



# The science behind the report:

# Dell Pro Micro: Speed customer interactions, patient processing, and learning endeavors

This document describes what we tested, how we tested, and what we found. To learn how these facts translate into real-world benefits, read the report <u>Dell Pro Micro: Speed customer interactions, patient processing, and learning endeavors</u>.

We concluded our hands-on testing on July 15, 2025. 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 June 30, 2025 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

# Our results

To learn more about how we have calculated the wins in this report, go to <a href="https://facts.pt/calculating-and-highlighting-wins">https://facts.pt/calculating-and-highlighting-wins</a>. Unless we state otherwise, we have followed the rules and principles we outline in that document.

Table 1: Median results of our general performance benchmark testing. Higher scores are better.

	Dell™ Pro Micro	Dell OptiPlex™ 7000 Micro	Percentage win	
PugetBench for Creators: Adobe® Photoshop	PugetBench for Creators: Adobe® Photoshop®   Standard			
Overall score	6,191	5,132	20.63%	
General score	70.6	58.0	21.72%	
Filter score	54.3	45.4	19.60%	
PugetBench for Creators: Adobe Premiere® P	PugetBench for Creators: Adobe Premiere® Pro   Standard			
Overall score	2,240	1,542	45.26%	
LongGOP score	26.6	16.6	60.24%	
Intraframe score	25.7	15.7	63.69%	
RAW score	49.2	42.6	15.49%	
GPU effects score	7.5	5.1	47.63%	
3DMark® Steel Nomad				
Graphics score	292	70	317.14%	

	Dell™ Pro Micro	Dell OptiPlex™ 7000 Micro	Percentage win
CrossMark® v1.0.1.95			
Overall score	1,823	1,292	41.09%
Productivity score	1,770	1,279	38.38%
Creativity score	2,053	1,540	33.31%
Responsiveness score	1,395	784	77.93%
Procyon® Office Productivity Benchmark			
Overall rating	7,205	6,332	13.78%
Word score	7,153	6,682	7.04%
Excel score	7,593	5,987	26.82%
PowerPoint score	7,638	7,103	7.53%
Outlook score	5,860	5,056	15.90%
Procyon Photo Editing Benchmark v1.2.411	Adobe Photoshop v26.6.1 and Lightroo	m® Classic v14.3.1	
Overall score	5,684	4,589	23.86%
Image-retouching score	6,460	6,274	2.96%
Batch-processing score	5,002	3,357	49.00%
Procyon Video Editing Benchmark v1.2.411   Adobe Premiere Pro v25.2.3			
Score	5,671	3,432	65.23%
Cinebench 2024			
CPU multi-core score	871	501	73.85%
CPU single-core score	128	102	25.49%

Table 2: Median results of our AI testing. Higher scores are better, unless otherwise noted.

	Dell Pro Micro	Dell OptiPlex 7000 Micro	Percentage win
Procyon Al Computer Vision Benchmark   Intel OpenVINO®   INT8			
Overall score	729	206	253.88%
MobileNet V3 total inferences count	78,222	38,802	101.59%
ResNet 50 total inferences count	34,310	8,939	283.82%
Inception V4 total inferences count	9,486	2,999	216.30%
DeepLab V3 total inferences count	2,790	2,438	14.43%
YOLO V3 total inferences count	5,520	1,397	295.13%
Real-ESRGAN total Inferences count	253	40	532.50%

	Dell Pro Micro	Dell OptiPlex 7000 Micro	Percentage win
Procyon Al Image Generation Benchmark   St	able Diffusion 1.5   INT8		
Overall score	850.00	379.00	124.27%
Overall duration in seconds	293.82	658.94	55.41%
Image generation speed (seconds/image)	36.73	82.37	55.41%
Average UNET speed (iterations/second)	1.40	0.63	123.96%
Procyon Al Image Generation Benchmark   St	able Diffusion XL   FP16		
Overall score	43.00	23.00	86.95%
Overall duration in seconds	13,817.87	25,718.31	46.27%
Image generation speed (seconds/image)	863.62	1,607.39	46.27%
Procyon AI Text Generation Benchmark			
PHI 3.5 overall score	257.00	156.00	64.74%
Average TTFT in seconds (lower is better)	5.79	11.66	50.34%
Average OTS (tokens/second)	14.88	11.07	34.41%
Load time in seconds (lower is better)	16.05	16.46	2.49%
MISTRAL 7B overall score	206.00	124.00	66.12%
Average TTFT in seconds (lower is better)	9.29	19.96	53.45%
Average OTS (tokens/second)	8.66	6.75	28.29%
Load time in seconds (lower is better)	17.81	21.55	17.35%
LLAMA 3.1 overall score	201.00	121.00	66.11%
Average TTFT in seconds (lower is better)	8.17	17.65	53.71%
Average OTS (tokens/second)	8.16	6.33	28.90%
Load time in seconds (lower is better)	12.41	19.85	37.48%
Geekbench Al GPU			
Full Precision score	4,762	1,558	205.64%
Half Precision score	7,568	1,602	372.40%
Quantized score	11,248	1,052	969.20%
Geekbench AI CPU			
Full Precision score	5,214	3,349	55.68%
Half Precision score	9,989	3,259	206.50%
Quantized score	15,253	7,857	94.13%

# System configuration information

Table 3: Detailed information on the systems we tested.

System configuration information	Dell Pro Micro (QCM1250)	Dell OptiPlex 7000 Micro (D15U)
Processor		
Vendor	Intel®	Intel®
Model number	Core™ Ultra 5 235T	Core™ i5-12500T
Core frequency (GHz)	2.2–5.0	2.0–4.6
Number of cores	14	6
Number of threads	14	12
Memory module(s)		
Amount (GB)	16	16
Туре	DDR5	DDR4
Graphics		
Vendor	Intel®	Intel®
Model number	Graphics	UHD Graphics 770
Storage		
Amount (GB)	256	256
Туре	NVMe® SSD	NVMe SSD
Connectivity/expansion		
Wireless internet	Intel® Wi-Fi 6E AX211	Intel® Wi-Fi 6E AX211
Operating system	·	
Vendor	Microsoft	Microsoft
Name	Windows 11 Pro	Windows 11 Pro
Version	24H2 (Build 26100.4061)	24H2 (Build 26100.4061)
Dimensions		
Height (in.)	7.17	7.17
Width (in.)	1.42	1.42
Depth (in.)	7.01	7.00
Weight (lb.)	2.56	2.06

# How we tested

# Setting up the systems

### Setting up and updating the OEM image

- Boot the system.
- 2. Follow the on-screen instructions to complete installation, using the default selections when appropriate.
- 3. Set the Windows (plugged in) Power Mode to Best Performance.
- 4. Set Screen and Sleep options to Never:
  - a. Right-click the desktop, and select Display settings.
  - b. From the left column, select System.
  - c. Click Power & Battery.
  - d. For all power options listed under Screen and Sleep, select Never.
- 5. Disable User Account Control notifications:
  - a. Select Windows Start, type UAC, and press the Enter key.
  - b. Move the slider control to Never notify, and click OK.
- 6. Run Windows Update, and install all updates available.
- 7. Run the OEM's Support Assistant utility, and install all recommended BIOS and driver updates available.
- 8. Verify the date and time are correct, and synchronize the system clock with the time server.
- 9. Pause Automatic Windows Updates:
  - a. Click the Windows Start button.
  - b. Type Windows Update settings and press the Enter key.
  - c. From the Pause updates drop-down menu, select Pause for 5 weeks.

# Capturing an image

- 1. Connect an external HDD to the system.
- 2. Click Windows Menu button, and type Control Panel in the search bar. Click Control Panel → System and Security → Backup and Restore (Windows 7) → Create a system image.
- 3. Verify that the external HDD is selected as the save drive, and click Next.
- 4. Verify that all drives are selected to back up, and click Next.
- 5. Click Start backup.
- 6. When you see the prompt to create a system repair disc, select No, and close the dialogs.

### Restoring an image

- 1. Connect an external HDD to the system.
- 2. Press and hold the Shift key while restarting the system.
- 3. Select Troubleshoot.
- 4. Select Advanced options.
- 5. Select See more recovery options.
- Select System image recovery.
- 7. Select the User account.
- 8. Enter the system password, and click Continue.
- 9. At the Restore system files and settings screen, select Next.
- 10. Verify that the external HDD is selected, and click Next.
- 11. Once the recovery has completed, click Finish.

# Testing with 3DMark Steel Nomad

- 1. Download 3DMark from <a href="http://www.futuremark.com/benchmarks/3dmark/all">http://www.futuremark.com/benchmarks/3dmark/all</a>.
- 2. To install 3DMark with the default options, double-click the 3DMark installer.exe file.
- 3. To launch 3DMark, double-click the 3DMark desktop icon.
- 4. Enter the registration code, and click Register.
- 5. Install the Steel Nomad benchmark.
- 6. Exit 3DMark.

- 1. To launch the benchmark, double-click the 3DMark desktop icon.
- 2. At the 3DMark Home screen, click the More Tests button.
- 3. Select the Steel Nomad benchmark.
- 4. Move the slider button to turn off the "Include Demo" feature.
- 5. Click Run.
- 6. When the benchmark run completes, record the results.
- 7. Perform steps 1 through 6 twice more.

# **Testing with Cinebench 2024**

# Setting up the test

- 1. Download and install Cinebench 2024 from https://www.maxon.net/en/downloads/cinebench-2024-downloads.
- 2. Launch Cinebench 2024.
- 3. Select File → Advanced benchmark.
- 4. From the Minimum Test Duration drop-down menu, select Off.

# Running the multi-core test

- 1. Launch Cinebench 2024.
- 2. Click Start next to CPU (Multi Core).
- 3. Record the result.
- 4. Wait 10 minutes before rerunning.
- 5. Repeat steps 1 through 4 twice more.

# Running the single-core test

- 1. Launch Cinebench 2024.
- 2. Click Start next to CPU (Single Core).
- 3. Record the result.
- 4. Wait 10 minutes before rerunning.
- 5. Repeat steps 1 through 4 twice more.

# Testing with CrossMark

### Setting up the test

1. Install a licensed version of CrossMark Enterprise.

# Running the test

- 1. Boot the system.
- 2. Launch CrossMark.
- 3. Click Run Benchmark.
- 4. When the benchmark completes, record the results.
- 5. Repeat steps 1 through 4 twice more.

# Testing with Geekbench Al

- 1. Purchase and download a Geekbench Al Pro license from <a href="https://www.geekbench.com/ai/download/">https://www.geekbench.com/ai/download/</a>.
- 2. Using all the defaults, run the installer, and install the benchmark.

- 1. Launch Geekbench Al.
- 2. Enter the license key.
- 3. For CPU/NPU testing, select:
  - Al Framework: OpenVINO™
  - Al Backend: CPU
  - Al Device: processor
- 4. For GPU testing, select:
  - Al Framework: OpenVINO™
  - Al Backend: GPU
  - Al Device: graphics card
- 5. Click Run Al Benchmark.
- 6. Wait 5 minutes, and repeat steps twice more.

# Testing with the Procyon Al Computer Vision Benchmark

## Setting up the test

- 1. Purchase and download the Procyon Al Computer Vision benchmark from https://benchmarks.ul.com/procyon.
- 2. Install the Procyon benchmark.
- 3. Double-click the installer.
- 4. Click Next.
- 5. Click to agree to the EULA, and click Next.
- 6. Click Next.
- 7. Launch Procyon.
- 8. Select Settings, and input the license key.
- 9. Close Procyon.

# Running the test

- 1. Launch Procyon.
- 2. Select the Computer Vision test.
- 3. For all tests, select the Intel OpenVINO tab.
- 4. Choose the GPU, and select Float32.
- 5. To begin the test, click Run.
- 6. When the test completes, record the results, and wait 15 minutes before rerunning.
- 7. When 3 runs have been completed complete 3 runs of GPU and Float16 on systems with no NPU and Float16 and NPU on systems with an NPU.
- When 3 runs have been completed complete 3 runs of GPU and integer on systems with no NPU and integer and NPU on systems with an NPU.
- 9. When the test completes, record the results, and wait 15 minutes before rerunning.
- 10. Complete 3 runs.

# Testing with the Procyon Al Image Generation Benchmark

- 1. Purchase and download the Procyon AI Image Generation benchmark from https://benchmarks.ul.com/procyon.
- Install the Procyon benchmark.
- 3. Double-click the installer.
- 4. Click Next.
- 5. Click to agree to the EULA, and click Next.
- 6. Click Next.
- 7. Launch Procyon.
- 8. Select Settings, and input the license key.
- 9. Close Procyon.

- 1. Launch Procyon.
- 2. Select the Image Generation Benchmark test.
- 3. Under the Stable Diffusion 1.5 (INT8) test option, select Intel OpenVINO for the AI Inference Engine and if the system has an NPU, select Intel® AI Boost as the device name. Otherwise, select the graphics device.
- 4. To begin the test, Click Run.
- 5. Complete and record 3 runs.
- 6. Under the Stable Diffusion XL (FP16) test option, select Intel OpenVINO for the AI inference Engine and select the graphics device name to be used.
- 7. To begin the test, click Run.
- 8. Complete and record 3 runs.

# Testing with the Procyon Al Text Generation Benchmark

# Setting up the test

- 1. Purchase and download the Procyon AI Text Generation benchmark from <a href="https://benchmarks.ul.com/procyon">https://benchmarks.ul.com/procyon</a>.
- 2. Install the Procyon benchmark.
- 3. Double-click the installer.
- 4. Click Next.
- 5. Click to agree to the EULA, and click Next.
- 6. Click Next.
- 7. Launch Procyon.
- 8. Select Settings, and input the license key.
- 9. Close Procyon.

### Running the test

- 1. Launch Procyon.
- 2. Select the Text Generation Benchmark test.
- 3. For the Al Inference Engine, select Intel OpenVINO.
- 4. For Workloads to run, select All.
- 5. To begin the test, click Run.
- 6. When the test completes, record the results, and wait 15 minutes before rerunning.
- 7. Repeat steps 1 through 6 twice more.

# Testing with the Procyon Office Productivity Benchmark

# Setting up the test

- 1. Install a licensed version of Microsoft 365, and verify the system is signed into the following apps: Excel, PowerPoint, and Word.
- 2. Purchase and download the Procyon Benchmark Suite from <a href="https://benchmarks.ul.com/procyon">https://benchmarks.ul.com/procyon</a>.
- 3. Install the Procyon benchmark.
- 4. Double-click the installer.
- 5. Click Next.
- 6. Click to agree to the EULA, and click Next.
- 7. Click Next.
- 8. Launch Procyon.
- 9. Select Settings, and input the license key.
- 10. Close Procyon.

### Running the test

- 1. Launch Procyon.
- Select the Office Productivity Benchmark.
- 3. To begin the test, click the Office Productivity Benchmark Run button.
- 4. When the test completes, record the results, and wait 15 minutes before rerunning.
- 5. Repeat steps 3 and 4 twice more.

# Testing with the Procyon Photo Editing Benchmark

# Setting up the test

- 1. Download and install Procyon.
- 2. Open Procyon.
- 3. Click Photo Editing Benchmark.
- 4. Click Register.
- 5. Enter the license key, and click Register.
- 6. Before running the benchmarks, make sure to install licensed versions of Adobe Photoshop 22.0 or higher and Adobe Lightroom Classic 10.0 or higher.

# Running the test

- 1. Launch Procyon.
- 2. Click Photo Editing Benchmark.
- 3. Click Run.
- 4. When the benchmark is complete, record the results.
- 5. Wait 15 minutes before rerunning the benchmark.
- 6. Repeat steps 3 through 5 twice more.

# Testing with the Procyon Video Editing Benchmark

# Setting up the test

- 1. Download and install Procyon.
- 2. Open Procyon.
- 3. Click Video Editing Benchmark.
- 4. Click Register.
- 5. Enter the license key, and click Register.
- 6. Before running the benchmarks, make sure to install licensed versions of Adobe Premiere Pro v14.5 or higher.

### Running the test

- 1. Launch Procyon.
- 2. Click Video Editing Benchmark.
- 3. Click Run.
- 4. When the benchmark is complete, record the results.
- 5. Wait 15 minutes before rerunning the benchmark.
- 6. Repeat steps 3 through 5 twice more.

# Testing with PugetBench for Creators: Photoshop

- 1. Launch Adobe Photoshop v26.6.
- 2. Click through the Tutorial pop-up tips.
- 3. Close Adobe Photoshop.
- 4. Purchase a PugetBench for Creators license from <a href="https://www.pugetsystems.com/pugetbench/creators/">https://www.pugetsystems.com/pugetbench/creators/</a>.
- 5. Click Download PugetBench for Creators for Windows.
- 6. After the download completes, double-click the installation file to install PugetBench.
- 7. Enter the license key in the license field, and click Activate.
- 8. Click Download Assets.

- Boot the system.
- 2. Open PugetBench for Creators.
- 3. On the left side of the app, select the Photoshop test.
- 4. Click Start Test.
- 5. When the benchmark finishes, record the overall score.
- 6. Close PugetBench for Creators, and restart the system under test.
- 7. Wait 30 minutes before performing the next run.
- 8. Repeat steps 1 through 7 twice more.

# Testing with PugetBench for Creators: Premiere Pro

## Setting up the test

- 1. Launch Adobe Premiere Pro v25.2.3.
- 2. Click through the Tutorial pop-up tips.
- 3. Close Adobe Premiere Pro.
- 4. Purchase a PugetBench for Creators license from https://www.pugetsystems.com/pugetbench/creators/.
- 5. Click Download PugetBench for Creators for Windows.
- 6. After the download completes, double-click the installation file to install PugetBench.
- 7. Enter the license key in the license field, and click Activate.
- 8. Click Download Assets.

# Running the test

- 1. Boot the system.
- 2. Open PugetBench for Creators.
- 3. On the left side of the app, select the Premiere Pro test.
- 4. Click Start Test.
- 5. When the benchmark finishes, record the overall score.
- 6. Close PugetBench for Creators, and restart the system under test.
- 7. Wait 30 minutes before performing the next run.
- 8. Repeat steps 1 through 7 twice more.

Read the report at https://facts.pt/3sGGv6m

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