Apple's new MacBook Pro features the incredibly powerful M4 family of chips and ushers in a new era with Apple Intelligence

With an advanced 12MP Center Stage camera, Thunderbolt 5 on M4 Pro and M4 Max models, and an all-new nano-texture display option, MacBook Pro gets even more capable and even more pro

Figure 1: An almost shut MacBook Pro emits a colorful glowing light.

Supercharged by Apple Intelligence, even more powerful Apple silicon with the M4 family of chips, and new capabilities, MacBook Pro accelerates pro workloads like never before.

CUPERTINO, CALIFORNIA Apple today unveiled the new MacBook Pro, powered by the M4 family of chips —M4, M4 Pro, and M4 Max —delivering much faster performance and enhanced capabilities. The new MacBook Pro is built for Apple Intelligence, the personal intelligence system that transforms how users work, communicate, and express themselves, while protecting their privacy. Now available in space black and silver finishes, the 14-inch MacBook Pro includes the blazing-fast performance of M4 and three Thunderbolt 4 ports, starting with 16GB of memory, all at just $1,599. The 14- and 16-inch models with M4 Pro and M4 Max offer Thunderbolt 5 for faster transfer speeds and advanced connectivity. All models include a Liquid Retina XDR display that gets even better with an all-new nano-texture display option and up to 1000 nits of brightness for SDR content, an advanced 12MP Center Stage camera, along with up to 24 hours of battery life, the longest ever in a Mac.1 The new MacBook Pro is available to pre-order today, with availability beginning November 8.

"MacBook Pro is an incredibly powerful tool that millions of people use to do their life's best work, and today we're making it even better,"said John Ternus, Apple's senior vice president of Hardware Engineering. "With the powerful M4 family of chips, and packed with pro features like Thunderbolt 5, an advanced 12MP Center Stage camera, an all-new nano-texture display option, and Apple Intelligence, the new MacBook Pro continues to be, by far, the world's best pro laptop."

The new MacBook Pro is transformed with Apple Intelligence, the blazing performance of the M4 family, an advanced 12MP Center Stage camera, an all-new nano-texture display option, and more.
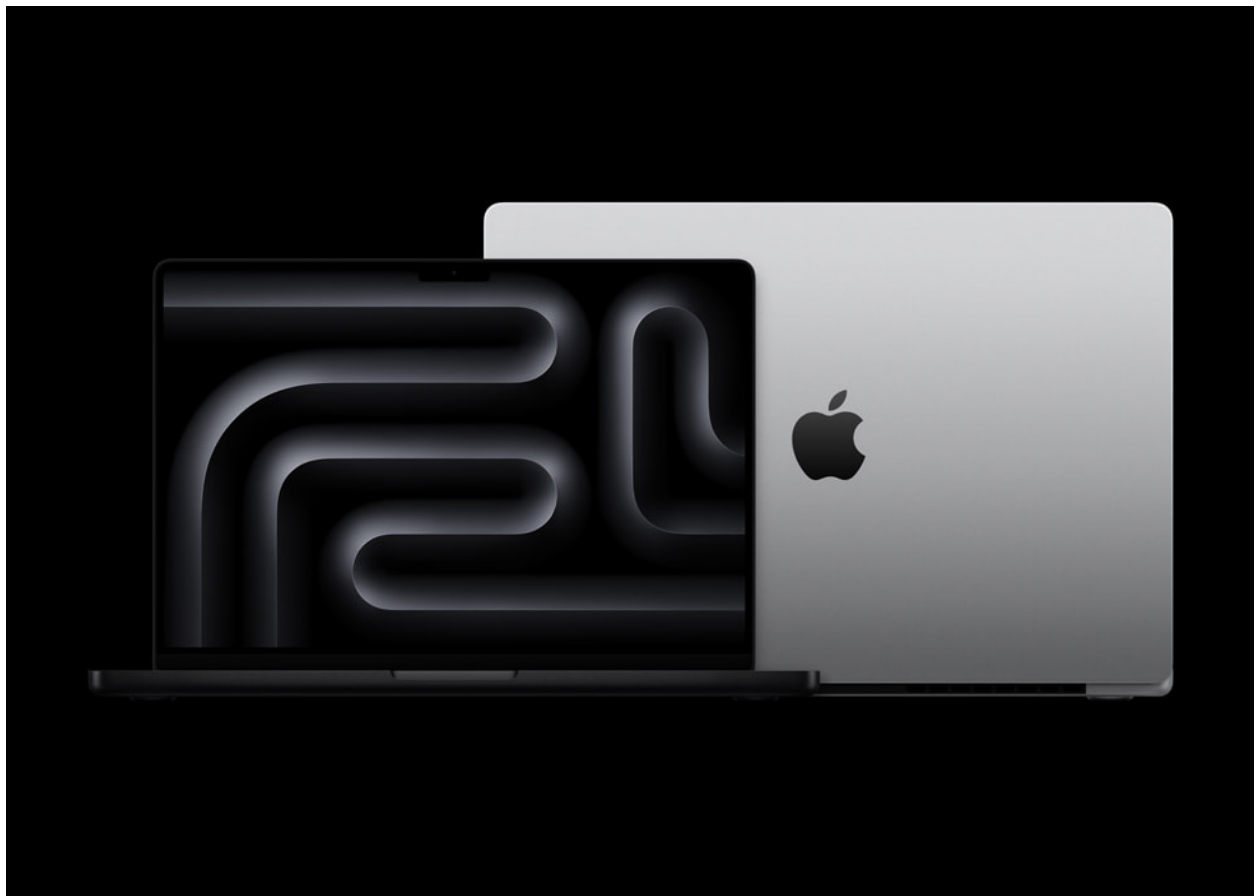
Figure 2: A look at the front and the back of the new MacBook Pro.

Figure 3: A close-up of the keyboard on the new MacBook Pro.

Supercharged by the M4 Family of Chips

Built using second-generation 3-nanometer technology, the M4 family is the most advanced lineup of chips for a personal computer. The M4 family features phenomenal single-threaded CPU performance with the world's fastest CPU core,2 along with outstanding multithreaded CPU performance for the most demanding workloads. Combined with machine learning accelerators in the CPU, an advanced GPU, and a faster and more efficient Neural Engine, Apple silicon is built from the ground up to deliver incredible performance for AI. Together with faster unified memory, each chip also includes increased memory bandwidth, so large language models (LLMs) and other large projects run smoothly and on device. Additionally, the industry-leading performance per watt of the M4 family means that users get up to 24 hours of battery life, raising the bar of what users can do on a single charge.

Figure 4: A graphic shows the M4 family of chips: M4, M4 Pro, and M4 Max.

The new MacBook Pro features the M4 family of chips, the most advanced lineup of chips ever built for a pro laptop.

New 14-inch MacBook Pro with M4

The 14-inch MacBook Pro with M4 is the ideal choice for entrepreneurs, students, creators, or anyone doing what they love. Featuring a more powerful 10-core CPU, with four performance cores and six efficiency cores, and a faster 10-core GPU with Apple's most advanced graphics architecture, the new MacBook Pro starts with 16GB of faster unified memory with support for up to 32GB, along with 120GB/s of memory bandwidth. With M4, MacBook Pro is up to 1.8x faster than the 13-inch MacBook Pro with M1 for tasks like editing gigapixel photos, and even more demanding workloads like rendering complex scenes in Blender are up to 3.4x faster.1 With a Neural Engine that's over 3x more powerful than in M1, it's great for features in Apple Intelligence and other AI workloads. The M4 model also supports two high-resolution external displays in addition to the built-in display, and now features three Thunderbolt 4 ports so users can connect all their peripherals.

MacBook Pro empowers users to work and be creative wherever they are, with even more game-changing performance and extraordinary battery life.

Figure 5: A person sits on the floor, working on a MacBook Pro propped up on their lap.

MacBook Pro with M4 delivers:1

- Up to 7x faster image processing in Affinity Photo when compared to the 13-inch MacBook Pro with Core i7, and up to 1.8x faster when compared to the 13-inch MacBook Pro with M1.
- Up to 10.9x faster 3D rendering in Blender when compared to the 13-inch MacBook Pro with Core i7, and up to 3.4x faster when compared to the 13-inch MacBook Pro with M1.
- Up to 9.8x faster scene edit detection in Adobe Premiere Pro when compared to the 13-inch MacBook Pro with Core i7, and up to 1.7x faster when compared to the 13-inch MacBook Pro with M1.

M4 brings phenomenal performance to the new 14-inch MacBook Pro, from creative tasks to even more demanding workloads such as rendering complex scenes in Blender.

MacBook Pro with M4 Pro: A Pro Powerhouse

For researchers, developers, engineers, creative pros, or anyone that needs even faster performance for more demanding workflows, MacBook Pro with M4 Pro offers a tremendous performance boost. M4 Pro features a powerful 14-core CPU with 10 performance cores and four efficiency cores for a jump in multicore performance, along with up to a 20-core GPU that is twice as powerful as M4. With M4 Pro, the new MacBook Pro gets a massive 75 percent increase in memory bandwidth over the prior generation —double that of any AI PC chip.3 The new MacBook Pro with M4 Pro is up to 3x faster than models with M1 Pro, speeding up workflows like geo mapping, structural engineering, and data modeling.1

The new 14- and 16-inch MacBook Pro with M4 Pro is ideal for researchers, developers, engineers, creative pros, or for anyone looking for even faster performance.

MacBook Pro with M4 Pro offers:1

- Up to 4x faster scene rendering performance with Maxon Redshift when compared to the 16-inch MacBook Pro with Core i9, and up to 3x faster when compared to the 16-inch MacBook Pro with M1 Pro.

Figure 6: Two people work in a lab, with one using the new MacBook Pro.

- Up to 5x faster simulation of dynamical systems in MathWorks MATLAB when compared to the 16-inch MacBook Pro with Core i9, and up to 2.2x faster when compared to the 16-inch MacBook Pro with M1 Pro.
- Up to 23.8x faster basecalling for DNA sequencing in Oxford Nanopore MinKNOW when compared to the 16-inch MacBook Pro with Core i9, and up to 1.8x faster when compared to the 16-inch MacBook Pro with M1 Pro.

The new MacBook Pro with M4 Pro speeds up a variety of workflows such as structural engineering, data modeling, and more.

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MacBook Pro with M4 Max: The Ultimate in Pro Performance

Designed for pros like data scientists, 3D artists, and composers who constantly push workflows to the limit, MacBook Pro with M4 Max empowers users to work on projects that were previously only imaginable on a desktop. M4 Max brings up to a 16-core CPU, up to a 40-core GPU, over half a terabyte per second of unified memory bandwidth, and a Neural Engine that is over 3x faster than M1 Max, allowing on-device AI models to run faster than ever. With M4 Max, MacBook Pro delivers up to 3.5x the performance of M1 Max, ripping through heavy creative workloads like visual effects, 3D animation, and film scoring.1 It also supports up to 128GB of unified memory, so developers can easily interact with LLMs that have nearly 200 billion parameters. And with the powerful Media Engine in M4 Max, which features two ProRes accelerators, MacBook Pro performance is amazing even when taking 4K120 fps ProRes video captured with the new iPhone 16 Pro and editing it in Final Cut Pro.
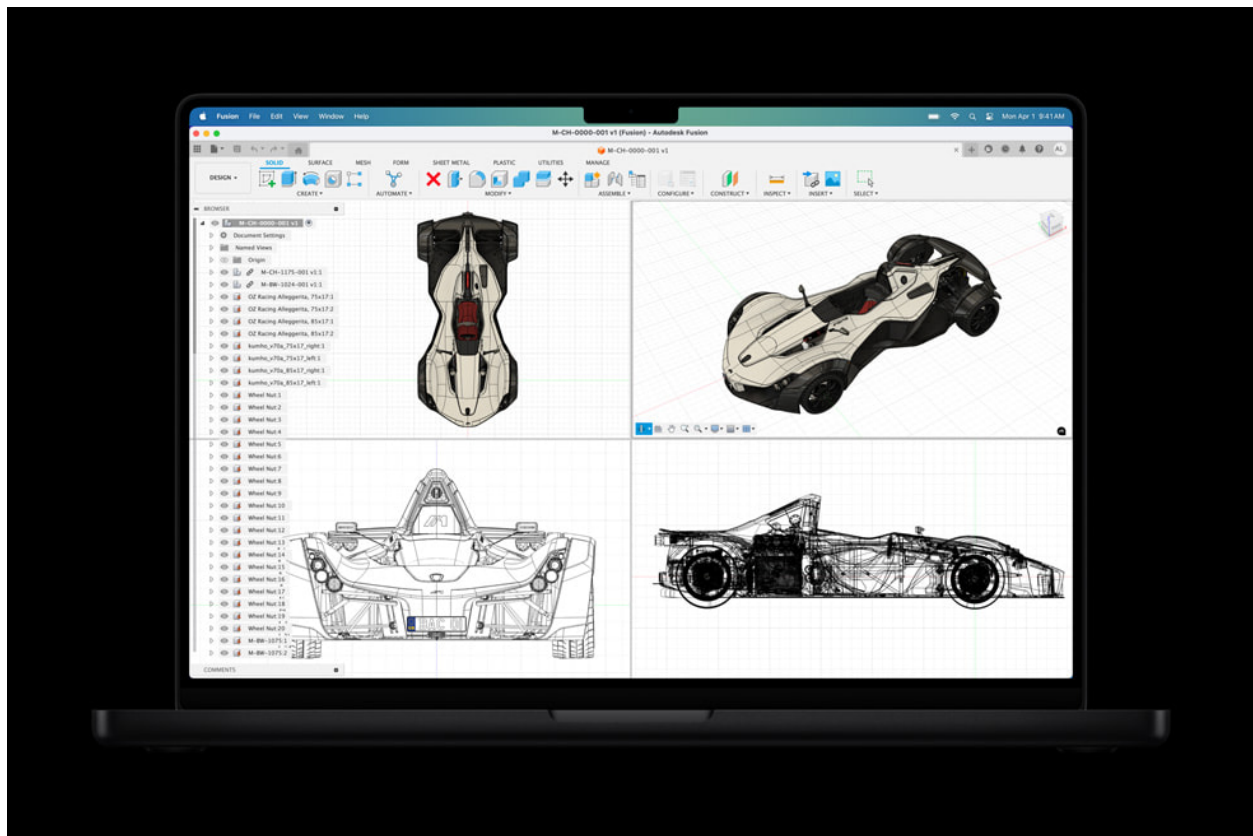
MacBook Pro with M4 Max enables:1

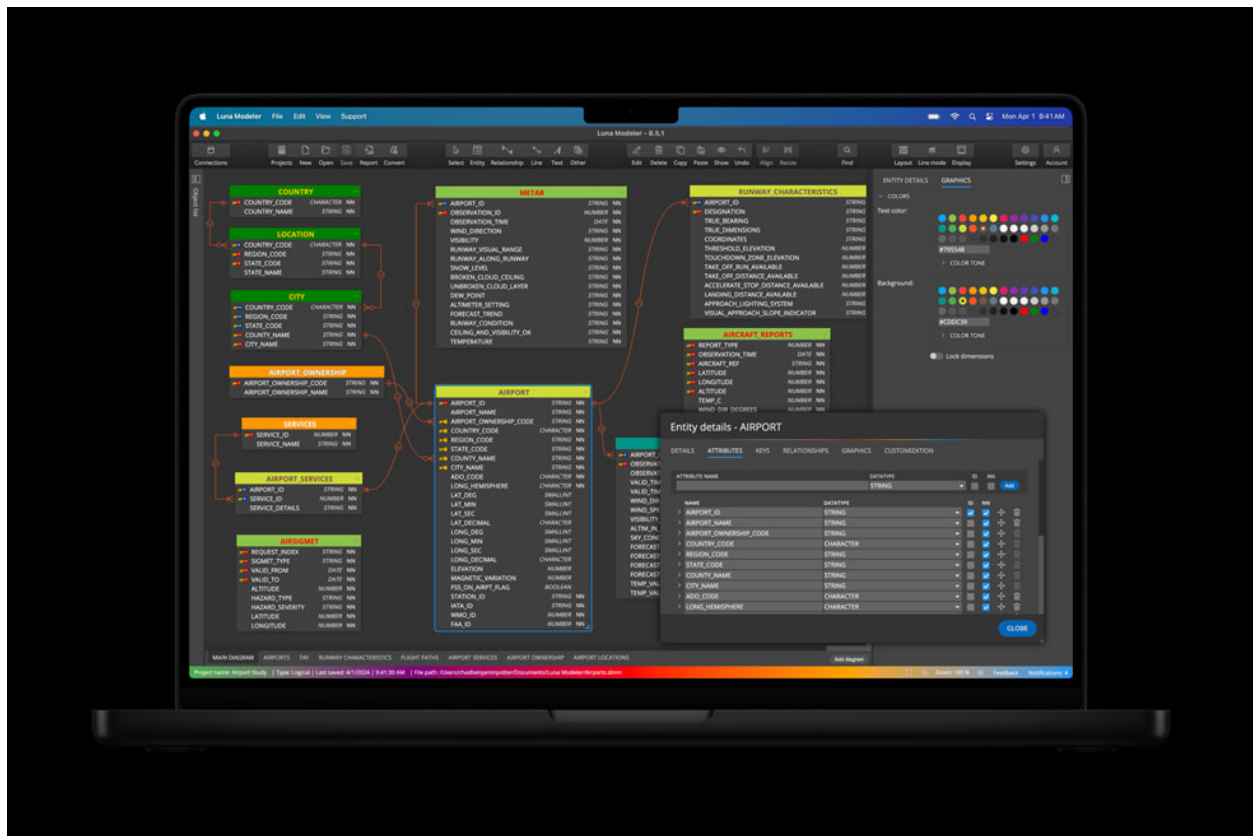Figure 7: A user works in Fusion on the new MacBook Pro.

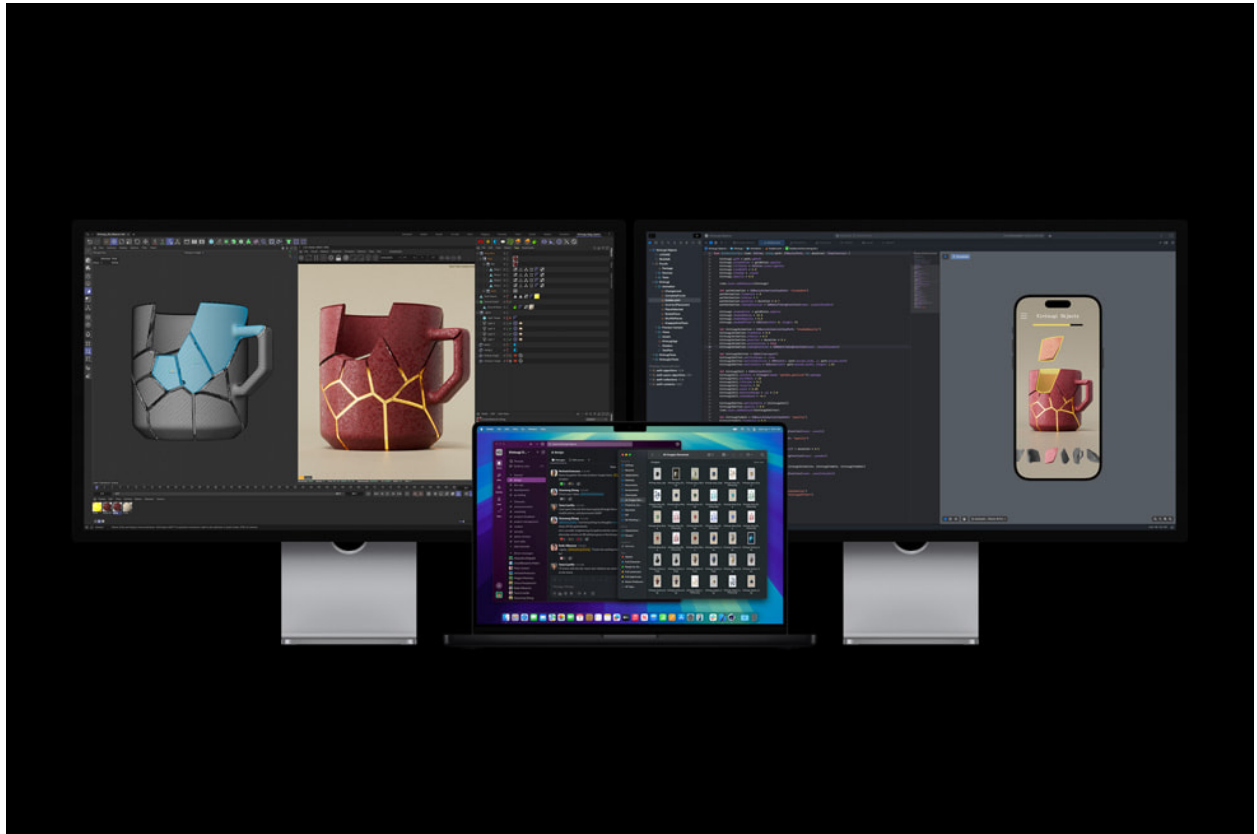Figure 8: A user works in Luna Modeler on the new MacBook Pro.

Figure 9: A user works in Xcode on the new MacBook Pro.

- Up to 7.8x faster scene rendering performance with Maxon Redshift when compared to the 16-inch MacBook Pro with Intel Core i9, and up to 3.5x faster when compared to the 16-inch MacBook Pro with M1 Max.
- Up to 4.6x faster build performance when compiling code in Xcode when compared to the 16-inch MacBook Pro with Intel Core i9, and up to 2.2x faster when compared to the 16-inch MacBook Pro with M1 Max.
- Up to 30.8x faster video processing performance in Topaz Video AI when compared to the 16-inch MacBook Pro with Intel Core i9, and up to 1.6x faster when compared to the 16-inch MacBook Pro with M1 Max.
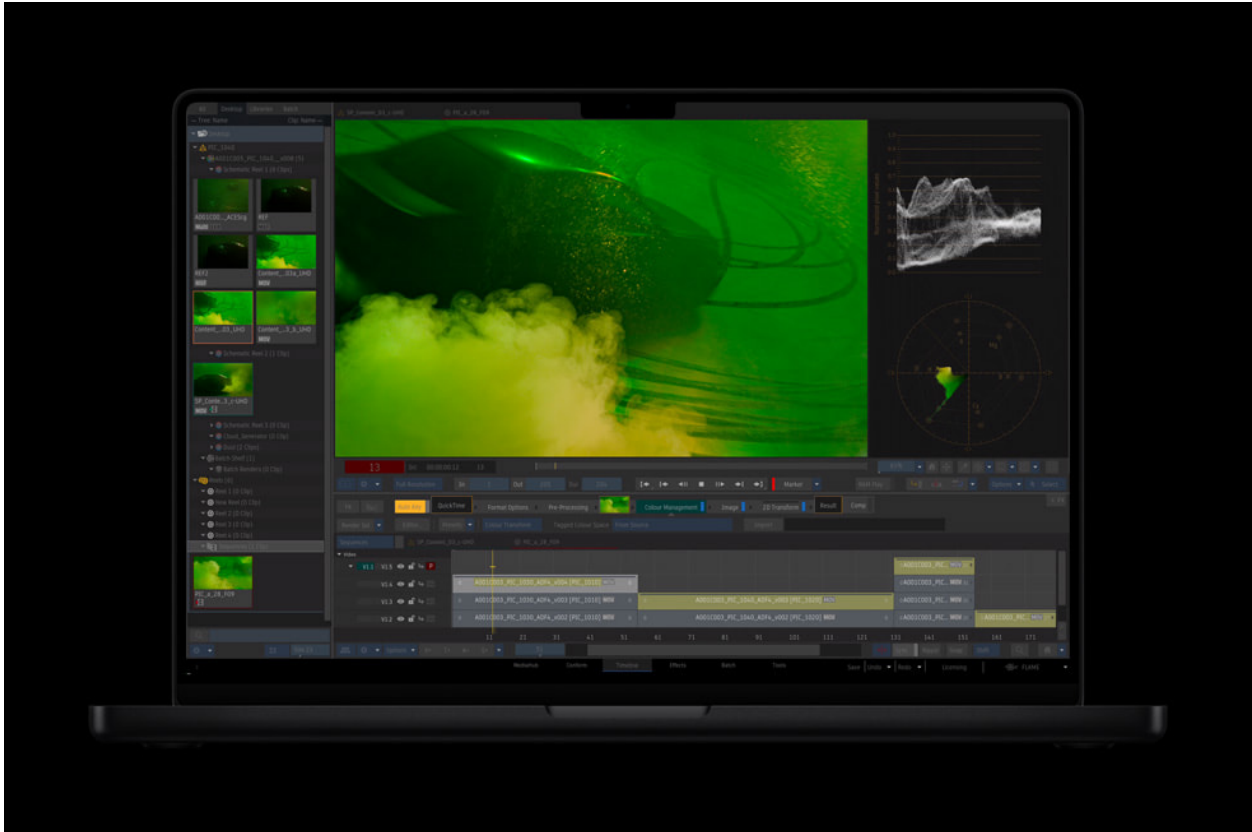

Figure 10: Flame is shown on MacBook Pro with M4 Max.

With M4 Max, MacBook Pro rips through the heaviest creative workloads like visual effects, 3D animation, and film scoring.

With support for up to 128GB of unified memory, developers can easily interact with LLMs that have nearly 200 billion parameters.

Industry-Leading Liquid XDR Display Gets Even Better

The new MacBook Pro introduces an all-new nano-texture display option that dramatically reduces glare and distractions from reflections. In bright lighting conditions, the new MacBook Pro can now show SDR content at up to 1000 nits and still displays HDR content at up to 1600 nits of peak brightness. All together, it's a game-changing experience for users working outdoors.

A game changer when working outdoors, the Liquid Retina XDR display gets even better with an all-new nano-texture display option and up to 1000 nits of brightness for SDR content.
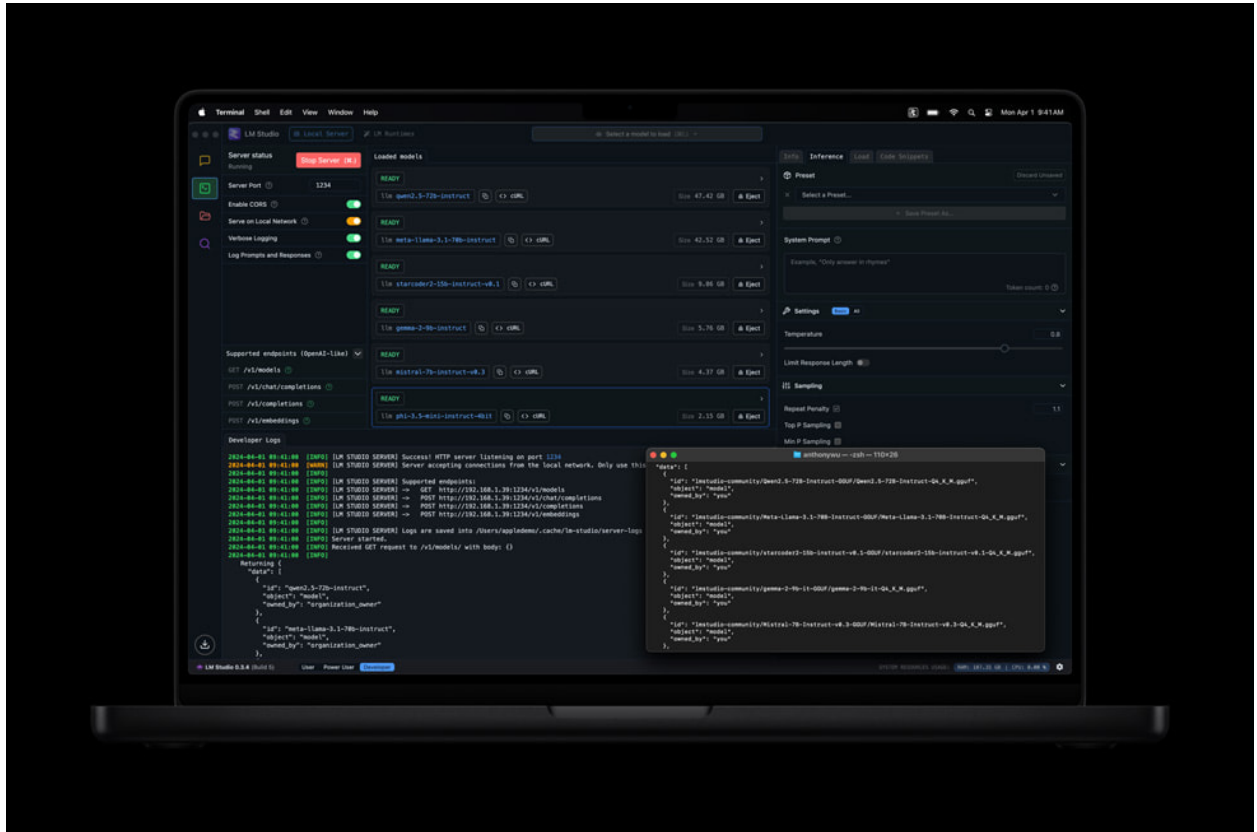
Figure 11: LM Studio is shown on MacBook Pro with M4 Max.

Figure 12: A user works on MacBook Pro outdoors in a field of vegetables.

New 12MP Center Stage Camera

MacBook Pro includes a new 12MP Center Stage camera that delivers enhanced video quality in challenging lighting conditions. Video calls are even more engaging with Center Stage, which automatically keeps users centered in the frame as they move around. The new camera also supports Desk View, which adds a whole new dimension to video calls. And with studio-quality mics and a phenomenal six-speaker sound system with support for Spatial Audio, MacBook Pro delivers an incredibly immersive audio experience whether users are listening to music or watching a movie in Dolby Atmos.

MacBook Pro features a new 12MP Center Stage camera, which keeps users centered in the frame, and supports Desk View, which adds a whole new dimension to video calls.

Thunderbolt 5 Comes to the Mac

MacBook Pro with M4 Pro and M4 Max features Thunderbolt 5 ports that more than double transfer speeds up to 120 Gb/s, enabling faster external storage, expansion chassis, and powerful docking and hub solutions. For example, by connecting just a single cable, pros like music producers can now light up their entire studio. All MacBook Pro models feature an HDMI port that supports up to 8K resolution, a SDXC card slot, a MagSafe 3 port for charging, and a headphone jack, along with support for Wi-Fi 6E and Bluetooth 5.3.
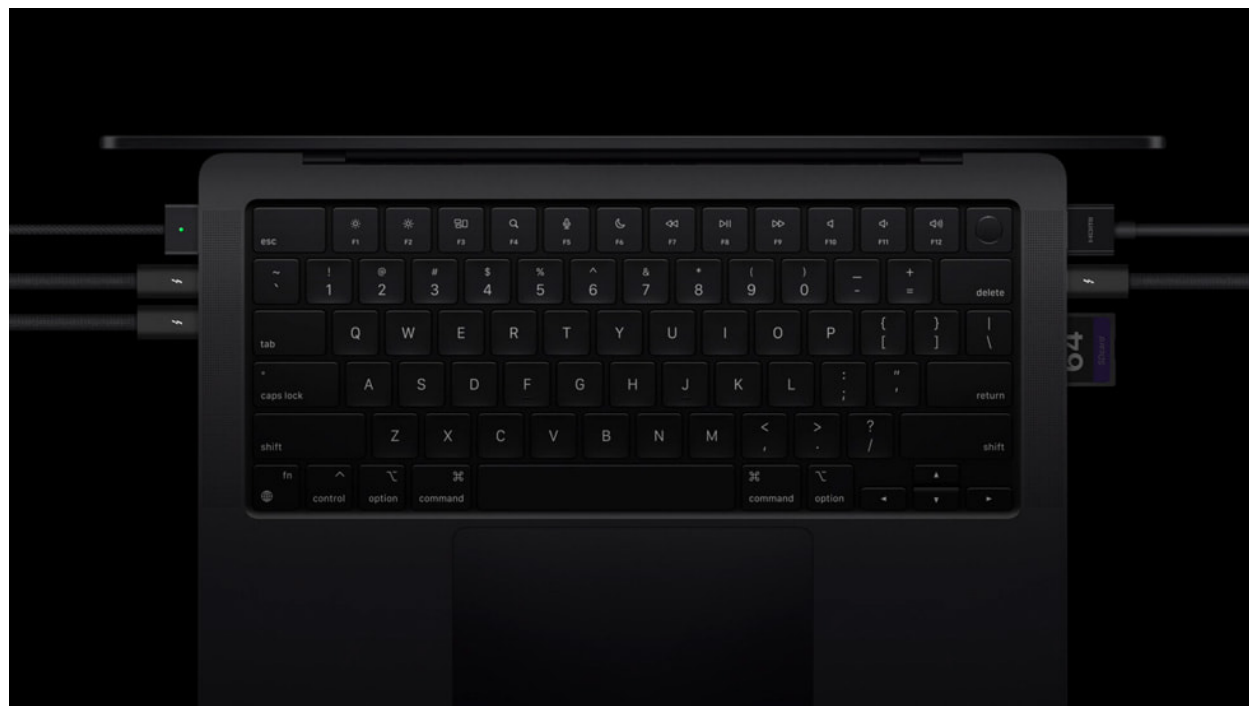

Figure 13: A close-up of the keyboard on MacBook Pro and its Thunderbolt 5 ports with plugged-in peripherals.

MacBook Pro with M4 Pro and M4 Max now features Thunderbolt 5 with faster transfer speeds that enable powerful docking and hub solutions, allowing pros to connect to higher-bandwidth gear with a single cable.

A New Era with Apple Intelligence on the Mac

Apple Intelligence ushers in a new era for the Mac, bringing personal intelligence to the personal computer. Combining powerful generative models with industry-first privacy protections, Apple Intelligence harnesses the power of Apple silicon and the Neural Engine to unlock new ways for users to work, communicate, and express themselves on Mac. It is available in U.S. English with macOS Sequoia 15.1. With systemwide

Writing Tools, users can refine their words by rewriting, proofreading, and summarizing text nearly everywhere they write. With the newly redesigned Siri, users can move fluidly between spoken and typed requests to accelerate tasks throughout their day, and Siri can answer thousands of questions about Mac and other Apple products. New Apple Intelligence features will be available in December, with additional capabilities rolling out in the coming months. Image Playground gives users a new way to create fun original images, and Genmoji allows them to create custom emoji in seconds. Siri will become even more capable, with the ability to take actions across the system and draw on a user's personal context to deliver intelligence that is tailored to them. In December, ChatGPT will be integrated into Siri and Writing Tools, allowing users to access its expertise without needing to jump between tools.

Apple Intelligence does all this while protecting users'privacy at every step. At its core is on-device processing, and for more complex tasks, Private Cloud Compute gives users access to Apple's even larger, server-based models and offers groundbreaking protections for personal information. In addition, users can access ChatGPT for free without creating an account, and privacy protections are built in —their IP addresses are obscured and OpenAI won't store requests. For those who choose to connect their account, OpenAI's data-use policies apply.

An Unrivaled Experience with macOS Sequoia

macOS Sequoia completes the new MacBook Pro experience with a host of exciting features, including iPhone Mirroring, allowing users to wirelessly interact with their iPhone, its apps, and notifications directly from their Mac.4 Safari, the world's fastest browser,5 now offers Highlights, which quickly pulls up relevant information from a site; a smarter, redesigned Reader with a table of contents and high-level summary; and a new Video Viewer to watch videos without distractions. With Distraction Control, users can hide items on a webpage that they may find disruptive to their browsing. Gaming gets even more immersive with features like Personalized Spatial Audio and improvements to Game Mode, along with a breadth of exciting titles, including the upcoming Assassin's Creed Shadows. Easier window tiling means users can stay organized with a windows layout that works best for them. The all-new Passwords app gives convenient access to passwords, passkeys, and other credentials, all stored in one place. And users can apply new beautiful built-in backgrounds for video calls, which include a variety of color gradients and system wallpapers, or upload their own photos.

The Perfect Time to Upgrade or Switch to a Mac

Upgraders will get monumental improvements over Intel-based MacBook Pro models, including the amazing features of Apple Intelligence. When compared to an Intel-based MacBook Pro, the new MacBook Pro provides nearly 10x faster performance for AI-based workloads,1 and for graphics-intensive workloads, users get up to 20x faster performance.6 With battery life on the new MacBook Pro now up to 24 hours, upgraders will also experience up to 14 additional hours. And with the Liquid Retina XDR display, a new 12MP Center Stage camera, an immersive six-speaker sound system, the unrivaled experience of macOS Sequoia, and more, there's never been a better time to upgrade or switch to MacBook Pro.

MacBook Air: The World's Most Popular Laptop Now Starts at 16GB

MacBook Air is the world's most popular laptop, and with Apple Intelligence, it's even better. Now, models with M2 and M3 double the starting memory to 16GB, while keeping the starting price at just $999 —a terrific value for the world's best-selling laptop.

Better for the Environment

The new MacBook Pro is built to last and incredibly durable, created from a custom alloy that uses 100 percent recycled aluminum in the enclosure. It also uses 100 percent recycled rare earth elements in all magnets, and 100 percent recycled tin soldering, gold plating, and copper in multiple printed circuit boards. The packaging for the 14-inch MacBook Pro is now entirely fiber-based, joining the 16-inch MacBook Pro and bringing Apple closer to its goal to remove plastic from its packaging by 2025.

Today, Apple is carbon neutral for global corporate operations and, as part of its ambitious Apple 2030 goal, plans to be carbon neutral across its entire carbon footprint by the end of this decade.

Pricing and Availability

- Customers can pre-order the new MacBook Pro starting today, October 30, on apple.com/store and in the Apple Store app in 28 countries and regions, including the U.S. It will begin arriving to customers, and will be in Apple Store locations and Apple Authorized Resellers, beginning Friday, November 8.
- The 14-inch MacBook Pro with M4 starts at **$1,599** (U.S.) and **$1,499** (U.S.) for education; the 14-inch MacBook Pro with M4 Pro starts at **$1,999** (U.S.) and **$1,849**(U.S.) for education; and the 16-inch MacBook Pro starts at **$2,499** (U.S.) and **$2,299**(U.S.) for education. All models are available in space black and silver.
- Additional technical specifications, including the nano-texture display and configure-to-order options, are available at apple.com/mac.
- MacBook Air with M2 and M3 comes standard with 16GB of unified memory, and is available in midnight, starlight, silver, and space gray, starting at **$999** (U.S.) and **$899** (U.S.) for education.
- New accessories with USB-C —including Magic Keyboard (**$99** U.S.), Magic Keyboard with Touch ID (**$149** U.S.), Magic Keyboard with Touch ID and Numeric Keypad (**$179** U.S.), Magic Trackpad (**$129** U.S.), Magic Mouse (**$79** U.S.), and Thunderbolt 5 Pro Cable (**$69**) —are available at apple.com/store.
- Apple Intelligence is available now as a free software update for Mac with M1 and later, and can be accessed in most regions around the world when the device and Siri language are set to U.S. English. The first set of features is in beta and available with macOS Sequoia 15.1, with more features rolling out in the months to come.
- Apple Intelligence is quickly adding support for more languages. In December, Apple Intelligence will add support for localized English in *Australia*, *Canada*, *Ireland*, *New Zealand*, *South Africa*, and the *U.K.,* and in April, a software update will deliver expanded language support, with more coming throughout the year. Chinese, English (India), English (Singapore), French, German, Italian, Japanese, Korean, Portuguese, Spanish, Vietnamese, and other languages will be supported.
- With Apple Trade In, customers can trade in their current computer and get credit toward a new Mac. Customers can visit apple.com/shop/trade-in to see what their device is worth.
- AppleCare+ for Mac provides unparalleled service and support. This includes unlimited incidents of accidental damage, battery service coverage, and 24/7 support from the people who know Mac best.
- Every customer who buys directly from Apple Retail gets access to Personal Setup. In these guided online sessions, a Specialist can walk them through setup, or focus on features that help them make the most of their new device. Customers can also learn more about getting started with their new device with a Today at Apple session at their nearest Apple Store.

Footnotes

1. Testing was conducted by Apple from August through October 2024. Battery life varies by use and configuration. See apple.com/macbook-pro for more information.
2. Testing was conducted by Apple in October 2024 using shipping competitive systems and select industry-standard benchmarks.
3. Based on published technical specifications of shipping competitive chips as of October 2024.
4. Available on Mac computers with Apple silicon and Intel-based Mac computers with a T2 Security Chip. Requires that the user's iPhone and Mac are signed in with the same Apple Account using two-factor authentication, their iPhone and Mac are near each other and have Bluetooth and Wi-Fi turned on, and their Mac is not using AirPlay or Sidecar. Some iPhone features (e.g., camera and microphone) are not compatible with iPhone Mirroring.
5. Testing was conducted by Apple in August 2024. See apple.com/safari for more information.
6. Results are compared to previous-generation 1.7GHz quad-core Intel Core i7-based 13-inch MacBook Pro systems with Intel Iris Plus Graphics 645, 16GB of RAM, and 2TB SSD.