



## SCRATCH Works as Backbone for Superman Returns' Post Production, VFX, and Dailies

Post production and visual effects for the predicted blockbuster summer hit, *Superman Returns*, has called upon the super powers of some of Hollywood's most talented post and visual effects artists. The challenge of all the supporting creative teams for the film was to achieve the rich imagery and look and feel determined by director Bryan Singer and Director of Photography (DP) Newton "Tom" Sigel ASC. *Superman Returns* made first use of Panavision's Genesis® Digital Camera System in a major feature film and thus a stable digital film workflow was required. Scott Anderson of Digital Sandbox spearheaded the color management and post production of the film and chose ASSIMILATE's SCRATCH™ as the behind-the-scenes digital workflow solution.

### Color Management

Creative geniuses Bryan Singer, director, and Tom Sigel, DP collaborated on the special look they wanted to achieve in bringing the Superman comic figure to life on the big screen. The original plan was to shoot *Superman Returns* in 35mm, and then they took a look at 65mm for its clarity and strong imagery. With cost and size of equipment creating a roadblock for this format, Sigel suggested they consider how the new Genesis® Digital Camera using 12.4 mega-pixels could achieve a similar look, a richness of imagery and color luminance not experienced with other digital film cameras.

With the film moving into post production, unique and complex color challenges needed to be managed. Singer and Sigel turned to Scott Anderson, a 20-year visual effects veteran and leading proponent of color science. Founder of Digital Sandbox, a "new model" VFX company in LA, Anderson has a long list of impressive credits for blockbuster films, including VFX Supervisor on "King Kong" and the Academy Award winning VFX Supervisor of "Babe."

Anderson took on the challenge of defining the color science to be used and creating the LUTs and color methodology to achieve Sigel's vision of the action imagery and saturation that brings the comic book look-and-feel to the big screen. Anderson and the Digital Sandbox team also took on the managing role for maintaining color



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continuity in all the aspects of the post production for *Superman Returns*, including color grading and correction, as well as overseeing the contributions of multiple facilities for visual effects and reviews of dailies. The LUTs were developed for use with the five SCRATCH systems used by Digital Sandbox, and for color continuity, the LUTs were communicated to the other vendors working on the project, including those who were also using SCRATCH.

Those facilities also using SCRATCH are Rhythm & Hues for special effects and Hollywood-DI for real-time review of VFX dailies at the Fairbanks Theater at The Lot. Both

facilities used SCRATCH in their workflows to ensure they achieved and sustained the clearly defined color criteria, as well as to make use of a streamlined workflow and management tool.

Another step in Anderson's thoroughness of color management was the decision for a mobile approach, embedding the Digital Sandbox team in the same building as the film production for *Superman Returns*.



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### Setting up the Digital Workflow for Post Production

In developing a real-time 2k digital pipeline for *Superman Returns*, Digital Sandbox made a strategic decision that ASSIMILATE's SCRATCH Data-Centric Workflow Solution would be used as the backbone for their digital film-to-film workflow. SCRATCH was selected for its digital workflow management capabilities as well as core functionality and stability. SCRATCH's xml functionality allowed Digital Sandbox to define and control their proprietary processes. All the SCRATCH capability combined to enable a streamlined digital pipeline that was capable of managing the thousands of digital image files. Digital Sandbox now has five SCRATCH systems up, running, and contributing to a streamlined, efficient workflow as well as their bottom line.

*Superman Returns* required intense focus because of its unique look and color aspects. With hundreds of thousands of files, and integrating files from different vendors, data management was an imperative for this project. SCRATCH enabled Digital Sandbox to rapidly set up the project files and to put the color standards and LUTs in place for their use as well as that of the other facilities. Working in real-time for color correction and multi-layer grading, Digital Sandbox provided color analysis and guidance for the other post resources, including visual effects and review of dailies. SCRATCH was then used for the assembly, edit, and output to film.

### VFX with Rhythm & Hues

While Digital Sandbox was responsible for the post production of the film, Rhythm & Hues worked on many of the visual effects. The Rhythm & Hues files were then integrated into the SCRATCH pipeline and run through a quality check to ensure that all the color was meeting the set color palette standards.

Rhythm & Hues has a notable track record in visual effects for such films as "The Chronicles of Namia: The Lion, the Witch and the Wardrobe," "The Longest Yard," "The Interpreter," "Skeleton Key," "Flight of the Phoenix," and they picked up the Academy Award® for Best Visual Effects on the family film "Babe."

Derek Spears at Rhythm & Hues uses SCRATCH as 2k review and playback. Prior to SCRATCH, they would send the files out overnight for film, and with SCRATCH the time is reduced to 30 or 40 minutes. That adds up to a big savings in time and cost. Rhythm & Hues plans to use SCRATCH for all its future projects.

### VFX Dailies at Hollywood-DI, West Hollywood

Hollywood DI's Fairbanks Theater at The Lot is a beautiful merging of the historically glamorous Hollywood era and state-of-the-art Barco 2k DLP projection technology, making it one of the most conducive environments for viewing dailies in LA.

Neil Smith, Managing Director of Hollywood-DI, was the overseer for the VFX screening of dailies for *Superman Returns* at their Fairbanks Theater. Hollywood-DI has set up the historic theater as a state-of-the-art VFX screening suite complete with SCRATCH and a Barco 2k DLP digital projector. The screening theater is capable of switching rapidly between DPX, QuickTime and HDCAM-SR playback - a capability required continually during the screening of the 1400 VFX shots.

Smith is well versed in the pressures of the dailies process, which can include up to 30 or 40 people involved at various stages of the reviews. According to Smith, "A VFX screening studio needs to be firing on all cylinders at all times. Reliability and systems stability is critical because the post-production schedules have zero tolerance for downtime. The projected imagery needs to be of the highest fidelity so that the director, DP, and members of the review team can have total confidence in what they are seeing and approving on that day is what audiences will be enjoying on the big screen. The ability to run multiple versions of the same shot back and forth and build context cuts in real-time was a high priority demand for Bryan Singer and the *Superman Returns* VFX team. SCRATCH gets a two-thumbs up for enabling Hollywood-DI to make this happen."