



Image courtesy Prasad EFX

Autodesk Media and Entertainment helps create “Krrish” - India’s first Super Hero

Prasad EFX realizes India’s first Super Hero with Autodesk innovation and technology

“The sophisticated visual effects for Krrish, involved 3D modelling and animation including whole body scans for simulating stunts. Several 3D models of cars, bikes, helicopter, birds and animals were created and animated to match live action footage.”

Himakumar, Senior Line Producer, Prasad EFX.

When prominent Indian film director Rakesh Roshan decided to create Krrish, his vision for the film was simple. Firstly, it had to carry on the legacy of Koi Mil Gaya, Rakesh Roshan’s first VFX film based on the supernatural. Secondly, and more importantly, the film needed to be a visual treat of international standards. With this goal in mind, he set out to create what can easily be described as one of India’s most talked about films of 2006.

So what is it that makes Krrish a truly global film and sets it apart from the rest of Bollywood?

Krrish is among the first Indian films to be truly considered in the visual effects genre. EFX, a division of Prasad Labs, among India’s top digital post production facilities was the partner of choice to execute the film’s visual effects requirements.

One of the few Indian films that had an intensive pre-production planning process, Krrish involved extensive visualization and story boarding where visual effects supervisors Craig Mumma and Marc Kolbe became involved in the set design, planning of lighting as well as camera angles. In doing so, they were able to seamlessly integrate the pre-production planning and shooting with the post-production processes including Digital Intermediate, 3D modelling and visual effects. A key benefit of this planned approach is the ability to curtail production costs by reducing the number of re-takes and eliminating the ‘trial and error’ technique completely.

On the 3D front, Krrish has some very interesting shots that exemplify the nature of work that India is capable of. A case in point is the conception and portrayal of a futuristic laboratory in the film, which Prasad EFX was involved in visualizing and creating. Autodesk® 3ds Max® was

Autodesk®



Image courtesy Prasad EFX

very important for this process. The scene in question required a high level of detailing to pull it off convincingly. 3ds Max's advanced modelling capabilities made the shot picture perfect. Industry-best tools and plug-ins for high-end modelling assisted the process of adding detail to geometry.

Says Himakumar, Senior Line Producer, Prasad EFX, "The sophisticated visual effects for Krrish, involved 3D modelling and animation including whole body scans for simulating stunts. Several 3D models of cars, bikes, helicopter, birds and animals were created and animated to match live action footage."

In all, the film has approximately 90 minutes of visual effects treatment, involving over 1200 shots. Craig Mumma and Marc Kolbe worked closely with over 100 visual effects specialists at Prasad EFX to create world class visual effects sequences.

Among these shots, are several fire sequences which are always a challenge for filmmakers as capturing live action involves tremendous efforts and can be dangerous. Autodesk® Flame® visual effects system allowed Prasad EFX to create these sequences in the digital realm with great ease. The Autodesk® Smoke® editing system then helped in finishing these shots so as to make them realistic and slick.

Prasad EFX also provided the Digital Intermediate service for Krrish. Rajiv Raghunathan, Sr. Line Producer, DI says "Indian cinema is fast embracing Digital Intermediate technology. Currently, it is the big budget blockbusters that employ these techniques. However, DI is fast becoming the defacto standard in all Bollywood films This is evident in the last year wherein DI is being used increasingly to enhance the look and feel of the film as opposed to correcting shooting flaws. At the heart of this revolution is the Autodesk®

Lustre® which is driving this trend."

Rakesh Roshan simplifies, "Sometimes we had cloudy weather and sometimes sunny. We continued shooting anyway. Because of DI everything looks like we've shot in one weather condition and using latest machines like Autodesk Lustre, I think we have done a fantastic job."

Although a big budget film, costs needed to be controlled by bringing in production efficiencies. Lustre provided the technical team with the flexibility to shoot under varying conditions. Using the Lustre system, the colourists were able to apply uniform backgrounds to scenes where continuity was of essence.

Says Craig Mumma, "Krrish is indicative of Indian cinema's ascent to the global arena. It will be a trendsetter because it is among the first few films to leverage global expertise and technology to make the film larger than life."

Driving home this point, Rakesh Roshan says, "People who have seen the film, are of the opinion that this film is not like Hollywood, it IS Hollywood."

It is therefore evident that technology is the way of the future in Bollywood. The strongest indicator of this however is the film's box office earnings. While Krrish cost approximately \$9.6 million in production, it has already grossed about \$30 million in box office collections worldwide within 4 weeks of its release.

As the Indian film industry embraces the digital era, Autodesk is at the helm of the digital revolution sweeping through Bollywood. They are helping directors to realize larger than life visions and cinematographers to match that vision and deliver the "wow" effect that was previously inconceivable.