

## **United Digital Production and emotion3D's Stereoscopic Suite X3 deliver a glasses-free 3D experience for Universal's "The Lorax" trailer across German movie theaters**

UNITED DIGITAL PRODUCTION employs some of the most experienced specialists in auto-stereoscopic ("glasses-free") 3D production, re-mastering of stereo footage for auto-stereo usage, and "dimensionalizing" 2D footage to 3D. Recently, they used NVIDIA's CUDA-powered Quadro 4000 graphics cards along with emotion3D's Stereoscopic Suite X3 to convert Universal's "The Lorax" movie trailer to auto-stereo 3D. Movie-goers in over 60 UCI KINOWELT and CineStar theaters across Germany were wowed by the amazing glasses-free 3D experience on United Entertain's network of 550 digital signage displays in theater foyers.

emotion3D's award-winning Stereoscopic Suite X3 for After Effects, or SSX3, is designed for final depth grading of stereoscopic material, and features tools for correcting depth budgets, dimensionalizing 2D content for 3D display, and re-mastering stereoscopic footage for different target platforms such as "glasses-free" 3D displays, phones or tablets. SSX3 is CUDA-accelerated for UI responsiveness and short render times, providing end-users with features in a desktop application comparable to huge online suites costing hundreds of thousands of dollars.

United Digital Production's Hannes Harder led the project, which involved re-mastering the original version to synthesize 8 distinct camera perspectives consistent with the auto-stereo display input format. Maximizing the 3D depth effect while synthesizing these additional perspectives entails extrapolating outside the original camera positions, exposing image regions for which pixel information is not available in the original footage. emotion3D's SSX3 contains advanced features for automatically painting in these missing pixels, which proved to be indispensable on the project. Whereas other software simply repeats pixels horizontally in an attempt to fill in gaps, SSX3 offers intelligent context-aware pixel-mapping, giving the user several options depending on the visual characteristics of the shot. As several passes are often needed to identify and correct visible artifacts, the power of NVIDIA's CUDA-powered Quadro graphics cards was invaluable in reducing computer processing time, enabling United Digital Production to deliver high-quality results well within the project deadline.

*"We were able to complete the 2.5 minute trailer within a week, thanks to the exceptional accuracy of emotion3D's SSX3" explains Hannes. "NVIDIA's Quadro cards gave us the rendering power we needed while working with SSX3's multitude of tools for new view creation. This combination ensured the project looked great on our glasses-free target displays, providing Universal the ability to greatly enhance the venues in which they were able to promote their film" he continued.*

In addition to the creation of new views, adapting content for the target display is an important part of the re-mastering process in 3D projects; for example, most stereoscopic 3D Blu-ray discs recently issued have no compensation of the 3D depth for the different viewing environment of the home compared with the movie theater – a problem that 3D broadcasters have had to correct in order for the material to pass their quality control. And certainly with the goal of promoting the theatrical release of a stereoscopic 3D film, United Digital Production wanted to ensure that viewers would have an optimal glasses-free viewing experience: not only artifact-free, but also within comfortable 3D viewing limits.

Tom Wilson, CEO of emotion3D shares, *“We are committed to supporting affordable content creation for glasses-free technologies. With forward-thinking companies like United Entertain, talented artists such as Hannes and the power of emotion3D’s CUDA-accelerated SSX3, the days of requiring dedicated systems costing in the hundreds of thousands of dollars are thankfully behind us.”*

## **About UNITED ENTERTAIN**

UNITED DIGITAL PRODUCTION is the 3D content production subsidiary of UNITED ENTERTAIN GmbH & Co. KG, founded in 2010 and part of the Buddenhagen Group located in Hamburg, Germany. A full solution provider, UNITED ENTERTAIN is a media & system house for intelligent, glasses-free 3D technology, offering plug & play glasses-free 3D systems, 3D digital out of home (DOOH) advertising networks, 3D content management systems as well as 3D content generation services. Nearly thirty employees based at the head office cover development, implementation, sales, marketing, 3D broadcasting and content creation.

## **About emotion3D**

emotion3D GmbH is a high-tech Austrian company that serves the 3D film industry with powerful solutions for editing shot 3D content. Its award-winning Stereoscopic Suite X is used internationally by 3D post-production teams for depth grading, fixing rogue parallax, re-mastering for different targets and converting stereoscopic 3D content to “glasses-free” 3D display formats. emotion3D is supported by the impulse program, distributed by the Austrian Wirtschaftsservice GmbH, and receiving funding from the Technology Agency of the City of Vienna (ZIT).