



isovideo Launches Breakthrough Quality SD/HD to HD/UHD/4K Remastering Services using Award-Winning Viarte Technology

(Beaverton, Oregon - October 11, 2014) isovideo announces the launch of their Viarte cluster-based SD/HD to HD/UHD/4K remastering Service for the media entertainment industries. Viarte was one of five winners of the prestigious [Game-Changer](#) Awards by the IABM/NAB 2013. A Feature length documentary film has already used [Viarte remastering](#) services for SD to Blu-ray reproduction. The Blu-ray is scheduled to be released soon.

As trends move rapidly towards online content distribution and UHD displays, there are vast quantities of valuable SD assets that can be remastered, instead of sitting on the side-lines due to various technical issues. In addition, potentially valuable interlaced HD video assets can be transformed for the best picture quality redistribution, such as Blu-ray and/or cinema presentation, as well as the most efficient H.264/HEVC compression for online re-distribution.

The four most important remastering processing steps prior to re-encoding are: i) deinterlacing and/or inverse-telecine, ii) frame rate conversion, iii) noise reduction iv) scaling. All four steps can effect the final remastering quality and compression efficiency.

Most SD assets have various noise problems, such as a range of film grain sizes, dot-crawl noise, analogue noise, etc. Noise not only degrades the viewing experience, but also significantly increases H.264/HEVC compressed bandwidths and costs for online distribution and storage.

isovideo's remastering service uses their proprietary, state-of-the-art Viarte technology, which addresses a variety of file formats with a range of inherited condition problems. In particular, it provides:

- proprietary GPU-accelerated, highest quality, edge sharpening up/down-scaling/aspect ratio conversion with natural-looking edge enhancement, and absolutely no ringing.
- unique superior GPU motion-compensated deinterlacing, with i) 100% original field pass-through without any output filter, and yet with very little visible flicker, and ii) on average 21% H.264/HEVC bit-rate reduction, (up from their previously published average of 17%) when compared with compressing interlaced directly. Together these two attributes provide an objective measure of deinterlacing quality. isovideo's deinterlacing has enabled filmmakers to shoot in ntsc60i and show their film on the big screen, and also on Blu-ray.
- sophisticated GPU inverse telecine technology hardened and used in over 40 episodes of a TV sitcom. It achieves over 99.9% automation and handles extreme noise variation, random-cadences, mixed and broken-cadences, cross-fades, etc. It does not add unnecessary duplicated frames, and has near 100% perfect scene-change detection.
- breakthrough GPU motion-compensated frame rate conversion technology converts from any frame-rate to any other (including fractional and low frame-rates). There are almost no occlusion effects when given clean sources. *It has already been used in films such as Ron*

Howard's concert documentary "Made in America" (converting from 1980x1080i59.94 to 1080p23.976) and Karina Epperlein's new feature-length documentary "[Finding the Gold Within](#)" (converting from 1980x1080p29.97 to 1080p23.976). The latter film was world premiered at the [Mill Valley Film Festival](#) on October 3, 4, and 12th, 2014.

- breakthrough GPU noise-reduction technology achieves on average over 6db noise reduction, while reducing flicker and preserving details and edges. With both noise reduction and scaling, viewers can enjoy a near immersive viewing experience not normally achieved with SD sources. In addition, there can be significant H.264/HEVC potential bandwidth savings. Preliminary results show about 30-50% file size reduction, depending on content.

"Viarte remastering service could make your valuable SD assets look better than ever before, and save significant H.264/HEVC bandwidth at the same time, a true win-win combination" said Keith Slavin, CTO, isovideo LLC. isovideo can help clients deal with any unforeseen corner cases in-house very effectively and efficiently should such situation arise, so they can rest assured their content will be handled correctly. With isovideo's cost effective remastering services, content owners can seriously plan their SD/HD asset monetization.

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. They specialize in file-based, GPU accelerated, video processing (including frame-rate conversion, deinterlacing, inverse telecine, scaling, de-noise, 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 SD/HD to HD/UHD remastering services, and cinema quality low frame-rate conversion services.