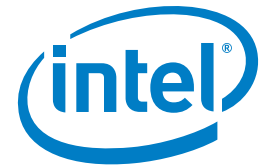


SOLUTION BRIEF

Intel® Core™ i7 Mobile Processor
and Adobe® Creative Suite® 4
Mobile Moviemaking



Mobile Moviemaking: Intel® Core™ i7 Mobile Processor and Adobe® Creative Suite® 4 Take to the Field



“What we are hearing from our customers is that they need to have the power to edit wherever they are. And they don’t want something that is less than a desktop. They want desktop power and performance wherever they go. With the [Intel®] Core™ i7 mobile processor that is what they get.”

*Colin Smith,
Senior Solutions Architect, Adobe*

The comfort and convenience of the studio environment makes it an attractive workspace for moviemakers and photographers, but there will always be those intrepid souls who—by choice or necessity—take their work into the field. Whether operating from a base camp at the lower reaches of Denali, the deck of a sailboat in choppy waters, or the fringes of a movie set in the streets of Los Angeles, Intel® Core™ i7 mobile processors and Adobe® Creative Suite® 4 applications give creative professionals the right tools to get top-notch work done in the field.

The Well-Equipped Mobile Professional

The inherent technology limitations of past-generation notebooks coupled with the rigorous requirements of professional moviemakers discouraged the use of notebook computers for many kinds of field applications. Although leading documentary and feature film producers have successfully used notebooks for

on-site video capture and editing, many producers have encountered obstacles that forced them to return to the studio for the additional processing power and capabilities of high-end workstations or servers. Until recently, the level of processing power and system capabilities needed to support data-intensive video formats—such as 2K and 4K—simply weren’t available in a mobile package. As more professionals migrate to tapeless workflows, the importance of being able to actively monitor and interact with video content in mobile environments has increased. Rather than just being a convenient alternative to studio digital media operations, mobility is rapidly becoming a core necessity for competitive media production.

The release of Intel Core i7 mobile processors and the Adobe Creative Suite 4 software, including Adobe Premiere® Pro CS4, offers a genuinely practical means for handling the requirements of digital video production in the field.

Untethered from the Desktop— Without Compromise

Colin Smith, senior solutions architect at Adobe, is bullish on the benefits of freeing creative teams from the constraints of desktop computing. “Intel Core i7 [processor] for laptops is a mobile studio. It is a complete solution from start to finish. Our customers will be able to do whatever they want in the field—from the acquisition of video to editing and compositing. With the Intel Core i7 [processor] for laptops platform, they gain all the capabilities of a full system running on a mobile machine.”

The need to shoot and edit in the field is rising in popularity, confirmed Smith. “What we are hearing from our customers is that they need to have the power to edit wherever they are. And they don’t want something that is less than a desktop. They want desktop power and performance wherever they go. With the [Intel] Core i7 mobile processor that is what they get.”

As notebook systems have steadily gained in power and capabilities, the prevailing digital video formats that dominate professional production have risen in complexity as well, leaving all but the most capable notebooks behind. Uncompressed high-definition (HD) images are demanding enough, requiring a throughput of approximately 125 MB per

second at 24 frames per second. Emerging formats, such as 2K, require nearly 300 MB per second of data throughput. Clearly, the bar has been raised substantially for notebook computers that are designed for the production professional. “It’s all about HD right now,” Smith said. “The days of standard definition are long gone and people are feeling the pain of handling really big HD files and not just one stream of video, but two, three, and four streams with high-end effects. Those types of projects usually bring any machine to its knees. However, our customers still need that sort of power, and the Intel Core i7 mobile processor delivers. This is a true mobile system.”

Creative Suite Features Support Next-Generation Production

Engineering collaboration between Adobe and Intel spans decades. The engineering teams of both companies have worked side by side to enhance application threading and optimize the software to take advantage of parallelism and advanced processor features, such as Intel® Streaming SIMD Extensions 4.2 functions. A fair measure of the responsiveness of applications such as Adobe Premiere Pro CS4, Adobe After Effects® CS4, Adobe OnLocation™ CS4, and Adobe Photoshop® CS4 can be traced

“A great benefit when Adobe software is running on the [Intel®] Core™ i7 mobile processor platform is the fact that we have the power to run not one application, not two, not three, but four or five. Our customers aren’t simply just editing video, but they are compositing in the background, and they are rendering in the foreground. They are doing image editing. They are doing titles. All of these applications require enormous power. With the Intel Core i7 mobile processor, power is what they are getting.”

Colin Smith, Senior Solutions Architect, Adobe

to tuning and development work using a slate of products from the Intel® Software Development Products collection. Contributing to the effectiveness of the development work are Intel VTune™ Performance Analyzer, Intel® Performance Primitives, and Intel® Compiler.

Field work often requires tools that support digital media creation in extreme or difficult situations. Developed to support direct-to-disk video monitoring and production, Adobe OnLocation CS4, included with Adobe Premiere Pro CS4, provides features for monitoring and capturing footage on a laptop while in the field. This footage can then be quickly dropped into Adobe Premiere Pro for further editing. As an added benefit, when capturing from tapeless cameras, Adobe Premiere Pro offers the convenient Media Browser to give you quick access to your hard drives, cards, camera, and other storage media from within Adobe Premiere Pro. While in the field, moviemakers can begin editing directly from a camera’s removable storage media. Continuity



The Adobe Speech Search feature in Premiere Pro CS4 provides a quick means to transcribe voice tracks and locate specific words and passages.



of edits, green-screen compositing, and adequate coverage can all be checked and verified before striking a set or location.

Adobe OnLocation and Adobe Premiere Pro are components of Adobe Creative Suite 4 Production Premium, a set of creative software, including industry-standard After Effects and Photoshop. Among the capabilities that Creative Suite 4 Production Premium delivers are:

- **Powerful integration among its components.** For example, Adobe Dynamic Link provides tighter-than-ever integration when moving assets between After Effects, Adobe Premiere Pro, Adobe Soundbooth® CS4, and Adobe Encore® CS4.
- **Native editing of a wide variety of tapeless formats,** including RED, P2, XDCAM* EX and HD, and AVCHD*, without transcoding or rewrapping in Adobe Premiere Pro CS4.
- **Innovative new speech recognition technology.** While in Adobe Premiere Pro and Soundbooth, turn spoken dialogue into text-based metadata that makes video content searchable by other tools.
- **Faster performance on 64-bit systems.** Gain up to a 227 percent performance improvement when using Adobe Premiere Pro CS4 and After Effects CS4 on 64-bit systems.

For more information about the capabilities of Adobe Creative Suite 4 Production Premium software, visit www.adobe.com/products/creativesuite/production.

The Best Processor on the Planet Goes Mobile

Having earned kudos throughout the industry for benchmark-shattering performance, Intel Core i7 processor technology has been re-engineered into a compact, power-efficient package to meet the requirements of the mobile workforce. Code-named Clarksfield, the Intel Core i7 mobile processor packs a prodigious amount of quad-core processing power into a compact form factor, meeting expectations of professionals whose work in the field requires the highest levels of performance. Projects in the field benefit from the low-power usage design, extending battery life and enabling the mobile lifestyle.

Based on the revolutionary Nehalem architecture and manufactured with 45nm technology, Intel Core i7 for laptops does not scrimp on features. It includes the full slate of capabilities that earned a name for its predecessor, including:

- **Intel® Turbo Boost Technology,** which varies the processor clock speed to accommodate demanding tasks
- **Intel® Hyper-Threading Technology,** for handling up to eight individual instruction threads across the four available cores
- **Intel® QuickPath Interconnect,** for maximizing data transfer speeds (up to 25.6 GB per second) across memory, chipsets, and processors
- **Integrated Memory Controller,** for improving memory bandwidth and reducing latency

Digital media professionals working with audio, video, or 3D applications will experience unprecedented performance when using their favorite tools and programs on a notebook powered by the Intel Core i7 mobile processor. Highly threaded applications, such as Adobe

Premiere Pro CS4, achieve substantial performance gains from the benefits of optimization and the inherent capability of the Intel Core i7 processor architecture to direct available processing power to where it is most needed and to take maximum advantage of all available cores and threads.

For more information about the intelligent performance of Intel Core i7 processor for laptops and the architecture that lets it shape itself to everything you do, visit www.intel.com/technology/architecture-silicon/next-gen/.

The Affordable Processing Powerhouse

Built using the proven architecture and speed-demon performance that have made the Intel Core i7 processor a present-day legend, the Intel® Core i5 processor brings impressive performance to the desktop in a surprisingly cost-effective package.

The Intel Core i5 processor incorporates many of the key features of the Intel Core i7 processor technology, including Intel Turbo Boost Technology, Intel Hyper-Threading Technology 2, and Intel® Smart Cache. The net result is intelligent performance on demand, well suited to applications in the digital media realm. With this level of processing power on tap, desktop users experience the benefits of Intel's next-generation dynamically scalable microarchitecture at a very reasonable price point.

"The typical Adobe pro customer is someone who makes no compromises. They have to have the power that they need right there. Time is money. So, if I have a machine that isn't performing, I'm losing money. Our customers demand absolute power. These people are genuine power users. When they're using our applications, they are pushing them to the absolute edge. They are performing at their absolute best. To do this, the processing power of the Intel® Core™ i7 mobile processor is essential."

Colin Smith, Senior Solutions Architect, Adobe



Hyper-threading makes a return appearance, accelerating applications by handling up to eight threads on four cores.

Collaborative engineering work between Adobe and Intel ensures that Adobe Creative Suite components can take maximum advantage of the available four cores and eight threads, significantly reducing the time required for compute-intensive operations, such as video processing, 3D rendering, image editing, effects handling, and similar operations.

Coupled with the Intel® 5 Series Chipset based on advanced Intel® graphics technology, the Intel Core i5 processor offers a value proposition to mainstream computer users, gamers, and digital media artists that is hard to resist.

Powering the Creative Aspirations of Pros and Enthusiasts

While the capabilities of Intel Core i7 mobile processors are extending tremendous capabilities to professionals in the field, the affordable and performance powerhouse Intel Core i5 processors are bringing near-professional abilities to users of Adobe Premiere Elements 7 and Adobe Photoshop Elements 7. In both cases, the meld of Intel® hardware and Adobe software creates a tuned, optimized workflow, bringing the benefits of multi-core processor performance and exceptional digital media applications to pros and enthusiasts alike.

LEARN MORE

For more information about the Adobe Creative Suite® 4 product family, visit: www.adobe.com/products/creativesuite

For details on the performance capabilities of the next-generation Intel® Core™ i7 processors, visit: www.intel.com/performance

To explore the options available with Adobe Creative Suite 4 Production Premium, visit: www.adobe.com/products/creativesuite/production

To survey and access performance enhancements available to Adobe users, visit: <http://labs.adobe.com>

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