Supercharge on-the-go work

with over 10 hours of battery life and up to 79.28% better energy efficiency*

Accomplish graphics tasks in less time

with up to 4.8x the GPU performance†

Strengthen decision-making abilities

with up to 9.7x better on-device AI performance††

Energize your business strategy with the new Dell Pro 14 Plus

We found that upgrading from previous-gen Dell Latitude laptops to Dell Pro Plus AI PCs powered by Intel® Core™ Ultra 7 268V processors could help your company meet evolving productivity goals

Critical business landscape changes are on the way, and AI is center stage.[1] In the past, upgrading your fleet of devices every 3 to 5 years (or even longer) was commonplace. Now, having cutting-edge technology at your high performers' fingertips will put your company at a serious advantage moving forward.

Our hands-on tests show that a Dell™ Pro 14 Plus AI PC powered by an Intel® Core™ Ultra 7 286V processor with Intel vPro® outperformed Intel® Core™ i7 processor-powered Dell Latitude™ 5540 and Dell Latitude 5430 laptops in the areas of general productivity and on-device AI performance. The Dell Pro 14 Plus also lasted up to 4 hours and 28 minutes longer unplugged than the previous-gen devices.

*Based on MobileMark® 30 battery life benchmark results.
† Based on 3DMark® Steel Nomad benchmark results.
†† Based on Geekbench AI CPU (Half Precision) benchmark results.

How and what we tested

In January, Dell Technologies introduced the Dell Pro line of AI PCs, which focus on AI integration, performance, battery life, durability, and sustainability.[2] To determine the benefits of investing in new Dell Pro 14 Plus laptops powered by Intel® Core™ Ultra 7 processors, we compared a new Dell Pro 14 Plus laptop's performance and battery life to those of comparable 2022 and 2023 Latitude laptops*, each running Windows 11 Pro:

Dell Pro 14 Plus AI PC (2025)

- Intel® Core™ Ultra 7 268V processor with Intel vPro®
- Intel® Arc™ Graphics
- 32 GB of LPDDR-5x memory*
- 512 GB of NVMe storage*
- 55-Whr battery

Dell Latitude 5540 laptop (2023)

- Intel® Core™ i7-1365U processor with Intel vPro®
- Intel® Iris® Xe graphics
- 16 GB of DDR-4 memory*
- 256 GB of NVMe storage*
- 54-Whr battery

Dell Latitude 5430 laptop (2022)

- Intel® Core™ i7-1265U processor with Intel vPro®
- Intel® Iris® Xe graphics
- 16 GB of DDR-4 memory*
- 512 GB of NVMe storage*
- 58-Whr battery

*We focused our testing on processor capabilities and battery life—but we recognize that memory and storage also play important roles in the overarching performance picture. While these laptops have differing memory and storage specs, the benchmarks taxed the CPU, GPU,and NPU, not the memory or storage.

To assess general productivity and on-device AI system performance, we set the Windows 11 Pro power modes to "best performance" and ran these benchmarks:

- 3DMark Steel Nomad
- Cinebench 2024
- CrossMark®
- Geekbench AI
- Procyon® AI Computer Vision Benchmark
- Procyon AI Image Generation Benchmark
- Procyon AI Text Generation Benchmark
- Procyon Office Productivity Benchmark
- Procyon Photo Editing Benchmark
- Procyon Video Editing Benchmark
- PugetBench for Creators
- SYSmark® 30

We also set the Windows 11 Pro power modes to "best battery life" on all three laptops and conducted battery life tests from multiple perspectives. First, we measured office productivity and system efficiency metrics with MobileMark 30 and Procyon Battery Life Benchmark tools. Then, we determined how long each laptop would run Microsoft Teams while unplugged during a collaboration scenario among nine participants.

The results we report reflect the specific configurations we tested. Any difference in the configurations you test, as well as screen brightness, network traffic, or software additions, can affect these results. For a deeper dive into our testing parameters and procedures, see the science behind the report.

About the Dell Pro 14 Plus

This mainstream business laptop is lightweight and slim, with "an aluminum top cover and palmrest for an elegant look and feel, as well as added protection wherever you go."[3] With Windows 11 Pro, which offers "more security, more performance, more success,"[4] this AI PC also includes built-in technologies to better support your business goals and objectives:

Windows Copilot key: The button unlocks your own personal AI assistant, so you can "get real answers, inspiration, and solutions."[5]

Clearer video calls: The optional 5MP camera features high dynamic range (HDR) technology, which "accurately captures image detail, even in challenging lighting conditions."[6]

Sustainability: This ENERGY STAR® laptop, with its improved twist and impact resistance as well as a modular USB-C port (attached to the motherboard with screws instead of solder), "meets the best-in-class standards for energy use and repair."[7]

Simplified IT: Use ProDeploy for ready-to-use laptops on day one; improve cyber resilience with Dell Trusted Workspace; and use Microsoft Intune for remote manageability over the cloud.[8]

Remote management: The Intel vPro® platform also enables IT teams to monitor for threats and maintain their fleet on their schedule.[9]

Multilayered security: Intel vPro® Security helps "defend against modern threats at each layer: hardware, BIOS/firmware, hypervisor, VMs, OS, and applications."[10] The Intel® Threat Detection Technology (Intel® TDT) tool leverages AI power to detect and monitor threats.[11]

The Dell Pro 14 Plus we tested was powered by an Intel® Core™ Ultra 7 268V processor with Intel vPro®. This processor integrates CPU, GPU, and NPU architectures. The CPU architecture has four performance-cores and efficient-cores. The GPU architecture has eight Xe-cores and ray-tracing capabilities. The NPU architecture supports OpenVINO™, WindowsML, DirectML, ONNX RT, and WebNN AI software.

Learn more at: https://www.intel.com/content/www/us/en/products/sku/240958/intel-core-ultra-7-processor-268v-12m-cache-up-to-5-00-ghz/specifications.html.

Note: The graphs in this report use different scales. Please be mindful of each graph's data range as you compare.

Create opportunities for innovation

As modern applications get more complex and operating systems utilize more resources, the hardware you invest in is more important than ever. Longer battery life also supports the flexibility to take on whatever the day brings—without being tethered to an outlet.

Supercharge on-the-go work

Longer battery life makes it easier for high performers to get the job done—no matter where they're doing it. Plus, minimizing energy consumption can help your company support its long-term sustainability goals. **MobileMark 30** uses real-world applications to measure battery life in office productivity scenarios. In addition to gauging battery life, this benchmark also calculates DC performance and creates an Index score, which factors DC performance into battery life results.[12] Higher Index scores reveal a better balance between performance and battery life. Lower scores indicate that performance suffered in the pursuit of longer battery life. For reference, energy efficiency (Minutes per Whr) is the ratio of the useful output energy to the total input energy consumed.

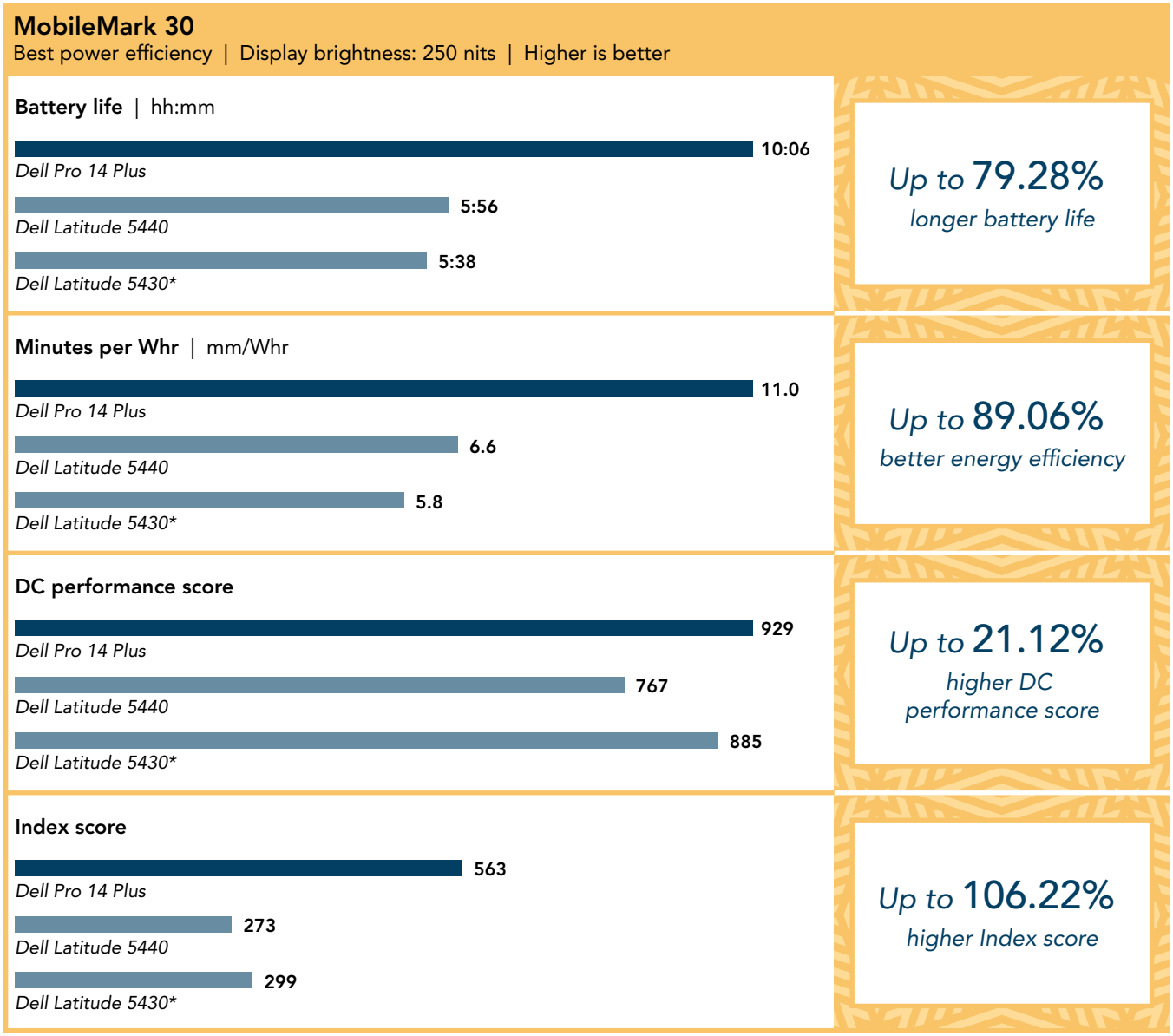


Figure 1: MobileMark 30 battery life benchmark results. Source: PT.

*Note: The Dell Latitude 5430 failed to complete the MobileMark 30 test. The results we report are estimates that MobileMark 30 produced based on the portion of the test the device was able to complete.

Procyon Battery Life Benchmark measures battery life in real-world scenarios. For this comparison, we ran the office productivity scenario, which uses Microsoft Office applications to simulate a typical work day use case.[13]

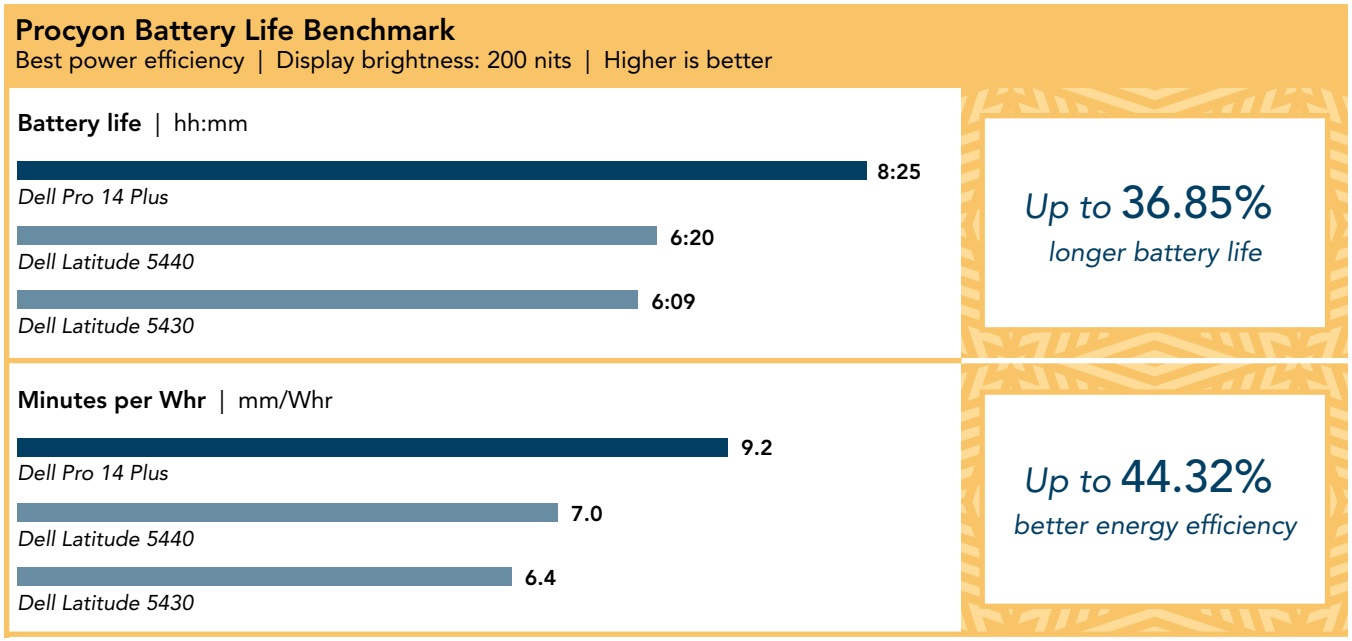


Figure 2: Procyon Battery Life Benchmark results. Source: PT.

For our video-conferencing battery life assessment, we set up a Microsoft Teams meeting with nine participants and measured how long the laptops' batteries lasted.

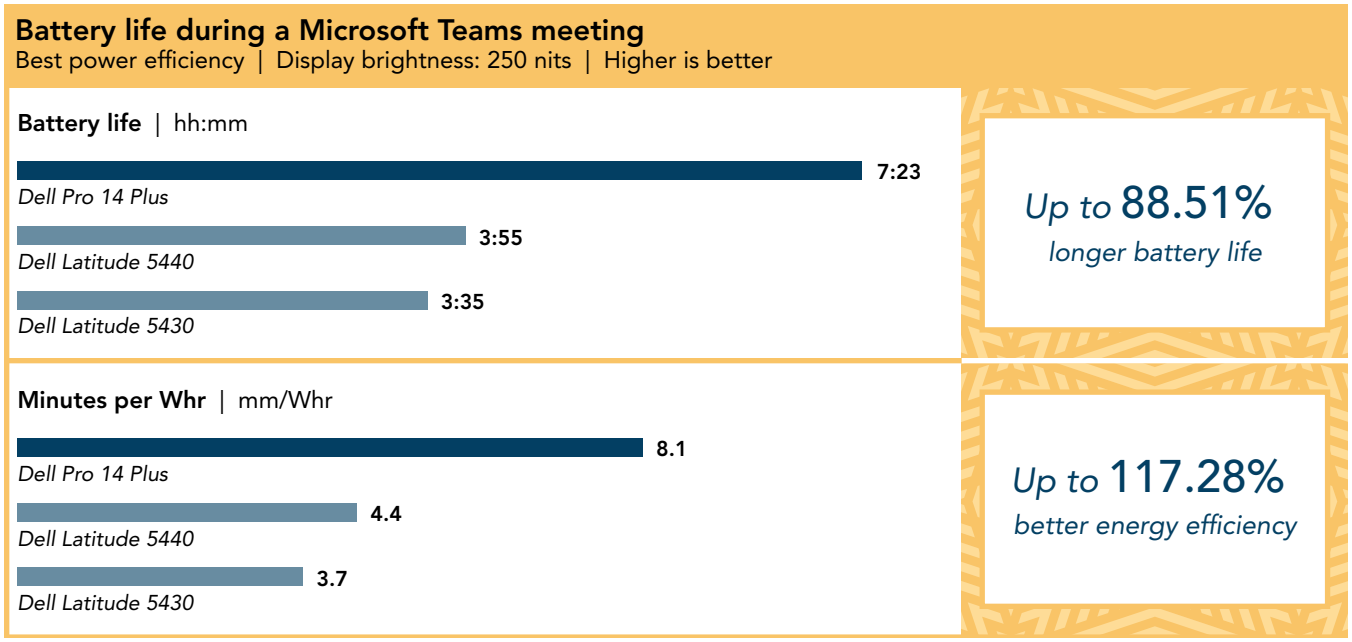


Figure 3: Battery life during a Microsoft Teams meeting with nine participants. Source: PT.

With all-day battery life in everyday scenarios and nearly all-day battery life in resource-intensive scenarios, the Dell Pro 14 Plus could equip your high achievers with the flexibility they need to maximize creativity and productivity.

Speed day-to-day tasks

The more capable the laptops in your arsenal, the faster and more efficiently you and your teams can handle tasks and projects. To look at productivity performance, we chose a wide variety of tests—including content creation benchmarks—to represent as comprehensive a set of business users and scenarios as possible. Content creation tasks are very processor-intensive, and underperforming laptops can fuel frustration and decrease productivity.

As you look through these results, notice how little improvement you'd see by upgrading from the 2022 model to the 2023 model. Across the board, the big wins come from the latest-gen Dell Pro 14 Plus AI PC powered by an Intel® Core™ Ultra 7 268V processor with Intel vPro®.

Figure 4: 3DMark Steel Nomad measures GPU performance. This content creation benchmark pushes the limits of GPU hardware by running a native 4K render resolution.[14] Source: PT.

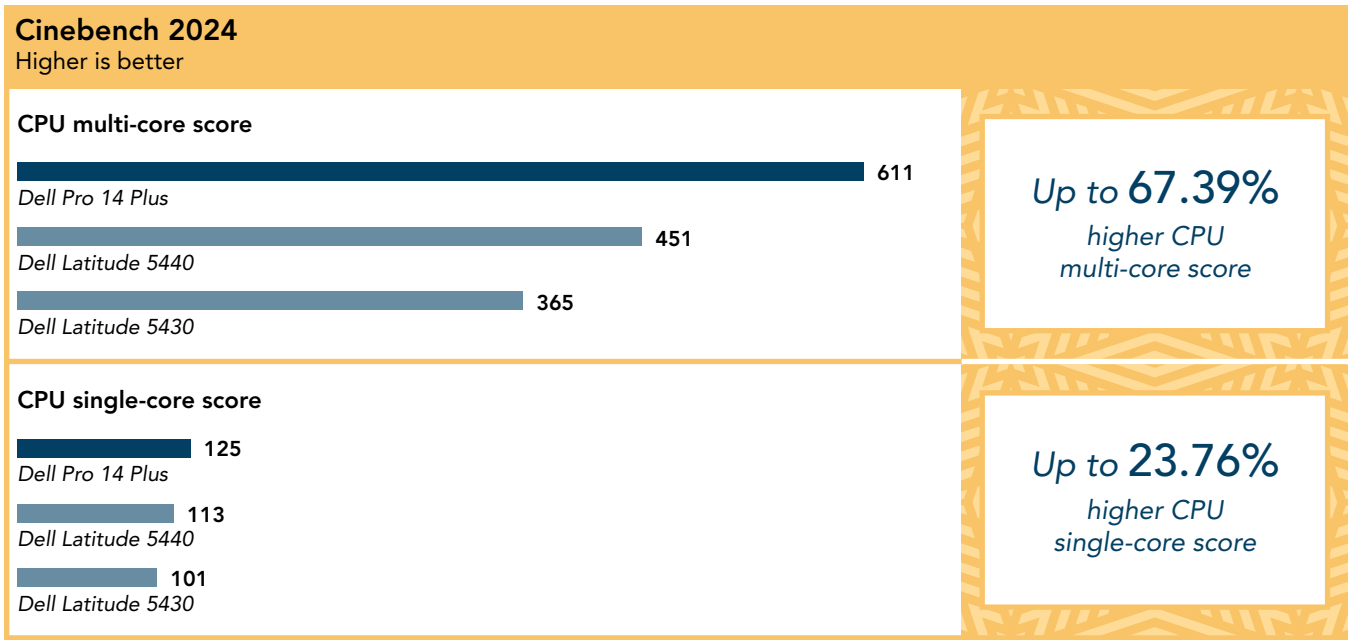


Figure 5: Cinebench 2024 measures CPU performance. This content creation benchmark utilizes Redshift for Cinema 4D, a processor-intensive 3D and video editing software, to evaluate processor capabilities by rendering a 3D scene.[15] Source: PT.

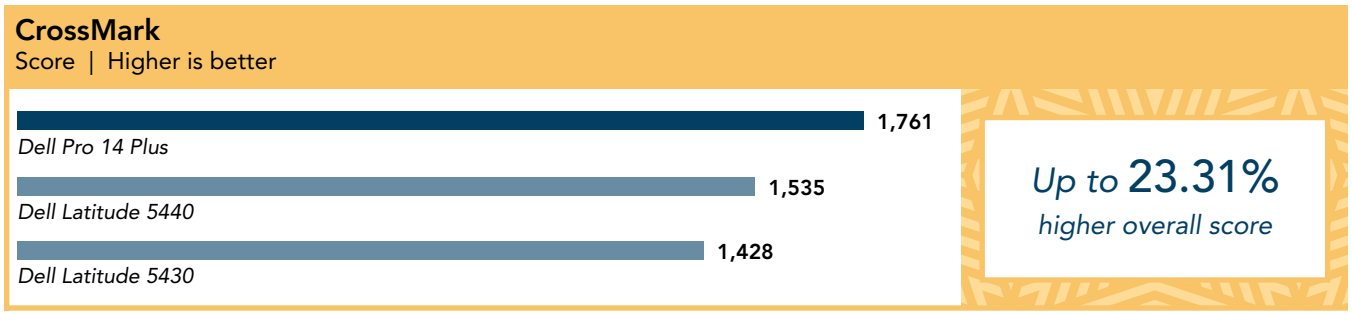


Figure 6: CrossMark measures overall system performance and system responsiveness. This general performance benchmark stresses system hardware by using models of real-world applications.[16] Source: PT.

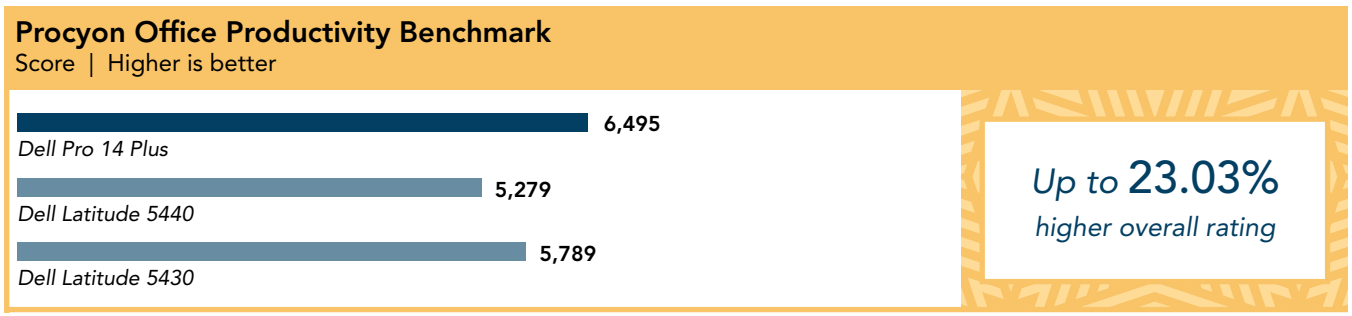


Figure 7: Procyon Office Productivity Benchmark measures CPU performance around common office productivity tasks. This general performance benchmark mimics a typical day at the office—even leaving Microsoft 365 apps "running in the background as the focus moves form one task to another."[17] Source: PT.

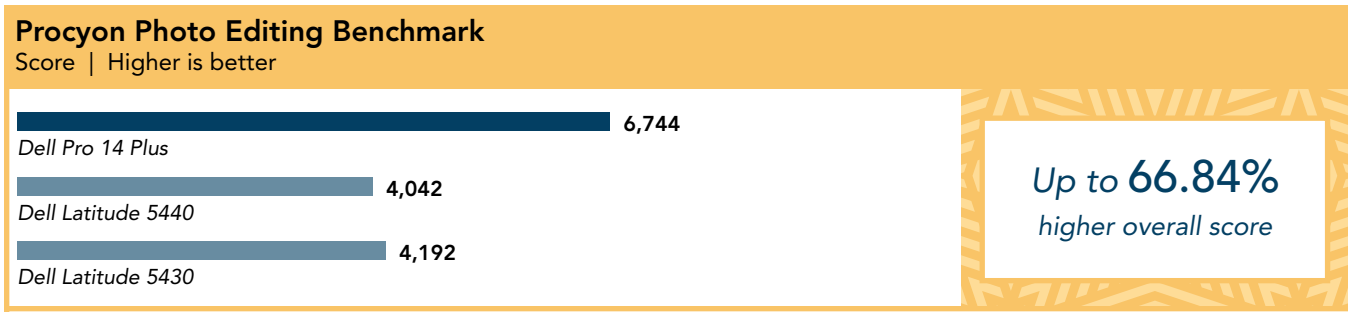


Figure 8: Procyon Photo Editing Benchmark measures CPU performance. This content creation benchmark uses Adobe® Photoshop® and Lightroom® Classic applications to mimic a "typical photo editing workflow that includes batch processing and image retouching."[18] Source: PT.

Figure 9: Procyon Video Editing Benchmark measures CPU and GPU performance. This content creation benchmark uses the Adobe Premiere® Pro application in a common video editing workflow that includes exporting video files.[19] Source: PT.

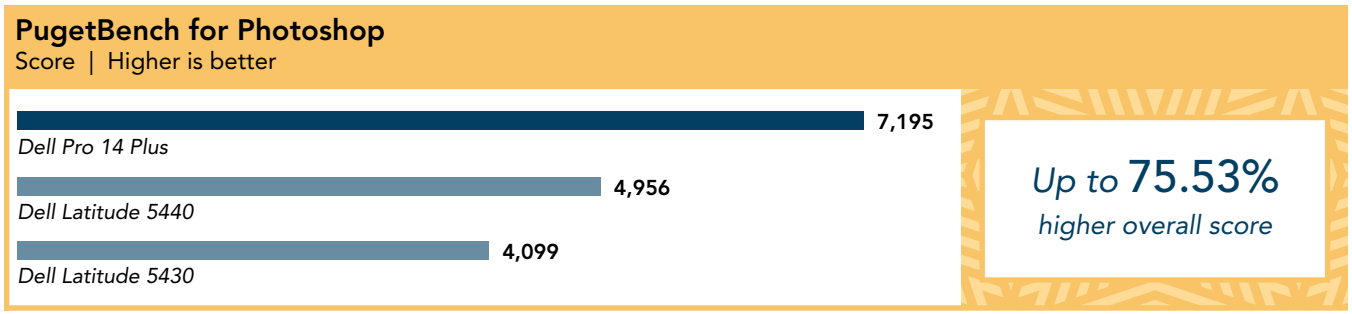


Figure 10: PugetBench for Photoshop measures CPU performance. This content creation benchmark uses the Adobe Creative Cloud app in real-world workflows.[20] Source: PT.

Figure 11: PugetBench for Premiere Pro measures CPU and GPU performance. This content creation benchmark uses the Adobe Creative Cloud app in real-world workflows.[21] Source: PT.

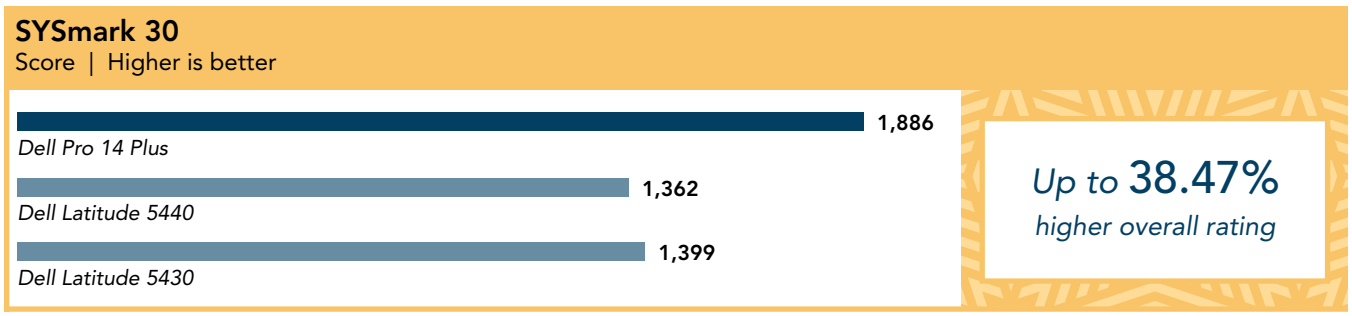


Figure 12: SYSmark 25 measures CPU performance. This general performance benchmark uses Microsoft 365 apps, real user workloads, and real data sets that reflect real-world user experiences.[22] Source: PT.

An AI primer

AI is a software that mimics human behavior, decision-making, or intelligence. Machine learning (ML) is a subset of AI. ML uses algorithms to learn from data and make decisions on patterns. Deep learning (DL) is a subset of ML that contains generative AI (GenAI). DL uses neural networks to learn from data and interactions. GenAI is a type of DL that produces context (text, image, video) based on input and training. Small and large language models (SLMs and LLMs) are trained on text data to process, understand, and generate natural language. In addition to powering customer service chatbots and virtual assistants, they can automate text-based tasks, such as email generation, document summarization, language translation, and customer data analysis.

For this analysis, we used benchmarks to measure both GenAI and LLM performance on the laptops under test:

GenAI apps can boost productivity in customer operations, research and development, sales and marketing, and software development.

LLMs can help companies identify emerging trends, make informed and strategic decisions, and improve the customer experience.

Get ahead of what's coming

AI use and implementation is in the middle of a seemingly exponential climbing curve. In our tests, we looked at two types of on-device AI performance: GenAI and analytic AI using LLM models. GenAI apps and LLM models become more efficient every day, and datasets are improving—which open up new pathways for innovation and discovery and power better decision-making. In addition to speeding analytical AI processes, improved performance enables you to redesign workflows, elevate governance, and better mitigate risks.

Specially designed for this kind of resource-intensive work, the Dell Pro 14 Plus AI PC's built-in NPU (Intel® AI Boost) architecture reduces the load on the CPU and the GPU. The following results show that upgrading from the 2022 device to the 2023 model won't deliver the high performance that modern workloads demand. For anyone leveraging AI—now or in the future—AI support from the latest-gen Dell Pro 14 Plus AI PC powered by an Intel® Core™ Ultra 7 268V processor with Intel vPro® can give you more.

Supercharge decision-making abilities

GenAI tools can help deliver speedy answers—the less time you and your teams have to wait for these answers, the better. More efficient and effective AI tools can also free up valuable time for more complex, analytical tasks.

Geekbench AI measures on-device AI performance using LLMs.[23] We chose to highlight the Half Precision scores because Half Precision (FP16) "provides a good balance between speed and accuracy."[24] In our testing, we used the Open Neural Network Exchange (ONNX) AI framework and DirectML AI backend for machine learning on Windows. For a deeper dive into our results, which includes Single Precision (FP32), Half Precision (FP16), and Quantized (Int8) scores, go to the science behind the report.

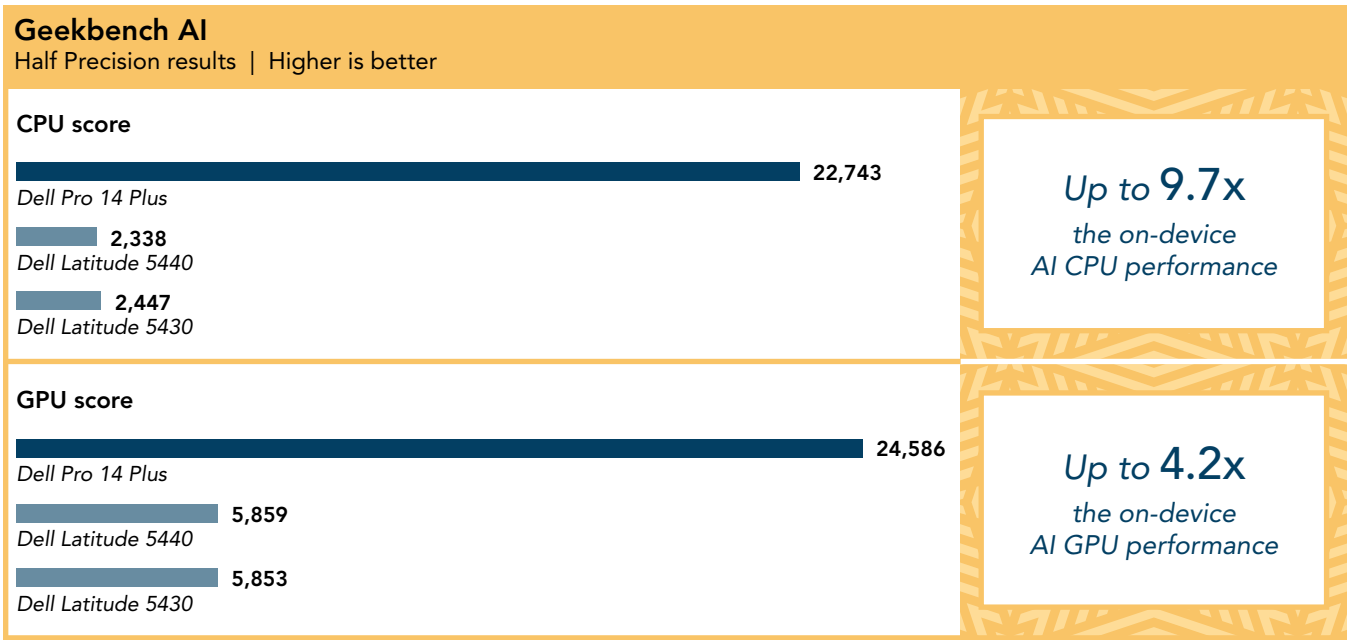


Figure 13: Geekbench AI benchmark results. Source: PT.

Accelerate image processing and recognition tasks

Whether you're using computer vision algorithms to process visual data at the edge, analyze 3D images, or classify images and objects, the faster the computer you're using accomplishes this task, the sooner you can move on to the next item on your to-do list.

Procyon AI Computer Vision Benchmark measures AI inference performance using different AI inference engines.[25] In our testing, we used the Intel OpenVINO toolkit. These are the inference engines and their use cases:

- **MobileNetV3, ResNet-50, and Inception-v4:** Research institutions, tech companies, and individuals use these models for image recognition, object detection, and image classification tasks.[26,27,28]
- **DeepLabv3 and YOLOv3:** Video surveillance companies, healthcare providers, and manufacturers use these Deep Neural Network (DNN) architectures to distinguish between different objects and features within images and videos.[29,30]
- **Real-ESRGAN:** Digital artists, medical professionals, and real estate firms use this generator and discriminator network (GAN) architecture to enhance image quality and resolution.[31]

In the integer-optimized testing, we found the inference counts were lowest on the DeepLabv3 model, which is used for medical imaging, quality control, and satellite image analysis.[32] And inference counts were highest on the Real-ESRGAN model, which is a super-resolution model that uses complex calculations to restore and improve existing media.[33] For a deeper dive into our results, which includes integer, float16, and float32 scores, go to the science behind the report.

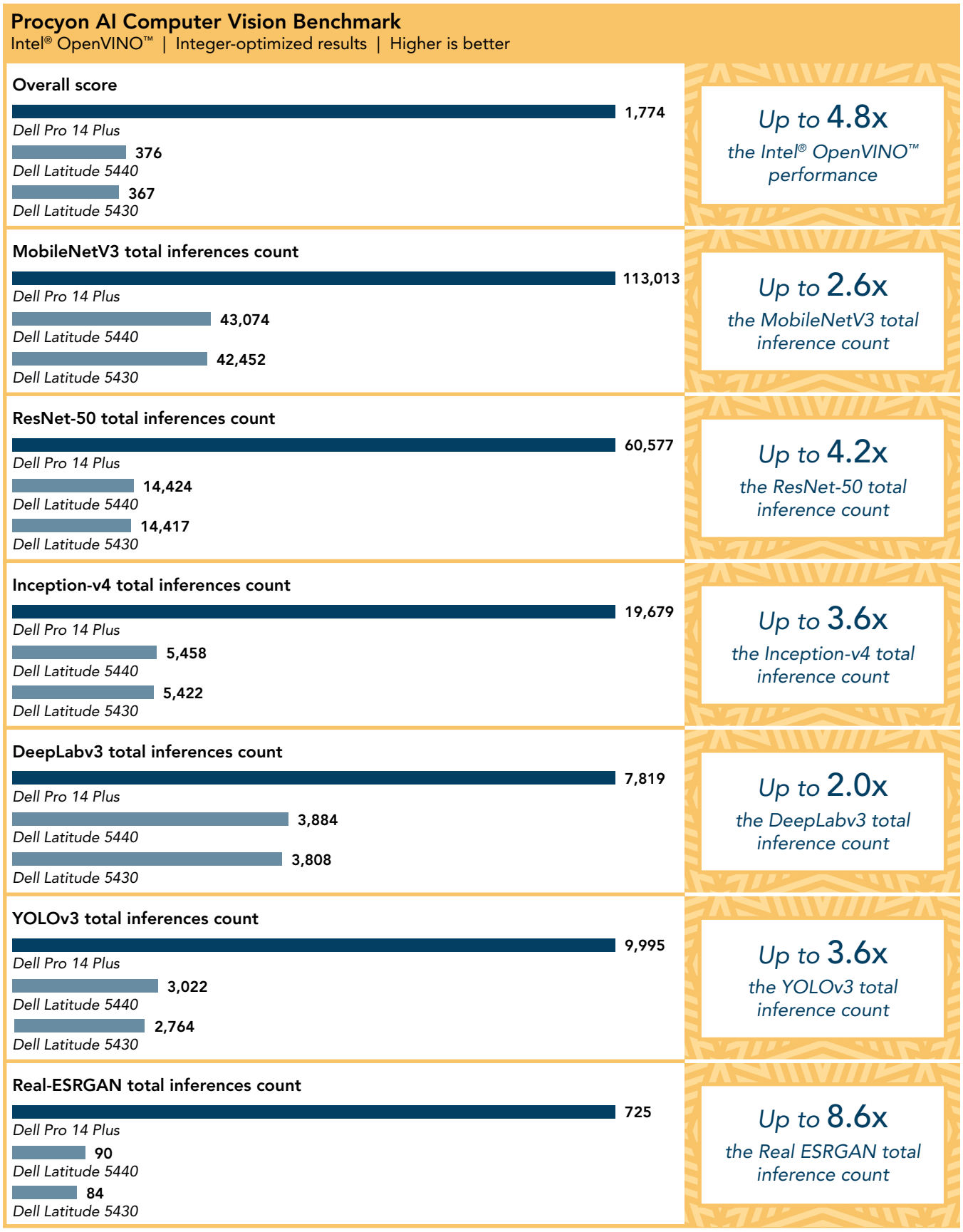


Figure 14: Procyon AI Computer Vision benchmark results. Source: PT.

Generate images and text in less time

When a master chef prepares a meal, high-quality ingredients certainly make a difference. But it's the chef's skill and experience that transforms the ingredients into a true culinary masterpiece. In the same way, GenAI can provide raw material for workflows—but it's the user's expertise that combines the ingredients to unlock creativity and productivity.

Procyon AI Image Generation Benchmark measures the inference performance of on-device AI accelerators.[34] Stable Diffusion v1-5 generates photo-realistic images from text prompts.[35]

In addition to scoring higher on the image generation benchmark, the Dell Pro 14 Plus powered by the Intel® Core™ Ultra 7 268V processor completed the task in 1 minute and 23 seconds. The same task took almost 8 minutes on the 2022 Dell Latitude 5430 laptop powered by the Intel® Core™ i7-1265U processor. To check out the overall duration and image generation speed sub-scores, go to the science behind the report.

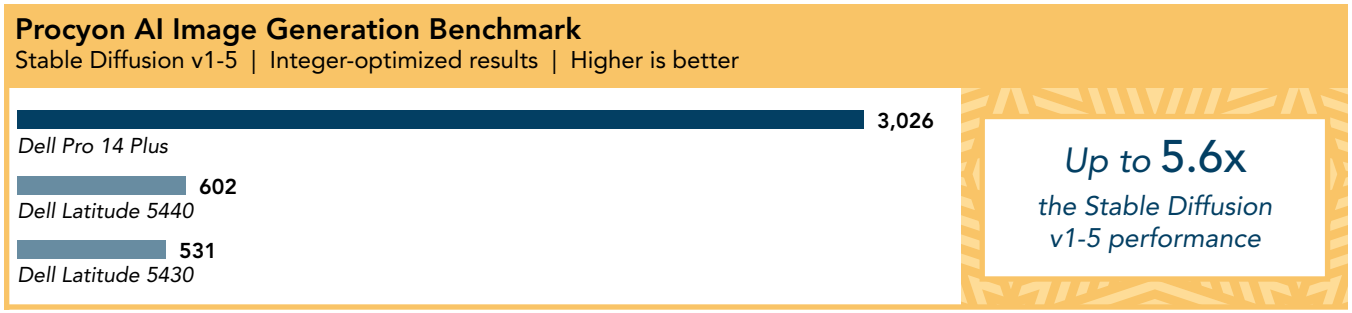


Figure 15: Procyon AI Image Generation Benchmark results. Source: PT.

Procyon AI Text Generation Benchmark measures LLM performance.[36] These are the models and a few common use cases:

- **PHI 3.5**: This Microsoft SLM provides text summarization for researchers, code generation and assistance for developers, and multi-lingual translations for customer service chatbots.[37]
- **Mistral 7B**: This LLM converts text between languages, generates educational materials, automates data analysis, and aids code generation and analysis.[38]
- **Llama 3.1**: This LLM provides advanced reasoning and context for multilingual customer service agents and coding assistants.[39]

To check out the time to first token, output token speed, and load time results, go to the science behind the report.

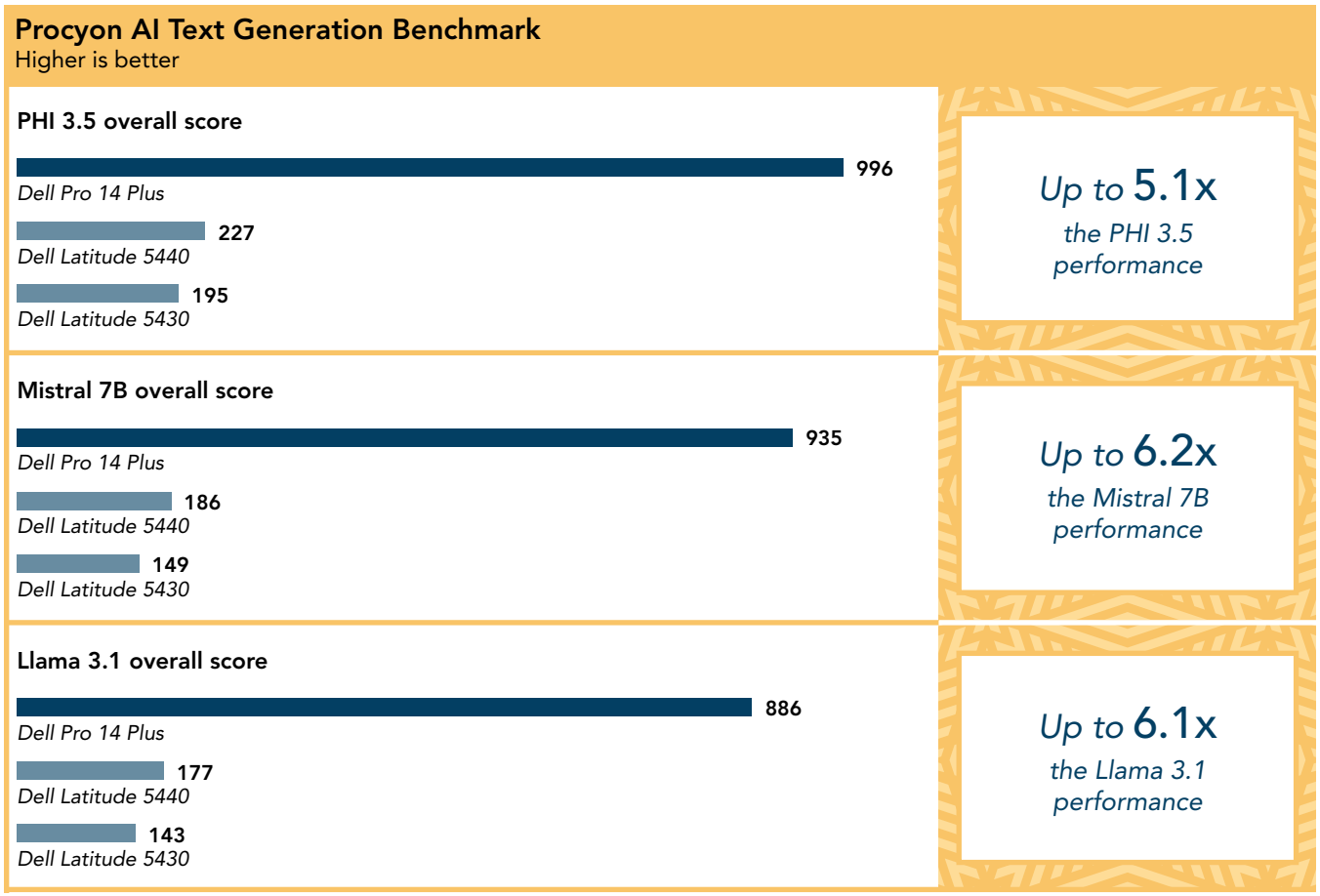
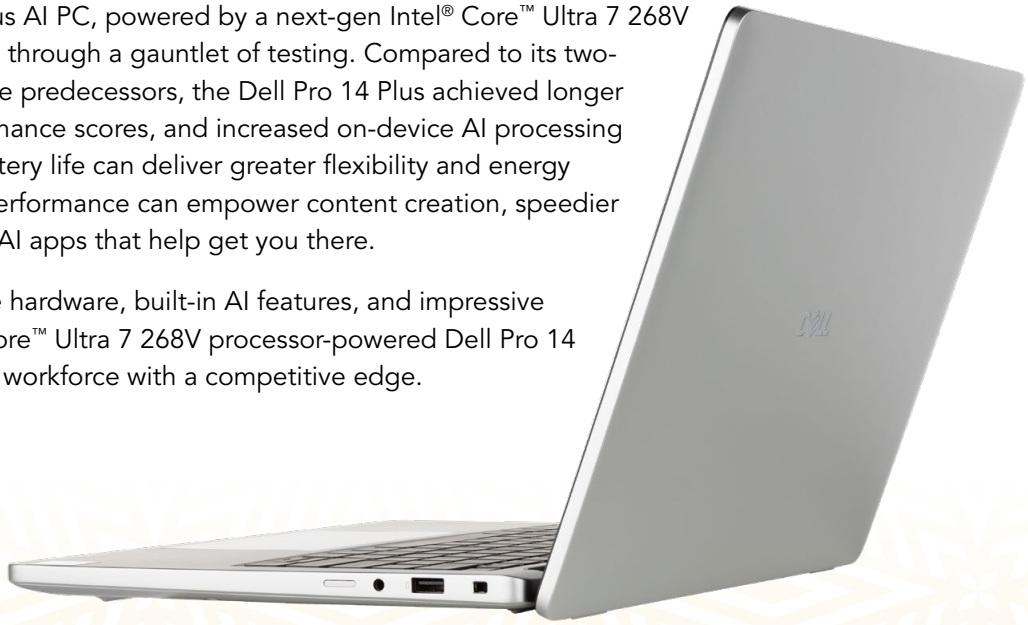


Figure 16: Procyon AI Text Generation Benchmark results. Source: PT.

Conclusion

We put the Dell Pro 14 Plus AI PC, powered by a next-gen Intel® Core™ Ultra 7 268V processor with Intel vPro®, through a gauntlet of testing. Compared to its two- and three-year-old Latitude predecessors, the Dell Pro 14 Plus achieved longer battery life, higher performance scores, and increased on-device AI processing capabilities. Its all-day battery life can deliver greater flexibility and energy efficiency, while its high performance can empower content creation, speedier decision-making, and the AI apps that help get you there.

With a blend of innovative hardware, built-in AI features, and impressive performance, the Intel® Core™ Ultra 7 268V processor-powered Dell Pro 14 Plus AI PC can equip your workforce with a competitive edge.



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Read the science behind this report at https://facts.pt/ROLh6OR ►

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