



isovideo Launches Breakthrough Quality Digital Content Conversion Services with Unprecedented Savings in Cost & Time

(Beaverton, Oregon - February 10, 2015) isovideo announces the launch of their [Viarte](#) cluster-based break-through quality digital content conversion services for the film/TV/OTT industry. This service not only adds i) cinema quality low frame rate conversion and ii) temporal retiming services, to their previously announced digital remastering services (a superset of typical standards conversion services), but also provides an unmatched combination of savings in conversion costs and service time. Viarte was one of five winners of the prestigious **Game-Changer** Awards by the IABM/NAB 2013.

Viarte deinterlacing & frame-rate conversion technology has been applied to Academy Award Winning director Ron Howard's documentary "[Made in America](#)". Viarte low frame-rate conversion technology has been used in multiple-award winning independent director/producer Karina Epperlein's 10th film "[Finding the Gold Within](#)". More recently, Viarte remastering technology was used in the hugely successful rock band [Metallica](#)'s 10th Anniversary Blu-ray release of their Documentary "Some Kind of Monster".

Digital media trends are moving rapidly towards online distribution, bringing opportunities and challenges. There are now several ways to bring your content (both new and archived) to viewers via i) online, ii) Blu-ray, iii) broadcasting and iv) Theater. The faster you can bring best quality content with lower costs to all of your distribution platforms, the more value you can realize.

However several challenges face the media industry:

i) Interlaced video comprises about 70% of all video assets. The master file is usually in a single format (frame rates, scan type, resolution, encoding, etc) suitable for only one distribution platform. Highest quality re-purposing (i.e. for Blu-ray/Theatrical) can move these vast assets beyond broadcasting, and at a price not available until now.

ii) High quality low frame rate-conversion and content retiming have always been amongst the most difficult tasks to do well, fast, and at a reasonable cost. Until recently, 24p to 25p frame rate-conversion has been achieved by changing playback speed, and adjusting audio accordingly. Content retiming has been commonly achieved with expensive hardware or software. Films are usually shot and edited at one frame rate, such as 24p or 30p in North America. They may need to be converted to other low frame-rates such as 24p, 25p or 30p. Such conversion is often done poorly, introducing noticeable motion artifacts, such as ghosting and motion judder on camera pans, "edge-boiling" effects, breakup, etc.

iii) Internet video traffic is exploding, but available bandwidth lags in comparison. Noise/film grain are inherent properties of video/film, but noise spoils viewing immersiveness, and prevents H.264/HEVC compression from achieving low bit-rates. Intra-frame noise reduction and lowpass filtering is commonly used before encoding, and with heavy HEVC/AVC compression. These practices significantly degrade picture quality.

Award-winning Viarte technology and conversion services help address all of the above issues:

- Viarte achieves the best quality deinterlacing results available today. It is the only technology offering **100%** vertical resolution with little or no visible flicker. Furthermore, at that resolution, it achieves a substantial **21%** average bit-rate reduction in HEVC/H.264 versus compressed interlaced - a truly objective measure of deinterlacer quality. Interlaced assets can now be readily monetized using Blu-ray, theatrical, and on-line distribution.

- Viarte's cinema quality frame-rates conversion, including low frame rates (24p/25p), offers any rate to any other rate up/down conversion (up to 120p).
- Sophisticated, accurate, simulated motion-blur capability effectively reduces judder on playback, when down-converting from 48, 50, 60, 120 frames/sec to lower rates such as 24, 25, 30, 48; or from 30p to 24p/25p, especially for panning shoots.
- Precise temporal conversion by up to +/-10% allows material to fit a time slot, and without introducing visible artifacts or judder due to frame dropping/duplication. Input sources can be any of progressive, interlaced, 3:2-pulldown, or mixed.
- Breakthrough GPU noise-reduction technology achieves up to 12 db noise reduction, while reducing flicker and preserving details and edges.
- Proprietary GPU-accelerated, SD to UHD/4K, highest quality, edge sharpening up/down-scaling /aspect ratio conversion with natural-looking edge enhancement.

Ideally, frame-rate conversion should interpolate perfect frames, or at least appear sharp and smooth, and with no visible artifacts or judder at normal playback speeds. In practise, no frame-rate conversion system is 100% frame-by-frame perfect, but for film in particular, fewer imperfect frames saves money and time by reducing manual rework. Typical lower-cost conversion systems achieve only 70-80% frame-by frame accuracy, with obvious objectionable ghosting on motion, particularly in camera pans, and making frame-by-frame rework prohibitively expensive.

- Viarte typically achieves about 99.7% frame perfection. Time and costs are reduced dramatically, and no rework is needed at normal playback speeds.

isovideo services are offered at significantly reduced pricing (up to 60%), and with reduced service times compared with industry norms. For example, pure scaling from SD/HD to HD/UHD is charged at \$7.5-10/minute, and scaling with noise reduction is \$10-15/minute, depending on output frame size. All content less than 4 hours is processed within 24 to 48 hours. All content is encrypted for security.

isovideo's unmatched Viarte conversion service helps the media industry prepare their valuable assets for any and all desired distribution platform quickly, cost effectively and at the highest quality, while also providing significant additional bandwidth savings of up to 60% beyond H.264/HEVC. It is a true win, win, win, win combination. These services allow content owners to maximize revenue without high capital expenditure, said Keith Slavin, CTO, isovideo LLC.

To learn more, please visit <http://isovideo.com> and follow [@isovideo](#) on Twitter.

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About isovideo:

isovideo is an innovative start-up company in the digital media technology and servicing industry. We specialize in file-based, GPU accelerated, video processing (including frame-rate conversion, deinterlacing, inverse-telecine, scaling, noise-reduction, transcoding, etc.) services and server systems for the TV and entertainment industry. isovideo offers the best quality and fastest turn-around multi-format content transformation, including breakthrough quality SD/HD to HD/UHD services for remastering, cinema quality low frame-rate conversion, and retiming.