Timed test results: Comparing Copilot+ PCs to a Windows 11 PC, a Windows 10 PC, and an Apple MacBook Pro, all without Copilot+

ABOUT OUR TESTING

In this study, we assessed the following devices:

- Three Copilot+ PCs running Windows 11
 - Microsoft Surface Pro 11th Edition
 - o ASUS ProArt P16
 - Microsoft Surface Laptop 7th Edition
- Two non-Copilot+ PCs
 - Lenovo® ThinkPad X1 Yoga (3rd Gen) running Windows 10
 - HP Spectre x360 2-in-1 Laptop 14 running Windows 11
- An Apple[®] MacBook[®] Pro 14" running macOS[®] Sequoia

To demonstrate how users can save time with new Copilot+ PC experiences—improved Windows search, Click to Do, and Recall—we hand-timed several tasks on each device. We ran each test three times and report the average of the times across the three runs; we also report the average across the three Copilot+ PCs.

Note that we tested the Copilot+ PCs with pre-release software and a corpus of data Microsoft provided, which added up to a workweek of user history. Note that all results may vary by device, configuration, and usage—all the results we report reflect the specific configurations we tested. For complete results, methodologies, and hardware/software disclosures, see the appendices.

We found that:

- On Copilot+ PCs, you can find images and copy them to a new folder using improved Windows search in **up** to 70% less time than on a Windows 10 device using traditional search*
- With Click to Do actions on Copilot+ PCs, you can remove an object from an image you see in a PDF file in up to 55% less time**
- Get to your PowerPoint in up to 71% less time with Copilot+ PCs***

A full report—including additional results, workflow tests comprising multiple timed tasks, a deeper look at Copilot+ PC experiences, and what these results can mean for users—is forthcoming.

*based on testing comparing pre-released versions of improved Windows search on Copilot+ PCs to traditional search on Windows 10 PC



^{**}based on testing comparing Copilot+ PCs running pre-released Click to Do and a Windows 10 PC with manual workflows

^{***}based on testing using Recall (preview) on Copilot+ PCs compared to a Windows 10 PC with manual workflow

TIME SAVINGS WITH IMPROVED WINDOWS SEARCH

Finding images and copying them to a new folder

In this test, we searched for images containing certain objects and copied them to a new folder. As Table 1 shows, improved Windows search on the Copilot+ PC enabled us to find images and copy them to a new folder in up to 70.2 percent less time compared to the non-Copilot+ PCs—a time comparable to the MacBook Pro.

Table 1: Average time, in seconds, to find images and copy them to a new folder. Less time is better. For complete results and our

step-by-step process, see the appendices.

	Copilot+ PCs - Average	Non-Copilot+ Windows 10 PC	Non-Copilot+ Windows 11 PC	Apple MacBook Pro
Total duration (seconds) - Average	25.8	86.9	82.1	25.7
Percentage less time with Copilot+ PCs - Average	N/A	70.2%	68.5%	-0.2%

TIME SAVINGS WITH CLICK TO DO

Removing an object from an image in a PDF

In this photo editing test, we opened a PDF with an image that included a logo. We isolated and removed the logo, and then we saved the image. Click to Do on the Copilot+ PCs enabled us to make these edits with just a few clicks, taking up to 55.2 percent less time than the devices without Copilot+ (see Table 2).

Table 2: Average time, in seconds, to remove an object from an image in a PDF Less time is better. For complete results and our

step-by-step process, see the appendices.

	Copilot+ PCs - Average	Non-Copilot+ Windows 10 PC	Non-Copilot+ Windows 11 PC	Apple MacBook Pro
Total duration (seconds) - Average	23.6	52.8	51.8	39.8
Percentage less time with Copilot+ PCs - Average	N/A	55.2%	54.3%	40.6%

TIME SAVINGS WITH RECALL

Finding and reopening a PowerPoint

This test reflects a scenario where a user remembers seeing a PowerPoint slide with handwriting on it, but they can't remember which presentation they saw it in. With the Copilot+ PCs, we simply opened Recall and used our own words to search for "slide with handwriting." Recall did the rest, quickly locating the PowerPoint presentation and slide, and allowing us to jump back into it. With the other devices, searching "slide with handwriting" yielded no results, so we had to manually search through several PowerPoint files on the devices until we found the slide. With Copilot+ PCs, it took us up to 71.3 percent less time to locate the correct file (see Table 3).

Table 3: Average time, in seconds, to find a specific PowerPoint and reopen it. Less time is better. For complete results and our

step-by-step process, see the appendices.

	Copilot+ PCs - Average	Non-Copilot+ Windows 10 PC	Non-Copilot+ Windows 11 PC	Apple MacBook Pro
Total duration (seconds) - Average	14.0	48.7	43.7	36.0
Percentage less time with Copilot+ PCs - Average	N/A	71.3%	67.9%	61.1%

APPENDIX A: OUR RESULTS

We concluded hands-on testing on April 8, 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 April 2, 2025 or earlier. Unavoidably, these configurations may not represent the latest versions available when this report appears.

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

Table 4: Results of our testing with improved Windows search, Click to Do, and Recall. Less time is better.

Table 4. Nesuits 01	Microsoft Surface Pro 11th Edition Copilot+ PC	ASUS ProArt P16 Copilot+ PC	Microsoft Surface Laptop 7th Edition Copilot+ PC	Lenovo ThinkPad X1 Yoga (3rd Gen)	HP Spectre x360 2-in-1 Laptop 14	Apple MacBook Pro 14"		
Finding images	Finding images and copying them to a new folder							
Total duration (seconds) - Run 1	25.3	24.1	27.3	88.5	81.3	25.5		
Total duration (seconds) - Run 2	27.0	25.4	26.1	87.8	80.7	26.0		
Total duration (seconds) - Run 3	26.3	25.8	25.2	84.5	84.3	25.8		
Total duration (seconds) - Average	26.2	25.1	26.2	86.9	82.1	25.7		
Removing an ob	ject from an ima	ge in a PDF						
Total duration (seconds) - Run 1	18.6	21.0	31.5	51.6	52.6	40.5		
Total duration (seconds) - Run 2	18.5	21.0	30.9	53.0	51.9	39.2		
Total duration (seconds) - Run 3	19.9	20.4	30.5	53.8	50.8	39.7		
Total duration (seconds) - Average	19.0	20.8	30.9	52.8	51.8	39.8		

Finding and voc	Microsoft Surface Pro 11th Edition Copilot+ PC pening a PowerP	ASUS ProArt P16 Copilot+ PC	Microsoft Surface Laptop 7th Edition Copilot+ PC	Lenovo ThinkPad X1 Yoga (3rd Gen)	HP Spectre x360 2-in-1 Laptop 14	Apple MacBook Pro 14"
Finding and reo	pening a PowerP	oint				
Total duration (seconds) - Run 1	15.1	12.6	14.4	49.9	43.5	34.7
Total duration (seconds) - Run 2	14.6	12.5	14.9	48.9	44.4	37.3
Total duration (seconds) - Run 3	14.41	12.8	14.5	47.4	43.1	36.1
Total duration (seconds) - Average	14.7	12.6	14.6	48.7	43.7	36.0

APPENDIX B: SYSTEM CONFIGURATION INFORMATION

Table 5: Detailed information on the systems we tested.

Table 5: Detailed information	Ton the systems	we testeu.				
System	Microsoft Surface Pro 11th Edition Copilot+ PC	ASUS ProArt P16 (H7606W) Copilot+ PC	Microsoft Surface Laptop 7 th Edition (2108) Copilot+ PC	Lenovo ThinkPad X1 Yoga (3rd Gen)	HP Spectre x360 2-in-1 Laptop 14-ef2023dx	Apple MacBook Pro A1 Model A3112
Processor						,
Vendor	Qualcomm	AMD	Intel®	Intel	Intel	Apple
Name	Snapdragon X Elite	Ryzen Al 9 HX 370	Core™ Ultra 7 268V	Core i7- 8650U	Core i7- 1355U	M4
Core frequency (GHz)	3.4-4.0	2.0-5.1	2.2-5.0	1.9-4.2	3.7-5.0	2.9-4.4
Number of cores	12	12	8	4	10	10
Number of threads	12	24	8	8	12	10
Memory						
Amount (GB)	16	32	32	16	16	24
Туре	LPDDR5	LPDDR5x	LPDDR5x	LPDDR3	LPDDR4x	LPDDR5X
Graphics						
Vendor	Qualcomm	AMD	Intel	Intel	Intel	Apple
Model number	Adreno X1- 85 GPU	Radeon 890M	Arc 140V GPU	UHD Graphics 620	Iris® Xe graphics	M4 Integrated Graphics
Storage						
Amount (GB)	1,000	2,000	1,000	500	1,000	1,000
Connectivity/expansion						
Wireless internet	Qualcomm FastConnect 7800 Mobile Connectivity System	Wi-Fi 7	Wi-Fi 7	Intel Dual Band Wireless-AC 8265	Intel Wi-Fi 6E AX211	Wi-Fi 6E
Battery						
Rated capacity (Whr)	53	90	66	54	66	72.4
Display						
Size (in.)	13	16	15	14	13.5	14.2
Resolution	2880 x 1920	3840 x 2400	2496 x 1664	2560 x 1440	3000 x 2000	3024 x 1964
Operating system						
Vendor	Microsoft	Microsoft	Microsoft	Microsoft	Microsoft	Apple
Name	Windows 11 Enterprise	Windows 11 Pro	Windows 11 Pro	Windows 10 Pro	Windows 11 Home	macOS Sequoia
Version	24H2 (Build 26120.3360)	24H2 (Build 26120.3653)	24H2 (Build 26120.3653)	22H2 (Build 19045.5487)	24H2 (Build 26100.3194)	15.3.1
Dimensions	·	·	·	·	·	
Height (in.)	8.2	9.72	9.41	9.02	8.68	8.71

System	Microsoft Surface Pro 11th Edition Copilot+ PC	ASUS ProArt P16 (H7606W) Copilot+ PC	Microsoft Surface Laptop 7 th Edition (2108) Copilot+ PC	Lenovo ThinkPad X1 Yoga (3rd Gen)	HP Spectre x360 2-in-1 Laptop 14-ef2023dx	Apple MacBook Pro A1 Model A3112
Width (in.)	11.3	13.97	12.96	13.11	11.73	12.31
Depth (in.)	0.37	0.68	0.72	0.67	0.67	0.61
Weight (lb.)	1.97	4.08	3.67	3.08	3.01	3.40

APPENDIX C: HOW WE TESTED

Testing with improved Windows search: Finding images and copying them to a new folder In this test, we searched for a paint brush image and a piano image.

Running the test on the macOS device

- 1. Simultaneously start the timer and open the Photos application.
- 2. In the Search bar, type paint brush
- 3. Select the images that appear, and copy them.
- 4. Create a new folder on the Desktop, and paste the images into the new folder.
- 5. Open the Photos application.
- 6. In the Search bar, type Piano
- 7. Select the images that appear, and copy them.
- 8. In the newly created folder on the Desktop, paste the images.
- 9. When the images have finished pasting, stop the timer.
- 10. Repeat steps 1 through 9 twice more.

Running the test on the Windows 10 and Windows 11 non-Copilot+ laptops

- 1. Simultaneously start the timer and open File Explorer.
- 2. Navigate to the Picture folder.
- 3. In the Search bar, type paint brush
- 4. If no pictures appear, delete the search, and return to the pictures folder.
- 5. Scroll through the pictures folder, and find all the pictures that include a paint brush.
- 6. Select the images that include a paint brush, and copy them.
- 7. Create a new folder on the Desktop, and paste the images into the new folder.
- 8. Open the Pictures folder.
- 9. In the Search bar, type Piano.
- 10. If no pictures appear, delete the search, and return to the pictures folder.
- 11. Scroll through the pictures folder, and find all the pictures that include a piano.
- 12. Select the images that include a piano, and copy them.
- 13. In the newly created folder on the Desktop, paste the images.
- 14. When the images have finished pasting, stop the timer.
- 15. Repeat steps 1 through 14 twice more.

Running the test on the Windows 11 Copilot+ laptop

- 1. Simultaneously start the timer and open File Explorer.
- 2. Navigate to the Pictures folder.
- 3. In the Search Pictures search bar, type paint brush
- 4. Select the images that appear, and copy them.
- 5. Create a new folder on the Desktop, and paste the images into the new folder.
- 6. Open the Pictures folder.
- 7. In the Search Pictures search bar, type Piano
- 8. Select the images that appear, and copy them.
- 9. In the newly created folder on the Desktop, paste the images.
- 10. When the images have finished pasting, stop the timer.
- 11. Repeat steps 1 through 10 twice more.

Testing with Click to Do: Removing an object from an image in a PDF and saving the new image

In this test, we opened a PDF containing an image that included a logo. We isolated and removed the logo, and then we saved the image.

Running the test on the macOS device

- 1. Simultaneously start the timer and open the test PDF file in Preview.
- 2. To open the screenshot tool, press Command+Shift+5.
- 3. Highlight the image you wish to edit.
- 4. Open the screenshot, and click the share button \rightarrow Add to Photos.
- 5. Open the Photos application, and double-click the saved screenshot.
- 6. Click Edit.
- 7. Click Clean Up.
- 8. In the image, highlight the object you wish to remove.
- 9. Click File \rightarrow Export \rightarrow Export 1 Photo.
- 10. Click Export.
- 11. Select where you'd like to save the image, and click Export.
- 12. Stop the timer when the image saves.
- 13. Repeat steps 1 through 12 twice more.

Running the test on the Windows 10 and Windows 11 non-Copilot+ laptops

- 1. Simultaneously start the timer and open the test PDF file in Edge.
- 2. Click the Windows Start button.
- 3. In the search bar, type Snipping Tool
- 4. Open Snipping Tool.
- 5. Click New.
- 6. Highlight the image you wish to edit.
- 7. Click Save.
- 8. Select where you'd like to save the image, and click Save.
- 9. Navigate to the folder in which you saved the image.
- 10. Right-click the image, and select Edit with Photos.
- 11. Click the Erase tool.
- 12. In the image, highlight the object you wish to remove.
- 13. Click Save options \rightarrow Save as a copy.
- 14. Select where you'd like to save the image, and click Save.
- 15. Stop the timer when the image saves.
- 16. Repeat steps 1 through 15 twice more.

Running the test on the Windows 11 Copilot+ laptop

- 1. Simultaneously start the timer and open the test PDF file in Edge.
- 2. Hover over the image you wish to edit, and to open Click to Do, press the Windows key and click.
- 3. Click Erase Objects with Photos.
- 4. In the image, highlight the object you wish to remove.
- 5. Click Save options \rightarrow Save as a copy.
- 6. Select where you'd like to save the image, and click Save.
- 7. Stop the timer when the image saves.
- 8. Repeat steps 1 through 7 twice more.

Testing with Recall: Finding and reopening a PowerPoint

In this test, we simulated a scenario where a user remembers a PowerPoint presentation on their system that included red handwriting on a slide, but they do not remember the name of the PowerPoint file.

Running the test on the macOS device

- 1. Simultaneously start the timer and open Finder.
- 2. Navigate to the Documents folder.
- 3. In the Search bar, type slide with handwriting
- 4. If no documents appear, delete the search, and return to the Documents folder.
- 5. Open the Conscious Interior Design PowerPoint file.
- 6. Scroll through the slides to see if there are any slides with red handwritten text.
- 7. Close the PowerPoint file.
- 8. Open the Contoso Designs Client Presentation PowerPoint file.
- 9. Scroll through the slides to see if there are any slides with red handwritten text.
- 10. Close the PowerPoint file.
- 11. Open the Contoso Electronics Sales Presentation PowerPoint file.
- 12. Scroll through the slides to see if there are any slides with red handwritten text.
- 13. Close the PowerPoint file.
- 14. Open the Contoso-Financial-Calendar PowerPoint file.
- 15. Scroll through the slides to see if there are any slides with red handwritten text.
- 16. Close the PowerPoint file.
- 17. Open the Eco House PowerPoint file.
- 18. Navigate to the slide with the red handwritten text and stop the timer.
- 19. Repeat steps 1 through 18 twice more.

Running the test on the Windows 10 and Windows 11 non-Copilot+ laptops

- 1. Simultaneously start the timer and open File Explorer.
- 2. Navigate to the Documents folder.
- 3. In the Search bar, type slide with handwriting
- 4. If no documents appear, delete the search, and return to the Documents folder.
- 5. Open the Conscious Interior Design PowerPoint file.
- 6. Scroll through the slides to see if there are any slides with red handwritten text.
- 7. Close the PowerPoint file.
- 8. Open the Contoso Designs_Client Presentation PowerPoint file.
- 9. Scroll through the slides to see if there are any slides with red handwritten text.
- 10. Close the PowerPoint file.

- 11. Open the Contoso Electronics Sales Presentation PowerPoint file.
- 12. Scroll through the slides to see if there are any slides with red handwritten text.
- 13. Close the PowerPoint file.
- 14. Open the Contoso-Financial-Calendar PowerPoint file.
- 15. Scroll through the slides to see if there are any slides with red handwritten text.
- 16. Close the PowerPoint file.
- 17. Open the Eco House PowerPoint file.
- 18. Navigate to the slide with the red handwritten text and stop the timer.
- 19. Repeat steps 1 through 18 twice more.

Running the test on the Windows 11 Copilot+ laptop

- 1. Simultaneously start the timer and open Recall.
- 2. In the Recall search box, type slide with handwriting
- 3. Click the Eco House PowerPoint file match that pops up with the handwritten text on the slide.
- 4. At the bottom, click the Jump back to PowerPoint button.
- 5. Stop the timer when the PowerPoint file opens to the slide with handwriting.
- 6. Repeat steps 1 through 5 twice more.



Principled Technologies is a registered trademark of Principled Technologies, Inc. All other product names are the trademarks of their respective owners.

DISCLAIMER OF WARRANTIES; LIMITATION OF LIABILITY:

Principled Technologies, Inc. has made reasonable efforts to ensure the accuracy and validity of its testing, however, Principled Technologies, Inc. Specifically disclaims any warranty, expressed or implied, relating to the test results and analysis, their accuracy, completeness or quality, including any implied warranty of fitness for any particular purpose. All persons or entities relying on the results of any testing do so at their own risk, and agree that Principled Technologies, Inc., its employees and its subcontractors shall have no liability whatsoever from any claim of loss or damage on account of any alleged error or defect in any testing procedure or result.

In no event shall Principled Technologies, Inc. be liable for indirect, special, incidental, or consequential damages in connection with its testing, even if advised of the possibility of such damages. In no event shall Principled Technologies, Inc.'s liability, including for direct damages, exceed the amounts paid in connection with Principled Technologies, Inc.'s testing. Customer's sole and exclusive remedies are as set forth herein.