

Apple 16-inch MacBook Pro review: an in-depth look at the first new MBP size since 2006

We've now spent six weeks with the Apple's redesigned new MacBook Pro – and were impressed in ways we didn't expect.

The 15-inch MacBook Pro is dead. Long live the 16-inch MBP.

Since it was launched in 2006, the 15-inch MacBook Pro has been synonymous with creatives, as much part of the uniform as thick glasses, a checked shirt, and beards and/or bangs. While other laptops have offered higher performance earlier, or better screens, the stylish and solidly reliable MBP was the laptop of choice for many designers, illustrators, animators, editors and photographers. And while you could plump for a 13-inch model, or – until 2011 – a 17-inch model, for most the 15-inch offered the best mix of performance and portability.

But as of today, the 15-inch MacBook Pro is no more – at least as new from Apple, you can still pick up new ones from the likes of Amazon and refurb models from Apple itself. Instead, it's been replaced with a slightly larger model: the 16-inch MacBook Pro. I've now spent six weeks with a three different configurations of this new model, and here's what I've found.

MacBook Pro: 15-inch vs 16-inch

Your first question is likely to be, what does the extra inch get you? Well, it's only 0.6 of an inch as the 15-inch model had a 15.4-inch screen, while the 16-inch is bang on 16 inches. But beyond that, the answer is pretty much everything you could want: a higher-resolution screen without hulking

out, a redesigned keyboard based on the Magic keyboard shipped with desktop Macs, (slightly) higher performance, more RAM and storage, and a sound system that can only be described as phenomenal.

It's not perfect, but if you liked what Apple did with the 15-inch model, you'll like this – doing a quick calculation in my head – 4% more. And at the same price as the 15-inch model, you're not paying any more for it.

Anyone who remembers the 17-inch model might be concerned that again we'll be faced with an impractically large, teatray-sized Mac. Thankfully, the 16-inch MacBook Pro is only a smidge larger than the 15-inch model, thanks to slimmer bezels around the screen – and it's less than 1mm thicker too. On the desk next to my 15-inch MBP, the 16-inch model looks noticeably bigger – but folded down there's not much in it for size or weight. It's about the same size/weight as 15.6-inch Windows rivals such as the [Dell XPS 15](#), or the [HP Spectre x360](#).



The 15-inch MacBook Pro next to its 16-inch replacement.



The 16-inch MacBook Pro (*right*) is less than 1mm thicker than the 15-inch model (*left*).

It'll slip into most 15-inch laptop bags, as they're designed for bulkier PC models, but you'd need to replace anything that's specifically designed for the 15-inch MBP. Our test unit arrived with a black leather sleeve, which is nice if you're into that corporate look.

So overall, if you were happy moving around from desk to meeting to train to coffeeshop to the park with a 15-inch MacBook Pro – or any of those PC rivals – you'll be just as content with the 16-inch model.

Screen issues

If you're expecting a 4K screen – as you can get with most of the MacBook Pro's rivals – you'll be disappointed. Apple believes that at a resolution of 3,072 x 1,920 gives MacBook Pro will have a much longer battery life than if it had a 4K display – and that you'll not notice the difference on a 16-inch screen compared to a 4K resolution.

We certainly could tell the difference the 16-inch model's 16%

more pixels gives over with the previous 15-inch model's screen – but next to a top-spec 4K laptop display, the MacBook Pro impresses less. We placed the 16-inch MBP next to the Razer Blade 15 Advanced, which has a 4K display with 40% more pixels than Apple's new laptop – and careful inspection showed more depth and detail on the PC's screen



Here you can see how much more of an image (at 100%) you can see on the 16-inch model (*right*), compared to the 15-inch (*left*)

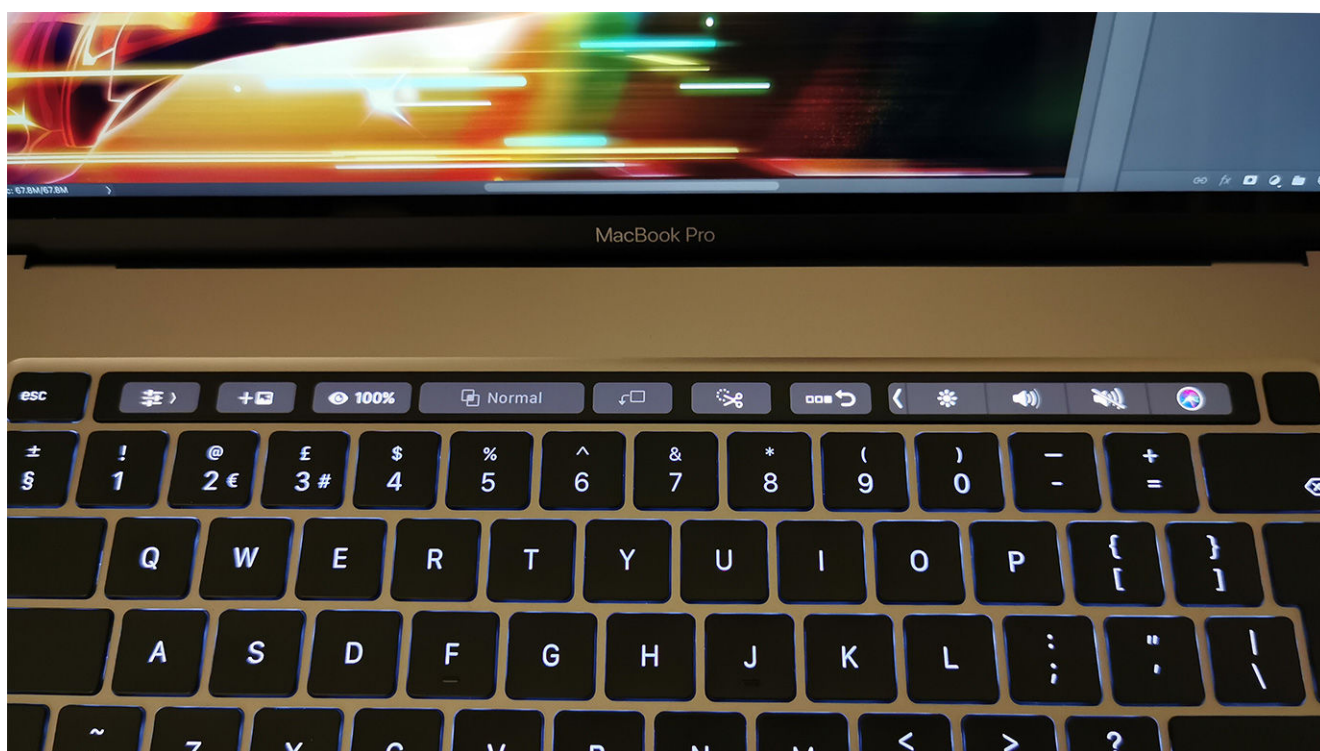
The colour gamut hasn't changed either – with Apple aligning the colour model to the DCI-P3 standard used for digital cinema rather than the Adobe RGB gamut used by Adobe's applications. Using a Datacolor Spyder5Elite colorimeter and testing software, we found the 16-inch MBP can output about 87% of the Adobe RGB standard – compared to 100% by many rivals including the Razer Blade 15 Advanced, Dell XPS 15 or Precision 5540, or .

That being said, the Spyder found that the MBP 16 offers exceptional colour accuracy. There's very little glare and images and video look as rich as they did on the previous model – it can output 500nits of brightness, so it doesn't

really matter that Apple doesn't offer an OLED display option like Dell and Razer do.

Below the screen are the redesigned Touch Bar and keyboard. Personally, I've never been a fan of Apple's approach to having the Touch Bar rather than a touchscreen option like PC rivals – it's easier to work with a full touchscreen than the skinny Touch Bar in cramped conditions like on a train or certain coffee shops – but at least it's much better supported by most major creative apps than it has been in the past.

The new Touch Bar has a separate, physical Escape key – a request from many developers according to Apple. The Touch ID fingerprint scanner has also been separated from the rest of the Touch Bar, though this seems to be just to balance it aesthetically with the separated Escape key.



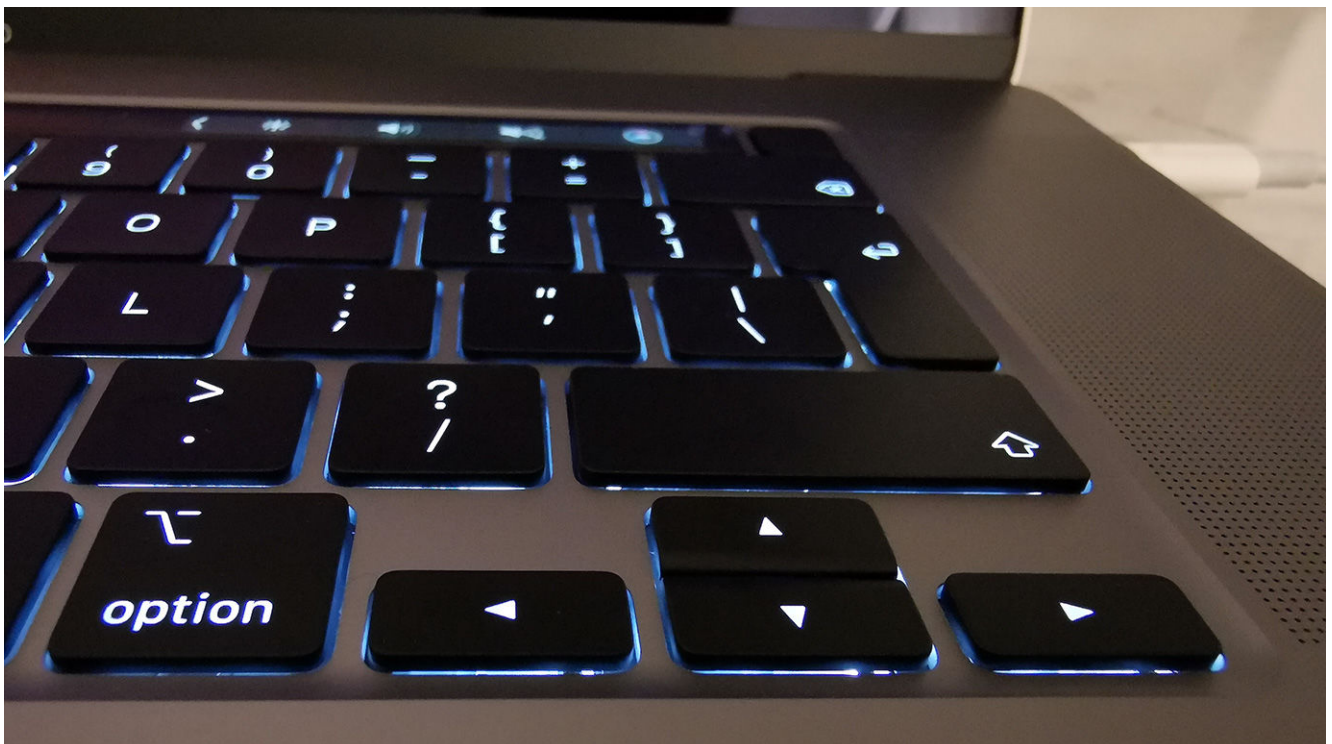
A new keyboard

The new keyboard is a definite improvement – and not only if it fixes the previous keyboard's reported reliability issues (which we can't have an opinion on yet). It's very comfortable

to type on, the keys have a deeper 'travel' and it feels more like the Magic Keyboard from desktop Macs that it's based on. Apple has also gone back to the 'inverted T' layout of the arrow keys – which some users preferred (and others will get annoyed at as they've just got the muscle memory for the 'block' layout).

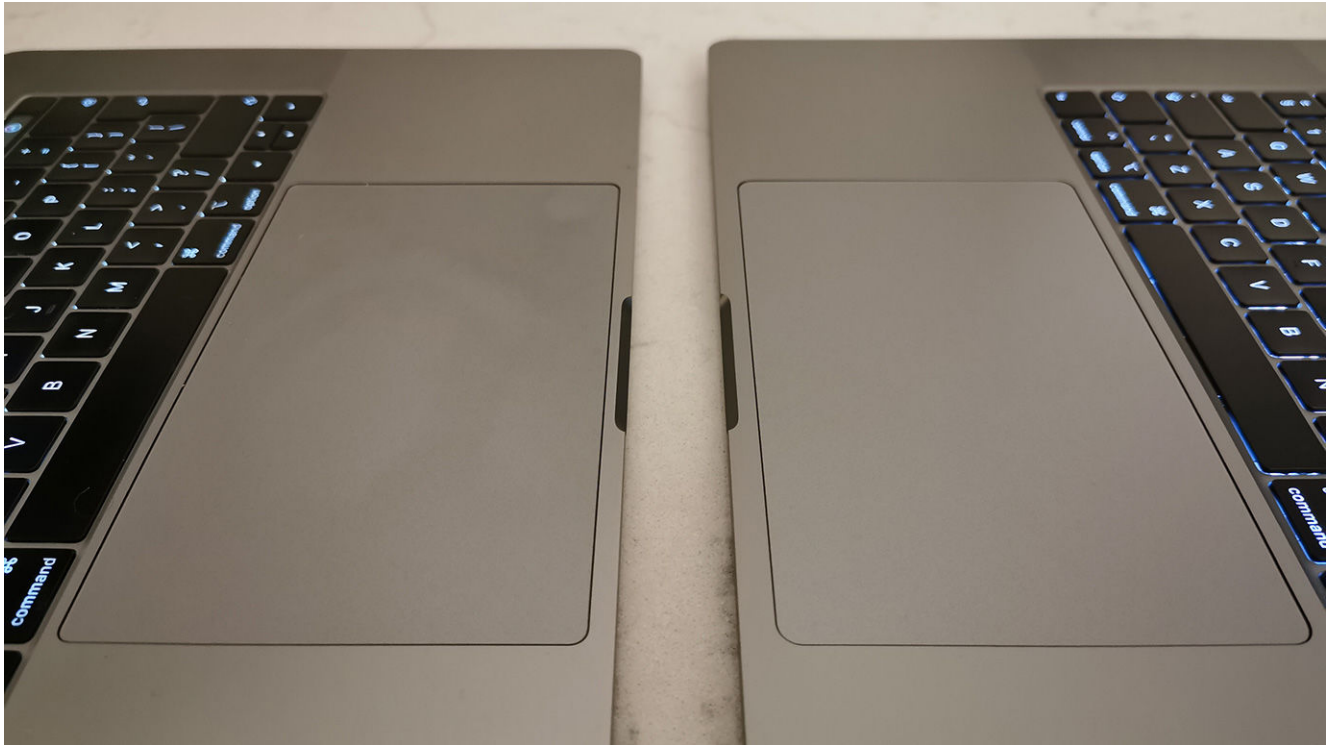


The 15-inch MacBook Pro's arrow keys



The 16-inch MacBook Pro's arrow keys

The trackpad is the same size as the previous model – ie huge compared to most other laptops, and one of the MBP's usability highlights. It really does make it easy to precisely select and manipulate points and elements if you're in a situation where you can't use a mouse.



Under the keyboard, Apple offers many of the same components it did previously – but it has rejigged their arrangement to improve airflow and therefore performance, better cooling allowing chips to run faster.

The MacBook Pro 16 offers the same 9th-gen Intel Core i7 and i9 chips as the last 15-inch model – up to the Intel Core i9-9980HK, which has eight cores running at 2.4GHz, some of which can be accelerated to 5GHz when they're not all in use. Intel has a 10th generation line of chips yet, but these are aimed at smaller laptops such as the Microsoft Surface Pro 7 with lower performance needs (so there's no 10th-gen Core i9, for example).

Other internal improvements are better than previous models, though most are more about bringing the MacBook Pro in line with its competitors than innovating beyond them. You can now

fit 64GB of DDR4 RAM – as with those aforementioned Dell, HP and Lenovo models – for £720/US\$800 over the standard 16GB. And storage now tops out at 8TB, which is larger than its rivals but adds £1,980/US\$2,200 to the price over the standard 1TB. These are exactly what money's-no-object creatives who want ultimate power need, but it's out of reach of most. There are new AMD Radeon Pro 5000M series graphics with up to 8GB of its own RAM.

Performance

We've tested the 16-inch MacBook Pro with Photoshop – as that's the most common application used by *Digital Arts* readers – and our Cinema 4D ProRender test that measures GPU performance for both 3D or 2D acceleration. We've also used Cinebench benchmark that's based on Cinema 4D's CPU-based rendering engine to see if the airflow makes a difference to performance as Apple claims.

Here we've compared three different configurations of the 16-inch MacBook Pro to our 2019 15-inch model review unit, and the Razer Blade Advanced Edition. Note: We didn't have the first 16-inch MBP model long enough to run our ProRender or battery test on

- The first 16-inch MacBook Pro is what we'd consider to be the base configuration for a creative pro – though if you have more budget we'd suggest increasing the RAM to 32GB before any other upgrade. It has a 16-inch, 3,072 x 1,920 LCD screen; a Core i9 2.3GHz processor with eight cores, 16GB DDR4 RAM, AMD Radeon Pro 5500M graphics with 4GB RAM, a 1TB SSD and macOS Catalina. It costs £2,799/US\$2,799.
- The second 16-inch MacBook Pro is our recommended spec for video editors and 3D artists. It has a 16-inch, 3,072 x 1,920 LCD screen; a Core i9 2.4GHz processor with eight cores, 32GB DDR4 RAM, AMD Radeon Pro 5500M

graphics with 8GB RAM, a 2TB SSD and macOS Catalina. It costs £3,799/US\$2,799.

- The third 16-inch MacBook Pro is as near to a 'maxed-out' config that anyone's likely to buy. The only possible upgrade beyond this is increasing the 4TB drive to 8TB, which costs £1,200/\$1,200 on top of the almost-five-grand price and is likely for showboaters alone. It has a 16-inch, 3,072 x 1,920 LCD screen; a Core i9 2.4GHz processor with eight cores, 64GB DDR4 RAM, AMD Radeon Pro 5500M graphics with 8GB RAM, a 4TB SSD and macOS Catalina. It costs £4,689/US\$4,899.
- The 15-inch MacBook Pro had a 15-inch, 2,880 x 1,800 LCD screen; a Core i9 2.4GHz processor with eight cores, 32GB DDR4 RAM, AMD Radeon Pro Vega 20 graphics with 4GB RAM, a 4TB SSD and macOS Mojave. This cost £6,074 – though as noted in our review a large part of that was the large-for-the-time 4TB SSD, reducing this would bring its price/specs more in line with our second MBP 16 review unit. You can pick up a refurbished unit from Apple for about £2,800/\$2,800.
- The Razer Blade Studio Edition has a 15.6-inch, 3,840 x 2,160 OLED screen; a Core i7 2.6GHz processor with six cores, 16GB DDR4 RAM, Nvidia GeForce RTX 2080 graphics with 8GB RAM, a 512MB SSD and Windows 10 Home. It costs £3,149/\$3,299.

Cinebench R20

Cinema 4D R20 ProRender

Photoshop 2019

Battery life

From these results you can see that the 16-inch MacBook Pro offers only moderate performance gains over the last 15-inch

model in every area except 3D performance, where we've seen a big boost. However, Apple's decision to continue using AMD's chips means that it delivers much lower 3D performance than the Nvidia RTX-sporting Razer Blade 15 Advanced.

It's possible that this decision has helped Apple keep the MBP's battery life much longer than the Blade, as has the choice of a lower-resolution screen. Whatever the reason, the MBP's battery life is impressive and a major reason to go for it over a PC rival.

Quality audio



A laptop's speakers isn't usually something we write about – unless you're sitting in a hotel room in NYC benchmarking a MacBook, chances are you pair your laptop with a proper set of speakers or some decent headphones. Most laptops produce a

sound quality somewhere between tinny and mediocre – but the new speaker system in the 16-inch MacBook Pro makes listening pleasurable rather than just acceptable, and it's a lot louder too. Flipping tracks on Spotify between the 16-inch MBP and my 2018 15-inch, meandering between pop (Lizzo), soundtracks (Thom Yorke's *Suspiria*), noise (Blanck Mass) and whatever the hell you call the new FKA Twigs album, the 16-inch MBP's sound is so much fuller: warmer or blasting as needed.

You're not going to want to trade in your studio's speaker system quite yet, but it's kept my ears happy while writing this review.

The internal microphones have been upgraded to match. You're unlikely to notice the difference on a compressed-to-hell Skype call, but if you're thinking of joining the growing number of designers starting their own podcast, you might not need an external microphone.



One feature you won't find on any of the 16-inch MacBook Pro's Windows-based competitors is Sidecar. Found only on macOS Catalina and iPadOS, this lets you use an iPad as a Cintiq-like second screen you can draw on using the Apple Pencil.

Early verdict

The 16-inch MacBook Pro is, unsurprisingly, the best Mac laptop to date. Based on six weeks' experience, I'd say that if you bought either the 2018 or 2019 15-inch model, there's little reason to upgrade yet – but if you've been hanging on, this could be the moment to invest in a new MacBook Pro.

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