A Principled Technologies report: Hands-on testing. Real-world results.



Better business task performance Up to 10.4% higher SYSmark 25 Overall rating



Speed office productivity Up to **18.1% higher** SYSmark 25 Productivity score

New Dell Latitude 9330 2-in-1 with a new 12th Gen Intel Core i5 processor can boost performance

The device is more compact and lighter than a similarly configured Latitude 9420 device with an 11th Gen Intel Core i5 processor and outperformed it in our tests

Professionals who work on the same computer every day might not notice that their device has slowed down over time. Users may also not be aware of hardware and system advances available with newer devices, so it can be difficult to know when to upgrade and what kind of performance improvements an upgraded device might offer. To determine the advantages of upgrading to a Dell Latitude[™] device with a new 12th Gen Intel[®] Core[®] i5 processor, we compared two devices: a Latitude 9330 with a 12th Gen Intel Core i5 processor and a Latitude 9420 with an 11th Gen Intel Core i5 processor.

Our testing revealed that the Latitude 9330 with a newer processor offered performance advantages, was lighter, and was more compact. The Dell Latitude 9330 featuring a 12th Gen Intel Core i5-1240U processor showed impressive performance, especially in the SYSmark 25 Productivity scenario, which measures a system's performance while running common business workloads such as the Microsoft Office suite and internet browsing. The Latitude 9330 offered up to 18.1 percent higher SYSmark 25 Productivity performance than the 11th Gen Intel Core i5 processor-enabled Latitude device we compared it to, suggesting that office productivity workers might benefit from upgrading their devices. For more details on our workloads and configurations, see the science behind the report.

How we tested

To better understand the benefits of choosing a Latitude device featuring a 12th Gen Intel Core i5 processor, we evaluated two similarly configured Dell Latitude devices: one with an 11th Gen Intel Core i5 processor, and one with a 12th Gen Intel Core i5 processor. We measured and weighed the devices and evaluated performance using the SYSmark 25 v1.0.3.50 and CrossMark v1.0.1.88 Pro benchmarks.



Dell Latitude 9330 2-in-1 featuring a 12th Gen Intel Core i5-1240U processor

16 GB of RAM

256GB SSD



Dell Latitude 9420 2-in-1 featuring an 11th Gen Intel Core i5-1145G7 processor

16 GB of RAM

512GB SSD



SYSmark 25

To measure the performance users can expect while engaged in common business tasks, we used the SYSmark 25 benchmark. The benchmark measures a system's ability to handle workloads and applications that many business workers frequently encounter. As Figure 1 shows, the Latitude 9330 enabled by a 12th Gen Intel Core i5 processor achieved a SYSmark 25 Overall rating that was up to 10.4 percent higher than the Latitude 9420. These results indicate that office productivity workers with older devices might enjoy faster application response times by upgrading to devices with new 12th Gen Intel Core i5 processors.

SYSmark 25

According to BAPCo, the SYSmark 25 benchmark test "measures and compares system performance using real-world applications and workloads."¹ The Productivity Scenario measures office task performance, the Creativity Scenario measures content creation performance, and the Responsiveness Scenario "models 'pain points' in the user experience."²

SYSmark 25 – Overall score



Figure 1: Median SYSmark 25 Overall rating. We ran each test three times and report the median result. Higher is better. Source: Principled Technologies.

The SYSmark 25 Productivity score measures a system's performance while running office-centric workloads. As Figure 2 shows, the Latitude 9330 achieved a Productivity score that was up to 18.1 percent higher than the Latitude 9420. These results suggest that business users using older devices could boost their productivity and experience faster response times by upgrading to a Latitude 9330 featuring a new 12th Gen Intel Core i5 processor.

SYSmark 25 – Productivity score

Dell Latitude 9330 with an Intel Core i5-1240U processor		
		1,540
Dell Latitude 9420 with an Intel Core i5-1145G7 processor		
	1,303	
Figure 2: Corresponding SYSmark 25 Productivity score based on median Overall score. Higher is better. Source: Principled Technologies.		

The SYSmark 25 Creativity score measures a system's performance while running media and creative applications. As Figure 3 shows, the Latitude 9330 achieved a Creativity score that was up to 4.9 percent higher than the Latitude 9420. These results indicate that users who frequently create content and use creative applications could enjoy better performance by upgrading their devices.

SYSmark 25 – Creativity score



Source: Principled Technologies.

The SYSmark 25 Responsiveness score models common "pain points" that users frequently experience and measures the system's ability to manage compute-intensive actions such as launching an application or multi-tasking. As Figure 4 shows, the Latitude 9330 achieved a Responsivness score that was up to 4.9 percent higher than that of the Latitude 9420. These results indicate that users might experience less wait times and crashes associated with these "pain points" by upgrading to a Latitude device with a new 12th Gen Intel Core i5 processor.

SYSmark 25 – Responsiveness score



Figure 4: Corresponding SYSmark 25 Responsiveness score based on median Overall score. Higher is better. Source: Principled Technologies.



CrossMark

According to BAPco, developers of the CrossMark benchmark test, it is a "native cross-platform benchmark that measures the overall system performance and system responsiveness using models of real-world applications.³

CrossMark

To investigate the performance and responsiveness of the devices, we used the CrossMark benchmark. As Figure 5 shows, the 12th Gen Intel Core i5 processor-enabled device outperformed the 11th Gen Intel Core i5 processor-enabled device in the CrossMark Overall score, offering up to 6.3 percent better performance. Because the CrossMark benchmark measures performance using real-world scenarios like word processing, web browsing, and data manipulation, these results suggest that business workers might be able to do more of these common tasks in less time by upgrading their devices.

The performance improvement shown here might mean different things to different types of users: finance professionals might complete financial forecasting projects in less time; data analysts could see an improvement in the time it takes to model data; marketing professionals might enjoy faster word processing.

CrossMark - Overall score



Figure 5: Median CrossMark Overall score. We ran each test three times and report the median result. Higher is better. Source: Principled Technologies.

Lighter and more compact devices make it easier to work from anywhere

Today's hybrid workforce needs devices that are as portable as they are powerful. To get a sense of how portable these devices are, we measured and weighed them. As Figure 6 shows, the Latitude 9330 was 12.5 percent lighter than the older-generation processor-enabled device. As Figure 7 shows, the Latitude 9330 was 5.9 percent more compact. These measurements suggest that hybrid and remote workers might find that upgrading their older devices would make it easier to move them from place to place.



Figure 6: Weight of the systems (lbs). Lower is better. Source: Principled Technologies





Figure 7: Dimensions of the devices we tested in inches. We calculated the volume (depth x width x height) using measurements taken while the devices were in a closed state. Source: Principled Technologies.



Conclusion

As devices age, they become slower, which can have a negative impact on productivity. Additionally, newer devices often offer hardware upgrades that can lead to better performance. When we tested two Dell Latitude devices, we found that the Latitude 9330 featuring a new 12th Gen Intel Core i5 processor offered performance enhancements over a Latitude 9420 featuring an 11th Gen Intel Core i5 processor. The results of our SYSmark 25 benchmark testing indicate that business workers with older Latitude devices might enjoy faster response times by upgrading to Latitude devices with the newer-gen Intel Core i5 processor. Day to day, faster system responsiveness means business workers can be more productive and spend less time waiting for their systems to overcome compute-intensive "pain points." The Latitude 9330 was also lighter and more compact than the Latitude 9420, which could provide remote and hybrid workers with a more pleasant user experience. Based on the results of our testing, business workers who want better-performing devices to power their office productivity might consider purchasing a Latitude device enabled with a 12th Gen Intel Core i5 processor.

3. "CrossMark," accessed September 8, 2022, https://accessmark/.

Read the science behind this report at https://facts.pt/2g5vdU3 >





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This project was commissioned by Dell Technologies.

^{1.} BAPCo, "SYSmark 25," accessed October 3, 2022, https://bapco.com/products/sysmark-25/.

^{2. &}quot;SYSmark 25."