

# Thomas Explains the SCREAMER!

## The Design Goal

I remember from my youthful days as a technical consultant an old adage about how great technical accomplishments tend to get started. It more-or-less stated that great projects and software get their start only when somebody has "an itch to scratch". Of course, this does not refer to a literal itch, but to another insatiable need. It alluded to somebody desperately needing something, such as a piece of software (or hardware), when nobody was producing anything that filled that need. This left only one way to eliminate the "itch": build it yourself.

For over a decade, we have been producing various media with a historical tendency toward the publishing of health-related research. Our needs grew over time until the computers that we needed for high-definition video editing were simply unaffordable. Had we gone the Apple route, as so many video editors do, then we would have paid roughly \$10,000 per machine for the degree of power that we need. Getting standard personal computers of the same caliber would have cost about half of that, but it still would have been too much. They were still too costly, and at a certain point we began boycotting as a matter of principle against shady price gouging. This market-destroying greed is exactly what one finds when seeking high-end computers that are meant for video editing.

There remains a truly a vibrant market for gaming computers, and most people expect for these to be entirely adequate for video editing, due to their overall reputation for being unusually powerful. It is simply not true that most gaming computers can handle video editing well, and we learnt this lesson the hard way. Nothing strains a computer like video editing: absolutely nothing. Throw some green-screened (chroma key) footage, special effects, multiple video tracks, and all but the very best of computers will grind to nearly a halt: practically begging for mercy. Really, it's not pretty. We've been there lots of times. If you have ever stayed awake for 10 or more hours to wait for the render of a 5-minute video, then you know exactly what I'm talking about. Then there's having a power flicker in the ninth hour that requires starting over for another 10 hours. It is after one of these incidents when so many people actually begin pondering if paying Apple \$10,000 is not entirely unreasonable.

Eventually we designed our own system because we had to. That itch finally got scratched. We had needed computers with the sort of power that could tear through video renders and video editing, but which was also affordable. Our system proves that it is actually possible. It has "wow" value for about 1/5th the price. The final product of our research is truly a screamer of a computer.

## **Why We Solely Went With AMD When "Intel is Faster"?**

Is Intel really faster? Most people believe that Intel produces faster and better processors because of the higher clock speed ratings of their chips. This deduction is entirely rational and easily understandable, but it does not necessarily reflect reality. In normal use and in benchmarks that accurately approximated real world usage, AMD processors performed roughly as well as the same generation of Intel processors, even when the Intel processors were clocked higher. We understand that this might seem like an impossibility for any casual observer, but there are reasonable explanations for how AMD chips are seemingly able to bend the basic laws of computing. The simplest explanation is that while the clock speed of a processor is significant, it is nevertheless not the be-all-everything that people believe it to be. The timer clock may be the heartbeat of a chip, but chips also have the electronic equivalent of other organs that likewise perform important duties. Therefore, a more finely-tuned (better engineered) chip could theoretically outperform a lesser quality chip which is overclocked more. This is not merely a theory, for AMD proves it with every Ryzen chip that it builds. This is why we went exclusively with AMD technology. The company simply offers better engineering at a much lower cost. An AMD chip isn't as likely to start misbehaving or die within a few years, and you can expect real stability into the long term. Quality has always been a top priority for AMD, for it has never skirted quality for marketing or to increase its sales, as certain other companies have done whilst bilking customers for decades. The decision to exclusively utilize AMD technology was a matter of choosing better people, better products, and a better price.

## **Why Is the SCREAMER! So Costly?**

To be honest, we ask the same question ourselves, and we have worked to minimize the cost. The SCREAMER! is expensive when it is compared to most retail computers because we did not take any shortcuts, and thus the prices that we must pay for parts is high. For video editing, a person must use this level of power or he will most likely find himself wasting countless hours in frustration for years on end. It comes back to the question: How much is your time worth? There is no third alternative, unfortunately. However, it is important to state that the SCREAMER! is actually fairly inexpensive when it is compared to other remarkably high-end computers, which were likewise designed to have the raw power needed for real-time video editing and rendering. In fact, the SCREAMER! costs roughly half of what our competition charges for similar machines, and that's not even counting the five times markup prices of Apple. Most people would be quite surprised at how small our markup charges are. The harsh reality is that while most people can make do with lesser machines, in order to save money, a video editor cannot afford the colossal waste of time that comes from buying too cheaply. For video editors, wait times can turn into days, not minutes.