

Project: "SCRATCH CASE STUDY"
 ▲ GHOST, DENMARK
 Hellboy II
 The Golden Army



Ghost Perfects DI Pipeline for Hollywood and Global Projects with SCRATCH; Adds SCRATCH-RED 4K Workflow

Ghost (Copenhagen, Denmark) is known for high-impact VFX, expertise in digital intermediates (DI) with ASSIMILATE's SCRATCH® Digital Process Solution, and has now added the SCRATCH-RED 4K Digital Workflow to handle footage from the RED ONE™ 4K Digital Camera solution as the backbone of the DI pipeline.

"We want to break further into the US market, and particularly, to encourage more work from Hollywood," says Ghost senior colorist and optical supervisor Sascha Haber about Ghost's game plan. "We're delivering the same quality results that producers get from VFX and DI vendors in LA and London, but we are more competitive on costs. We can do this because we have a modern and flexible business model. We're one of a fresh generation of post houses with new digital pipelines capable of delivering exceptional results by harnessing the power of lower-cost equipment such as SCRATCH."

Plaudits for what this Copenhagen-based company has already achieved don't come much bigger than that from director Guillermo Del Toro, who worked closely with the team at Ghost to produce the opening sequence for "Hellboy II: The Golden Army". The stunning, four-minute CG clip, which reprises the film's plot using animated marionettes, was created, composited, edited and color-graded entirely at Ghost.

"It was a pleasure working with Ghost on the opening sequence for "Hellboy II," said Del Toro. "Their work is exquisitely executed, and they are one of the most detail-oriented, highly artistic VFX houses I've ever worked with. I needed a European VFX house to understand the delicate patina and atmospheric work that was demanded, and went to Ghost after examining their demo reel. They exceeded my expectations and I am forever grateful."

One of the largest digital VFX houses in Scandinavia, Ghost has been operating with two SCRATCH systems since December 2006 on a range of HD and 2K work. One system



SCRATCH Color grading on Short film "Ses"; image courtesy of COLBYCO & Ghost.

works as a dedicated grading, conforming and facility-wide media distribution hub. The second system provides extra capacity when the workload swells, as well as a resource for training and creative-color experimentation. For the SCRATCH systems, Ghost uses control surfaces from Tangent, with 6TB of local Raid storage and access to a wider 30TB network structure. They also have the ability to play 2K footage via a digital projector to a 3m-wide screen.

Ghost has steadily developed a successful track record in commercials and feature films, for local as well as international markets. It has done the post production for numerous spots for brands such as Sony Ericsson, Nokia, LEGO, Bacardi and Coca Cola. Ghost's VFX credentials are such that it has enjoyed a long-term co-operation with London's Double Negative,

providing talent and services on several major features, including the "Tomb Raider", the "Harry Potter" movies, and more recently, on James Bond "Quantum of Solace".

On its own steam, Ghost has been accepted as a direct VFX vendor for Warner Bros. and Universal of which they are very proud. Along with "Hellboy II", Ghost has been awarded numerous shots consisting of high-level CG and compositing tasks on "Ninja Assassin", produced by Andy and Larry Wachowski, and "Drag Me To Hell" directed by horror veteran Sam Raimi. The company's support for local independent filmmakers may also broaden its credentials internationally with the short film "Ses", being lined up for Oscar qualification, and "Layover", due for exposure at the Berlinale Festival. Haber has given both films the full DI treatments in SCRATCH.

SCRATCH at the Heart of Digital Workflow

“Every project coming into or going out of Ghost goes through SCRATCH,” says Haber. “We use it for all sorts of things – DI grading, playback of composites, video I/O, quality control, and converting RED ONE™ 4K Digital

grading. Whether it is a full feature film or a commercial, SCRATCH can handle it in real-time, integrating flawlessly with the rest of our pipeline,” says Haber. “As SCRATCH is currently the only color grading system that can handle the RED codec natively in 4K, it’s the perfect companion when working with footage from the RED camera.”

goes from sadness to acceptance to closure. “The RED-to-SCRATCH 4K workflow meant I could get my hands on the full latitude of the digital images,” says Haber. “Using SCRATCH Scaffolds we could isolate areas of the footage and really focus on enhancing the mood, by adding greens to the dark areas, boosting reds and blues, or changing the skin tones. But the key is how the colors gradually transition from dark and desaturated to more light and colorful. SCRATCH helped us take a more organic approach to grading. We selected key scenes from the film and set up different looks using Scaffolds. We then worked backwards and forwards from these key scenes to join the different color grades together.”

“The point is that this was not about speed, but possibilities. You can grade a short film in SCRATCH in a day if you really have to, but the beauty of SCRATCH is that we were able to keep making different versions, save them in the CONstruct module, and keep everything ‘live’ until the very last moment before we conformed for the film-out.”



SCRATCH Color grading on Short film “Ses”; image courtesy of COLBYCO & Ghost.

Camera footage to different post production formats. It’s an excellent multi-purpose system for our busy VFX pipeline, and that’s the reason we bought it.” For the “Hell Boy II” sequence, SCRATCH had a double role. First, it was a versioning system for the on-going storage, playback and review of scenes as they emanated from the VFX compositing team. Secondly, it was used for final grading of the 35-shot sequence before it was delivered to Los Angeles for cutting into the main body of the movie.

“Whenever we needed to review a composite for consistency, or to check for errors, we captured the native 2048 x 1556 footage into SCRATCH from our render farm and threw it up on the projection screen. With the SCRATCH CONstruct module you can put composites on a timeline and view shots together in context. Quite often we’d have multiple CONstructs running simultaneously so that the VFX supervisor could review different versions as the work progressed. We also automated the process with scripts, so that new scenes would just auto-load into the correct CONstruct module. As for the final grade in SCRATCH, because we were working closely with the CG and compositing teams, grading the sequence was like sipping champagne,” says Haber. “With SCRATCH we can offer top quality color

Post for “Ses” in the SCRATCH-RED 4K Workflow

Haber recently graded “Ses”, a short film shot at 4K using RED, directed by Jesper Rasmussen, which is being aimed at the 2009 Oscars. The film follows 14-year-old Nete whose world collapses when her twin brother Noah is killed in an accident. Her parents move to Copenhagen to start life anew, and the day Nete starts school, a new boy also arrives. To everyone else he is just the new boy, but Nete sees the living embodiment of her dead brother.

Haber says he is impressed with the SCRATCH workflow for RED raw footage when used for dailies and editorial purposes, and the sheer speed with which SCRATCH conforms from the EDL. However, he believes the grading he achieved in SCRATCH while working with the director, will prove to be the film’s notable feature. The color palette follows the emotional mood of Nete, changing imperceptibly as she

And when boom mics or other equipment inadvertently strayed into the frame, the masking, copying and replacing capabilities of Scaffolds came in handy for tidying up too. “The director was amazed that we could make these sorts of repairs in SCRATCH and not have to send footage elsewhere around our facility.”

Work for Hollywood and international markets

Haber is under no illusions that, although Ghost is building an impressive list of credits, making further in-roads into Hollywood “is a long process, and it’s going to take time. But the work we have been doing recently demonstrates we have a high level of excellence and efficiency. With systems like SCRATCH in our post production pipeline we are a nimble, flexible business with a thoroughly modern approach to production and post production.”

SCRATCH used for post production on “Layover” Image courtesy of Ghost.

