The new HP Elite Dragonfly G3 outperformed a previous-generation device across a series of tests

According to Gartner Group, sales of personal computers reached record-high levels in 2021.[1] As users continue working on previous-generation devices, they may or may not notice the inevitable performance deterioration that happens as technology ages. Additionally, users may not be aware of the hardware and performance improvements associated with newer laptops.

To help shed light on the benefits of upgrading their older devices, we conducted hands-on testing of two similarly configured HP Elite Dragonfly laptops: the latest-generation Dragonfly G3 featuring a 12th Gen Intel® Core™ i7-1265U processor and a previous-generation Dragonfly G2 featuring an 11th Gen Intel Core i7-1185G7 processor. We used a series of benchmark tests to measure responsiveness, performance, and how well each device handled common business, office-productivity, web-browsing, and content-creation workloads. The Dragonfly G3 featuring a 12th Gen Intel Core i7-1265U processor outperformed the previous-generation device in all of our tests.

13.6% higher
SYSmark 25
overall rating

21.8% higher
CrossMark
overall rating

11.7% higher
WebXPRT 4
overall score

How we tested

We conducted hands-on testing of two similarly configured devices:

- **An HP Elite Dragonfly G2**
  featuring an Intel Core i7-1185G7 processor
- **An HP Elite Dragonfly G3**
  featuring an Intel Core i7-1265U processor

Both devices contained 16 GB of RAM and 512 GB of storage.

To measure the performance of the two devices, we used a series of benchmark tests:

- SYSmark® 25
- CrossMark™
- WebXPRT 4
- Procyon® Office Productivity
- Procyon Photo Editing using Adobe® Photoshop®
- Procyon Photo Editing using Adobe Lightroom Classic®
- Procyon Video Editing using Adobe Premiere® Pro
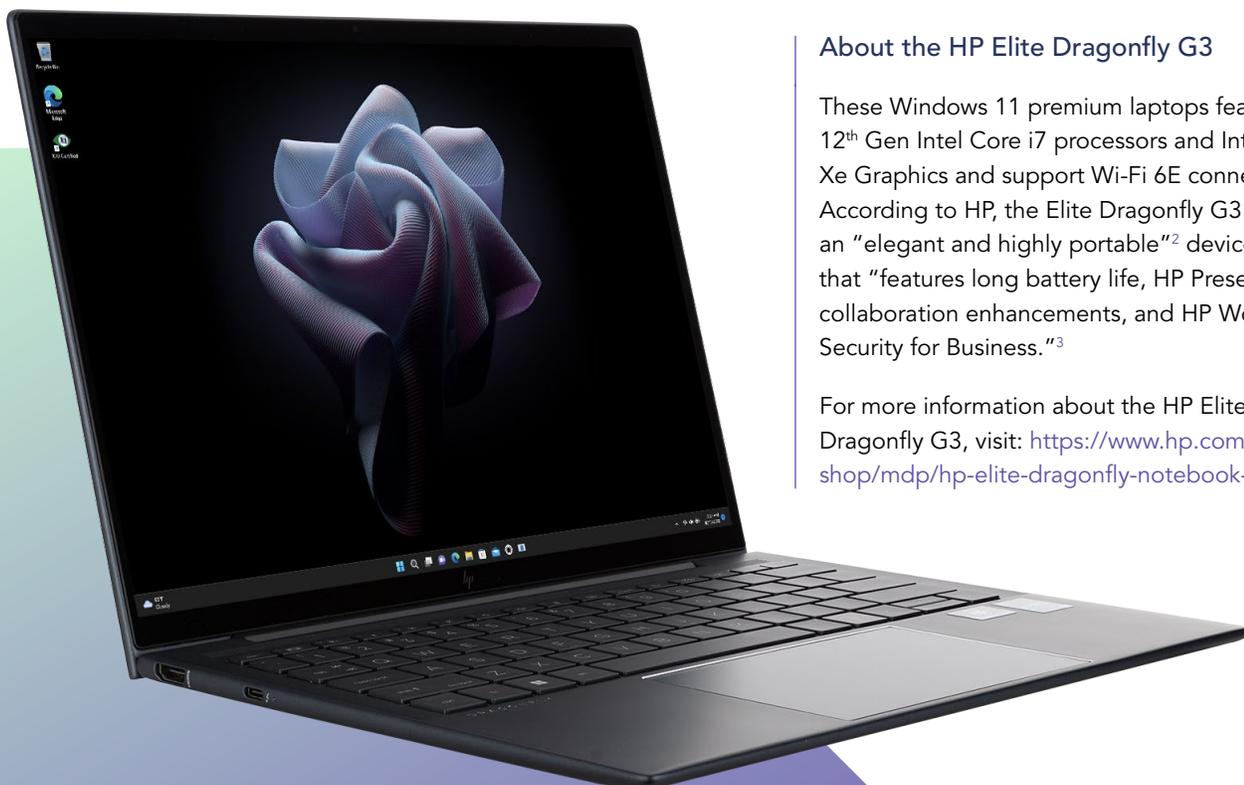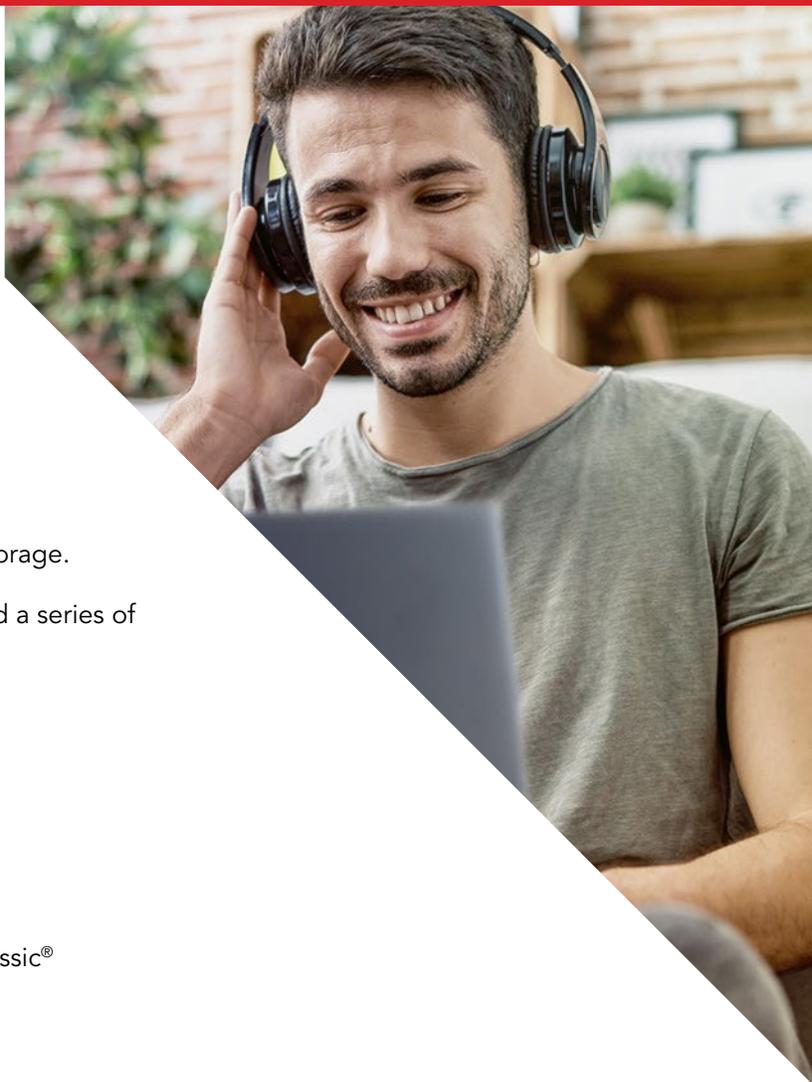
About the HP Elite Dragonfly G3

These Windows 11 premium laptops feature 12th Gen Intel Core i7 processors and Intel Iris® Xe Graphics and support Wi-Fi 6E connectivity. According to HP, the Elite Dragonfly G3 is an "elegant and highly portable"[2] device that "features long battery life, HP Presence collaboration enhancements, and HP Wolf Security for Business."[3]

For more information about the HP Elite Dragonfly G3, visit: https://www.hp.com/us-en/shop/mdp/hp-elite-dragonfly-notebook-pc.

SYSmark 25

Overall rating | Higher is better


13.6% higher
overall rating

Figure 1: SYSmark 25 benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

SYSmark 25

To measure the performance of the devices while running productivity, creativity, and responsiveness workloads, we used the SYSmark 25 benchmark. This benchmark provides an overall rating of how well a device handles media-centric and office-centric workloads, as well as common resource-intensive tasks such as launching an application or saving a file.

As Figure 1 shows, the HP Elite Dragonfly G3 featuring a 12th Gen Intel Core i7 processor achieved an overall rating that was 13.6 percent higher than the previous-generation device. These results indicate that users who upgrade their devices might enjoy faster response times and a better user experience.

About SYSmark 25

BAPCo®, developers of the SYSmark 25 benchmark, says that it measures and compares "system performance using real-world applications and workloads."[4] This benchmark test generates an overall rating based on a combination of results that measure the performance of a system while running office and media tasks and scenarios that model "pain points" such as file launching and multitasking.

CrossMark

How quickly a device completes workloads (performance) and how quickly a system responds to a user's input (responsiveness) both have an impact on user experience. The CrossMark benchmark measures performance and responsiveness and assigns an overall score based on both. As Figure 2 shows, the HP Elite Dragonfly G3 achieved a CrossMark overall rating that was 21.8 percent higher than the previous-generation device. These results indicate that the latest-generation device may provide a better user experience.

About CrossMark

BAPCo, developers of the CrossMark benchmark, says that it "is an easy to run native cross-platform benchmark that measures the overall performance and system responsiveness using models of real-world applications."[5] BAPCo designed the benchmark to provide a direct comparison of devices and separate ratings for performance and responsiveness.

21.8% higher
overall rating

CrossMark

Overall rating | Higher is better

1,586

1,302

HP Elite Dragonfly G3
HP Elite Dragonfly G2
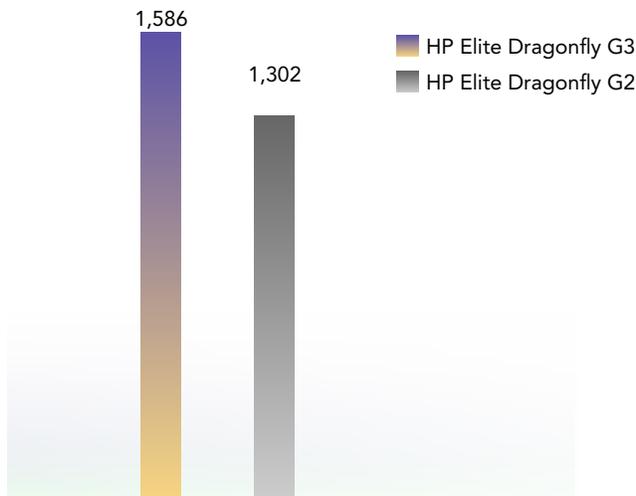
Figure 2: CrossMark benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

WebXPRT 4

Many organizations use web-based applications to collaborate on projects when team members are in different physical locations. To measure how the devices performed while browsing with Microsoft Edge, we used the WebXPRT 4 benchmark. The HP Elite Dragonfly G3 featuring the latest-generation Intel Core i7 processor achieved a WebXPRT score that was 11.7 percent higher than the previous-generation Dragonfly G2 (Figure 3), which might mean users who upgrade their devices would enjoy a better web-browsing experience and collaborate with team members in web-based applications more efficiently.

11.7% higher
overall rating

WebXPRT 4 on Edge

Overall score | Higher is better

247
221

■ HP Elite Dragonfly G3
■ HP Elite Dragonfly G2
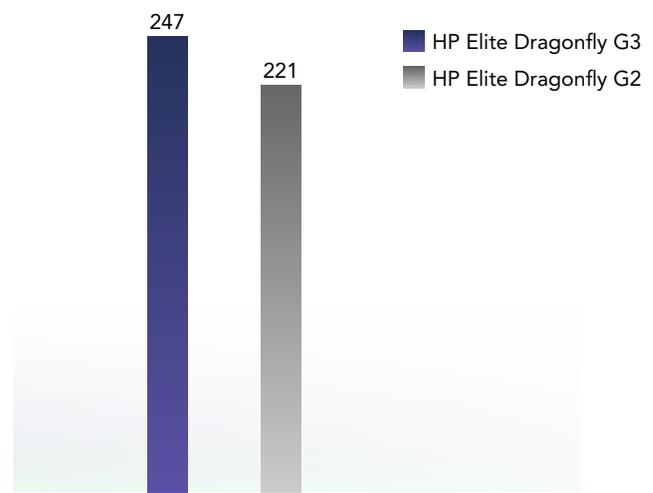
Figure 3: WebXPRT 4 benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

About WebXPRT 4

The WebXPRT 4 benchmark "compares the performance of almost any web-enabled device."[6] Principled Technologies designed the benchmark to measure a device's performance in various web-browsing scenarios that users frequently encounter.

26.5% higher
overall rating
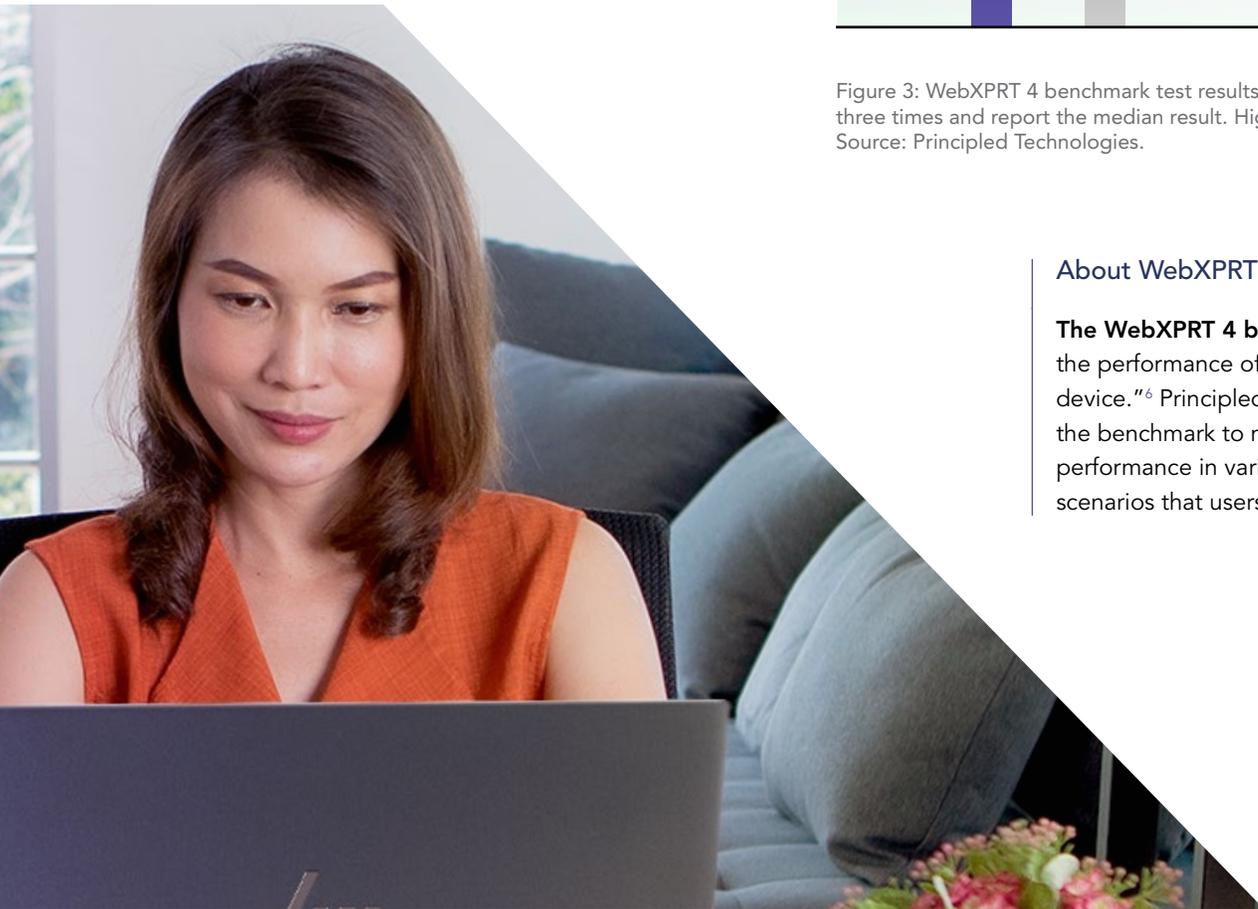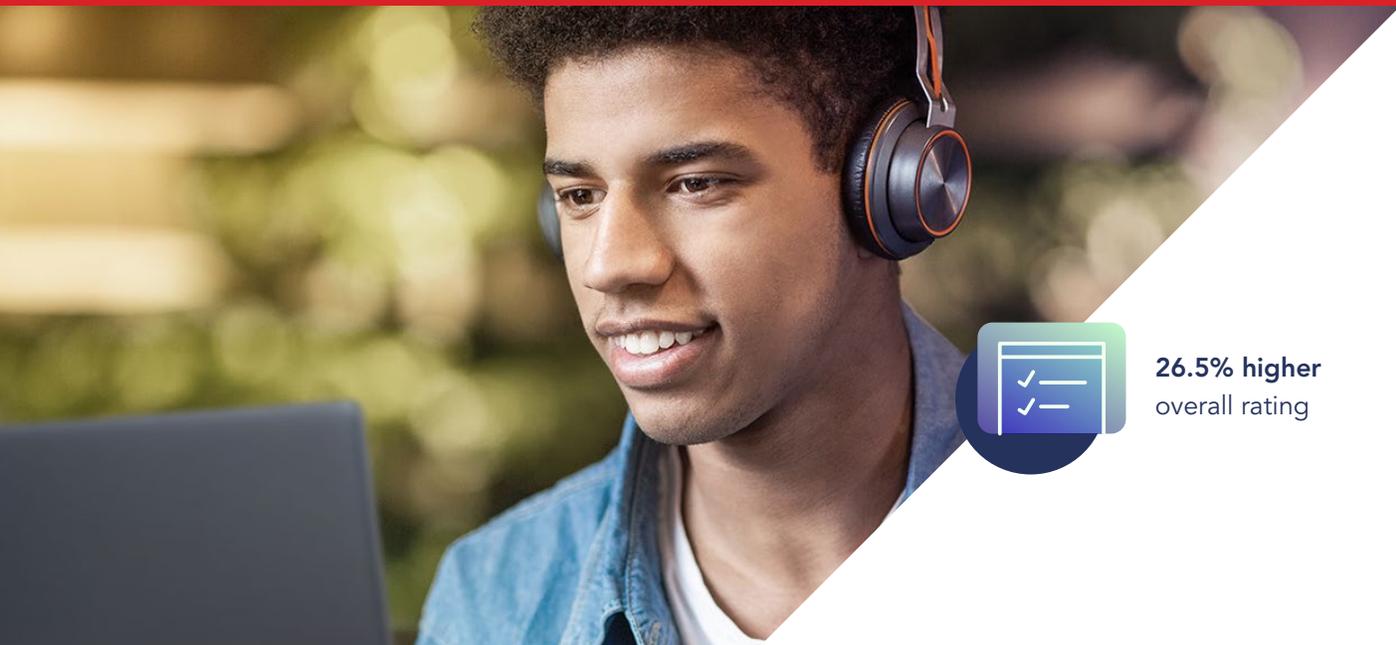
Procyon Office Productivity

To compare the overall performance of the devices, we used the Procyon Office Productivity Benchmark. This benchmark measures a system's ability to process resource-intensive office-productivity tasks such as financial analysis. For users who want to boost office productivity, the HP Elite Dragonfly G3 achieved an overall rating that was 26.5 percent higher than the previous-generation device (Figure 4).

Procyon Office Productivity Benchmark

Overall rating | Higher is better

HP Elite Dragonfly G3

HP Elite Dragonfly G2

6,909

5,460
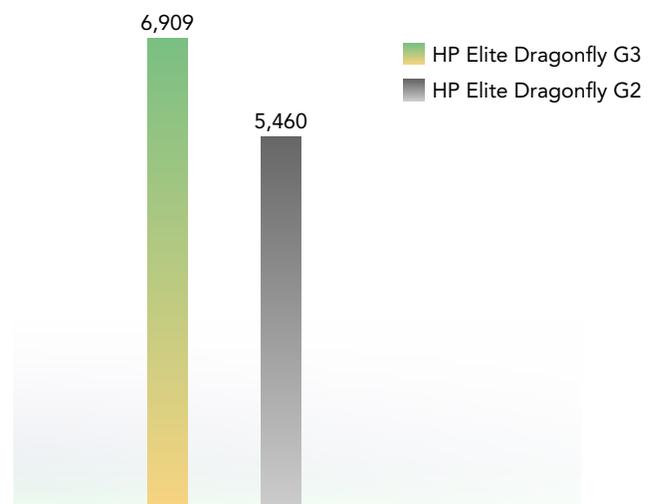
Figure 4: Procyon Office Productivity benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

About the Procyon suite of benchmark tests

The Procyon suite of benchmark tests evaluates the performance of systems while running different types of workloads. The Procyon Office Productivity Benchmark measures the performance of systems while they complete common productivity tasks in the Microsoft Office suite of apps (Microsoft Excel, Word, Outlook, and PowerPoint). The Procyon Photo Editing Benchmark measures the performance of systems while they complete common photo-editing tasks such as image retouching in Adobe Photoshop and Adobe Lightroom Classic. The Procyon Video Editing Benchmark measures the video-editing performance of systems while using Adobe Premiere Pro. According to UL, developers of the Procyon suite of benchmark tests, the benchmark suite "uses real applications where possible."[7]

27.4% higher
overall score

58.5% higher
overall score

Procyon Photo Editing Benchmark

Overall score | Higher is better

Legend: HP Elite Dragonfly G3 / HP Elite Dragonfly G2

6,386

5,011
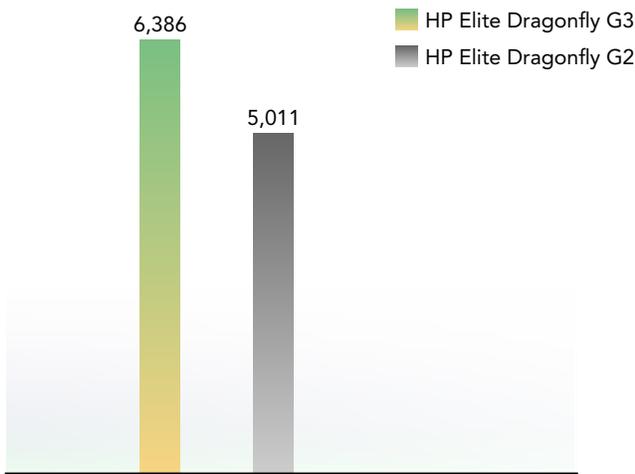
Figure 5: Procyon Photo Editing benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

Procyon Video Editing Benchmark

Overall score | Higher is better

Legend: HP Elite Dragonfly G3 / HP Elite Dragonfly G2

2,515

1,586
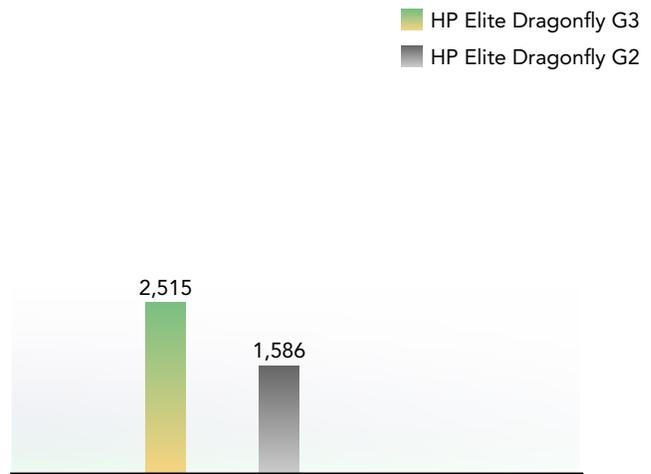
Figure 6: Procyon Video Editing benchmark test results. We ran the test three times and report the median result. Higher is better. Source: Principled Technologies.

Procyon Photo Editing

using Adobe Photoshop & Adobe Lightroom Classic

To compare the performance of the devices while using resource-intensive applications, we used the Procyon Photo Editing Benchmark. While the benchmark targets Photoshop and Lightroom Classic performance, the results of the test are relevant to any user who works with resource-intensive applications, regardless of whether they edit photos. As Figure 5 shows, the HP Elite Dragonfly G3 achieved an overall rating that was 27.4 percent higher than the previous-generation device. Based on these results, users who upgrade their devices might enjoy faster response times while editing photos or using compute-intensive applications like computer-aided design (CAD) software.

Procyon Video Editing

using Adobe Premiere Pro

With the growing popularity of 4K cameras and displays, content creators increasingly need devices that can handle the heavy workloads associated with editing higher-resolution video. To compare the performance of the devices while using Adobe Premiere Pro, we used the Procyon Video Editing Benchmark. For content creators, media professionals, and users who frequently edit video, the results we show in Figure 6 suggest that upgrading their devices might allow them to finish creative projects faster: The HP Elite Dragonfly G3 achieved an overall rating that was 58.5 percent higher than the previous-generation device.

Conclusion

For users of previous-generation devices, it can be difficult to know when it's time for an upgrade. When we conducted hands-on testing of two similarly configured HP Elite Dragonfly devices, we found that the latest-generation Dragonfly G3 featuring a 12th Gen Intel Core i7-1265U processor outperformed the previous-generation device in all of our benchmark tests. These results indicate that users who value performance could benefit from upgrading their devices.

1. Gartner, "Gartner Says Worldwide PC Shipments Grew 32% in First Quarter of 2021," accessed November 16, 2022, https://www.gartner.com/en/newsroom/press-releases/2021-04-12-gartner-says-worldwide-pc-ship-ments-grew-32-percent-in-first-quarter-of-2021.

2. HP, "HP Elite Dragonfly," accessed November 16, 2022, https://www.hp.com/us-en/shop/mdp/hp-elite-dragonfly-notebook-pc.

3. "HP Elite Dragonfly."

4. BAPCo, "SYSmark 25," accessed November 16, 2022, https://bapco.com/products/sysmark-25/.

5. BAPCo, "CrossMark," accessed November 16, 2022, https://bapco.com/products/crossmark/.

6. Principled Technologies, "WebXPRT 4," accessed November 16, 2022, https://www.principledtechnologies.com/benchmarkxprt/webxprt/.

7. UL, "UL Procyon user guide," accessed November 16, 2022, https://support.benchmarks.ul.com/support/solutions/articles/44002268191-ul-procyon-user-guide.

Read the science behind this report at https://facts.pt/Hlsk2HL ▶

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