 512 MB microSD memory card that could be upgraded to 1GB.

Despite this, however, the device only let you load 100 songs at a time, which severely limited its appeal compared to Apple's iPods. As reviews of the device made clear, iTunes' performance of the device was very laggy and offered a much more frustrating experience than what you got on your iPod. This ancient device could be seen as Apple getting its feet wet in the mobile phone market and it certainly gave the company a lengthy list of mistakes to avoid when designing its own mobile phone.

REMINDER

Help SIG: Call Herman to get your name/problem on the list prior to our meeting so our DAPi Help people will be prepared. **You will need to bring your computer, your own power cord, mouse and keyboard.** Herman will keep a sign-up list for those asking for help at the monthly meeting so members can be helped in a prioritized way. Drop-ins are welcome. Contact Herman at 720-897-9766 or hermanalb@mac.com

Need help with iPad, iPhone? If you would like assistance with navigating and synchronizing your iPad and iPhone, bring them to the monthly meeting. Notify Herman what help you need, and we will try to get the problems resolved.

Denver Apple Pi Membership Information

Denver Apple Pi (DAPi) is an Apple Computer Users Group, not affiliated with Apple Inc. *The Seed* is an independent publication not affiliated or otherwise associated with or sponsored or sanctioned by Apple Inc. The opinions, statements, positions and views stated herein are those of the author(s) or publisher and are not intended to be the opinions, statements, positions or views of Apple Inc. Articles, stories, and other items in *The Seed* may be copied or used by other clubs or groups as long as credit is given to Denver Apple Pi, noting the original information source and the author of the article. On reprints, please also include the date or volume number from *The Seed*.

Fill in the form below or ask for an application to complete and send to the Club mailing address: DENVER APPLE Pi, 6441 Eaton St, Arvada, CO 80003. For information, call Herman Pflueger at 720-897-9766 or email hermanalb@mac.com.

Our web site is: www.denverapplepi.com

Mac and Troubleshooter Group Help SIG meets the THIRD Tuesday of the month,

Seed articles should be sent to: lindasienkiewicz@gmail.com, Subject: Seed article

Denver Apple Pi Officers

President	Larry Fagan
Vice President (Mac)/(Help)	Tammy Hanson
Acting Secretary	Shelby Shrigley
Treasurer/Membership Chair	Herman Pflueger
Appointees: Web Master	Tammy Hanson



Membership Form

New members please complete the following and email to:

hermanalb@mac.com

Or mail to: Denver Apple Pi
6441 Eaton St., Arvada, CO 80003

Or you may turn in your dues and this application to any Officer at any regular meeting.

Date _____

Renewal _____ New _____ Change _____

Name _____ Nickname _____

Address _____

City/State/Zip _____

Cell _____ Home _____ Email _____

Apple Computer devices/models owned: _____

Applications (Apps) most used _____

Program ideas for upcoming meetings: _____

Questions? Call Herman at 720-897-9766

