



Advantages of Digital Rapids Transcode Manager®

Digital Rapids Transcode Manager® distributed transcoding systems offer a number of advantages over competing systems. While specific advantages vary, there are a number of general differentiators that summarize some of compelling ways in which Transcode Manager excels against alternatives:

Performance per node —Digital Rapids Transcode Manager uses the latest generation of our proven, multi-processor and multi-core optimized encoding engine that has delivered performance advantages to our customers for years. Our highly efficient, scalable thread and stream management architecture takes full advantage of the latest high-performance CPUs and provides significant throughput benefits compared to implementations of the same codecs on competing platforms, without sacrificing quality or strict conformance requirements.

***Benefit:** Transcode Engines deliver consistently high performance on system configuration from one CPU core to many.*

Superior quality — differences in visual output quality between various transcoding solutions can be significant, even for the same compression format and output parameters. The codec implementations (the algorithms and components used to perform the compression) for standards-based formats such as H.264 vary between transcoding solutions, and each has its own unique characteristics. Meanwhile, some solutions may limit the configurability of transcoding parameters in order to achieve acceptable performance. Digital Rapids Transcode Manager incorporates deeply configurable codecs optimized and finely tuned for superior quality while still maintaining exceptional performance.

***Benefit:** Higher-quality transcoded outputs maximize visual fidelity throughout production workflows and increase output bit rate efficiency*

Scalability —Transcode Manager is scalable from small transcoding “farms” to enterprise level operations with hundreds of Transcode Engines. New systems running Transcode Engine software-based transcoding instances are automatically discovered on the network and can be added to a Transcode Manager installation without interruption to existing transcoding nodes and jobs.

***Benefit:** Lower deployment costs, faster ramp up time for high volume jobs, and greater end to end throughput add up to higher-volume media encoding and faster turnaround.*

Output compliance — Transcode Engines are based on the industry-proven Digital Rapids Stream encoding technology used by major studios and facilities every day to create precise outputs for demanding applications. In addition to being able to create files that conform to industry specifications (such as compatibility with the CableLabs® content encoding specification), Transcode Manager output files adhere to the exacting specifications, stream and bit rate conformance required by professional applications and devices such as set-top boxes.

***Benefit:** Transcode Engines are built on the proven Stream encoding technology that delivers outputs with precise conformance for demanding applications and devices.*

Easy custom integration — Transcode Manager features powerful capabilities for integration into custom applications and existing enterprise management systems. Transcode Manager FE directly supports a variety of third-party databases (such as Oracle 10g® and Microsoft® SQL Server), while a comprehensive Web Services (SOAP) API lets developers take advantage of the Transcode Manager’s enterprise-level performance, load-balancing intelligence and failover capabilities of Transcode Manager through an easy XML-based programming interface. Rich scripting capabilities also enable programmatic, scheduled automation of custom tasks with support for a variety of popular scripting languages, letting users perform custom automation without delving fully into the API.

***Benefit:** Powerful and easy integration tools allow Transcode Manager to be integrated seamlessly into custom applications with minimal development time and effort*

Load-balancing intelligence — Digital Rapids Transcode Manager is far more sophisticated in allocating jobs than standard load-balancing mechanisms that simply distribute a new job to the next free transcoding resource or node. Transcode Manager tracks the performance of all networked Transcode Engines for each type of encode, “learning” which nodes are best for each (for example, newer host systems will often feature improved processor capabilities – faster speeds, more cores, tailored instruction sets, etc. – and the degree to which these new capabilities deliver performance benefits will vary between codecs and formats) and allocating jobs accordingly to optimize utilization and throughput. Transcode Manager also intelligently allocates the creation of multiple outputs from the same source to minimize decoding and network transfer.

***Benefit:** Digital Rapids Transcode Manager’s intelligent load balancing constantly monitors networked nodes’ performance and ensures greater throughput.*

Advanced processing — many alternative solutions rely on the built-in functionality of their target codecs for video processing. While our capture/encoding and transcoding solutions can also use codec-inherent features, we provide – and customers prefer – our advanced software plug-ins that deliver superior quality, performance and/or functionality. The Digital Rapids Scaler, for example, provides better scaling quality *and* reduced CPU overhead compared to the built-in scaling in popular codecs. Standard and optional plug-ins including video and graphic overlay, adaptive Inverse Telecine, color space conversion, forensic watermarking and more complement features such as automated clip trimming and adding head/tail clips.

***Benefit:** Advanced processing plug-ins deliver superior output quality, increased throughput and powerful functions for modifying the video automatically.*

Cost-effectiveness — Digital Rapids Transcode Manager’s automated capabilities significantly reduce the operational overhead and costs associated with manual management and monitoring of high-volume media transcoding, while Transcode Manager’s cost of ownership (both initial software investment and recurring maintenance fees) is more affordable than most other enterprise-level transcoding solutions.

***Benefit:** Lower cost of ownership and reduced operator overhead lead to more profitable media publishing.*