

# What's New for Business

January 2023



Supercharged by the next generation of Apple silicon, the new MacBook Pro and Mac mini lineups bring groundbreaking performance and advanced capabilities to help users tackle the most demanding tasks and accelerate business productivity everywhere.



## The next generation of Apple silicon

Apple's next-generation of systems on a chip, Apple M2 Pro and M2 Max, take the breakthrough power-efficient performance of Apple silicon to new heights with up to 12 CPU cores, 38 GPU cores, 96GB unified memory, and 22 hours of battery life.<sup>1</sup>

The latest MacBook Pro has up to 6x faster effects rendering,<sup>2</sup> 10x faster machine learning (ML) performance,<sup>3</sup> and 4.4x faster code compiling<sup>4</sup> compared with the previous Intel Core i7 model.

M2 Pro has a 40 percent faster 16-core Neural Engine for ML, upgraded media engines with ProRes support, and up to 200GB per second of memory bandwidth, which makes multitasking and working with large files superfluid.

M2 Max expands on these capabilities by doubling the unified memory architecture and enhancing the media engine.

## macOS Ventura takes productivity further

macOS is designed to maximize the capabilities of Apple silicon for unbeatable performance and productivity, so business apps run faster and multitasking is smoother.

Powerful updates like Continuity Camera bring video conferencing features to Mac, including Desk View, Center Stage, and Studio Light. Communicate in more ways with Mail, including undo send, schedule send, follow-up, and rich links. And share notes and presentations right in Messages.

Apple silicon and macOS bring the most advanced security of any personal computer to Mac. macOS comes with built-in protections against malware and viruses, and it gives you the freedom to choose what you share and how you share it. Secure Enclave provides a foundation for features like secure boot and encrypted storage for an added layer of security.

## The versatile Mac mini

Available with the M2 or M2 Pro chip, Mac mini redefines affordable, high-performance desktop computing for business. And it's up to 5x faster than the best-selling Windows desktop.<sup>5</sup>

With M2, demanding tasks and everyday workflows like launching apps, browsing the web, and searching with Spotlight are fast and fluid on Mac mini.

Compared with the Intel Core i7-based Mac mini, photo editing is up to 4.7x faster<sup>6</sup> and video editing is up to 18.8x faster.<sup>7</sup>

Both models come with a wide array of ports to connect accessories as well as support for up to three displays, giving Mac mini versatility and flexibility in any setup, from home offices to data centers.

## The most powerful MacBook Pro ever

Powered by the next-generation M2 chips, MacBook Pro is more advanced and capable than ever. With dramatic improvements to its performance, battery life, and connectivity, there's never been a better time to upgrade from Intel-based Mac models.

With a 14-inch or 16-inch stunning Liquid Retina XDR display, up to 8TB of superfast SSD storage, versatile ports, support for up to four external displays, and all-day battery life,<sup>1</sup> pro users — from developers to designers — can tackle the most complex workflows and take their work anywhere they go.

The 1080p camera, studio-quality three-mic array, and six-speaker sound system deliver sharper images and clearer audio for enhanced video conferencing.

Stay connected to the fastest enterprise networks with Wi-Fi 6E, which delivers up to 2x the throughput.<sup>8</sup>

Resources: [Mac](#) | [macOS Ventura](#) | [Apple at Work](#)

<sup>1</sup>Battery life varies by use and configuration. See [apple.com/batteries](#) for more information.

<sup>2</sup>Testing conducted by Apple in May 2022 using preproduction 13-inch MacBook Pro systems with Apple M2, 8-core CPU, 10-core GPU, and 24GB of RAM, and production 13-inch MacBook Pro systems with Apple M1, 8-core CPU, 8-core GPU, and 16GB of RAM, all configured with 2TB SSD, as well as production 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. Final Cut Pro 10.6.2 tested using a complex 2-minute project with 4K ProRes 422 media. Performance tests are conducted using specific computer systems and reflect the approximate performance of MacBook Pro.

<sup>3</sup>Testing conducted by Apple in November and December 2022 using preproduction 14-inch MacBook Pro systems with Apple M2 Max, 12-core CPU, 38-core GPU, and 96GB of RAM, preproduction 14-inch MacBook Pro systems with Apple M2 Pro, 12-core CPU, 19-core GPU, and 32GB of RAM, production 14-inch MacBook Pro systems with Apple M1 Max, 10-core CPU, 32-core GPU, and 64GB of RAM, and production 14-inch MacBook Pro systems with Apple M1 Pro, 10-core CPU, 16-core GPU, and 32GB of RAM, all configured with 8TB SSD; as well as production 2.3GHz quad-core Intel Core i7-based 13-inch MacBook Pro systems with Intel Iris Plus Graphics, 32GB of RAM, and 4TB SSD. Final Cut Pro 10.6.5 tested using an 18-second project with 8K ProRes 422 media, at 8192x4320 resolution and 23.98 frames per second. Performance tests are conducted using specific computer systems and reflect the approximate performance of MacBook Pro.

<sup>4</sup>Testing conducted by Apple in November and December 2022 using preproduction 14-inch MacBook Pro systems with Apple M2 Max, 12-core CPU, 38-core GPU, and 96GB of RAM, preproduction 14-inch MacBook Pro systems with Apple M2 Pro, 12-core CPU, 19-core GPU, and 32GB of RAM, production 14-inch MacBook Pro systems with Apple M1 Max, 10-core CPU, 32-core GPU, and 64GB of RAM, and production 14-inch MacBook Pro systems with Apple M1 Pro, 10-core CPU, 16-core GPU, and 32GB of RAM, all configured with 8TB SSD; as well as production 2.3GHz quad-core Intel Core i7-based 13-inch MacBook Pro systems with Intel Iris Plus Graphics, 32GB of RAM, and 4TB SSD. Open source project built with pre-release Xcode 14.2 with Apple Clang 14.0.0, Ninja 1.10.0.git, and CMake 3.25.0-rc2. Performance tests are conducted using specific computer systems and reflect the approximate performance of MacBook Pro.

<sup>5</sup>Testing was conducted by Apple in November and December 2022 using preproduction Mac mini systems with Apple M2, 8-core CPU, 10-core GPU, 8GB of RAM, and 256GB SSD, as well as production Intel Core i5-based PC systems with Intel UHD Graphics 730 and the latest version of Windows 11 available at the time of testing. The best-selling system is based on publicly available sales data over the prior 12 months. Performance tests are conducted using specific computer systems and reflect the approximate performance of Mac mini.

<sup>6</sup>Testing conducted by Apple in November and December 2022 using preproduction Mac mini systems with Apple M2 Pro, 12-core CPU, 19-core GPU, 32GB of RAM, and 8TB SSD, preproduction Mac mini systems with Apple M2, 8-core CPU, 10-core GPU, 24GB of RAM, and 2TB SSD, production Mac mini systems with Apple M1, 8-core CPU, 8-core GPU, 16GB of RAM, and 2TB SSD, and production 3.8GHz 8-core Intel Core i7-based iMac systems with AMD Radeon Pro 5500 XT with 8GB of GDDR6, 8GB of RAM, and 512GB SSD, as well as production 3.2GHz 6-core Intel Core i7-based Mac mini systems with Intel Iris UHD Graphics 630, 64GB of RAM, and 2TB SSD. Tested with Adobe Photoshop 24.0.0 using the following filters and functions: mesh from layer, difference clouds, lighting effects, tree, and spherical panorama. Performance tests are conducted using specific computer systems and reflect the approximate performance of Mac mini and iMac.

<sup>7</sup>Testing conducted by Apple in November and December 2022 using preproduction Mac mini systems with Apple M2 Pro, 12-core CPU, 19-core GPU, 32GB of RAM, and 8TB SSD, preproduction Mac mini systems with Apple M2, 8-core CPU, 10-core GPU, 24GB of RAM, and 2TB SSD, production Mac mini systems with Apple M1, 8-core CPU, 8-core GPU, 16GB of RAM, and 2TB SSD, and production 3.8GHz 8-core Intel Core i7-based iMac systems with AMD Radeon Pro 5500 XT with 8GB of GDDR6, 8GB of RAM, and 512GB SSD, as well as production 3.2GHz 6-core Intel Core i7-based Mac mini systems with Intel Iris UHD Graphics 630, 64GB of RAM, and 2TB SSD. Final Cut Pro 10.6.5 tested using a complex 2-minute clip with 4K Apple ProRes RAW media. Performance tests are conducted using specific computer systems and reflect the approximate performance of Mac mini and iMac.

<sup>8</sup>Wi-Fi 6E not available in China mainland. Requires macOS 13.2 or later in Japan.

© 2023 Apple Inc. All rights reserved. Apple, the Apple logo, Apple TV, Final Cut Pro, iMac, Liquid Retina, Mac, MacBook Pro, Mac mini, ProRes, Spotlight, and Xcode are trademarks of Apple Inc., registered in the U.S. and other countries. Apple ProRes and Center Stage are trademarks of Apple Inc. Adobe is a trademark or registered trademark of Adobe Systems Incorporated in the U.S. and/or other countries. Intel and Intel Core are trademarks of Intel Corp. in the U.S. and other countries. Other product and company names mentioned herein may be trademarks of their respective companies. January 2023