



### Big productivity gains in AI-driven M&E apps with HP ZBook Power 16 G11 A let you pay off your investment in as little as:

- 5.3 months, if you use Autodesk Maya
- 7.1 months, if you use DaVinci Resolve Studio
- 9.5 months, if you use Adobe Premiere Pro

## Save money by running AI-driven media and entertainment apps on the HP ZBook Power 16 G11 A Mobile Workstation PC instead of in the cloud

HP ZBook Power 16 G11 A improved productivity on AI-driven media and entertainment (M&E) apps over AWS EC2 G4dn instances, for a quick payoff on your investment

Creative professionals working with AI-enabled M&E apps need ample processing power to handle demanding AI-driven tasks and ensure work gets done on time. While it may be tempting to run these M&E workloads in the cloud, running them locally on an HP ZBook Power can help you finish work faster while saving you money over time.

We compared the performance of an HP ZBook Power 16 G11 A with AMD Ryzen™ Pro CPU and NVIDIA RTX™ 3000 Ada GPU to a workstation-grade AWS EC2 G4dn instance on four popular AI-driven apps that media professionals use: Adobe® Premiere® Pro, Avid Media Composer, DaVinci Resolve Studio, and Autodesk® Maya®. The ZBook Power ran all four apps without any compatibility issues and shaved enough time from routine tasks that you might expect to pay off your investment in as little as 5.3 months. In contrast, if you ran your apps in the cloud, you'd continue to incur monthly costs in perpetuity.

If you're looking for a powerful solution to handle AI-powered tasks in video editing and other media-related workloads, investing in the ZBook Power can give you the power to complete work quickly and save you from steep, ongoing cloud costs.

## How we tested

Creators prefer different tools, all of which perform differently. That's why for our comparison of AI performance in M&E apps running locally on an HP ZBook Power 16 G11 A workstation vs. the same AI workloads on an AWS EC2 G4dn instance, we used the following four different applications:

- ◆ Adobe Premiere Pro
- ◆ Avid Media Composer
- ◆ DaVinci Resolve Studio
- ◆ Autodesk Maya

We completed a variety of AI-accelerated tasks in these apps on the local system as well as in the cloud three times, and report the median of those runs. We used that data to estimate the amount of work each solution could perform in a standard work month (160 hours). Then, we used the current purchase price of the ZBook Power and current cloud costs for the comparable AWS EC2 G4dn instance to calculate the point where the purchase of the ZBook Power becomes more economical than continuing to pay for cloud costs. Even if you don't run apps like these every hour of a typical workday, you would still pay back your investment during the active life of the workstation, though it would take longer.

For detailed information about how we tested, our results, and the detailed specifications of the workstation and the cloud instance we tested, read the [Science behind the report](#).

## Pay off your up-front investment quickly with the stronger-performing HP ZBook Power 16 G11 A

While making an investment in a powerful workstation PC can seem daunting, the truth is that it pays for itself rather quickly—and once you've made the purchase, it's yours to continue creating with. In contrast, a major drawback of running workloads in the cloud is that you must continue paying cloud costs forever.

## About the HP ZBook Power 16 G11 A Mobile Workstation PC

HP markets the ZBook Power 16 G11 A as "Pro-grade performance within reach,"<sup>1</sup> offering configurations capable of strong multimedia creative performance at an affordable price point.

While the configuration we tested was not a maxed-out system, creators can configure the ZBook Power with up to:<sup>2</sup>

- AMD Ryzen 9 8945HS Pro processors (4.0 GHz, up to 5.2 GHz, 16 MB cache, 8 core) for quick video editing
- Discreet NVIDIA RTX 3000 Ada graphics for effects work
- 8 TB of storage to accommodate camera footage
- 64 GB of memory, which can speed up work and facilitate multi-tasking without having to close apps each time

To learn more about the options available for the HP ZBook Power 16 G11 A Mobile Workstation PC, visit <https://www.hp.com/us-en/shop/pdp/hp-zbook-power-16-g11-a-mobile-workstation-pc-customizable-9a820av-mb>.

As of this writing, an HP ZBook Power 16 G11 A workstation in the configuration we tested costs \$6,226,40.<sup>3</sup> We estimate that a creator working full time—160 hours per month—in these applications in an AWS G4dn instance would incur monthly costs of \$424.42. Without adjusting for improved performance that the ZBook Power delivers, the cost of the HP system is the same as approximately 14.6 months of cloud costs.

We found that running these workloads locally on the ZBook Power improved performance dramatically and saved time on demanding AI-driven media workloads—which means that you’d pay off your investment vs. cloud costs much quicker. This shows what a shrewd investment ZBook Power can be for creators desiring both faster performance and lower costs.

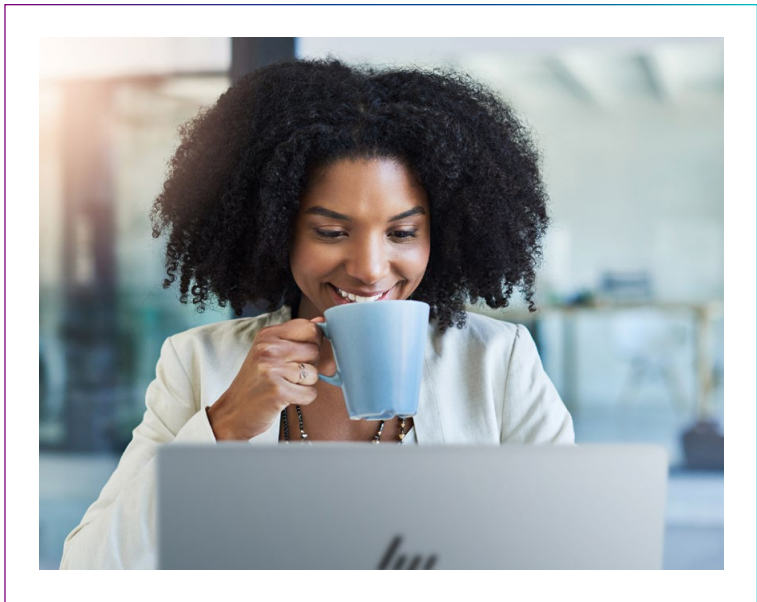


Figure 1 shows the expected break-even point to pay off the purchase price of the HP system vs. ongoing cloud costs for creators using Adobe Premiere Pro, DaVinci Resolve Studio, and Autodesk Maya. Note that we were unable to use Avid Media Composer on the premade Amazon Machine Image (AMI) we used for testing. While the ZBook Power had no problems completing routine tasks in Avid Media Composer, we were unable to use some Avid features in the AWS EC2 environment we used for testing due to compatibility issues.

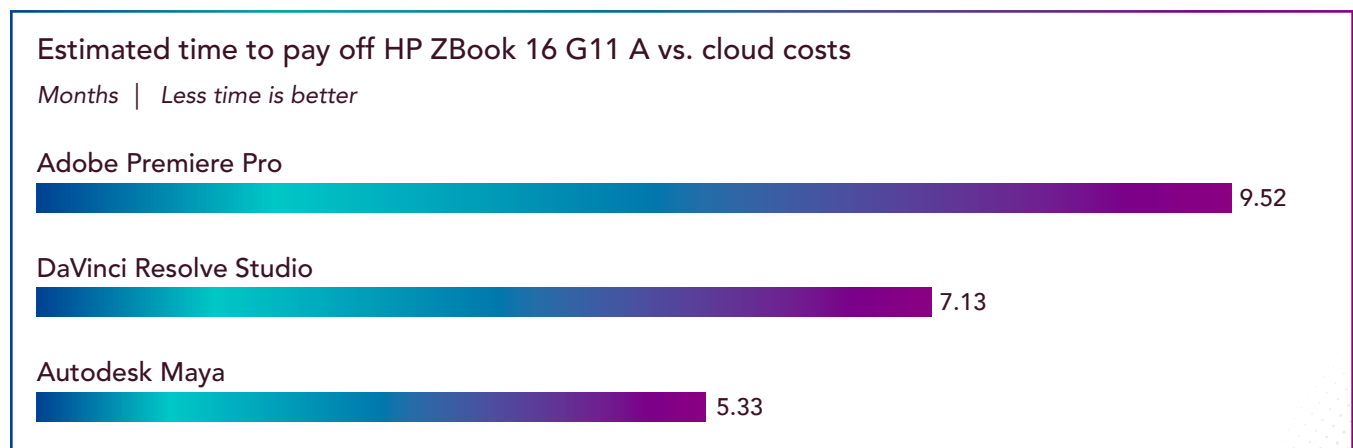


Figure 1: Time, in months, for the purchase of the HP ZBook Power 16 G11 A to pay off vs. recurring AWS EC2 G4dn instance fees, adjusted for the faster performance of the HP ZBook Power 16 G 11 A. Quicker time to break even is better. Source: Principled Technologies.

## Complete AI-driven video tasks quicker locally on the HP ZBook Power 16 G11 A

When you're rushing to get projects out the door, every minute counts. Choosing a solution that accelerates powerful AI-driven features can help you meet deadlines and get more done over time. Running apps locally on the ZBook Power shaved significant time off tasks in the apps we tested vs. completing the same tasks in an AWS EC2 G4dn instance. Please note that while more powerful cloud instance options are available and we could have chosen them for testing, they would only increase cloud costs and thus decrease the payback time on an investment in the workstation.

Figure 2 compares the total processing time to complete a series of AI-accelerated video editing tasks in Adobe Premiere Pro. For this workflow, we timed launching the application, transcribing a video using speech-to-text auto-transcription, and creating captions for it. Completing Adobe Premiere Pro tasks on the ZBook Power took 35.1 percent less time than completing the same AI-based tasks in the AWS EC2 G4dn instance, making it the clear choice for videographers seeking quicker performance.

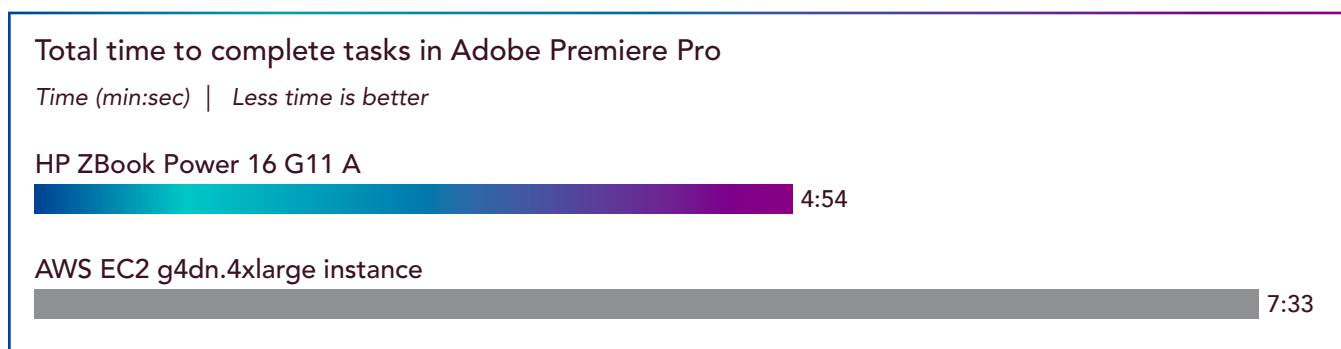


Figure 2: Total time, in minutes:seconds, for the HP ZBook Power 16 G11 A and AWS EC2 G4dn instance to complete a series of AI-based tasks in Adobe Premiere Pro. Less time is better. Source: Principled Technologies.

When faced with the choice between running graphics-intensive applications in the cloud and on a local workstation PC, there's something outside of performance and cost for creators to consider: compatibility. When we used Avid Media Composer to create a transcript using PhraseFind AI (a.k.a. auto-transcription), we found that the AWS EC2 G4dn instance was unable to complete the task at all—it did not support the features we wanted to test in Avid Media Composer. While there are potential workarounds and tools available to help these issues, many users encountering limitations and compatibility issues would likely find them frustrating.

As Figure 3 shows, the ZBook Power had no problems completing these AI-powered tasks. A surefire way to avoid the hassles and expenses associated with cloud-based solutions is to invest in a powerful workstation that can run these applications locally.

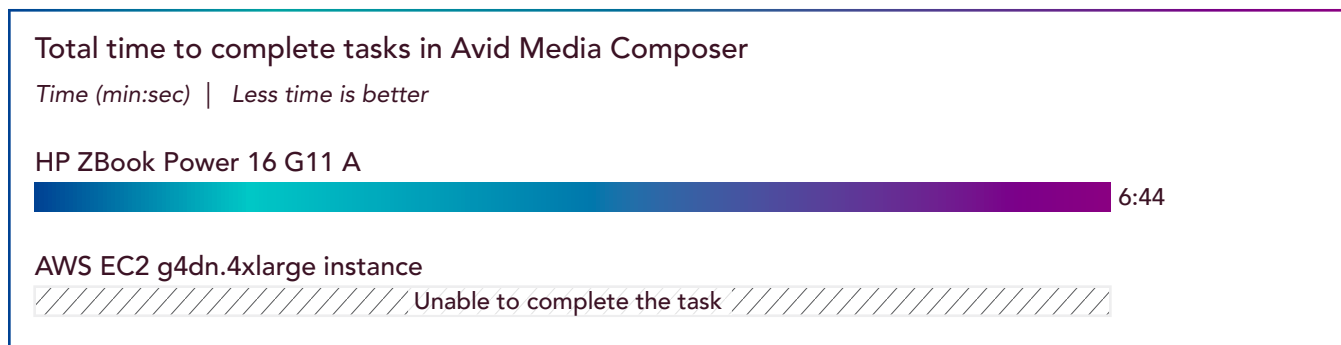


Figure 3: Total time, in minutes:seconds, for the HP ZBook Power 16 G11 A and AWS EC2 G4dn instance to complete a series of tasks in Avid Media Composer. Less time is better. Source: Principled Technologies.



Figure 4 compares the total processing time to complete a series of AI-accelerated color grading tasks in DaVinci Resolve Studio. For this workflow, we timed launching the application, applying Magic Mask to a video clip, and exporting the clip in H.264. Magic Mask is an AI-powered tool that isolates subjects in video clips for color grading, compositing, or other editing tasks. Completing DaVinci Resolve tasks on the ZBook Power took less than half the time completing the same tasks in the AWS EC2 G4dn instance—time that really adds up when you're a creator routinely editing and exporting videos using this app.

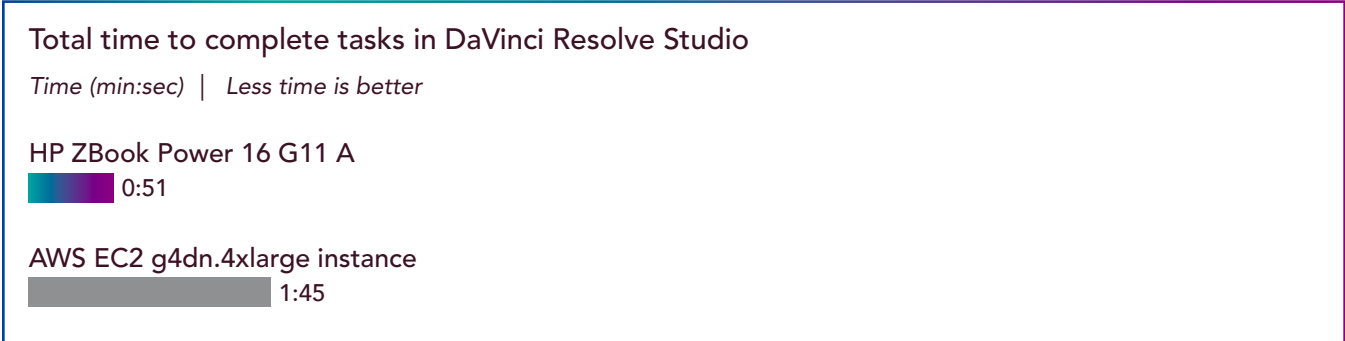


Figure 4: Total time, in minutes:seconds, for the HP ZBook Power 16 G11 A and AWS EC2 G4dn instance to complete a series of tasks in DaVinci Resolve Studio. Less time is better. Source: Principled Technologies.

Figure 5 compares the total processing time to complete a series of tasks in the popular 3D modeling and animation software application, Autodesk Maya. For this workflow, we timed launching the application, exporting training data, and training a model using ML Deformer. The ML Deformer lets creators efficiently approximate complex deformation to speed up animating, blocking, and crowd scenes. Completing these Maya tasks on the ZBook Power took 63.6 percent less time than doing the same work in the AWS EC2 G4dn instance. This means that for creators using Maya to create using AI, investing in a ZBook Power can speed up their processes.

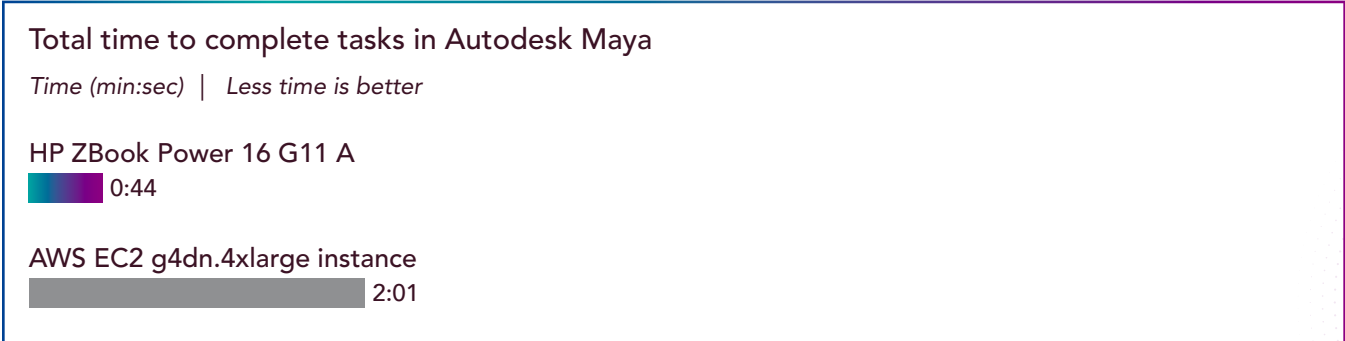


Figure 5: Total time, in minutes:seconds, for the HP ZBook Power 16 G11 A and AWS EC2 G4dn instance to complete a series of tasks in Autodesk Maya. Less time is better. Source: Principled Technologies.



## Conclusion

### For M&E apps, the HP ZBook Power 16 G11 A can offer better AI performance and value vs. the cloud

No matter where you are in your M&E journey, students and professionals alike can enjoy improved performance and value by investing in a powerful workstation to run demanding video and graphics AI-driven tasks locally instead of running those workloads in the cloud. Based on our testing, we estimate that the faster performance of the ZBook Power makes it a financially sound investment for creators, paying back the purchase price in as little as 5.3 months (based on time savings in Autodesk Maya) compared to continuing to incur endless monthly cloud costs. For creators working in M&E applications that utilize AI, investing in the HP ZBook Power 16 G11 A can help move projects to completion faster, helping you get more from your investment.

1. HP, "HP ZBook Power 16 G11 A Mobile Workstation PC - Customizable," accessed December 17, 2024, <https://www.hp.com/us-en/shop/pdp/hp-zbook-power-16-g11-a-mobile-workstation-pc-customizable-9a820av-mb>.
2. HP, "HP ZBook Power 16 G11 A Mobile Workstation PC - Customizable."
3. The purchase price of the HP ZBook Power 16 G11 A Mobile Workstation PC came from the HP website on July 15, 2024 and does not include discounts, taxes, shipping, or other costs. The cloud costs we use in our calculations came from <https://calculator.aws/> on July 15, 2024. Prices of both the workstation and cloud services will vary.

Read the science behind this report at <https://facts.pt/cnBtJ4N> ►



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