



GONE ROGUE:

Colby Brown Pursues Higher Value Via DIY and G-Technology®

The creative professional world no longer belongs only to the Mac® platform. Ask travel photographer Colby Brown, who built his own PC. His workstation is just as fast, functional, and dependable as the systems of his Mac-based peers, thanks in part to using the same best-of-breed storage tools. Plus he saved a wad of money along the way that he could pour back into his business.

Imagine that.

Over the past decade or two, common industry wisdom has maintained that if you're a creative professional, you work on a Mac. Period. The Mac platform is reputedly more stable, free-flowing, and robust. The Windows®-based PC is supposedly made for squares — accountants, data entry people and IT work environments.

Regardless of how much or little truth lies in these preconceptions, the truth is that, today, they are not true. With every passing year, the importance of platform recedes. Stability? Whatever issues might have existed in the days of

Windows® ME and Windows Vista™ largely evaporated in the moves from Windows® XP through Windows® 8. Fluidity of interface? Mac OS® and Windows are now remarkably close on this score, plus, for those who want it, Windows continues to excel in desktop touchscreen functionality.

No wonder survey data from the In-House Creative Industry Report shows a steady decline in Mac-only creative staff: 60% in 2012, 56% in 2013, and 52% in 2014. PC-only numbers are also trending



G-SPEED® Studio with Thunderbolt™



ULTRA EXPANDABLE

down. The point is clear: Platform doesn't matter nearly as much as getting the job done on time and within budget.

When doing home improvement, do you use flathead or Philips screwdrivers? Both, of course. You use whichever tool best fits the job at hand.

World-traveling nature and humanitarian photographer Colby Brown came to this realization after years of following his colleagues down the Apple® path. When it was time for him to upgrade into a more capable workstation, he realized that he could get more bang for his business's dollar by building his own PC. Upon close examination, he found that whatever drawbacks there were to the PC platform for creative work were based more on stigma and bias than reality. In the end, he needed the right system for his needs, not a brand for his image. Up to half of Brown's year can be spent on the road, running workshops, participating in charity events, and covering assignments for clients and publications. Meanwhile, he has a young family back home eagerly awaiting his return and needing resources for its future.

"At the end of the day," says Brown, "I have to fight for those minutes and hours spent with my wife and children. The sooner I can finish my work, the sooner I can be with them. And like everybody else, I have schooling, healthcare, and everything else to save for. I had to decide between following the perceived norm or following my own priorities first. I had to get more efficient."

Building a Better Box

Anyone can walk into a retail shop and emerge minutes later with a Mac or PC ready to run right out of the box. For time savings, some people prefer this approach. Like many others, though, Colby Brown believes he can do better by ordering individual components and assembling the system himself. (For those less inclined to enjoy the DIY learning curve, \$100 should be more than enough to hire a nearby friend, neighbor, or PC shop technician for the task.)



G-SPEED® Studio with Thunderbolt™



COLBY BROWN'S DIY DECISIONS

Perhaps the only downside to building one's own system is the extra homework involved. You do need an understanding of what each component does and the ramifications of various specifications on your applications' performance. Brown's configuration includes some of the following considerations:

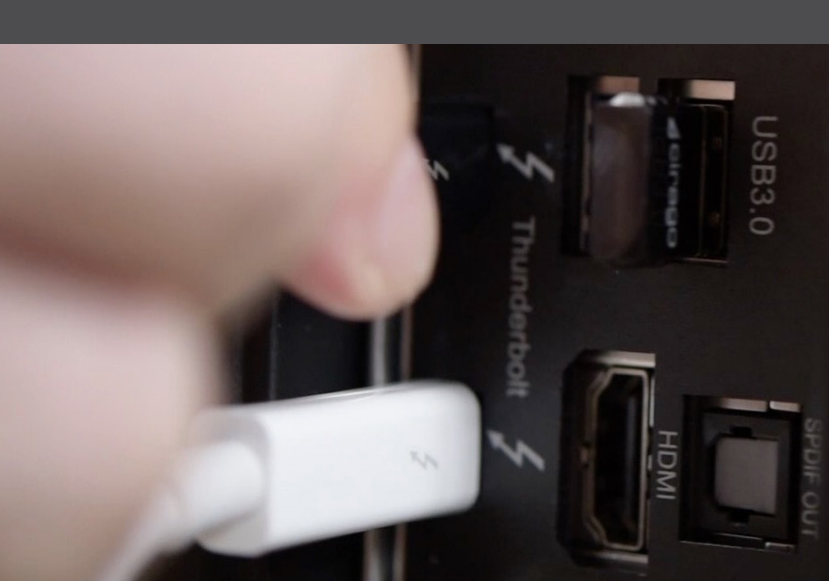
- **Tower case.** Easily removable side panels provide quick internal access for upgrading, and ample interior space ensures room for adding drives and other components for years to come.
- **Dual graphics cards.** While the Mac Pro® comes with a pair of AMD FirePro™ graphics processors, Brown knew from his research that top-end NVIDIA® GPUs would be a better fit for his graphics and video rendering needs.
- **Memory.** Again, the 16GB of 1866 MHz ECC DDR3 memory was close but not exactly what Brown wanted. Paying for ECC modules, typically found on server systems, was an unnecessary expense for his needs, and he wanted modules better suited to overclocking (temporarily pushing the system beyond ordinary speed levels for times when minutes mattered).
- **Liquid cooling.** The main system processor can run faster for longer if it stays cooler, and liquid cooling is simply better for this job than standard air cooling. Better still, liquid cooling is all but silent, which helps keep the ambient noise in Brown's office to a minimum.
- **Storage.** An average system will integrate a single storage drive. Brown wanted a much more tactical approach. He started with a 500GB SSD as his primary system drive, then added a 256GB SSD strictly to serve as accelerating cache for Photoshop® and Lightroom®. Then he added a pair of additional 256GB SSDs teamed into a RAID 0 configuration for ultra-fast application write performance. This exemplifies the idea of customizing components exactly for specific software tasks.
- **Motherboard.** There are many criteria in selecting a motherboard, but one stood out most of all: Thunderbolt™ 2 support. This is one spot in which Apple stands ahead of the PC platform. Only a few PC motherboards so far support the feature, which is essential for running the highest performance, most advanced storage peripherals. Still, Brown found one he liked that suited both his performance and storage needs.

Part of becoming more efficient with his computer platform meant not going unnecessarily overboard on components. For example, many buyers assume that the fastest CPU is always the best. And certainly, in terms of raw benchmarking results, this is generally true. Intel®'s flagship processor generally costs around \$1,100, give or take, and has for many years regardless of the given model du jour or its specifications. When Brown built his system, Intel's flagship contained eight physical cores with a maximum frequency of 3.5 GHz. However, he bought a quad-core chip with a 4.4 GHz turbo rating. Why? Because the second chip would run his particular applications nearly as quickly (especially when he gave the processor a slight overclock to 4.5 GHz) while leaving nearly \$800 in his pocket.

With the hardware assembled — a process that should take 20 to 60 minutes, depending on your knowledge level — all that's left is to install the operating system and applications. Naturally, this is the most time-intensive part, but app installation and configuration is a required inconvenience no matter how you purchase your computer.

"Don't get me wrong," says Brown. "Macs are great. But I spent half of what I would have spent on a Mac, and my system is built for exactly my needs. Sure, I could have spent a lot more, but, for me, the top-end benefits weren't worth all of the extra cost."





COLBY'S DRIVES

Moving to Exceptional Storage

Just as Brown worked to configure internal storage to fit his precise needs, he then did the same with external storage. While out on shoots, he typically relies on lightweight, reliable drives from G-Technology, particularly the G-DRIVE® mobile with Thunderbolt™ and dockable G-DRIVE® ev series, for his on-site backup needs and light editing. Back in the office, Brown wants the higher capacity and speed of his desktop workstation. His first task is to copy all of the new work files on his mobile drives out to a G-DRIVE® with Thunderbolt for backup and a G-SPEED® Studio with Thunderbolt™. This latter solution serves for both archiving and, thanks to the lightning fast Thunderbolt 2 interfaces of the G-SPEED Studio with Thunderbolt and his motherboard, live work editing. If needed, the G-SPEED Studio with Thunderbolt can supply up to 700 MB/s of sustained file throughput.

Brown also embraced the G-SPEED Studio with Thunderbolt for its reliability. The G-SPEED Studio with Thunderbolt defaults to a RAID 5 configuration, which arranges data across multiple drives for a balance of speed and redundant protection. If one of the enclosure's four drives should go offline, the remaining three drives still contain the missing drive's data and will continue working with no downtime. However, drive problems with the G-Technology Studio line are particularly rare thanks to reliance on HSGT Enterprise-class hard drives. While competing storage products usually employ consumer-grade drives built for occasional use during an eight-hour workday, HGST Enterprise-class hard drives are designed for heavy use around the clock, 365 days per year. Whereas consumer drives tend to buckle and crash under prolonged heavy use, an enterprise drive will keep on performing without even breaking a sweat — precisely why G-Technology will settle for nothing less in its flagship storage line.

As a fan of flexibility, Brown also selected the G-SPEED Studio with Thunderbolt for how he can adapt it over time if needed. The device features four 3.5-inch drive bays. If needed, budget-minded owners can fill all four bays at the outset with moderate capacity drives and increase that capacity in the future as the need inevitably arises. Additionally, Brown plans to later adopt a second G-SPEED Studio with Thunderbolt and reformat it as RAID 0 for even faster performance.

G|DRIVE™ mobile with Thunderbolt™ **MOBILE CAPTURE**



G|DOCK™ ev with Thunderbolt™ **STUDIO TRANSFER**



G|DRIVE™ with Thunderbolt™ **BACK UP**



G|SPEED™ STUDIO with Thunderbolt™ **WORK ARCHIVE**





G-Technology®

COLBY BROWN PHOTOGRAPHER

His current G-SPEED Studio with Thunderbolt will become his primary archival solution.

Not least of all, Brown can leverage the immense bandwidth capacity of the Thunderbolt 2 interface and daisy chain multiple G-SPEED Studio with Thunderbolt units or other Thunderbolt 2 enabled drives together in tandem for still higher capacity and performance. This level of performance, capacity, and versatility cost tens of thousands of dollars until only a few years ago. Today, the G-SPEED Studio with Thunderbolt can provide tens of terabytes of instantly available capacity in a form factor convenient enough to tuck under an arm and run between job sites.

Since G-Technology gained its current market position largely in the Apple market, its drives come pre-formatted for Mac OS. However, G-Technology's new driver and formatting wizard make NTFS conversion for Windows point-and-click simple. Drive setup takes less than one minute.

The Studio & the Star

"I've made a name and a career for myself from the quality of content I generate and my ability to get the job done no matter what," says Colby Brown. "I expect nothing less from my equipment. You wouldn't dream of trusting anything but the best camera possible to take your images in the field. Why would you accept anything less for storing those images throughout your workflow?"

Brown has photographed some of the most incredible vistas imaginable across six of the world's seven continents. Many times he would return home from weeks abroad and have to spend endless additional days locked away in his office, waiting on the limitations of his system, storage, and workflow in an effort to make his submission deadlines. However, by fine-tuning his PC workstation to his actual work and selecting the fastest, most optimal storage products for his needs, what used to take days now takes hours. He can deliver the same caliber of mind-blowing art to the clients and return to his waiting family faster than ever before, thanks to having the right tools from his preferred component manufacturers and G-Technology.

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