Boot faster and get more raw CPU performance at a lower cost with Windows 10 premium devices

Laptops using Windows 10 started up in less time, completed CPU-intensive tasks faster, and cost less on average than laptops running macOS

You need a laptop that saves you time on everyday tasks like booting and working with CPU-hungry applications. But you also want to be smart about how you spend. How can you balance these desires for performance and affordability? To find out, Principled Technologies tested 16 laptops—11 of which ran Microsoft Windows 10 Pro or Windows 10 Home operating systems, and five of which ran Apple® macOS® High Sierra or macOS Mojave.

On average, laptops running Windows 10 booted in 46 percent less time than laptops running macOS and performed up to 14 percent better on a CPU-intensive benchmark. In addition, Windows 10-based laptops cost an average of US$305 less than macOS-based laptops. If you're seeking responsive devices that won't break the bank, these laptops running Windows 10 are a compelling option.

Boot in 46% less time 1.8x as fast*

Get 14% better CPU performance*

on the Cinebench R15 multi-core benchmark

Save 19% US$305

per device*†

*on average, based on testing of 11 laptops running Windows 10 vs. 5 laptops running macOS
†based on MSRP data obtained on March 11, 2019

How we tested

We tested the following Windows 10 premium laptops. For more details on these devices, see Appendix B: System configuration information.

Microsoft Windows 10 laptops:

- Acer® Swift 5 14
  Intel® Core™ i5 / 8GB / 256GB SSD / Intel GPU
- ASUS ZenBook 14
  Intel Core i7 / 16GB / 512GB SSD / Intel GPU
- Dell™ XPS™ 15
  Intel Core i7 / 16GB / 512GB SSD / NVIDIA® GPU
- Dell XPS 13
  Intel Core i7 / 16GB / 512GB SSD / Intel GPU
- Dell Inspiron™ 7000 2-in-1 13
  Intel Core i5 / 8GB / 256GB SSD / Intel GPU
- HP Spectre® x360 15
  Intel Core i7 / 16GB / 512GB SSD / NVIDIA GPU
- HP Spectre x360 13
  Intel Core i7 / 8GB / 256GB SSD / Intel GPU
- HP Envy x360 15
  Intel Core i5 / 8GB / 256GB SSD / Intel GPU
- HP Envy x360 13
  AMD Ryzen™ 5 / 8GB / 128GB SSD / AMD GPU
- Lenovo® Yoga™ C930 14
  Intel Core i7 / 16GB / 512GB SSD / Intel GPU
- Lenovo Yoga 730 13
  Intel Core i5 / 8GB / 256GB SSD / Intel GPU

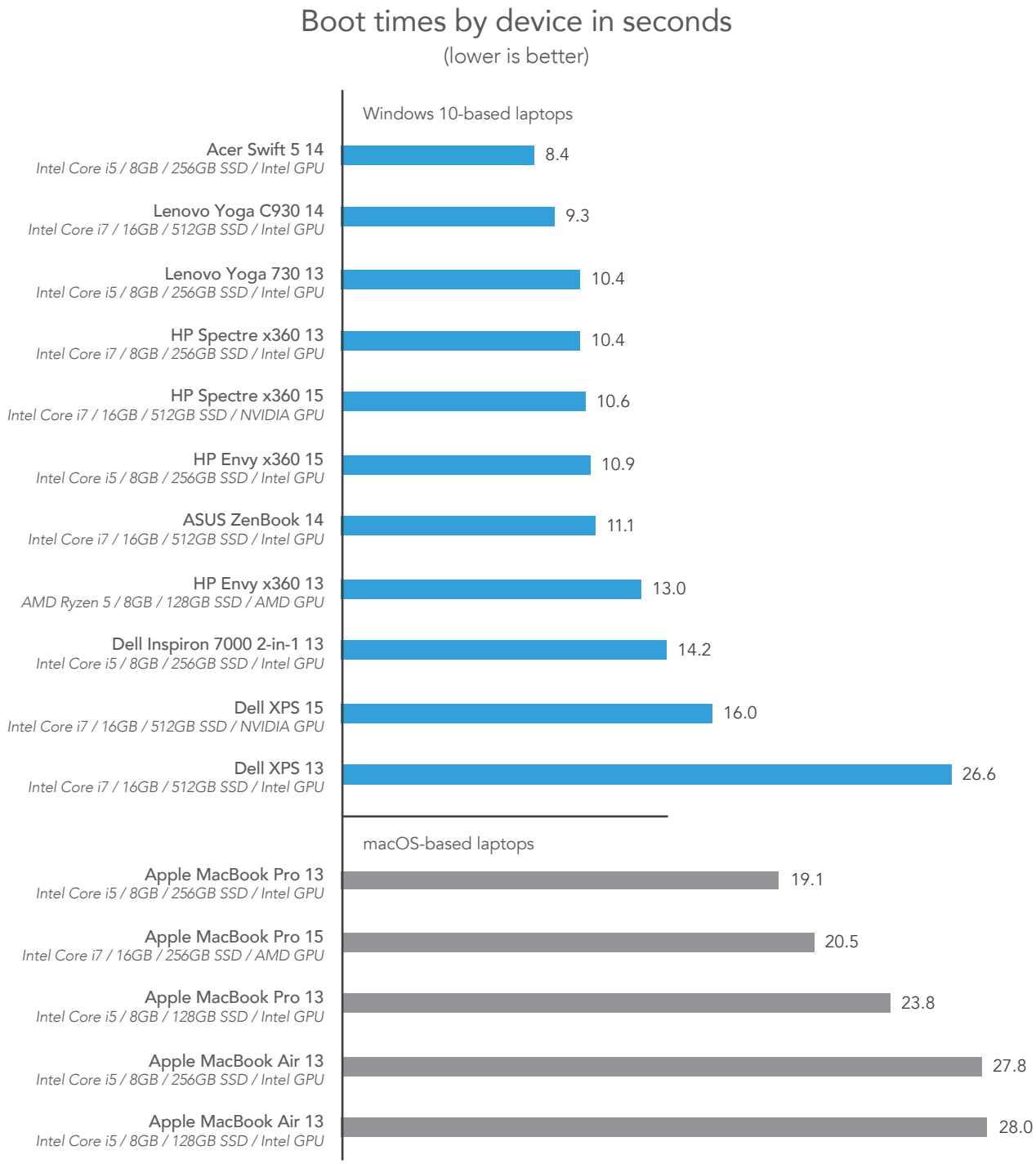
Apple macOS laptops:

- Apple MacBook Air® 13
  Intel Core i5 / 8GB / 128GB SSD / Intel GPU
- Apple MacBook Air 13
  Intel Core i5 / 8GB / 256GB SSD / Intel GPU
- Apple MacBook Pro® 13
  Intel Core i5 / 8GB / 128GB SSD / Intel GPU
- Apple MacBook Pro 13
  Intel Core i5 / 8GB / 256GB SSD / Intel GPU
- Apple MacBook Pro 15
  Intel Core i7 / 16GB / 256GB SSD / AMD GPU

We used a stopwatch to measure the time each laptop took to start up. For both the boot and Cinebench testing, we ran each test five times on each device and calculated the mean (average) of the five timings. On the following pages, we present the average result for each device, as well as the average across all the Windows 10- and macOS-based devices. For the full results, see Appendix A: Our results.

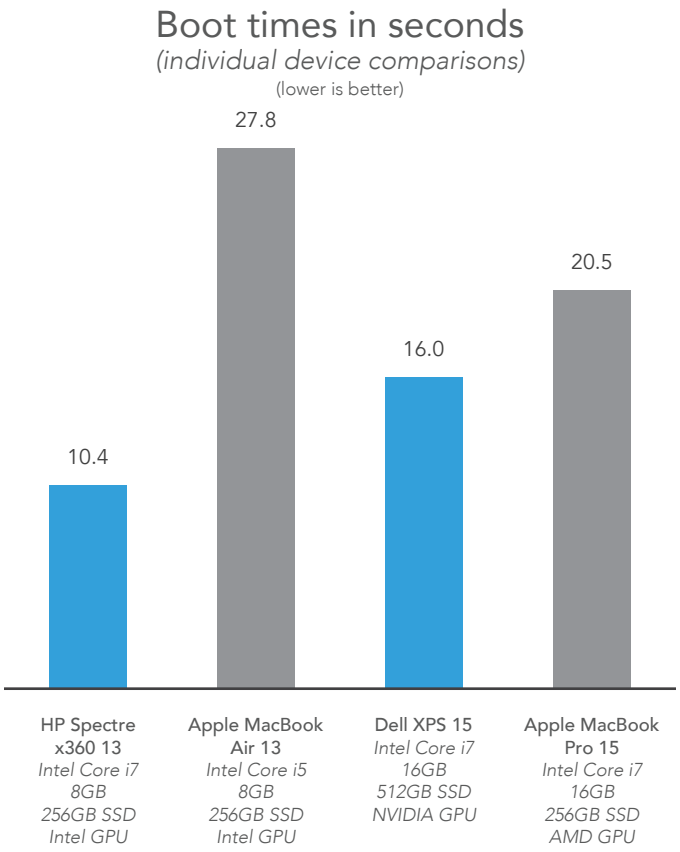
Get to work sooner with faster boot times

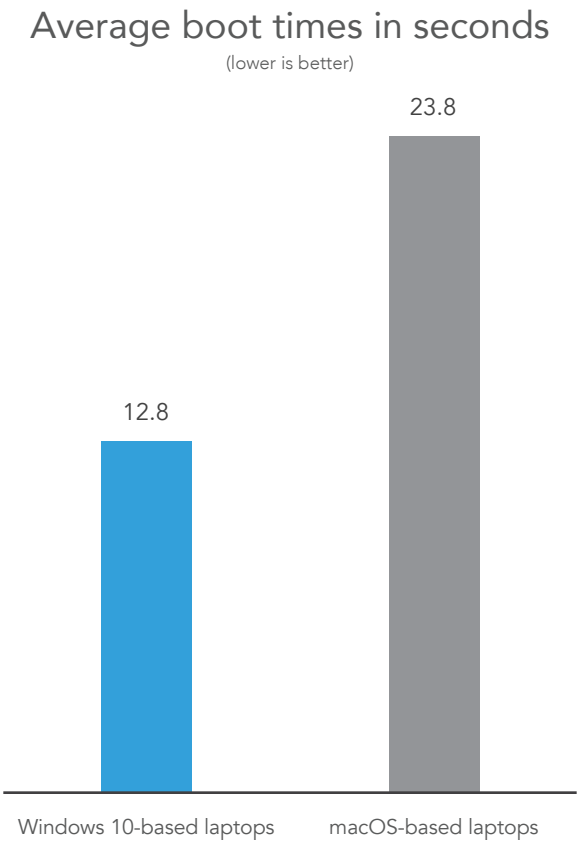
The longer you have to wait for your laptop to start up, the less time you have to accomplish your goals. As the below chart demonstrates, the devices running Windows 10 consistently outperformed the MacOS-based devices on our boot testing, with all but one Windows 10-based device starting up faster than every laptop running MacOS. The Acer Swift 5, the speediest of the laptops we tested, booted up in under 9 seconds.



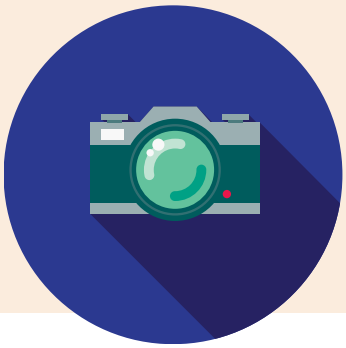
The graph on the right compares the boot times of some devices with comparable specs. The HP Spectre x360 13 and the MacBook Air 13, for example, are both 13-inch devices with 256GB of storage and similar price points (see page 8 for more pricing information). The HP Spectre x360 13 booted in a little over 10 seconds, saving over 17 seconds compared to the MacBook Air 13.

The Dell XPS 15 4K and the MacBook Pro 15 are both 15-inch devices that are the highest-priced within their respective categories. In our testing, the Dell XPS 15 4K booted up in 21 percent less time than the MacBook Pro 15.





On average, the Windows 10-based laptops we tested booted in 46 percent less time than the laptops running macOS. You could save an average of 11 seconds each time you start your laptop—taking less than 13 seconds with Windows 10-based laptops compared to the almost 24-second average of the laptops running macOS. Over months and years, these time savings would add up, helping you spend more time on the activities that matter most.



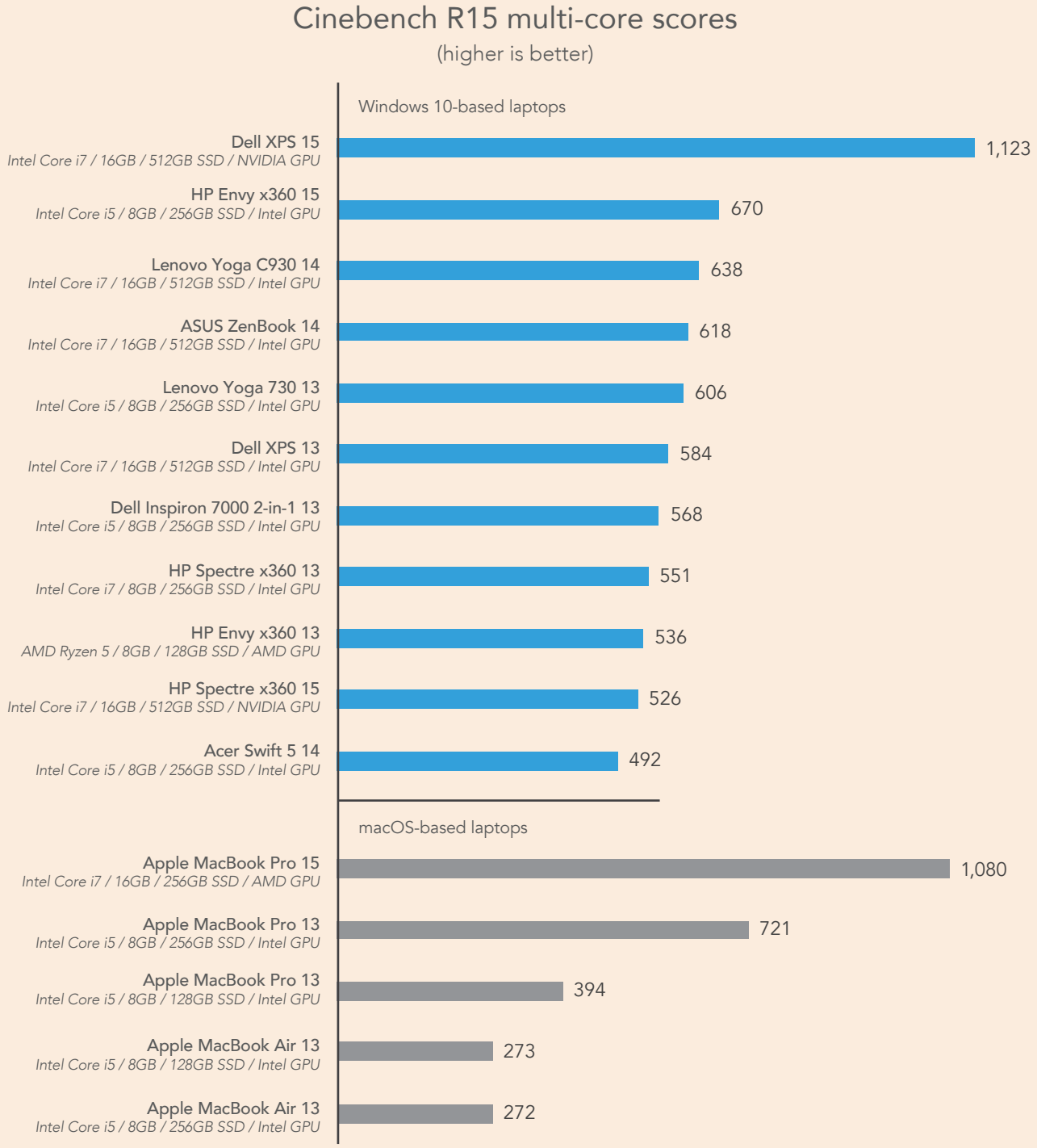
Finish CPU-intensive tasks sooner

Many common applications require a lot of processing power, such as modeling and rendering programs, video and editing software (like the Adobe® software suite), and Microsoft Excel. To accommodate these CPU-hungry applications, processors often send information along multiple channels (cores) simultaneously, helping reduce lag times for end users. We tested the Windows 10- and macOS-based laptops using the Cinebench benchmark, which provides both single- and multi-core scores for a device's CPU performance (see below for more information on the benchmark). The multi-core score highlights how a device will likely perform while running software that can take advantage of multiple cores in a processor (such as the applications mentioned above), while the single-core score indicates how a device will likely perform if the user only needs one core of computing power.

We used two versions of Cinebench: R20, the version released in 2019,[1] and R15, the version active from 2013 to 2019.[2] We chose to run both versions because Cinebench R15 has a large user base and generates scores that are still relevant to many consumers, while Cinebench R20 produces scores that may be more applicable to the latest processors.

Cinebench gauges CPU performance by measuring how well a device can render a three-dimensional scene. According to Maxon, Cinebench differs from "abstract benchmarks, which only test specific functions of CPUs," because it provides "a real-world benchmark that incorporates a user's common tasks within Cinema 4D to measure a system's performance."[3] Cinebench R20 requires eight times the computational power and four times the memory of the R15 version, and also uses a test scene that is larger and more complex. Learn more at https://www.maxon.net/en-us/products/cinebench-r20-overview/.

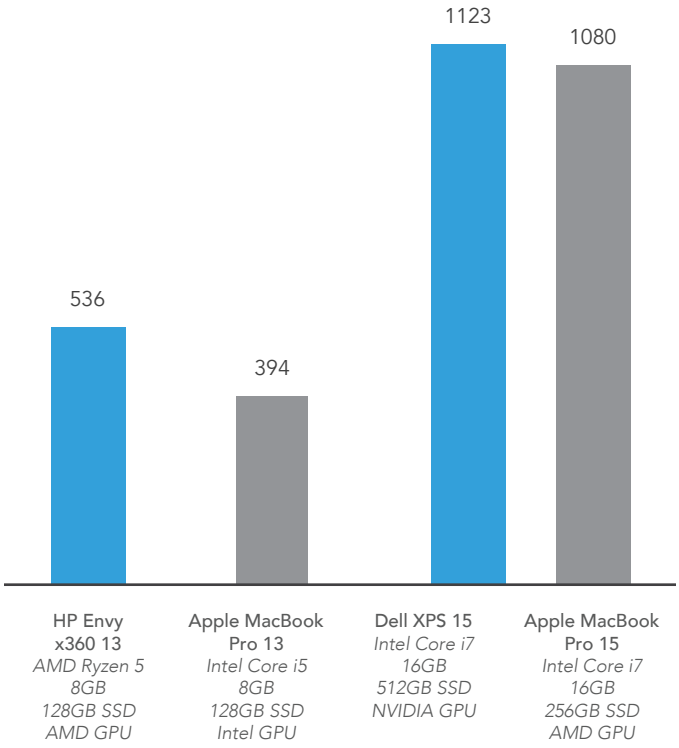
The graph below shows the individual device results of the Cinebench R15 multi-core test. (For a detailed breakdown of our results and testing methodology, see Appendix C: How we tested.) The Dell XPS 15 achieved the best performance across both groups, boasting a score of 1,123. Across the board, the Windows 10-based devices outperformed all but two of the MacBook devices.



Cinebench R15 multi-core scores

(individual device comparisons)

(higher is better)

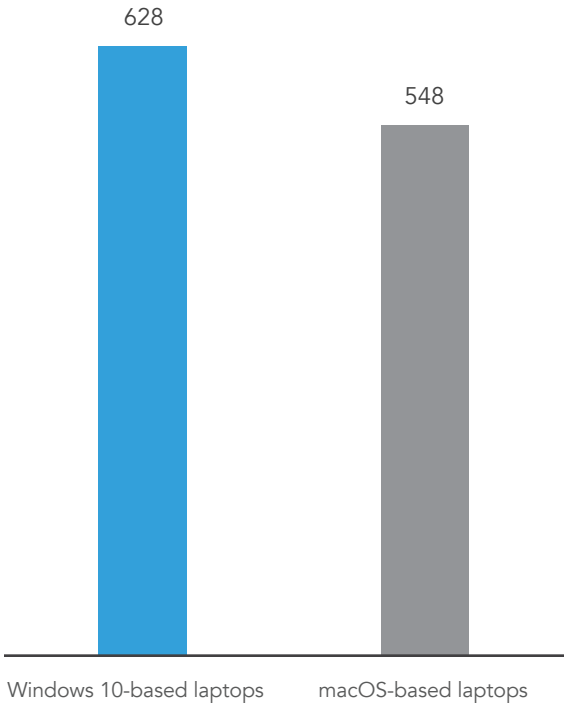


The graph on the left shows the Cinebench R15 multi-core scores of devices with similar specs. The HP Envy x360 13 and the MacBook Pro 13 are both 13-inch devices with 128 GB of storage. In this test, the HP Envy x360 13 gained a score that was 36 percent higher than the MacBook Pro 13.

As with the boot testing, we again compared the performance of the Dell XPS 15 4K and the MacBook Pro 15 because they are both 15-inch devices that performed the best in their respective categories. Although the margin was closer here, the Dell XPS 15 4K still beat out the Apple MacBook Pro 15 by 3 percent.

Average Cinebench R15 multi-core scores

(higher is better)

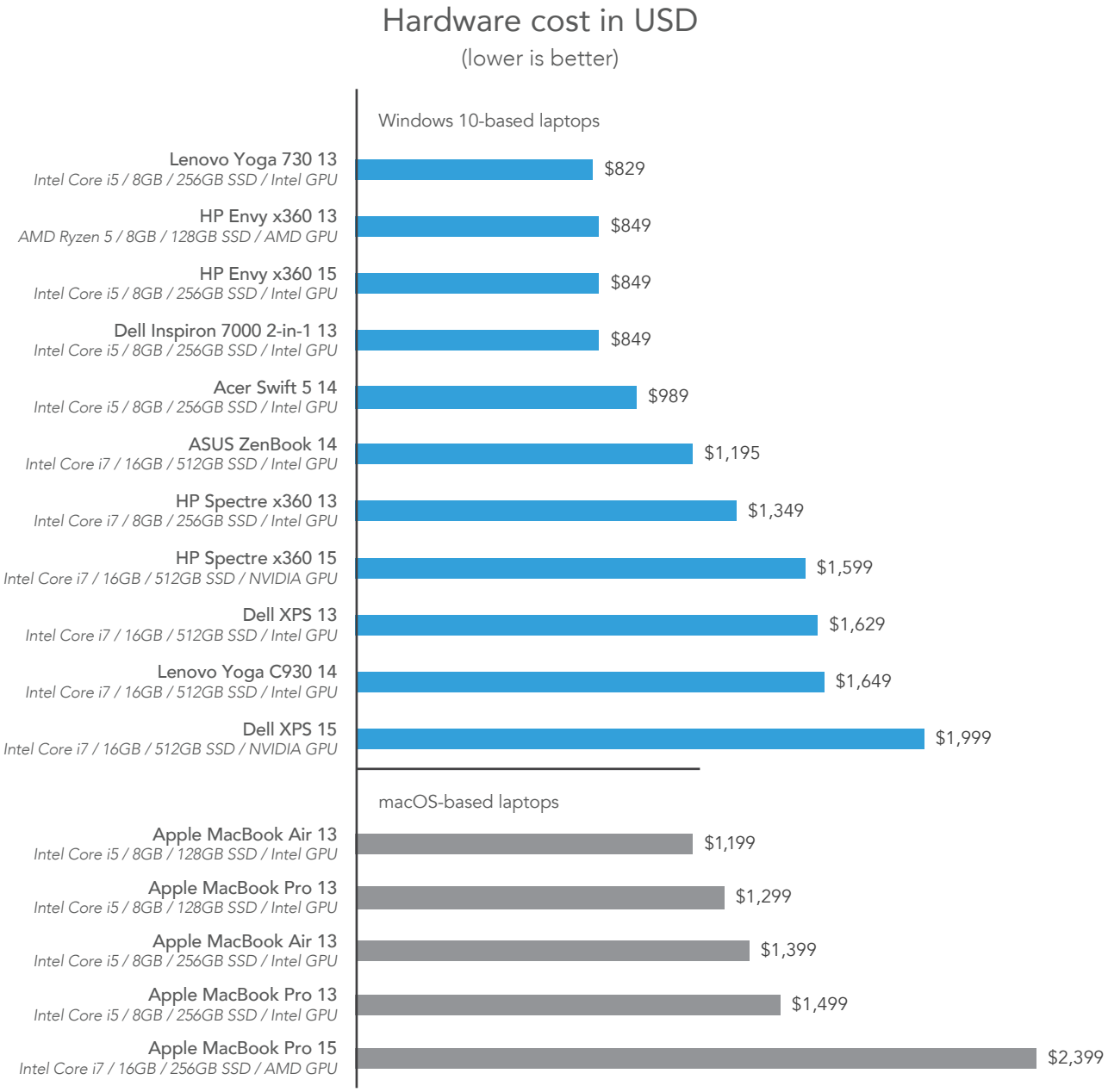


As a group, the Windows 10-based computers performed 14 percent better on the R15 multi-core test than the macOS-based devices. On average, across all four tests (single- and multi-core testing on both the R15 and R20 benchmarks), the laptops running Windows 10 outperformed those running macOS. With a laptop that can quickly perform CPU-intensive tasks, you can get your work done more efficiently.

Invest wisely

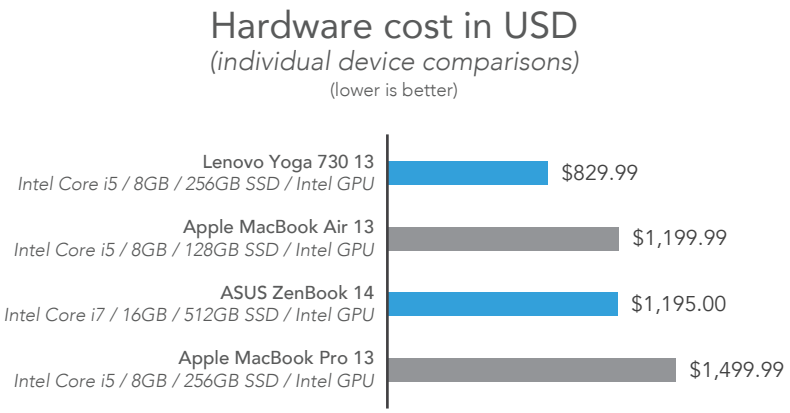
Buying a new laptop can be a significant investment, which is why you want to make sure you're getting the biggest bang for your buck. According to the testing we conducted, Windows10-based laptops didn't only boot up faster and perform better on a CPU-intensive benchmark—they also cost less on average than the macOS-based devices we tested. This means you could get more performance in the areas we tested for less, compared to devices running macOS.

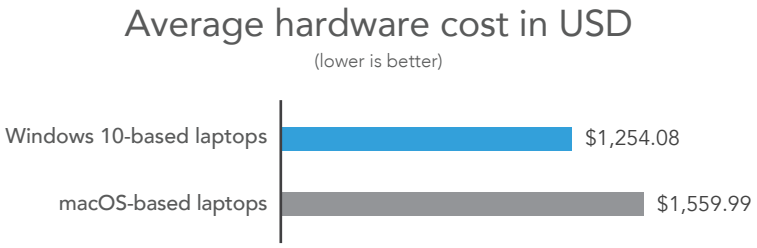
According to MSRP data we obtained on March 11, 2019, the most affordable Windows 10-based laptop, the Lenovo Yoga 730, cost $829, while the lowest-priced macOS-based laptop rang in at almost $1,200. At the top of the spectrum, the most expensive Windows 10-based laptop, the Dell XPS 13, cost $400 less than the priciest laptop in the macOS category, the Apple MacBook Pro 15.



As part of our price comparison, we also took a look at some individual devices with similar specs. The Lenovo Yoga 730 and the MacBook Air 13 were the least expensive devices in their respective category, although the Lenovo Yoga 730 cost $370 less than the MacBook Air 13.

In terms of price, the ASUS ZenBook 14 and the MacBook Pro 13 (256 GB) both fall in the middle of the pack for their categories. While they each have similar screen sizes, the ASUS ZenBook 14 has twice the amount of memory (512 GB versus 256 GB) and storage (16 GB versus 8 GB) while still costing over $300 less than the MacBook Pro 13.





When we averaged the laptop prices across each group, we found that Windows 10-based laptops also cost an average of $305 less than the macOS-based laptops.

Spend up to 44% less on comparable laptops*

Lenovo Yoga 730 13 vs. **Apple MacBook Pro 13**

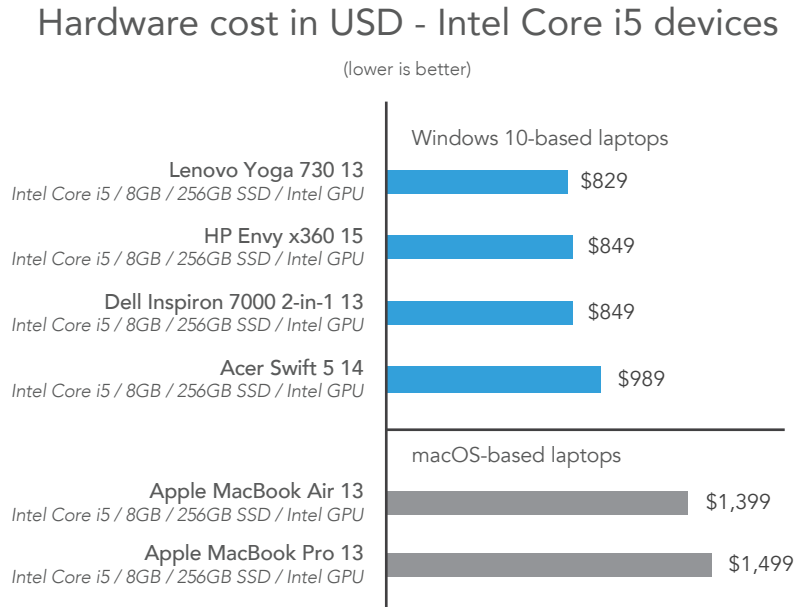
$829.99
Intel Core i5
8GB RAM
256GB SSD

$1,499.99
Intel Core i5
8GB RAM
256GB SSD

*based on MSRP data obtained on March 11, 2019

The graph on the right shows all the devices with an Intel Core i5 processor, 8 GB of RAM, 256 GB of storage, and an Intel GPU. The Windows 10-based devices cost up to $670 less than their MacBook counterparts, even while sharing the specs mentioned above.

Collectively, these prices indicate that you could save money by selecting the Windows 10-based devices we tested, while potentially still reaping the benefits of faster start times and better performance on CPU-intensive tasks.



Conclusion

You want a cost-effective laptop that helps you complete computer-based tasks as efficiently as possible. Our testing determined that, on average, Windows 10 premium laptops booted in 46 percent less time, delivered up to 14 percent better performance on a CPU benchmark, and cost $305 less than laptops running macOS. With Windows 10, you could save money and power through CPU-intensive tasks faster, allowing you to spend more time on what matters most.

1 Maxon, "Maxon announces next generation Cinebench release 20," accessed October 25, 2019, https://www.maxon.net/en-us/news/maxon-news/article/maxon-announces-next-generation-cinebench-release-20/.

2 Jennifer Wolfe, "MAXON Cinebench R15 Now Available," accessed October 25, 2019, https://www.awn.com/news/maxon-cinebench-r15-now-available.

3 Maxon, "Cinebench," accessed October 25, 2019, https://www.maxon.net/en-us/products/cinebench-r20-overview/.

We concluded our hands-on testing on June 26, 2019. During testing, we determined the appropriate hardware and software configurations and applied updates as they became available. The results in this report reflect configurations that we finalized on May 6, 2019 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

Appendix A: Our results

System	Boot time (seconds)	Cinebench R20 multi-core	Cinebench R20 single-core	Cinebench R15 multi-core	Cinebench R15 single-core	Hardware cost (USD)
Dell™ XPS™ 15 4K	16.03	2,441	419	1,123	176	$1,999.99
Dell XPS 13 4K	26.59	1,391	400	584	166	$1,629.99
Dell Inspiron™ 7000 2-in-1 13	14.22	1,248	385	568	160	$849.99
HP Spectre® x360 15	10.62	1,220	398	526	171	$1,599.99
HP Envy x360 15	10.87	1,359	357	670	148	$849.99
HP Spectre x360 13	10.40	1,213	428	551	183	$1,349.99
HP Envy x360 13	13.03	1,116	349	536	138	$849.99
Lenovo® Yoga™ C930 14	9.32	1,421	412	638	170	$1,649.99
Lenovo Yoga 730	10.38	1,313	325	606	146	$829.99
Acer® Swift 5	8.42	1,145	350	492	144	$989.99
ASUS ZenBook 14	11.13	1,336	387	618	167	$1,195.00
Windows 10 average	12.82	1382.05	382.76	628.38	160.73	$1,254.08
Apple® MacBook Air® 13 (128GB)	28.04	675	325	273	128	$1,199.99
Apple MacBook Air 13 (256GB)	27.82	673	323	272	127	$1,399.99
Apple MacBook Pro® 13 (128GB)	23.77	992	371	394	147	$1,299.99
Apple MacBook Pro 13 (256GB)	19.05	1,745	389	721	156	$1,499.99
Apple MacBook Pro 15 (256GB)	20.46	2,541	425	1,080	173	$2,399.99
macOS average	23.83	1325.12	366.52	547.72	146.24	$1,599.99

Appendix B: System configuration information

The table below presents detailed information on the systems we tested.

System	Dell XPS 15 9570	Dell XPS 13 9370	Dell Inspiron 13 7386	HP Spectre x360 Convertible 15
Processor				
Vendor	Intel®	Intel	Intel	Intel
Name	Core™ i7	Core i7	Core i5	Core i7
Model number	8750H	8550U	8265U	8550U
Core frequency (GHz)	2.2 – 4.1	1.8 – 4.0	1.6 – 4.6	1.80 – 4.00
Number of cores	6	4	4	4
Cache	9 MB L3	8 MB L3	6 MB L3	8 MB L3
Memory				
Amount (GB)	16	16	8	16
Type	DDR4	DDR3	DDR4	DDR4
Speed (MHz)	2,666	1,866	2,400	2,666
Graphics				
Vendor	Integrated: Intel Discrete: NVIDIA®	Intel	Intel	Integrated: Intel Discrete: NVIDIA
Model number	Integrated: UHD Graphics 630 Discrete: GeForce GTX 1050 Ti	UHD Graphics 620	UHD Graphics 620	Integrated: UHD Graphics 620 Discrete: GeForce MX150
Storage				
Amount (GB)	512	512	256	512
Type	SSD	SSD	SSD	SSD
Connectivity/expansion				
Wireless internet	Killer Wireless-n/a/ac 1535	Killer Wireless-n/a/ac 1435	Intel Wireless-AC 9560	Intel Wireless-AC 9260
Bluetooth	4.2	4.2	5.0	4.2
USB	2 x USB 3.1, 1 x USB-C	1 x USB 3.1	1 x USB 3.1, 1 x USB-C	1 x USB 3.1
Video	1 x HDMI, 1 x Thunderbolt	1 x mini-DisplayPort, 2 x Thunderbolt	1 x HDMI	2 x Thunderbolt, 1 x HDMI
Battery				
Type	Lithium-polymer	Lithium-polymer	Lithium-polymer	Lithium-ion
Rated capacity (Wh)	56	56	38	84
Display				
Size (in.)	15.6	13.3	13.3	15.6
Type	FHD LED	Ultra HD LED	FHD LED	WLED
Resolution	1,920 x 1,080	3,840 x 2,160	1,920 x 1,080	3,840 x 2,169
Touchscreen	Yes	Yes	Yes	Yes

System	Dell XPS 15 9570	Dell XPS 13 9370	Dell Inspiron 13 7386	HP Spectre x360 Convertible 15
Operating system				
Vendor	Microsoft	Microsoft	Microsoft	Microsoft
Name	Windows 10 Pro	Windows 10 Home	Windows 10 Home	Windows 10 Home
Build number or version	10.0.18362	10.0.18362	10.0.18362	10.0.18362
Hardware				
Release year	2018	2018	2018	2018
BIOS				
BIOS name and version	Dell 1.7.0	Dell 1.5.1	Dell 1.1.0	AMI F.21
Dimensions w/ keyboard				
Height (in.)	0.91	0.75	0.67	0.82
Width (in.)	14.06	11.88	12.11	14.13
Depth (in.)	9.27	7.85	8.29	9.82
Weight (lbs.)	4.44	2.69	3.06	4.50

System	HP Spectre x360 Convertible 13	HP Envy x360 15	HP Envy x360 13	Lenovo Yoga C930 14
Processor				
Vendor	Intel	Intel	AMD	Intel
Name	Core i7	Core i5	Ryzen™ 5 Mobile	Core i7
Model number	8565U	8250U	2500U	8550U
Core frequency	1.80 – 4.60	1.60 – 3.40	2.0 – 3.6	1.80 – 4.0
Number of cores	4	4	4	4
Cache	8 MB L3	6 MB L3	4 MB L3	8 MB L3
Memory				
Amount (GB)	8	8	8	16
Type	DDR4	DDR4	DDR4	DDR4
Speed (MHz)	2,400	2,666	2,400	2,400
Graphics				
Vendor	Intel	Intel	AMD	Intel
Model number	UHD Graphics 620	UHD Graphics 620	Radeon™ Vega 8	UHD Graphics 620
Storage				
Amount (GB)	256	256	128	512
Type	SSD	SSD	SSD	SSD

System	HP Spectre x360 Convertible 13	HP Envy x360 15	HP Envy x360 13	Lenovo Yoga C930 14
Connectivity/expansion				
Wireless internet	Intel Wireless-AC 9560	Intel Wireless-AC 7265	Intel Dual Band Wireless-AC 7265	Intel Wireless-AC 9260
Bluetooth	5.0	4.2	4.2	4.1
USB	1 x USB 3.1	2 x USB 3.1, 1 x USB-C	2 x USB 3.1, 1 x USB-C	1 x USB 3.1, 1 x USB-C
Video	2 x Thunderbolt	1 x HDMI	1 x DisplayPort, 1 x HDMI	1 x DisplayPort, 1 x Thunderbolt
Battery				
Type	Lithium-ion	Lithium-ion	Lithium-ion	Li-Cylinder
Rated capacity (Wh)	60	52.5	45	60
Display				
Size (in.)	13.3	15.6	13.3	13.9
Type	WLED	WLED	WLED	UHD IPS
Resolution	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080	3,840 x 2,160
Touchscreen	Yes	Yes	Yes	Yes
Operating system				
Vendor	Microsoft	Microsoft	Microsoft	Microsoft
Name	Windows 10 Home	Windows 10 Home	Windows 10 Home	Windows 10 Home
Build number or version	10.0.18362	10.0.18362	10.0.18362	10.0.18362
Hardware				
Release year	2019	2018	2018	2018
BIOS				
BIOS name and version	AMI F.14	Insyde F.16	AMI F.21	Lenovo 8GCN30WW
Dimensions w/ keyboard				
Height (in.)	0.61	0.77	0.64	0.61
Width (in.)	12.16	14.10	12.07	12.70
Depth (in.)	8.58	9.66	8.43	8.92
Weight (lbs.)	4.41	4.41	2.90	3.02

System	Lenovo Yoga 730 13	Acer Swift 5 14	ASUS ZenBook 14	Apple MacBook Pro 15 (256GB)
Processor				
Vendor	Intel	Intel	Intel	Intel
Name	Core i5	Core i5	Core i7	Core i7
Model number	8250U	8250U	8565U	8750H
Core frequency	1.60 – 3.4	1.60 – 3.40	1.80 – 4.60	2.2 – 4.1
Number of cores	4	4	4	6
Cache	6 MB L3	6 MB L3	8 MB L3	9 MB L3
Memory				
Amount (GB)	8	8	16	16
Type	DDR4	LPDDR3	LPDDR3	DDR4
Speed (MHz)	2,400	1,600	2,133	2,400
Graphics				
Vendor	Intel	Intel	Intel	Integrated: Intel Discrete: AMD
Model number	UHD Graphics 620	UHD Graphics 620	UHD Graphics 620	Integrated: UHD Graphics 620 Discrete: Radeon Pro 555X
Storage				
Amount (GB)	256	256	512	256
Type	SSD	SSD	SSD	SSD
Connectivity/expansion				
Wireless internet	Intel Dual Band Wireless-AC 8265	Intel Dual Band Wireless-AC 7265	Intel Wireless-AC 9560	802.11ac
Bluetooth	4.2	4.2	5.0	5.0
USB	1 x USB 3.0	2 x USB 3.0, 1 x USB-C	1 x USB 2.0, 1 x USB 3.1, 1 x USB-C	4 x USB-C
Video	2 x Thunderbolt	1 x HDMI	1 x HDMI	4 x Thunderbolt
Battery				
Type	Lithium-polymer	Lithium-ion	Lithium-polymer	Lithium-polymer
Rated capacity (Wh)	48	45	65	83.6
Display				
Size (in.)	13.3	14.0	14.0	15.4
Type	UHD IPS	LCD	LED	LED
Resolution	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080	2,880 x 1,800
Touchscreen	Yes	Yes	No	No

System	Lenovo Yoga 730 13	Acer Swift 5 14	ASUS ZenBook 14	Apple MacBook Pro 15 (256GB)
Operating system				
Vendor	Microsoft	Microsoft	Microsoft	Apple
Name	Windows 10 Home	Windows 10 Home	Windows 10 Home	macOS® High Sierra
Build number or version	10.0.18362	10.0.18362	10.0.18362	10.13.6
Hardware				
Release year	2018	2017	2018	2018
BIOS				
BIOS name and version	Lenovo 7LCN21WW(V1.02)	Insyde Corp. V1.05	American Megatrends UX433FA.301	N/A
Dimensions w/ keyboard				
Height (in.)	0.63	0.60	0.64	0.61
Width (in.)	12.10	13.00	12.56	13.75
Depth (in.)	8.51	8.97	7.85	9.48
Weight (lbs.)	2.70	2.06	2.66	3.96

System	Apple MacBook Pro 13 (256GB)	Apple MacBook Pro 13 (128GB)	Apple MacBook Air 13 (256GB)	Apple MacBook Air 13 (128GB)
Processor				
Vendor	Intel	Intel	Intel	Intel
Name	Core i5	Core i5	Core i5	Core i5
Model number	8259U	7360U	8210Y	8210Y
Core frequency	2.30 – 3.80	2.30 – 3.60	1.60 – 3.6	1.60 – 3.6
Number of cores	4	2	2	2
Cache	6 MB L3	4 MB L3	4 MB L3	4 MB L3
Memory				
Amount	8	8	8	8
Type	LPDDR3	LPDDR3	LPDDR3	LPDDR3
Speed (MHz)	2,133	2,133	2,133	2133
Graphics				
Vendor	Intel	Intel	Intel	Intel
Model number	Iris Plus Graphics 655	Iris Plus Graphics 640	UHD Graphics 617	UHD Graphics 617
Storage				
Amount (GB)	256	128	256	128
Type	SSD	SSD	SSD	SSD

System	Apple MacBook Pro 13 (256GB)	Apple MacBook Pro 13 (128GB)	Apple MacBook Air 13 (256GB)	Apple MacBook Air 13 (128GB)
Connectivity/expansion				
Wireless internet	802.11ac	802.11ac	802.11ac	802.11ac
Bluetooth	5.0	4.2	5.04	5.0
USB	4 x USB-C	2 x USB-C	2 x USB-C	2 x USB-C
Video	4 x Thunderbolt	2 x Thunderbolt	2 x Thunderbolt	2 x Thunderbolt
Battery				
Type	Lithium-polymer	Lithium-polymer	Lithium-polymer	Lithium-polymer
Rated capacity (Wh)	58	54.5	50.3	50.3
Display				
Size (in.)	13.3	13.3	13.3	13.3
Type	LED	LED	LED	LED
Resolution	2,560 x 1,600	2,560 x 1,600	2,560 x 1,600	2,560 x 1,600
Touchscreen	No	No	No	No
Operating system				
Vendor	Apple	Apple	Apple	Apple
Name	macOS High Sierra	macOS Mojave	macOS Mojave	macOS Mojave
Build number or version	10.13.6	10.14.3	10.14.3	10.14.3
Hardware				
Release year	2018	2017	2018	2018
Dimensions w/ keyboard				
Height (in.)	0.59	0.59	0.61	0.61
Width (in.)	11.97	11.97	11.97	11.97
Depth (in.)	8.36	8.36	8.36	8.36
Weight (lbs.)	2.98	2.99	2.68	2.71

Appendix C: How we tested

Testing boot performance

Running the test

1. Prepare the stopwatch.
2. Simultaneously start the stopwatch and press the power button.
3. Enter the password when prompted, and press Enter.
4. When taskbar loads, stop the stopwatch and record the results.
5. Repeat steps 1 through 4 four more times, and report the average of the five runs.

Testing performance with Cinebench R20

Setting up the test

1. Download the CineBench R20 zipped Windows package from https://www.maxon.net/en-us/support/downloads/.
2. Unzip the CineBench R20 Windows package to the desktop.
3. Launch CineBench by double-clicking the CINEBENCH Windows 64 Bit icon inside the unzipped directory.
4. Click Agree to the EULA.
5. Select File→Advanced benchmark. Verify that you have selected OpenGL, CPU, and CPU (Single Core).
6. Exit CineBench.

Running the test

1. Boot the system, and wait 5 minutes before running the test.
2. Double-click the CINEBENCH Windows 64 Bit icon inside the unzipped directory.
3. Select File→Run all selected tests.
4. When the benchmark run completes, record the results.
5. Shut down the system.
6. Repeat steps 1 through 5 four more times, and report the average of the five runs.

Testing performance with Cinebench R15

Note: Since the release of the R20 benchmark, Maxon has removed the direct download link for the R15 benchmark. To test the devices using Cinebench R15, we used an old installation that we had for testing.

Setting up the test

1. Launch Cinebench R15.
2. If you have not previously accepted the EULA, click Agree to the EULA.
3. Select File→Advanced benchmark. Verify that you have selected OpenGL, CPU, and CPU (Single Core).
4. Exit Cinebench.

Running the test

1. Boot the system, and wait five minutes before running the test.
2. Double-click the CINEBENCH Windows 64 Bit icon.
3. Select File→Run all selected tests.
4. When the benchmark run completes, record the results.
5. Shut down the system.
6. Repeat steps 1 through 5 four more times, and report the average of the five runs.

This project was commissioned by Microsoft.

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