

What makes stunts possible >> The secrets behind visual effects >> More on Pre-Viz

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A NEW WAVE OF CINEMA

Sam Worthington's
take on the making
of Avatar

DISHOOM!

Behind the scenes with the crew of Prince



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*In this issue of
CHIP Plus, we
decided to go
quiet and leave
the talking to
those who make
all the magic
happen*

FOREWORD

Lights, cameras and action are no longer the biggest facets of filmmaking. Movie makers are striving hard to bring a lot more vigor into their movies with the help of mind-blowing special effects, stunning stunt scenes, and higher production values. In this issue of CHIP Plus, we decided to go quiet and leave the talking to those who make the magic happen.

We have some thrilling first-hand experiences from filmmakers, technicians and the stars themselves! We chased down the man behind the Na'vi face in Avatar, visited some fantastic special effects studios, and spoke to the cast and crew of the recent Bollywood action thriller Prince. You will also be pleasantly surprised to know about the tremendous amount of effort it takes to make some of these thrilling action scenes possible.

We've also shed some light on the guys who can make ten look like a thousand, and have the power to turn night into day through visual effects, or VFX as it's popularly known. We spoke to some of the best visual effects experts, who have thrilled us with their amazing work in Bollywood and overseas.

Read on for all this and more, and see how the technology that you embrace takes movies a notch higher in realism and brilliance.

GARETH MANKOO

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Image Courtesy: Excel Productions AudioVisuals

From human to Na'vi

Avatar, the spectacular and riveting blockbuster from James Cameron has already made more than a staggering \$2.6 billion at the worldwide box office. Highly praised by critics, the film has effectively transformed the nature of cinema. It received nine Oscar nominations and won three for Art Direction, Cinematography and Visual Effects. Sam Worthington, who is well known for his role as Jake Sully in Avatar, shares his experiences about shooting the film. The movie takes us on an extraordinary journey to the far-off world of Pandora. We also learn about the revolutionary technology used in the making of the movie.

BY ELAINE LIPWORTH

Contest 01

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Name the augmented reality system used by James Cameron for Avatar to view the computer-generated outcome of the motion-capture process in real time.

A Virtual Camera

B Motion Camera

C Both

D None



For more details about the contest turn to page 9

The technology and the Prince

We met up with Vivek Oberoi to know more about the cool action sequences that he shot in the movie Prince. We also found out that he's a video game junkie and prefers the Mac over the PC.

BY GARETH MANKOO AND GAGAN GUPTA

Q You have done many films to date, and many of them have been action movies as well. How has the technology behind your stunts changed through the years?

A Yeah, this is the 22nd film that I've done. The technology (behind the stunts) has changed dramatically. To give you an example, in the first

film I did - Company, I worked with my favorite action director, Allen Amin, somebody I've done a lot of great work with. I remember a sequence where 'Chandubhai' was escaping, and he's got all of 'Malik's' men chasing him and trying to gun him down. In Mombassa, where we were shooting, there were these little shanty towns and small buildings. We were on the fifth floor of

one building and there was a fourth floor of another building. There was an eight to nine foot road in between them. And I had to jump from one building-top to the other building-top.

This was in 2002. I jumped from the fifth floor of the building to the fourth floor of another building, from terrace to terrace, with the eight-foot road between the two.

By contrast, when I did Prince almost seven to eight years later (2009), things had changed so much. The technology has advanced phenomenally. We don't use steel cables anymore. Now we use Dynex, which are like these synthetic ropes, which actually get more strength as you push it. So the more you pull, the stronger it gets.

Q Was there any equipment used in Prince that you would like to mention?

A We've got a Fan Descender. Earlier, we just had to jump and we used to take a lot of jhatka (shock) on the back, and break our falls with boxes. But now, we've got Fan Descenders that allow us to do bigger jumps from higher altitudes. We've got some cool cables and bungees that can hold some serious weight. In Prince, we took technology to another level. We shot with eight, maybe twelve, cameras. We had crash cams too, which you can actually ride a bike or drive a car on, you can dump them or throw them in fight sequences. They just roll around and are designed to absorb the impact.



VIVEK OBEROI, ACTOR

Contest 03

JAMES CAMERON'S
AVATAR

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IN ENGLISH, HINDI, TAMIL & TELUGU
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Q To film the shots where CGI interacts with live action, which unique camera was used?

A Simulcam

B Cool Picks

C Cybershot

D None of Above

For more details about the contest turn to page 9



Q Does the movie have any cool chase sequences?

A There's this chase sequence unlike anything you've seen before; neither in film in India, nor in Hollywood. The bike chase in Durban, South Africa starts on the road, going through cafés and everything (which you've seen before), tables falling, madness and mayhem everywhere, going through traffic, etc. Suddenly, the bikes go into a building, and from the building, they go through the ramps that go into the parking.

They go all the way up. And then we had a bike chase sequence that moves from terrace to terrace, from rooftop to rooftop.

Q So does all this technology, such as the cabling that you mentioned, help your sense of fear?

A It does. You do it because there's a sense of fear. You get an adrenaline rush. I felt confident after the training. The fear does play in, but you just tighten your senses, make sure you're solid, and continue shooting. And that's what it's all about.

Q You had this drop from a really tall building in the movie. In such times, you don't really have the time to think about anything else. So how do you pull off such a scene and what goes through your mind while performing such stunts?

A When you're up there, you're tied up on cables. You've got two pins called 'carabiners' holding your entire body that high. And then you've got an entire cable which you have to trust will hold; that it will not break, burn or tear. You've got pulleys that are holding the cable into the winch. And you're hoping that the pulley is not faulty, because if the pulley fails, you fall. Then there's the crane that's holding you up. It's based on small, tiny little things on hydraulics. Crane mishaps happen all the time. It literally depends on the guy who woke up that morning to test the equipment.

We're talking about serious manual error here. So even with all the technology on one side, at the end of the day, it's humans who operate it. They're checking the technology. If you start thinking about what can go wrong, then there's a billion things that can go wrong. So either you do it or you don't do it.

Q Stuff like this has been happening in Hollywood for a while now. In India, it's still used in just selected movies. Are you encouraged enough to believe that we are nearing Hollywood standards?


A The biggest encouragement for me was when we first released the promo of Prince on YouTube. We suddenly had close to half a million hits. We had people saying, "I thought this was a Hollywood movie". We spent that kind of money, time and effort. We did it right.

Even before an action sequence was executed, when it was conceived, they made previz. That's a short form for pre-visualization, which is an animated storyboard. So it's not just a picture of what is going to happen in an action sequence, but a visual shot-by-shot perspective storyboard with animation. So it's actually happening.

Q How did Nicholas, a world class editor, come into the picture?

A Prince was shot brilliantly by whiz-kid director Kookie Gulati, who conceived every thing, especially the action sequences. Between Allen and Kookie, they shot it so well that even some of the biggest editors in India didn't know how to edit it. They didn't know how to cut it, because they've never cut twelve-camera footage together into one sequence. They're not used to it because people don't shoot on that kind of a lavish scale. So Kumar Taurani asked Kookie who his dream editor would be, and Kookie mentioned Nicholas, who edited 'Transporter', which is a cult action film. The next thing Kookie knew, he was on a plane to Paris with all the reels and they edited Prince in Paris.

Contest 04




JAMES CAMERON'S
AVATAR

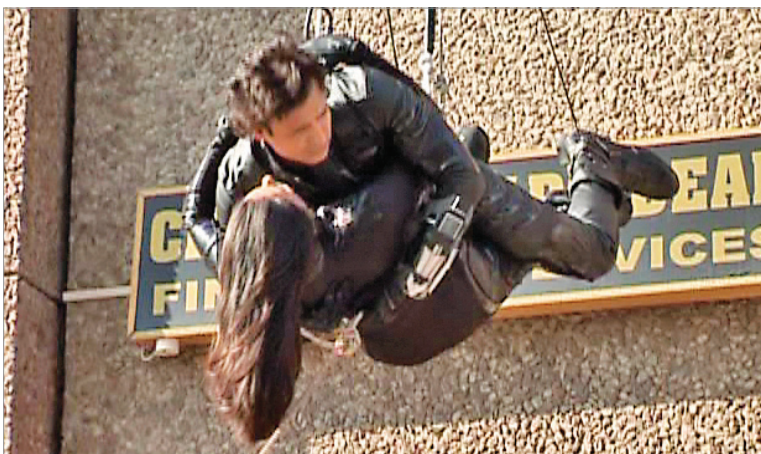
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Q Each minute of the final footage for Avatar needs how many gigabytes of storage?

A 17.28 Gigabytes **B** 2 Megabytes
C 6 Gigabytes **D** None of the above



For more details about the contest turn to page 9



It's the first Indian film to be edited in Paris by an international editor of the standard of Nicholas. It was brilliant.

Q What about the technology in the sound of the movie?

A Rasool Pookutty, our Oscar winner (*Slumdog Millionaire*), the pride of India, took four and a half months to design the sound. He called me up and said, "Finish your dubbing". I told him that there was lots of time, but he insisted, "No! Finish your dubbing. I'm doing something really special with this film." When he made me hear the sample, it just blew my mind. My whole point to everybody is, don't watch Prince on a torrent download or a pirated CD, because you're going to miss the beauty of watching that quality, the color, and the sound. We've put together something technologically brilliant. We want you to go out there and have fun in that big theatre.

Q Which stunt sequence from Prince is closest to you?

A I think the most difficult sequence was the one shot in the river rapid. I was in a live river rapid. I had to come off a helicopter, descend down with a fan descender onto a moving SUV that was floating down the live river rapid in the Parvati river, which is

"You've got pulleys that are holding the cable into the winch, and you're hoping that the pulley is not faulty. Because if the pulley fails, you fall."

above degree five in terms of rafting language. We were not in a safety raft, we weren't wearing helmets, it was 2 degrees (Celsius) outside, and the water was freezing.

We were wearing half-inch thick wet suits so that we don't get hypothermia. So (in the scene) we had this SUV on it's head, floating down the river and we were balancing on the top of it.

There's no way to tether you because if you're in a river and you are tied to something, once the river pushes you, the current can't take you further, it pushes you down. So your sure to drown. You don't have a fighting chance. So you have to be untied with safety teams waiting at strategic points.

Q Many of the scenes that we've seen in Prince have been seen in action games as well? Are you a video game junkie?

A Completely. I love it. I'm a huge video game junkie and we're hugely inspired by that. We've had a lot of fun playing the Prince game on the website Princethemovie.com.

People are just playing it and having a lot of fun even though it's very basic and not very graphic-intensive. Even pre-release, we've had some interesting talk with some big gaming companies that actually want to release a Prince game because of the kind of scope that they see with it. **C**

Contest 05

JAMES CAMERON'S
AVATAR

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IN 5.1 DOLBY DIGITAL



Q The AVATAR Blu-ray and DVD contains digitally Mastered Sound in 5.1 Option in which language

A English

B Hindi

C Tamil

D All of the above

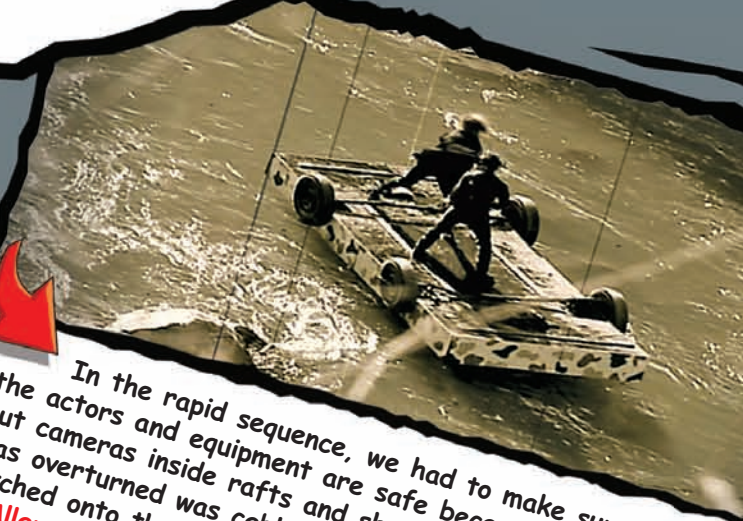


For more details about the contest turn to page 9



There's a fight sequence where about five to six people attack Vivek Oberoi on a street. As he beats them up, the whole scene freezes for a moment and then continues in a high-speed motion. The whole idea behind this sequence was to show that my character can move faster than anybody else. So what we had to do is actually shoot the villains at a different frame rate and Vivek at a different frame rate.

- Kookie Gulati, Director, Prince



In the rapid sequence, we had to make sure that the actors and equipment are safe because we have to put cameras inside rafts and shoot them. The car that was overturned was cabled underwater. The actors were latched onto the car so that they were always safe.

- Allan Amin, Action Director, Prince



We do not use ordinary cables. We use Dynex cables, which are stronger. If the actor's weight is between 70 - 100 kgs, we make sure that we use a 5-tonne cable. In addition, we also have a separate safety cable. We always work with two cables.

- Allan Amin



BEHIND THE SCENES



I was on the roof of a 32-storey building on a bike. There was a little ramp and I had to use it and fly the bike off this building. There was the 60-foot wide Durban Main City Center road with people gathered and looking up. We had to jump across it to the 28th storey of another building. I had to make sure that I landed it perfectly with the back wheel in position.

- Vivek Oberoi, Actor, Prince



We pulled off some crazy stuff like hanging off a chopper with one hand. As soon as the chopper took off, there was a field below. The minute it went up and came out over the trees, I saw this massive valley going down and I saw this tiny little winding river. This was about six to seven thousand feet below.

- Vivek Oberoi



© Chaitanya Surpur



Image Courtesy: www.princethefilm.com

'Prince' had actress Aruna Shields in some rather dangerous action sequences. She shares with us some of her great experiences while filming as well as her thoughts on Indian cinema.

Q How was the experience of shooting an action-packed film like Prince?

A It was a phenomenal experience. The sets and locations were out of this world. We were lucky to travel around South Africa and shoot in some stunning places. There were lots of explosions, cars flying around, and helicopters. I found earplugs very useful.

Q What according to you is one of the best advancements in technology as far as action films are concerned?

A CGI is amazing. Sometimes it was raining and the tech guy would think for a bit and say, "No problem. We will erase it in post". They would turn day into night. It's impressive, but very expensive, so better not to do it too much. We shot on blue screens for some of the pick up shots. It's now just a part of film making.

Q Can we now say the Bollywood is at par with Hollywood as far as technology is concerned?

A Yes, I think Bollywood is definitely up there with Hollywood technologically. I'm just waiting for them to shoot in 3D. That's the next logical step.

Q Which was the action scene from the movie that you enjoyed shooting the most?

A There were so many scenes which were crazy to shoot, but the one that sticks in my mind the most was the bike jump off Orbi Gorge. Everyone was joking around saying that I'd have to ride the bike off the canyon edge. It was in South Africa and I remember looking down and seeing elephants at the bottom. They were so small; they looked like dots. It was an endless, bottomless gorge. On the day we shot this, I wasn't warned. I just turned up and the shot was all set up. When I went off the edge, it was very dangerous.

Q Have you done anything as thrilling before?

A Well I went through a daredevil phase in my teens. I got on a horse bareback in a field, fell off and broke my arm.

Contest 06

JAMES CAMERON'S
AVATAR

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Q The type of glasses used for viewing AVATAR in 3D are:

A Anaglyphic

B Polarized

C Both

D None

For more details about the contest turn to page 9



The Guts, the stunts, and **the beauty**

We spoke to the very attractive Aruna Shields for her take on the difficult stunts in the movie Prince.

BY GARETH MANKOO

I went sky diving, and I've learnt to scuba dive in the North Sea. I was a bit mad. Sometimes when you're young and stupid, you think you're invincible. I also broke my leg skiing on a black run. When you hurt yourself, you tend to calm down. So now, this is calmer for me.

Q What do you have to say about the safety precautions taken while shooting such stunts?

A The stunts we were doing were so dangerous that if anything went wrong, we would be dead. If anything snapped, there would be no chance of survival; not when you are working at silly heights. The action director is an award winner; he's one of the best. Even so, with anything, including dangerous sports, the risks are there. Minor injuries were always annoying; bruises, back aches, and stuff like that. Normally, 'sane' actors would get stunt doubles to do everything; but not in Bollywood. For some reason, they want to do everything themselves. We did have stunt people to show us how to do the actions, but ultimately we did everything ourselves.

Q Are you a gamer? Has any violent video game inspired you while shooting for Prince?

A Violent games don't inspire me; they actually give me nightmares. I find some of them really spooky. Especially one I played a couple of years ago with zombies.

I played it at night on a big screen and it freaked me out. I'm not into blood and gore; it doesn't make me happy. **C**


Biography

British actor Aruna Shields, of Anglo Indian decent, began her education at a convent school. She went on to gain a distinction from the Guildhall School of Music and Drama as well as a degree from Central St Martins, London. She is known for the roles of a tribal woman in *AO: The Last Neanderthal* and Maya in action thriller *Prince*. She has held lead roles in films like *Mission Improbable*, *Private Moments*, *Violent Lesson*, and *Bait*. www.arunashields.com



Image Courtesy: www.arunashields.com

Contest 07




JAMES CAMERON'S
AVATAR

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Q The number of years James Cameron waited for right technology to start shooting the movie:

A 12 years	B 17 years
C 10 years	D 20 years



For more details about the contest turn to page 9

Top **Bollywood** action scenes

Love it or hate it, Bollywood movies just chase you down. We all have something to say about the fight scenes that we've seen in the movies. Our friends at Tech2.in.com pick some of their favorite Bollywood fight scenes.

BY GARETH MANKOO

► "It has to be the hilarious scenes from Chandni Chowk to China. The scenes were inspired from a number of Hollywood flicks and didn't have much seriousness to them. They were total entertainers and I liked the stunts."
- KIMMI





▲ "Mission Kashmir had some really good action scenes, while more recently, Quickgun Murugun had some hilarious fighting sequences that made you fall out of your chair at times."

- DOLWIN



▲ "My pick would be the amazing bike chase from Dhoom. These were never really seen in Bollywood before and hats off to the guys who managed to pull off such stunts."

- CRAIG



▲ "I liked the amazing action scenes from Ghajini. The impact of each blow that Aamir Khan hit Ghajini with could be felt all across the theater. The sound quality is good too."

- VIJAY

THE CHIP PLUS TEAM GOT TOGETHER AND PICKED THEIR FAVORITE BOLLYWOOD ACTIONS SCENES TO SHARE THEM WITH YOU



"My pick would be a movie that long ago made me believe that not all Bollywood action sequences are hilarious

exaggerations. The action scenes from Mission Kashmir top my list. Everything from blood splatter to explosions have been worked on with fine detail (using special effects)."

- Gareth Mankoo, *Feature Writer*



"I prefer fight scenes to be escapist and totally outrageous. Being a big Rajnikant fan, I can't single out one best

scene of his. My pick is the fight scene from Big Brother, the Hindi remake of the Rajni-starrer Baasha, with Sunny Deol in the title role. An angry brother trying to avenge an acid attack on his sister: does it get any more 'Bollywood' than this?"

- Kamakshi Venugopal, *Senior Feature Writer*



"I would like to pick the scene from Krishh that has Hrithik beating up some baddies mid-air.

A fair bit of effects have

been used to make these scenes possible and they are quite impressive."

- Hemali Limbachiya, *Senior Designer*



"My all-time favorite action scene is the '10-10 ki daud' from the film 'Ghulam'. Aamir Khan did the stunt himself,

running towards a speeding train, calculating the time when it would hit him, and finally deciding it was close enough to jump off the rails. Mind blowing!"

- Nirmal Biswas, *Senior Art Director*



© Neha Mithbavkar

Stunts gone **smart**

One of Bollywood's finest stunt directors gives us an insight on the stunts in Prince and the effect of technology on the same.

BY GARETH MANKOO

Q You've been in the industry for quite a while now. How has the technology changed and how does it help you as a stunt director?

A Technology has evolved because of new equipment and new ideas in terms of post-production that are coming in. Because of this, we can now do a lot with cables, green screens and stuff like that.

Q Was it more dangerous to shoot action scenes in the past?

A It's all about how you make it safe for the actor. Even if there's no cable present, I have to make sure that the actor is safe while performing the stunt.

Q Is the technology in Bollywood at par with Hollywood, as far as stunts are concerned, or are we still behind?

A We are not behind; we are at par with them. The reason we're unable to manage the same grand look is that our film budgets are Rs 35 crore, while Hollywood movie budgets are Rs 300 crore.

Contest 08

JAMES CAMERON'S
AVATAR

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Q What is the aspect ratio of the Avatar Blu-ray?

A 1.78:1

B 1:1.78

C None

D 0.78:1

For more details about the contest turn to page 9



Q How much have visual effects now come into your work? Has it simplified your work with things like the green screen?

A The impact of visual effects on stunts can be summarized in one word - glorified. We still perform live stunts when we can, but obviously the green screen makes a vast difference since it is safer for the actor and looks visually appealing.

Q What can you tell us about the equipment that you use in stunts? What is a must-have for a stunt director?

A Normally what happens abroad is equipment companies provide the equipment to the stunt directors. They don't need to carry their own equipment everywhere. But we do not have an equipment company, so we have imported all the equipment. Since it's not made locally, you have to invest a lot of money so get all the equipment so that the actor feels safe and your shot looks good. But the equipment is not as important as the mind working behind it.

Q At any given point in time, how many people do you need in your team to set up a stunt?

A I don't need more than eight to ten people to set up a huge stunt; I wouldn't need any more than that. And if it is a small stunt, we do not need more than two or three people. So rather than requiring many people, the idea is to use the equipment with fewer people.

Q How difficult was it to get regular people to do the stunts in MTV Stunt Mania?

A It was more difficult, because the regular college kids who would audition and come to do stunts had no training. We would have to train them to perform basic stunts. Only after basic training and ensuring that they're hundred percent safe would we make them do the stunt. First, our stunt performer does the stunt a couple of times

to make sure that it's safe. Only then do we make them do it.

Q Do you always have fire safety equipment and other such safety measures at hand?

A We always have an ambulance and doctor on stand-by. If there's a fire sequence, then a fire brigade is on stand-by too. So we always take all the precautions that we're supposed to take.

Q How did pre-viz technology help simplify your stunts?

A After seeing the location, I would design the stunts. And then Kookie, the director, and I would get together and design exactly how the stunt would happen. I would contribute my inputs and so would he. Then we would go to the location and that's where we storyboard it. After that, we would come back and 'pre-visualize' it.

Q Do you come into play when the script is written?

A Abroad, the script writer writes the action sequence as well. Here, this doesn't usually happen. So the action director has to think about the sequence, work it out, ask the director, see what the character of the actor is, and then design the action sequence accordingly. So once I design it, I run it by him (the director) and then we storyboard it.


Q If you were to come out with an all out action extravaganza in the form of a movie then what sort of budget would that require?

A To start with, a minimum of Rs 100 crore.

Q Do you have any message for our readers?

A Do not perform stunts at home (laughs). C

Contest 09




JAMES CAMERON'S
AVATAR

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IN 5.1 DOLBY DIGITAL

Q The events taking place on Pandora are set in the year:

A 2514	B 2451
C 2054	D 2154



For more details about the contest turn to page 9

This is how they did it

Allan Amin, the action director of *Prince* gives us a sneak peek into how they managed one of the most spectacular scenes in the movie. Read and learn, but do not try this at home.

BY GARETH MANKOO

"The first sequence in *Prince*, where Vivek jumps off a building and deploys a parachute is the most technically shot action sequence in the film. The parachute catches fire and Vivek uses wires and winches to catch on to another building and jump onto the car. We have shot this sequence in various locations such as South Africa, Mumbai as well as before the Green Screen (studio)."

© Sachin Pandit




► "We also shot him going from building to building here. His walking and shattering of glass was done somewhere else and the landing on top of the car was done in yet another location. We had a BASE jumper, who jumped off the building without cables and opened the parachute. It was a thirty-floor building."

► "Vivek had to replicate that jump because in the film, we took just that part of the jump that involved the BASE jumper leaping off the edge of the building. The main part of the fall had to be done by Vivek. We put cables and winches, and dropped him from the top with the parachute."



Contest 10




JAMES CAMERON'S
AVATAR

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IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

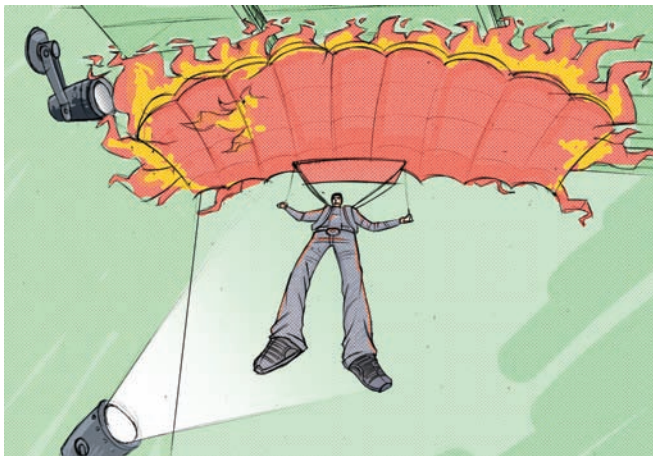
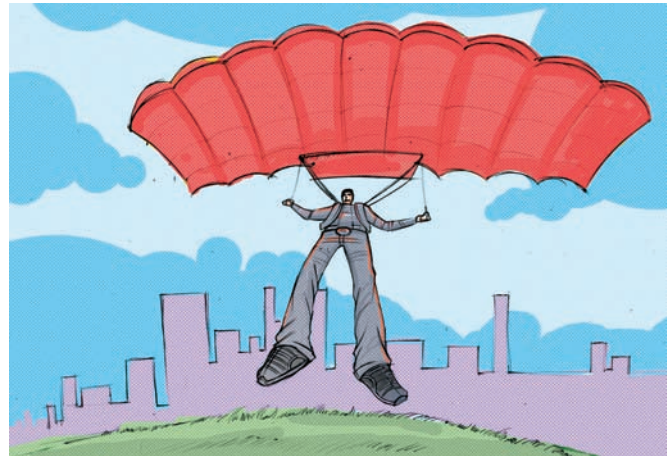
Q The mineral which the humans are looking for on Pandora is?

A Unobtanium	B Uranium
C Titanium	D None



For more details about the contest turn to page 9

▶ "Then we got Vivek in the studio. We got him coming down with the parachute in a closed environment, with a harness. This scene was also shot outdoors. Hence it was all shot at different locations and put together."



◀ "The next scene needed his parachute to be set on fire. Now we couldn't shoot the fire scene abroad because it wasn't allowed there, so we did the scene in Film City (Mumbai)."

THE FINAL RESULT



Contest 11

JAMES CAMERON'S AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Q In the movie Avatar, whom do the Na'vi worship?

- A Eywa
- B Mother Earth
- C Neither
- D Both



For more details about the contest turn to page 9

Rigged for action: Stunt equipment explained

We venture into stunt director Allan Amin's office to uncover the secrets behind the cool stunts performed by our favorite actors in some unforgettable action sequences. We also learn about the importance of safety while performing these death-defying stunts.

BY GARETH MANKOO

Allan's trusted assistant, Aino took us on a tour that brought to our notice some of the finer details that stunt directors have to pay attention to. We also learnt about what makes a car jump up after an explosion, what makes it swivel, and also how to stay safe when jumping down a hundred storey building.

BASIC EQUIPMENT:

The following are some of the most basic tools required by stunt directors, so as to create amazing effects in action sequences.

MOTORBIKE RIG

The motorbike rig is towed by a tracking car. When the motorbike is rigged onto it, the shots can be taken from the tracking car. If the rider doesn't know how to ride the bike, then he can sit on the bike that's fixed to the rig. This increases his comfort level since his chances of falling off it are minimized. It can also be accommodated in narrow places. This is used when the stunt team has to create a

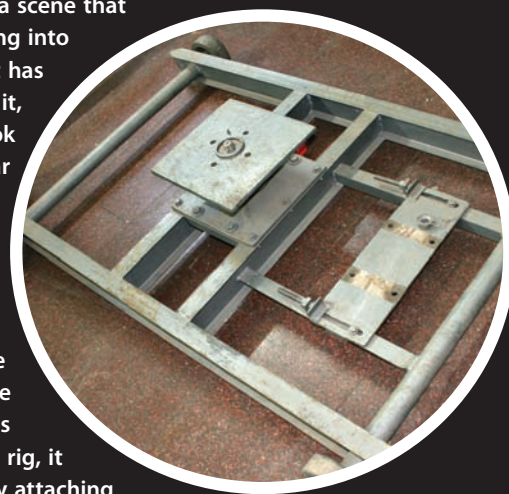


set up in places like crowded streets. It can be used to track within places like villages and narrow by-lanes.

CAR RIG

When shooting a scene that has a car colliding into another car that has the actor inside it, it is made to look like the latter car spins around a certain axis and moves as it does.

These kinds of scenes are made possible with the car rig. The car is rigged onto this rig, it is then towed by attaching the line from the tower into the holes on the rig. Hence, you can tow this rig using any car. It creates an effect that has the car spinning even though it is still on the road. It is actual lifted by just half an inch. It is used for scenes that involve dashing of cars as well as those in which a car has to be pulled. Along with the rig, there's a motor that fits onto it. The motor can be controlled using a DC battery, thus causing the car to revolve as we want it to.



Contest 12

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Q Who created the Na'vi language especially for the movie Avatar?

A Paul Frommer

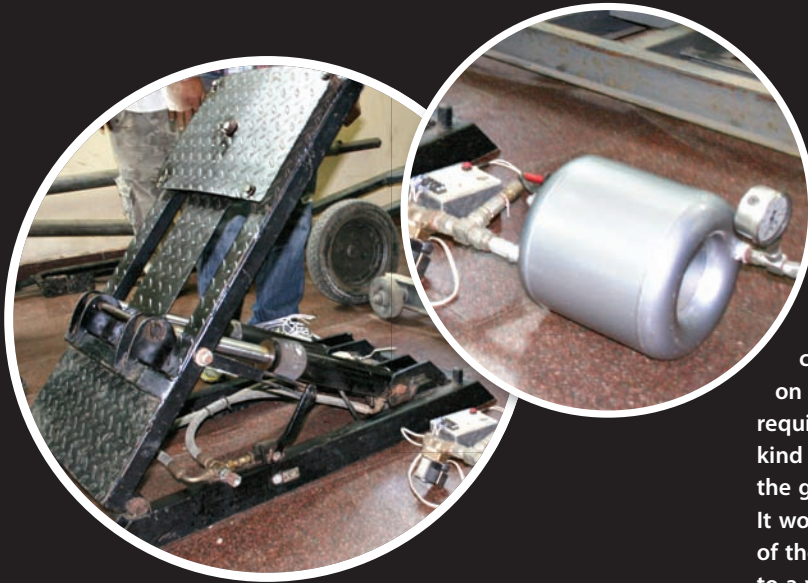
B Sam Worthington

C James Cameron

D None

For more details about the contest turn to page 9





AIR RAM

The air ram makes use of Nitrogen gas to propel objects away from it. Since it is lighter, it is highly preferred as the driving force behind the functioning of the air ram. It has shock-ups at the back of it that are released with the help of an in-built timer, thus pushing forth the objects that come on it after a specified time interval. A common example of people made to fly off their ground using air rams is in scenes that involve a massive explosion. A jerk ram is another, larger rendition of this one that is used to temporarily lift cars off the ground. It measures about 6 x 6 feet and is really quite large, and it has four shock-ups. It can elevate about ten to fifteen people as well as make a car tumble. Even the jerk ram makes use of nitrogen gas.

pressure depending on the type of stunts that are done, keeping factors like the height of the jump in mind. It has a brake so that the jump can be manually stopped as and when required during the stunt. A huge advantage of using a fan descender is that you can make the actor jump from great heights and still land on his feet, his chest, his back or however the scene would require him to. This doesn't require the actor to have any kind of air bag or crash mat to land on. He can safely land on the ground without any injury or excess pressure on his feet. It works by controlling the speed of the fall with the means of the fan. The brake works on hydraulics. It is also connected to a winch to take the person up or down, before or after a shot, with great speed. The fan descender can hold the weight of two people.

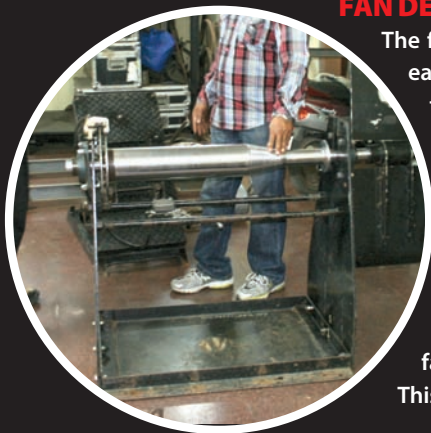
MOTORBIKE RAMP

Like the motorbike rig, the motorbike ramp too is towed by a tracking car. The motorbike is fixed atop this ramp and the actor is made to sit on it. He can thus perform wheelies, stoppies,




FAN DESCENDER

The fan descender makes it easier and safer for actors to perform death defying jump sequences. It helps lower actors and stuntmen to the ground at a controlled speed. The pressure can be adjusted so that the pace at which the person falls can be controlled. This helps in adjusting the



Contest 13




JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q Lola Technology was used in filming which of the following movies?

A AVATAR	B X-Men
C Die Hard	D None



For more details about the contest turn to page 9



and tilt sideways in a controlled manner. The basic engine of the bike ratchets on the top of the ramp and is lifted in one particular direction. It can be operated in either direction so as to perform either a wheelie or a stoppie.

SAFETY

Safety is something that matters the most to stunt directors and their assistants. The actor, who is made to perform the stunts, is always in constant danger. Here is some of the equipment used to make sure that the performer is safe.

STEEL CABLES

The steel cables used before have been discontinued in most cases because they can prove to be quite dangerous since they aren't fool-proof. They used to be in practice quite some time back.

DYNEX DUX AND BUNGEE CABLES

The Dynex Dux cables have come in from London. The wonder of these cables is their fixed stability and resistance to stretching. They use a different kind of clipping technique and are made of nylon. This causes them to avoid breakage when pressure is applied. The bungee, on the other hand, works quite differently from how the



© Neha Mithbawkar

Dynex Dux cables work. It is extremely stretchable and can come back to the original length after being stretched for a few seconds. These cables help a person perform mid-air stunts like back-somersaults and front-somersaults.

RAPPELING ROPE

As the name suggests, this special rope is used for rappelling purposes, while descending from mountains or buildings. It is used with equipment such as a rappelling clip that normally comes along with it. It helps lock the position of the actor on the rope and can be released at will.

HARNESSES

Harnesses are used to strap up the actors safely to the cables with which they are suspended. They make use of steel shackles to lock onto the cable or Dynex that they are suspended from. The harnesses have many different places to clip the shackles so that the actor can revolve or be suspended accordingly. With these, the actor can perform stunts like the back-somersault quite smoothly. A carabineer can be used in any of the provided loops to lock the actor to the harness depending on whether he has to be placed sideways, upside down or in a straight position. The fabric of the harnesses is extremely strong.

FIRE SUITS

Fire suits are the most common addition to any stunt director's equipment bag. There are two kinds of gel that are applied on the actors body. Cold gel is used on the skin of the actor to avoid the fire from catching on. On the suit, some amount of petroleum jelly is used to create a controlled fire.



Contest 14

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Q Out of the below which are the James Cameron Movies.

A True Lies

B Titanic

C Abyss

D All

For more details about the contest turn to page 9



Tales from the **script**

Ever wondered what it would be like to delve into the intriguing art of scriptwriting? Ranjan Ghosh, who is the screenwriting faculty at Whistling Woods, gives you some interesting tips on what it takes to be a scriptwriter.

BY GARETH MANKOO

MORE ABOUT WHISTLING WOODS, MOVIES AND EVERYTHING IN BETWEEN

Whistling Woods is a film institute that has spearheaded diploma films. We haven't started feature films as yet. As far as feature films are concerned, we can talk about Mukta Arts, which is the parent company. I think for Mukta Arts, the best film for me would be Iqbal. As far as Whistling Woods is concerned, some of the diploma films would include 'Ronnie'; it's about homosexuality. It has been selected for the Bombay International Film Festival. Then we have another film called 'Make Me Think', which won the Kodak Cinematography Award.

THE EVOLUTION OF SCRIPTWRITING

In India, there was this FTII culture before. This was around the 1960s and 1970s, when scriptwriting was being taught at FTII. That's when there was a certain breed of filmmakers, who came in and thought that the director was the author, so scripting need not be taught. The director would write his own script and that was it. Then there was a wave of filmmakers like Kumar Sahani and Shyam Benegal in the 1990s, who used scriptwriters effectively. After that, Bollywood saw a very bad phase around the 1980s and 1990s, when scripts were really bad. Despite that, some very good commercial films were made by filmmakers like Shubhash Ghai, Yash Chopra and Vidhu Vinod Chopra. At that time, people started realizing why such mainstream films were working, while other films were not. It was the problem



RANJAN GHOSH
Screenwriting Faculty,
Whistling Woods International

Ranjan Ghosh began his work as a script assistant to Shyamal Sengupta on the Bengali film Antaheen in 2009. This movie later went on to win the National Film Award. Ranjan made his mark with his debut film, Iti Mrinalini, a Bengali film, in 2010, which was directed by Aparna Sen. He completed his education at Whistling Woods International. The screenplay of Iti Mrinalini was actually a professional assignment in the syllabus of the course. Ghosh is lined up to script for the Bengali adaptation of Prakash Jha's National Film Award-winning Hindi film Gangaajal. Ghosh will pen the adapted story and screenplay.

Contest 15



Q The Worldwide release date of AVATAR on Home Entertainment is

A 22 April

B 20 April

C 26 April

D 1 May

For more details about the contest turn to page 9



with the script. The script of the stories by these film makers were written on a popular format and were very solid and tight, while the others were quite trashy. Then the other filmmakers thought to concentrate more on scriptwriting. So in 2004, they started the scriptwriting (screenplay writing) course at FTII that was spearheaded by Anjum Rajabali, who has also started the course at Whistling Woods. So in the last six to seven years, screenplay writing has been pursued very aggressively as a technique. This means that it is treated as something technical. If you have noticed, during the Filmfare Awards or for the National Film Awards or even the Screen Awards, the scripting or the screenplay comes under the technical category. So what has really changed in the last ten years is that screenplay has been taught and learnt as something technical and not something mainly artistic.

SCRIPTWRITING AND TECHNOLOGY

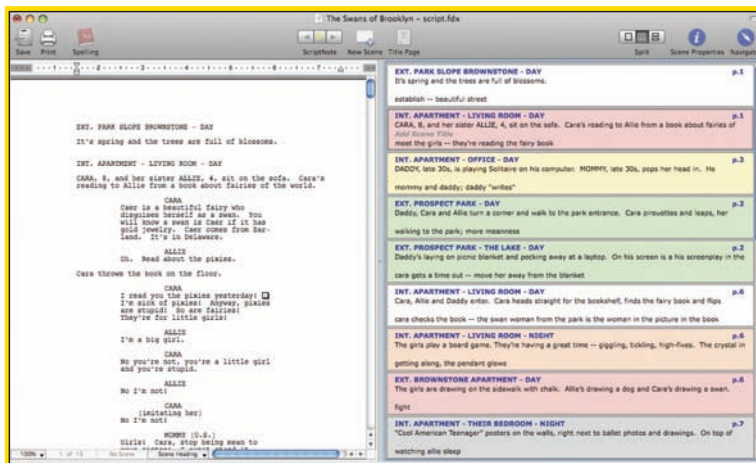
I believe that scriptwriting doesn't really depend on technology. There is an interesting anecdote, which I would like to share with the readers from when I did my debut film, Iti Mrinalini, for filmmaker Aparna Sen. This was for the first time that she

SCRIPTWRITING WITH FINAL DRAFT

Working with Final Draft is easy and it makes things quite fast. Once the name of the characters name has been entered, followed by his dialogue, then it does not need to be typed out again when the scene is revisited. The name is stored and would automatically be displayed. The dialogue gets formatted automatically. Hence it makes things a little faster.

was collaborating with a writer and it was also part of the syllabus for Whistling Woods. So basically it was an arrangement between Whistling Woods and Aparna Sen, wherein she collaborated with me and we wrote the script. Now at Whistling Woods, whatever I had learnt was from Final Draft, which is a screenplay writing software. When I was writing for Aparna Sen, she would use the MS Word format. When I asked her if I could work in Final Draft, she told me there's no need for that because she would write her script on pen and paper. She didn't know Final Draft and she wasn't even interested in the application. So she suggested that I try out something new and write it in Word

format for a change. Then I tried the Word format and saw that it was fine. So if you're talking about technology, it isn't really necessary. Creatively, it doesn't cater to a script writer's cause or anything else. But what it does is that it makes things a little easier to format the script. In Word, it is quite difficult to format since you have to do everything manually. However, in Final Draft, everything gets formatted automatically. Things like the dialogues and the character names are



Once the name of the character has been entered followed by his/her dialogue, then it does not need to be typed out again when the scene is revisited.

Contest 16

JAMES CAMERON'S AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q Which positive message does the movie convey?

- A Environment Conservation
- B Military Action
- C None
- D Both

For more details about the contest turn to page 9



automatically formatted. This is, however, only in terms of script writing. Final Draft can also be used to break down the scenes and other production processes. So if you talk about it in regard to how it helps production, then it is quite useful. This trend is very much like how it's done in Hollywood.

HOW CAN A COMMON MAN BECOME A RENOWNED BOLLYWOOD SCRIPTWRITER?

I would like to narrate my own story. I came from a family that had no film connection. I first studied Physics at a university, then I had to run away from home to get myself independent, otherwise my parents would not let me do things my way. Then I joined the Merchant Navy and spent about four to five years there, gathered enough money and joined the screenwriting course at Whistling Woods. After that, I assisted someone in a Bengali film called Antaheen that won a National Award.

I worked as both, a scripting assistant as well as a directorial assistant in this movie. While working on this film, I met Aparna Sen and that's when I pitched myself to her and told her that I wanted to write for her. She told me that she didn't need writers. I remained persistent and kept calling her every month or every two months and I would say, "Ma'am, I only want to meet you once". So in the course that I was doing at that time, there were two kinds of scripts. One was an original script and one was a script that was to be assigned by an external producer or director. So I told her that I wanted to write something for her, which she would not have to produce, but which would be a part of the syllabus. That's when she gave me up to six months to write something that she wanted, and during this time, I went to meet her.


This script was Konkona's (Sen Sharma) idea, and about two months into the filming, she called me saying that she had an idea for a film that was going to be produced in Bengali. That's when I felt that I was finally getting lucky. So it was basically a lot of persistence that got me to where I am today. It takes a lot of grit, patience, talent, and luck. It is

a combination of many things. So if you have all this then you can make it.

HOLLYWOOD SCRIPTS

I think Hollywood is stagnating a little. They're remaking their own films now, whereas in Bollywood, what we see happening is that there are new kinds of films being made, say for instance, movies like Dev D, Gulaal and Love, Sex Aur Dhoka. I wouldn't like to compare Hollywood and Bollywood, but I would say that Bollywood is definitely trying out new things. And we don't have anything to catch up to, even though we are behind Hollywood as far as budgets and other things are concerned. But at least there's a change happening in Bollywood.


A WORD OF ADVICE FOR ASPIRING SCRIPTWRITERS

Writing is not easy. It shouldn't be taken up unless you really enjoy it. Training is always better. You have to go out and meet people. Accept rejection as a way of life. 

PREPARING AN EFFECTIVE SCRIPT

- ▶ There has to be an idea to work on. One has to stay with this idea and it has to keep growing within oneself.
- ▶ These ideas grow into something that can grow into a short synopsis that can be up to one page or so.
- ▶ Add more elements to this synopsis so that it grows into a four or five page synopsis.
- ▶ From there it grows into a treatment note that is about fifteen to twenty pages. This is the film that's basically drawn out into sequences in the order in which they would appear on screen.
- ▶ Then it develops into something called the outline, whereby the image is broken into scenes, without the dialogue.
- ▶ Finally, we have the dialogue draft, where you have to put in the dialogue.

Contest 17




JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q Which mobile link station does the science crew visit in the mountains in the movie Avatar?

A 21	B 27
C 26	D 9



For more details about the contest turn to page 9



"Technology can help expand your vision"

Kookie Gulati, the director of Prince, tells us about how his idea of complicated storyboards was inspired by his early fascination for comic books. Read on to know more about the man and his work.

BY GARETH MANKOO

Kookie Gulati is a man with a vision. Unlike most other directors, who might be content with sticking to the tried and tested Bollywood formula, he prefers trying out things that have rarely or never been done before in the industry. The results are quite fascinating and can be seen in the construction of his directorial debut, *Prince*. Here, he shares some exciting experiences he had while filming *Prince*,

especially with the pre-visualization technology used in the storyboard.

ACTION MOVIES IN BOLLYWOOD

As a viewer myself, I felt that the action movie genre was missing in Bollywood. So I told the producers that this is the kind of movie that I'd like to watch. So obviously, when we put it up there, as we have seen, a lot of people reacted to the ideas and concepts. I

Contest 18

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Q What is the name of the lead actor in the movie *Avatar*?

A Jake Sully

B Tommy Sully

C Joe

D Jonathan

For more details about the contest turn to page 9



feel that this was because there was definitely a lack of good action movies in Bollywood. We're just trying to fill that gap.

TECHNOLOGY IN BOLLYWOOD VERSUS TECHNOLOGY IN HOLLYWOOD

I wouldn't say that we're close to Hollywood standards as yet. We have a long way to go. But what I can say is that it's another step towards that. It's a big and positive step towards that. Obviously, there are other factors that come into play, which mainly includes our market. It needs to grow internationally as well as domestically for us to put in that kind of money. By money, what I mean is that once you have the money, you can also put in that kind of brain power. All these things are co-related. But I feel that it is a positive step towards being (closer to) a Hollywood action film.

THE USEFULNESS OF PRE-VISUALIZATION

Basically, it is something not very new in Hollywood. But I'm certain that it's quite new here. What people normally do is they storyboard. But (in the case of 'Prince') it was still very difficult because of the complexity of the action scenes that we were trying to attempt.

To try and explain to everybody, what we thought, especially Allan Amin and me, was to go in for this tech in which we can animate the storyboard and actually, physically see it (the scene). So we animated it, edited it, added our music theme and whatever we had recorded onto it, along with the sound effects and everything.

Then we showed it to other people and we told them that this is what we were talking about. Obviously, when the scene is shown live, with real people, it's going to look more interesting.

MAKING A MOVIE LIKE PRINCE A DECADE AGO

Every part of the movie would be impossible to shoot a decade ago. The entire film, in fact. Is

because technology is so vast today. I mean the kind of cameras that have been used constitute a good amount of technology. And it's one notch up from what was there last year. The color tones of the film have been achieved with very high-end digital color correction on our negative. And these effects obviously run throughout the film. There are also various instances throughout the film, where we've used high-end graphics. The whole idea behind it is to make everything look as real as possible. So when you watch the movie, you'll notice that the idea was not to let the technology interfere with the narration. The integration of technology is seamless and if somebody goes in looking for a conspicuous use of technology during any of the scenes, then they would feel like 'where did it all go?'.
DIRECTING A MOVIE: SIMPLIFIED OR COMPLICATED


DIRECTING A MOVIE: SIMPLIFIED OR COMPLICATED

It has done a bit of both. But thank God I'm making a movie in this age. I don't know what I would have done twenty years ago, or what I may have been able to achieve. Technology at this moment certainly seems to be my best friend. I think technology can help you to expand your vision. You can go out and find things that are a little out of the box. So you receive that kind of support, literally, as if from a best friend, to take that one step further, and make the narrative that much more interesting. That is where technology has been a very strong influence on me.

SOURCES OF INSPIRATION

I'm not much of a gamer but I am a huge comic book fan. As a kid, I had nearly 4,000 comic books. So I have this collection and I'm very possessive about it. I used to know all 4,000 of them backwards, like which page had which story. From Amar Chitra Katha to Phantom to Mandrake. So that's where my interest in storyboarding evolved and that's where the action sequences got more and more complicated. And we took the next step into previz. C

Contest 19




JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q Which of these Omaticaya people does Jake Sully meet first?

A Neytiri's mother	B Neytiri
C Tsu'tey	D All of them



For more details about the contest turn to page 9

The magic of pre-visualization

Pre-visualization or previz is a technique by which the scenes of a movie are visually represented for preview before filming begins. It is often referred to as an animated storyboard. However, a common argument against previz is that it doesn't have much to do with the storyboarding process, but rather falls under the realm of visual effects and under the purview of effects artists.

BY GARETH MANKOO

A great advantage of using previz is that it allows everyone in the filming crew to get a complete view of what the scene should look like. It can be done by hand drawings in 2D or in 3D generated animations. There have also been instances of digital video, clip-art and even photographs being used to create a previz, instead of the usual videos.

One of the main advantages of using a pre-visualized scene is that you can save the artists' time and effort, which is often consumed as the camera, lighting and sound options are experimented on the sets. The director can set these parameters as he wishes and then move on to the shooting stage with everything in place as it was while preparing the previz.

After making its effectiveness felt in Hollywood, the whole concept is gradually making its presence felt in India as well. There are quite a few Bollywood movies that have used or are in the process of using previz to effectively plan and execute complicated scenes.

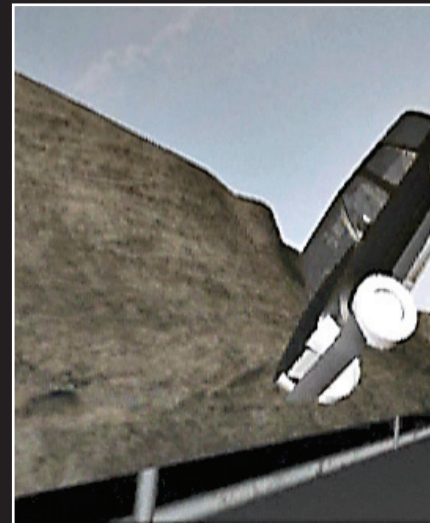
Kookie Gulati, the director of *Prince*, shared his experience with previz. "It helped us big time by putting everybody on the same page. We had a crew of nearly 300 people during the shooting of some of the difficult stunts.

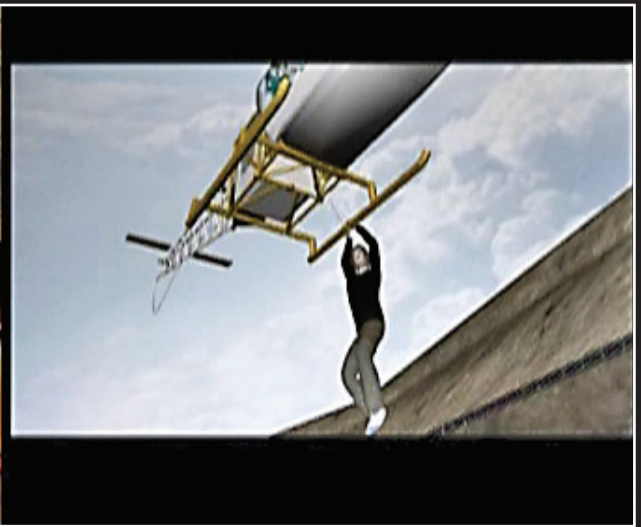
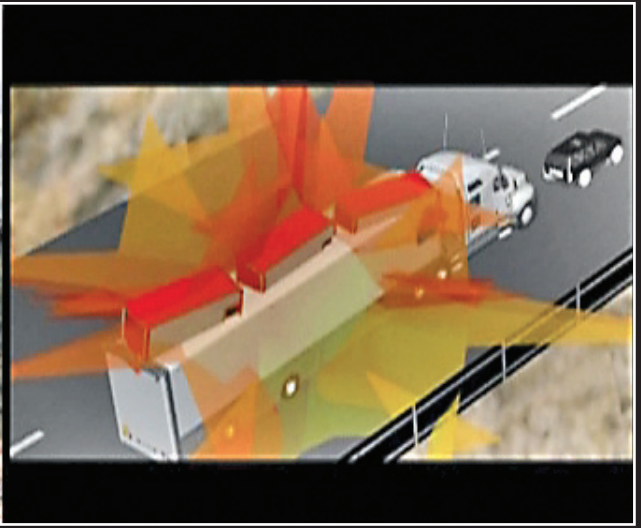
Co-ordinating with them and explaining things individually would have created varying results. Now with (previz), everyone was watching the same thing, everyone's on the same page, and that helps us big time.

In a unit of 300 people, everyone from the camera man and his team to the production team knows what we're trying to attempt. So it helped us execute the sequence with more finesse," he explained.

Some of the most significant movies that saw previz being used at its fullest include *Jurassic Park*, *Mission: Impossible*, *Star Wars: Episode II and III*, *X-Men*, *The Matrix* trilogy, *The Lord of the Rings* trilogy, and *Superman Returns*.

Below are some amazing scenes from Prince that used previz





Visual effects and **movies**

We all know that while watching films that employ cutting-edge tech, there's a lot more than meets the eye. More and more films are now using special effects to immerse the viewer. We dig in a bit deeper and speak to the masterminds who make all these effects possible.

BY GARETH MANKOO

Movies are no longer about running around trees or unconvincing, over-the-top fight scenes. Every move and scene in films these days is well worked upon by visual effects artists. They help bring about a whole new look and feel to a scene and bring it to life.

AUTODESK

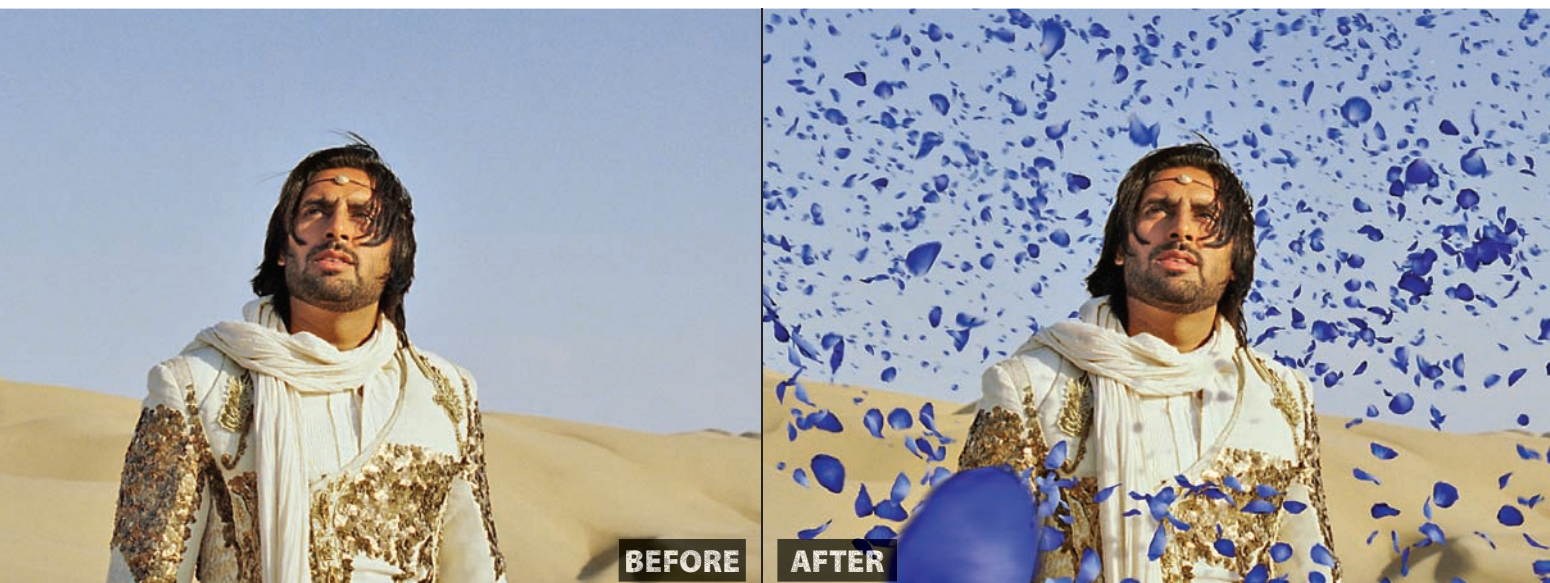
One of the biggest players in the world of special effects applications is Autodesk. They have an array of software that make such special effects possible. We spoke to Arun D'Souza from Autodesk about the amazing advancements of technology in Indian cinema.

According to Arun, even Indian movie-goers have embraced animated films. "The success of animation movies in the Indian market, like Avatar, Kung Fu Panda, Chota Bhim, etc. have

instilled confidence into Indian movie makers. The animation industry is enthusiastic about these developments. Today VFX are an integral part of most Indian films". When asked about what makes the blend of special effects and Indian movie themes so perfect, he said, "In India, we have lots of variety and some great stories to tell thanks to our rich and diverse culture. Mythology presents a plethora of subjects that can be explored for films".


"Movie makers are now making use of visual effects in their films and in the conceptualization stage, and the future of VFX in Bollywood looks quite bright. Almost all Bollywood films are color graded," he adds.

So what does it take to make a movie look really good? Here are some of Arun's personal picks from among an array of applications that are used to create stunning effects.



Images Courtesy: Autodesk India

Contest 20




JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q What is the name of the great Leonpteryx in the movie AVATAR?

A The Ultimate Phenoix **B** Turok
C Big Bird **D** None of them



For more details about the contest turn to page 9

Autodesk 3ds Max:

Autodesk 3ds Max provides immediate, highly compatible, out-of-the-box access to a wide range of 3D functionalities for digital artists working in film effects, allowing facilities to quickly ramp up production pipe line to create 3D animatics for previsualization purposes.

Autodesk Maya: Autodesk's Maya software is the ideal core 3D application for the digital content-creation

pipeline. It allows you to access a large pool of trained and talented artists, and create 3D animatics for previsualization, modeling, animation, and lighting of realistic high-resolution characters. It can also do a lot more.

Autodesk Mudbox: Autodesk Mudbox software is the premier digital sculpting technology for professional artists working in game development. Its fast, intuitive tools and workflows let you create awe-inspiring, high-resolution models quickly and efficiently.



ARUN D'SOUZA
Head M&E, Autodesk,
India and SAARC

Autodesk Smoke: The Autodesk Smoke system, an all-in-one solution for online editing and finishing, offers creative features, system integration, open workflows, and 3D integration.

Autodesk Flame: The Autodesk Flame system is an industry standard for online visual effects and compositing. It accelerates creative workflows with a creative toolset, and the high level of interactivity required for client-assisted production and quick turnaround on time-critical projects. It is a powerful 3D compositing environment for artists, and includes industry-leading tools for high-definition multiformat post-production, from SD, HD, and 2K Action. It also features 3D tracking, motion estimation, and Colour Warper and Modular Keyer functions.

Autodesk Lustre: The Autodesk Lustre GPU-accelerated color-grading solution empowers the user with new creative tools, GPU-accelerated plug-ins, and new editorial capabilities provide colorists with unlimited-look design and creation. InfiniBand networking and GPU-accelerated technologies allow facilities to implement workflows that increase productivity.

Autodesk Motion Builder: The Autodesk MotionBuilder software provides a collection of real-time character-centric tools for various tasks ranging from traditional key framing to intensive motion capture editing. It creates state-of-the-art animations with the foremost productivity suite for 3D character animation.




BEFORE



AFTER

Contest 21




JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q What is the name of the horses with six legs in the movie AVATAR?

A Sextuple Horse	B Horse
C DireHorse	D None of them



For more details about the contest turn to page 9

REDCHILLIES ENTERTAINMENT



KEITAN YADAV
COO, VFX, Redchillies Ent.

We spoke to Keitan Yadav, VFX COO, Redchillies Entertainment for his thoughts on how Indian cinema is raising the bar where visual effects in movies is concerned. With movies like My Name is Khan that had some fabulous visual effects done, there's little doubt that the company means business and that Bollywood will soon have a whole new look in the years to come.

Q What constitutes a major amount of time, energy and effort while creating a scene for an action movie?

A Generally, there's a lot of time and energy spent while shooting an action movie, like the one we're shooting right now - Raavan. A lot goes into planning it. Since there are many departments and there are many complex shots, there's a lot of risk involved; stunts such as cars flying, people jumping, etc. So the most challenging part is getting all the departments, such as the camera department, direction, stunt department, special effects, to sit together and figure out a common platform on how to execute the shot. As soon as the shot is taken, their job is most probably done. However, when it comes to visual effects, there are a lot of things that need to



BEFORE

be taken into consideration. It usually takes a few months or even a year after shooting to finish the shots with their final conclusion. So we can say that visual effects definitely take a lot of time after shooting and editing. It is more time consuming than other departments.

Q How has the outlook of Indian movie makers changed towards visual effects over the years? Do they feel the need for more effects in their movies?

A It depends on the story, the demand of the script and how you approach it. There are many ways to accomplish a shot. These may or may not involve a lot of visual effects.



BEFORE



AFTER

Contest 22

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Q When will the Ice Age 3 Dawn of the Dinosaurs Blu-ray release on 3D?

A June, 2010

B April, 2010

C July, 2010

D August, 2010



For more details about the contest turn to page 9



Over my career of over ten years in films, initially we were just informed once shooting was over about which shots needed to be done, and we were just expected to do it. Those were usually more like damage control shots where they didn't get some things right or a camera wasn't in frame or an unwanted person came into the frame. Sometimes we were told to touch up an actor, or add certain elements to the shot to make it a little more spectacular. Mostly, there were removals of simple composites.

However, now directors and writers have evolved and they have been writing stories that involve a lot of visual effects to make their films visually more appealing or even to make the



story more believable. Even directors are now really keen to involve the visual effects teams right at the beginning of the film, when they're writing a script and before they've stepped onto the shooting floor. They make storyboards along with us, convert them into previz and everything is decided before we move on to a shooting location or a shooting day. Then there's simple co-ordination between different departments.

There are lots of challenges thrown in because of locations. Certain shots need to be changed or taken in a different way. You have to always take prompt decisions depending on the demand of the situation.

Q Does the future of visual effects look promising for Bollywood movies?

A Surely. At some point, it may become a necessity the way it is a necessity in Hollywood. There are people exploring new techniques like making actors look younger and by taking spectacular shots. Creative people will always push for more visually stunning stuff. Visual effects, apart from the other mediums, is one that can enhance the feel of a particular film or an impact of a shot. Sometimes a situation arises when a shot cannot be taken because it is too dangerous and that's when visual effects are required. Sometimes we need to make five hundred people look like they're five thousand. Even here, there are visual effects required. There are also situations where certain shots cannot be taken without using visual effects. So the future is definitely going to be brighter. I think it's already an integral part of any feature film, especially action films.



Contest 23

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q What is the name actor who plays the part of Jake Sully in the movie Avatar?

- A** Sam Worthington
- B** Samuel L. Jackson
- C** Tom Cruise
- D** None of them



For more details about the contest turn to page 9

Q Is it getting more affordable for movie-makers to add visual effects in movies these days, as compared to how it was about five years ago?

A This depends on the scope of work as well as the budget of the film. Initially they (producers) wouldn't sanction budgets for visual effects and it used to be the producers thought that its an added budget to the film. But now, when they start a film and they know that there is going to be a lot of action, they assign a certain section of the budget for visual effects. And depending on this budget, we decide what can be done and what needs to be dropped. Also, we decide if there is some way that we can simplify things and bring the visual effects within the budget of the film.

Q How far are we from being at par with Hollywood?

A In terms of infrastructure, hardware, and software, we are at par with any studio in the world. However, as far



Images Courtesy: Redchillies Entertainment

as manpower behind these technologies is concerned, we still have to catch up. We shouldn't forget that they have a 20-year lead ahead of us. While we were always stuck to rom-coms (romantic comedies) and emotional dramas, they had moved on to these kind of movies. So we do have some catching up to do, so I think it is unfair to compare Bollywood to Hollywood. I believe that visual effects shouldn't be added to a film just for the sake of it. It should always be an integral part of the storyline, of the film-making and it should be a whole package. No film sells just because its visual effects are spectacular. It depends on the story line as well. The whole film has to be complete. Visual effects, like any other department, caters to the needs of the director.

Q Which movies have propelled Redchillies to the top?

A We concentrate a lot on visual effects. We have a 100-odd man team dedicated only to visual effects. It's basically quality, consciousness, hard-work and pushing the limit every time. We started with Don, then we did Chak De! India, in which we integrated a large crowd, CGI hockey balls, nets and other things in the film. Then we did Om Shanti Om, in which we made Deepika Padukone dance with Sunil Dutt, Jitendar and Rajesh Khanna. In What's Your're Rashee, we made twelve Prinyankas interact with one another. We also did Kurbaan, and now we have Kites. Then there's our master film - Raavan, which will take visual effects in this country to another level. ◀

Contest 24

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
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Q Who plays the part of Neytiri in Avatar?

A Nicole Kidman

B Zoe Saldana

C Sam Worthington

D None of them



For more details about the contest turn to page 9

Create your very own special effects!

How many times have you been bowled over by an intense chase scene, or been captivated by a dream song sequence? Here's how you can recreate the magic at home, as experts from Arena Animation Academy, Andheri, Mumbai help us unravel the mystery behind the chroma screen.

BY KAMAKSHI S

WHAT IS A CHROMA KEY?

Chroma is Greek for color. Technically, the word chroma is short for Chrominance, a signal used separately for visually streaming images that relay information about the color of the picture from the accompanying luma signal. Luma is short for luminosity, which is the brightness of a video image that is represented in black and white or achromatic (colorless) portions. Keying is the process of removing a chroma screen and replacing it with a background video. Thus chroma key is a solid colored blue or green screen that is used to composite two individual videos.

WHAT'S IN A COLOR?

A chroma key screen usually uses blue or green hues. Since videos are played either through a projector, television, or computer monitor, they use the RGB (Red, Green, blue) color channel. "Of the primary color palette of RGB, red features prominently in the human skin. It does not have traces of blue or green. It is usually recommended to use a blue screen while shooting indoors and a green screen while shooting outdoors, so that the color of the sky does not clash with the screen you're using," Jubair Arrakal, Technical Executive and VFX Faculty from Arena Animation Academy, Andheri, Mumbai explains. The blue used is usually

a shade of indigo, while the green used is popularly referred to as chroma green; the color similar to that of a banana tree leaf. It is recommended that to use high saturated blue or green color screen for perfect keying out. Green is now emerging as a preferred choice because the image sensors placed inside digital video cameras are sensitive to green, which reflects light better from the subjects being filmed. Blue was used extensively earlier, but it requires a higher degree of illumination when using a digital camera to shoot the subject. In the popular film Spiderman (2002), the character of the Green Goblin wears a green costume, while Spiderman has streaks of blue in his suit. Thus, the flight sequences of the Goblin was shot against a blue screen, and the scenes involving Spiderman were shot against a green screen for these very reasons.

SETTING UP THE BACKGROUND

The screen is the most crucial component of your setup, as it would determine how well your foreground and background videos merge. If your screen or lighting is faulty, you will have to employ additional efforts while keying your videos. Jubair gives us some handy tips that you can keep in mind before setting up a chroma key screen. "The screen should not be glossy; it should have a solid color and should have a matte finish. The surface

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JAMES CAMERON'S
AVATAR

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Q What is the name of the male clan leader of Na'vi?

A Jake Sully

B Neytiri

C Eytukan

D Mo'at

For more details about the contest turn to page 9



should not be textured. You can paint walls with the required colors or even have a cloth screen, but it should not be made with materials having high specular level such as plastic, fiber or metal."

DRESSING UP RIGHT

What your subject wears when being filmed in front of a chroma screen is critical. Jubair emphasizes, "It is advisable to avoid any tints of blue or green (depending on the screen color you pick) in your characters' clothing, ornaments and accessories, unless you want to get the effect deliberately. Also, avoid clothes made out of chiffon or any such semi-transparent fabric. Glossy clothes are fine, but not really recommended. This is because the light does not reflect the color properly; the reflection is either too little or too much."

If you need parts of your body, like arms or face, to be masked, like in the song "Muqabala" from Prabhu Deva's 1998 movie *Humse Hai Muqabala*, Jubair advises the use of a chroma suit. "If you need partial masking like just hiding the arms and face, you need a chroma key suit in a color similar to your chroma key screen." If you are looking to achieve invisibility cloak-style results similar to the popular *Harry Potter* movies, you need to put in considerable efforts. Jubair agrees. "High-end applications give you options to create a stencil of your subject. Normally what happens is once you remove the blue screen, i.e. after keying out, you get an 'alpha channel', which is solid and transparent. You get a foreground video in color with an outline of your subject. Here, you can add filters and effects available in the software to create an invisible man".

SETTING UP YOUR OWN CHROMA KEY SCREEN

If you would like to impress a friend by creating your very own special effects, its now really easy. You don't really need a studio to set up a chroma key screen. All you need is a spacious room, the light setup, a digital camera which can record video, a tripod so that your camera is stable, and a computer that can run Adobe Premier Elements 8.0. We have



You need to position your camera on a tripod in such a way that the subject will come in the middle of the frame and so that there are no shadows visible in your final shot.



While shooting a video against a chroma key screen, you need to be able to visualize how the background video would appear. Thus, it is recommended to shoot your background video in advance.



Once you have both your videos in place, you can go ahead and composite them using a specialized software application.

Location: Arena Animation Academy, Andheri (West), Mumbai © Neha Mithabawkar

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Q What is the name of the flying predator that Jake Sully tames that only 5 Na'vi have ever tamed?

A Eywa

B Toruk

C Tsu'tey

D None of them

For more details about the contest turn to page 9



demonstrated the use of the lights below. Jubair tells us the various materials you can use to construct a simple chroma key screen. "You can use screens with solid colors. You can use curtains which conform to chroma keying standards as I mentioned before. You can also use heavy cotton

bed sheets, or you can paint the right shade of indigo blue or chrome green using poster colors on card board or thermocol sheets". "You can also use newspapers, but you will need to ensure that all the data is properly masked in the appropriate color. Using flex banners is a strict no-no," says Jubair.

LIGHTING UP THE PLACE

Putting together a satisfactory lighting rig is the most cumbersome process while setting up a chroma key studio. The lights set in your studio to bring out the features of your character will also create shadows. The shadows interrupt the hues of your screen and thus the background might not be registered for replacement. To cut down the shadows, you will need additional lights. "Your lights should be placed around the target that is in front of your camera; that would be your character. A minimum of 6 lights is recommended for

proper lighting," Jubair explains. "Two lights will be in front of the character, from the top view, angling towards the character. Two lights on stands will be in front of the character to capture his facial expressions, gestures and posture. Two lights need to be behind the character to cut out the shadow that is cast by the front lights. Moreover, if the top light creates a shadow on the neck, under the eyes or nose on the face of your character, you can use reflectors to throw back the light on the character's face and neck," he adds.



© Sachin Pandit

Contest 27

JAMES CAMERON'S
AVATAR

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Q James Horner has given music for which other James Cameron movies?

A Titanic

B Aliens

C Broken Arrow

D Both a&b

For more details about the contest turn to page 9



EDITING AND COMPOSITING YOUR VIDEOS

Here's a quick walkthrough on how you can edit, key out and composite green screen videos with a background video using a simple video compositing and editing tool.

USING ADOBE PREMIER ELEMENTS 8.0

Although Smoke, Combustion, After effects, Digital Fusion are used as preferred applications for keying and compositing videos, it is not recommended for novice and entry-level users. You can instead opt for easier tools like Adobe Premiere Elements 8.0, which is a lighter version of Adobe Premiere Pro.

Moreover, you can use the application free of cost for a trial period of 30 days. The only flip-side is that a watermark of the application will run across your video in the trial period. To begin using the application, carry out the following steps:

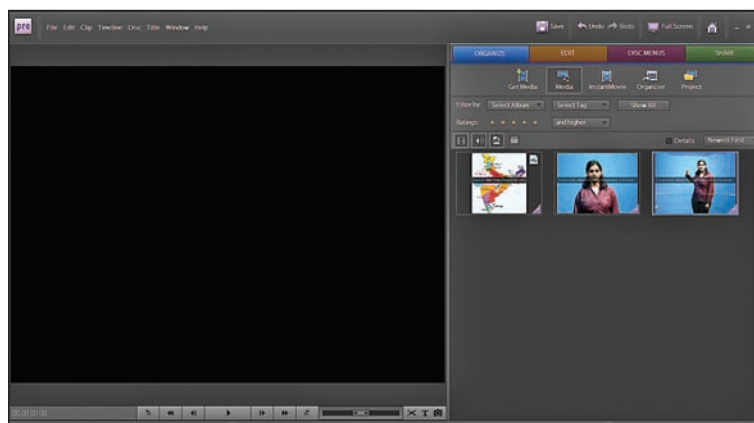
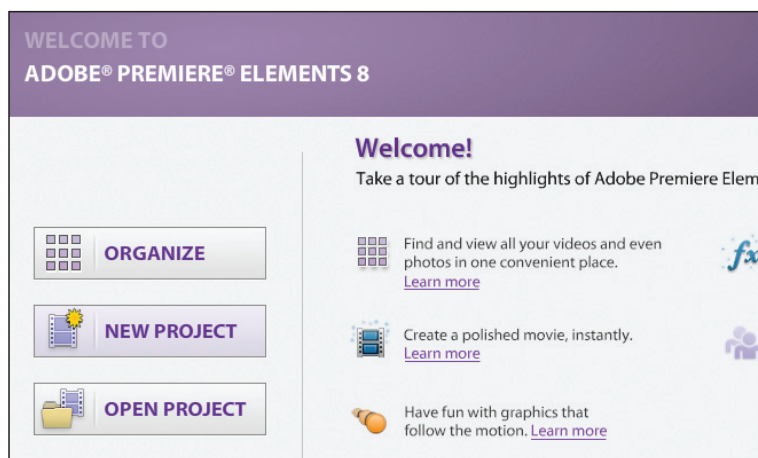
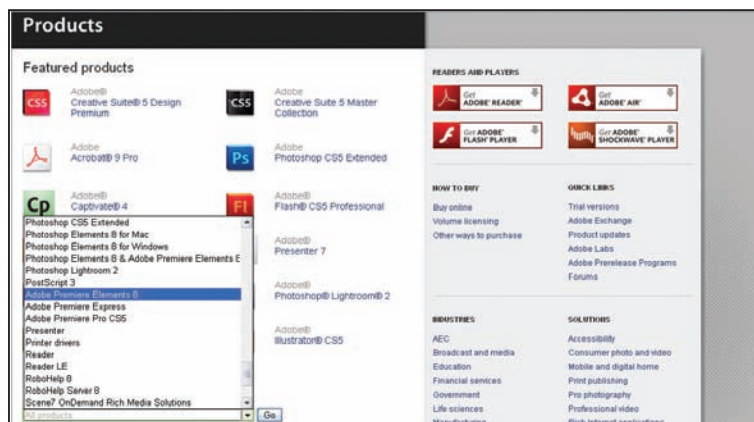
DOWNLOADING AND INSTALLING

You can download a trial version of the application directly from the Adobe website.

1. Visit www.adobe.com/products and look for 'Adobe Premiere Elements 8' in the 'All products' drop down list.
2. Download the Adobe Premiere Elements 8 setup file from the page. Double-click the setup file and follow the installation instructions on your screen.

USING THE APPLICATION

1. Start the application and click the 'New Project' button. In the application parent window, go to 'File | New | Project'. Type a project name and click 'OK' to create a new project. The video quality is set to PAL DV Standard 48kHz, since it is the preferred format in India. You can change the settings as desired.
2. Click the 'Get Media' button to load both the foreground as well as background video files.



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JAMES CAMERON'S
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Q How many Academy Awards was Avatar nominated for?

A 5

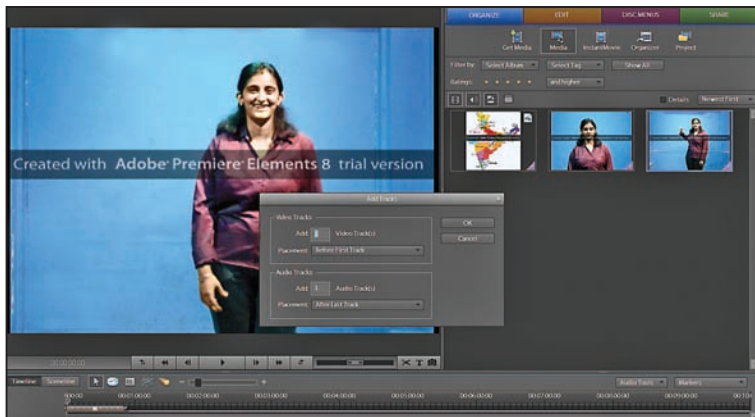
B 7

C 9

D 8


For more details about the contest turn to page 9





- Once you're done with that, switch from the 'Sceneline' view to 'Timeline' view. Drag and drop your foreground video on to the timeline in the 'Video 1' track. Right-click on the 'Video 1' text and select 'Add Tracks'. Set the number of tracks to be added at '1' and the 'Placement' value to 'Before First Track'. Drag the background video to this track and extend both tracks to end together.

KEYING AND COMPOSITING THE VIDEOS

- Select the foreground video that needs to be keyed out, and click the 'Edit' tab. Select the 'Effects' option from the tab.
- In the effects search text box type 'key' or 'green' or 'blue', depending on the chroma key screen color. Drag the effect onto the foreground video for the keying out.
- Click the 'Edit Effects' button to refine the effect of light on your keyed out video. Drag the appropriate controls to get the desired effect.
- Click 'Done' to exit the screen and export your video to a file format of your choice. 



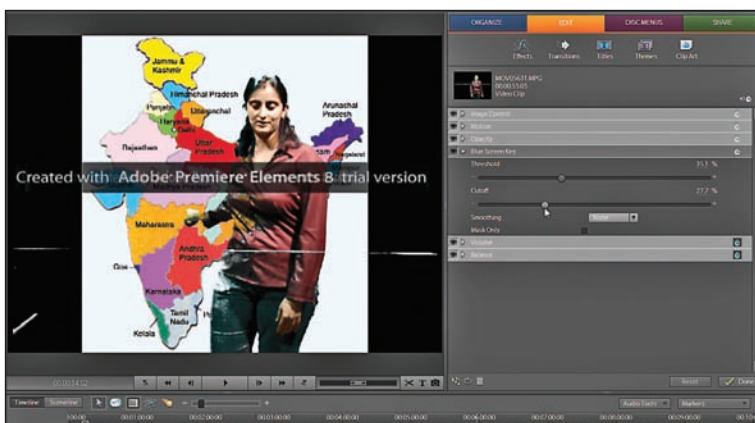
JUBAIR ARRAKAL

Technical Executive,
Arena Animation Academy, Andheri, Mumbai




Jubair brings with him almost 10 years of experience in training. His expertise lies in the field of in non-linear editing, motion graphics & compositing and graphic designing. Apart from imparting training

across various institutes, he also has hands-on experience working as a video editor, animator, VFX artist, and graphics artist in media and television companies like City7 TV in Dubai, and Shree TV and Namma TV in Karnataka. Apart from being an instructor at Arena Animation, he also works as a freelance video editor.



Contest 29



JAMES CAMERON'S
AVATAR

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Q What is the planet called of which Pandora is a moon?

A Polyphemus

C Pluto

B Earth

D Neptune



For more details about the contest turn to page 9



Did you know? The technology behind bullet time

Special effects come to the rescue of film makers when they want to depict scenes that are unfilmable. Such sequences include bullets flying past the subject, and characters floating in thin air. One such still-frame based technology is known as bullet time.

BY KAMAKSHI S



BULLET TIME...IN REAL TIME

Bullet time is a visual effects technology that plays around with speed of a particular sequence to generate special effects. The sequence generated is not filmed but is a simulation created using photography. Traditionally, bullet time techniques are based on the same principle as that of stop-motion animations. This technology is not only used in movies, but also in television and video games. Max Payne (2001) was the first game to adopt this technology.

Contest 30

JAMES CAMERON'S
AVATAR

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IN 5.1 DOLBY DIGITAL



Q Which country's postal department released Avatar postal stamps to coincide with its launch?

A India

B France

C US

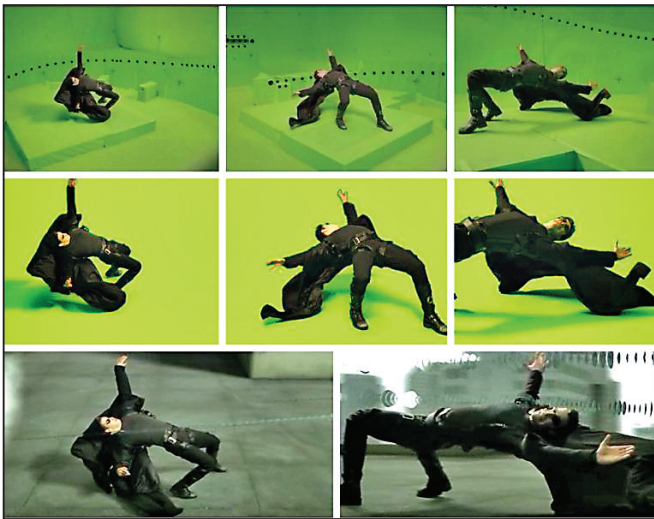
D England

For more details about the contest turn to page 9



PLACING STILL CAMERAS

A series of still cameras are placed in an arc formation, and all go off simultaneously to capture the subject from various angles. Thus the cameras go off at the point of impact i.e. when the bullets fly, tracing an aerial path in slow motion. Due to the camera positioning, the shot looks like its panning around the subject. The subject is usually suspended on wires and is shot against a chrome screen. These shots are then morphed together and the speed of the scene is set with the help of specialized software. The final background video is then composited with the bullet frame video.



THE MATRIX EFFECT

Although Blade (1998) was the first movie to use bullet time, that too in its traditional style, it was the first of the Matrix movies that really made it popular. However, it did not really stick to the conventions. Instead of capturing images simultaneously, the images were captured as a sequence, and the placement of the cameras at varying heights gave the final video a pan and rotate effect. Moreover, since the Wachowski brothers were more into the comic book style of movie making, the sequences of the film reflect an anime look.



COMPOSITING VIDEOS

Since your subject is shot against a chrome key screen, you can composite the bullet time video with a video of the final surroundings using virtual cinematography software. What you need to keep in mind is that the background video should pan in sync with the bullet time angles. You can use normal pan speed and play around with the panning speed of the bullet time motion as per your requirement in the video compositing software itself.

Contest 31

JAMES CAMERON'S
AVATAR

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Q What's Neytiri's preferred choice of weapon in times of ambush?

A Machine gun

B Hand Grenades

C Sword

D Bow & Arrow

For more details about the contest turn to page 9





1913
The first full-length Indian feature film, Raja Harishchandra, made by Dadasaheb Phalke is released commercially.

1931
Shirn Farhad, the first movie to incorporate the concept of dubbing sounds separately from the image, is released.

1950
One of the earliest known movies to use special effects, Har Har Mahadev, releases. The effect depicts the 'third eye' of lord Shiva

1933
The first air-conditioned theater, Regal Cinemas, opens in Bombay (now Mumbai).

1880

1900

1920

1940

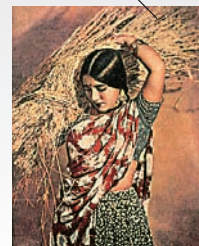
1896

The Lumiere Brothers bring cinema to India as the first film is screened at the Watson's Hotel in Bombay (now Mumbai)



1931
The first 'talking' movie in Indian cinema - Alam Ara releases. It is also the first movie to use the Sync Sound technology.

1937
Kisan Kanya, the first film shot completely in color using the Cinecolor process, is released.



1953
The first film to adopt Technicolor technology Jhansi Ki Rani, releases.


TIMELINE

Bollywood time reel

BY KAMAKSHI S

Movies have given flight to some of the most imaginative minds. Be it humanizing Gods through mythological movies, or taking you on an economical tour to exotic locales around the world, there is nothing impossible in films. And Bollywood is known for both its extravagance and its clichés. The pre-independence era saw a wave of cinema flowing on the lines of patriotism, social unrest and mythology. Eventually, an era of "formula films" settled in, after which, technology in varied forms influenced not just the technique, but also the content of this strong audio-visual medium. Bollywood movies have left their indelible mark on an international level as well. The industry made its presence felt at the Cannes Film Festival as early as 1947 with Chetan Anand's Neecha Nagar. Satyajit Ray was the first film maker who secured

Contest 32



JAMES CAMERON'S AVATAR

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Q Avatar beat which movie to become all time top grosser on global charts?

A Titanic

C The Lord of the Rings

B Dark Knight

D Jurassic Park



For more details about the contest turn to page 9

1959
The first Indian film to be shot using 75mm CinemaScope, Kagaz Ke Phool, is released.



1960



1985

A year after the first Indian 3D movie, My Dear Kuttichthan (dubbed in Hindi as Chota Chetan) released, Bollywood's first 3D Movie, Shiva Ka Insaaf, is released.

1980

1992

The first 2D animation movie, Ramayana: The Legend of Prince Rama, releases. The venture is a joint effort between Indian and Japanese technicians.

2000

2001

The first digital movie, Maya - The Reality, releases.



2010

Delhi-6 becomes the first Bollywood movie to be sold in the New and Noteworthy films section of iTunes at \$9.99. The film released in theaters in 2009.

2020

1967

The first 70mm wide screen film, Around The World, releases.

1984

One of the earliest and largely successful sci-fi films, Mr. India, releases. It's the first time special effects are used to make a man invisible in films.



2000

The first full-fledged 3D animation movie to be made wholly in India, Pandavas: The Five Warriors, releases.



2009


The film Paa saw extensive use of prosthetic makeup for Aamir Khan's role as Auro. R Balki roped in Hollywood's Christien Tinsley (The Passion of the Christ) and Dominic Till (The Lord of the Rings film trilogy) for the job. Earlier, movies like Chachi 420 (1998) popularised use of prosthetic makeup in Hindi cinema.



a world premiere for his legendary movie Pather Panchali at the Museum of Modern Art, New York. Ray was the second Indian to be awarded an Oscar in 1992 as an honorary lifetime achievement award. The first Indian to win the Academy Award was Bhanu Athaiya, who won an Oscar for costume design for the multi-award winning film Gandhi in 1982. Mehboob Khan's 1957 tear-jerker Mother India was the first Bollywood movie to win a nomination for a best foreign language film award at the Oscars, followed by Mira Nair's Salaam Bombay! (1988) and more recently Aashutosh Gowariker's Lagaan (2002). AR Rahman, Resul Pookutty won Oscars too, albeit the effort was towards a Hollywood movie. Although Elizabeth (1998), directed by Shekhar Kapur, picked up the best makeup Oscar, no Indian won any

Oscars for the movie. On home turf, several blockbusters went on to become trendsetters in the technology domain. Pachhi's Around The World (1967), was the first 70mm film that was made using the blow-up method and stereophonic sounds. G P Sippy's 1975 blockbuster Sholay was also shot in 70mm format, but used four-track stereophone sound instead. Similarly, while Guru Dutt released Kagaz Ke Phool (1959) in Black and White using cinemascope, Mahesh Kaul's Pyar Ki Pyaas (1961) used cinemascope to make a color film. Extensive use of special effects can be attributed to the sci-fi movie Mr. India (1984), which was made by Shekhar Kapur. However, it was only in the 1990s and 2000s that visual effects (VFX) and computer generated imagery (CGI) were used on a grand scale. C

Contest 33




JAMES CAMERON'S
AVATAR

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Q What is the private security force in the movie called?

A Combined forces	B Sec-ops
C Neo Cops	D None of the above



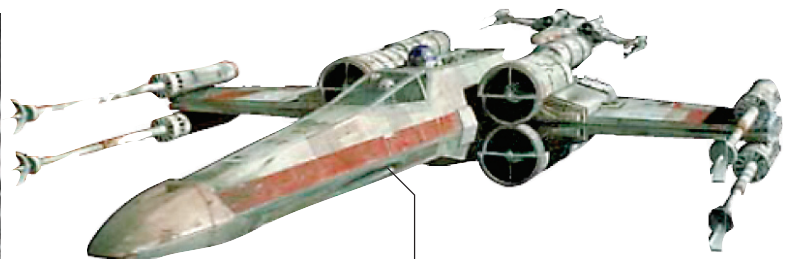
For more details about the contest turn to page 9



1902
The Journey to the Moon
 Director Georges Méliès invents techniques such as double exposure and stop motion



1927
Metropolis
 Fritz Lang laid the foundation stone of modern science fiction films. For his futuristic world, he used a mirror technique, which convincingly integrates miniature models and actors



1977
Star Wars
 The filmmakers use computer controlled cameras to make space ship models glide smoothly across the silver screen.

1982
Tron
 Walt Disney delights with a CGI (Computer-Generated Imagery) world. Animations are still completed through sketches

1900

1920

1940

1960

1970

1980

1925
Battleship Potemkin
 Sergei Eisenstein consolidates well-known editing techniques to enhance the emotional impact



1933
King Kong
 The stop-motion animated gorilla is too uncanny and brutal for the audience. Some scenes were cut

1968
2001: A Space Odyssey
 Director Stanley Kubrick creates a new yardstick with regards to use of sets and effects (front projection, slit scan)



1982
Star Trek II
 The first animated sequence in infinite space indicates where the journey is headed - towards computer graphics



TIMELINE

FILM EFFECTS

BY MANUEL SCHREIBER AND KAMAKSHI S

THE Lumiere brothers would have shocked, surprised, and even evoked a sense of terror among the common crowd when they presented the first film with moving images way back in 1895. As Louis Lumière rightly noted, "The cinema is an invention without a future". The move resulted in heavy competition that brought forth more and more spectacular effects. One major pioneer in the field was French filmmaker Georges Méliès, who was also known as the Cinemagician. He gave the world of cinema several magical filmmaking techniques that were soon considered as the standard repertoire, like double exposure, stop motion, mirror tricks, and the concept of a fictitious world on the big screen.

Contest 34

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
 IN ENGLISH, HINDI, TAMIL & TELUGU
 IN 5.1 DOLBY DIGITAL

Q What character does actor Laz Alonso played in the Avatar?

A Grace Augustine **B** Tsu'tey

C Jake Sully **D** None of the above

For more details about the contest turn to page 9

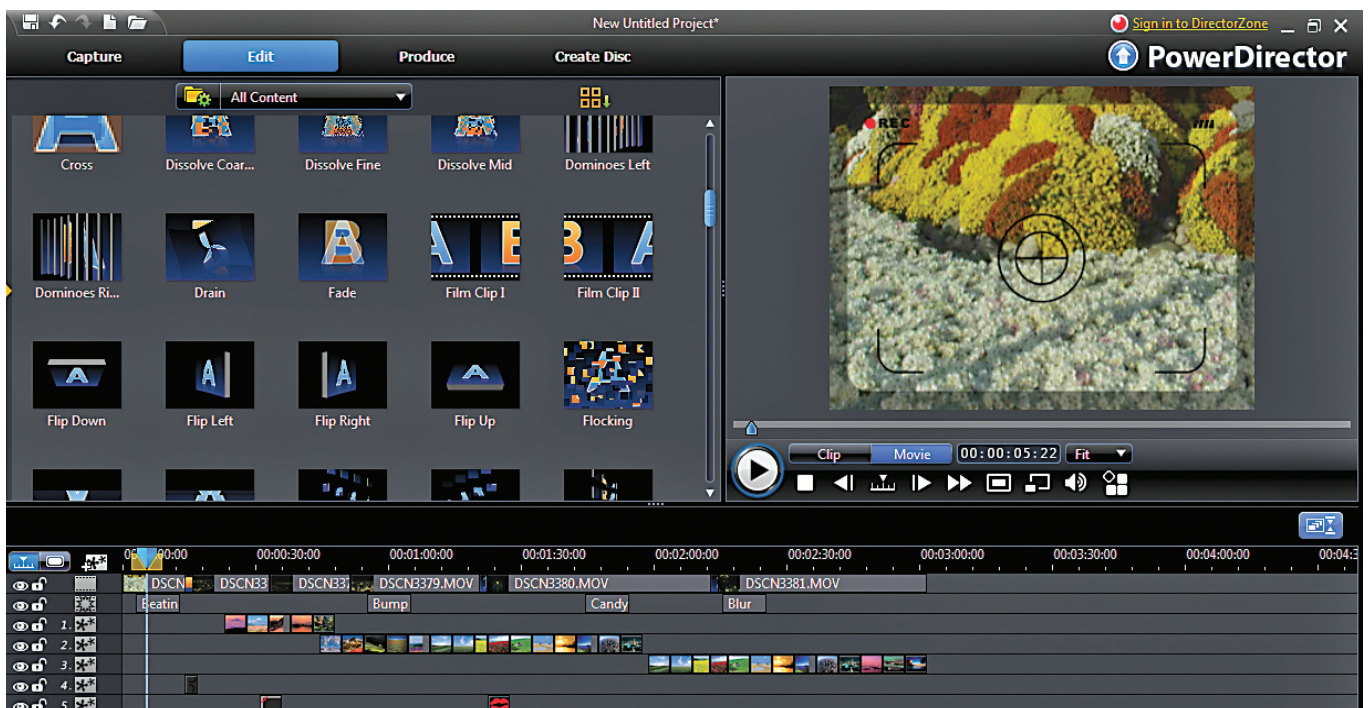
Cyberlink PowerDirector 8 vs Windows Movie Maker 6

Once you have your videos ready, you need to edit them before you can share them with the world. Here's a comparison between the popular Windows Movie Maker 6 that comes bundled with the Windows OS, and CyberLink PowerDirector 8, which is a shareware application.


BY KAMAKSHI S

WHAT'S SIMILAR BETWEEN WINDOWS MOVIE MAKER 6 AND CYBERLINK POWERDIRECTOR 8:

- ▶ Both applications help you edit videos in an array of formats.
 - ▶ The imported formats supported by both include MPEG-1, MPEG-2, WMV, AVI and MOV.
 - ▶ Both support an variety of transition effects on videos.
 - ▶ Both applications enable you to capture videos from camcorders, including high-definition videos.*
- * Available only with Windows Vista Home Premium and Ultimate editions of Windows Movie Maker.



Contest 36




JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q Who plays the character Larry Daley in the movie *Night at the Museum*?

A Harrison Ford	B Tom Hanks
C Ben Stiller	D None of the above



For more details about the contest turn to page 9

From the camera to your computer

So you've just returned from a holiday, and your camcorder is full of your recorded videos. Before you can share your experiences with friends, you'll have to first transfer the video to your computer. We show you how.

BY KAMAKSHI S

Media in all forms has gradually seeped into everyone's lives. Every second person has a digital camera, and those who never even thought about it are now casually pursuing photography. So why should you hold back? We give you a chance to try your luck, explore your talent and get it on with creating your very own home video using just about everything that you already have at your disposal.

In a nutshell, all you require to make a video from scratch is a camera, an average computer with an editing suite (even Windows Movie Maker will do) and a little willpower. Here, our scope is limited to importing the video you have shot and converting it to the format you'll need.

We will also fill you in on some basic editing techniques that will allow you to get down to action right away. While planning for this workshop, we shot a scene with a few 'actors', using a Panasonic SDR-H90 camcorder. The camera is a pretty high-end one but even with all the features it has, it comfortably fits into your budget. It has a built-in 80 GB hard drive as well as support for flash cards. Videos can be transferred to your PC using the USB 2.0 connectivity. You can use any other camera as long as it is possible for you to transfer the captured video to your computer for editing.

Cameras usually come with bundled software which guide you through transferring

videos and customizing the process.

The different programs you can use to begin editing with are Windows Movie Maker, Sony Vegas, Adobe Premiere, etc considering ease-of-use, feature sets, available effects and transitions, and production quality. Here, we will use the free Windows Movie Maker to edit our video.

EDITING: STEP-BY-STEP STEP 1:

Before you begin shooting, you must configure the general settings of your camcorder so that you can shoot at ease without bothering about settings. Most cameras come with presets for filters, effects, and shooting modes etc. so that you can add that extra zing to your videos. But it is recommended that you shoot videos plainly as there is an ocean of software support to enable you to add effects in the editing stages. Set the other options, such as the zoom speed, and volume level. Our test video features two actors and an outdoor location in the backdrop. The background is naturally lit and the scene involves a conversation between both actors.

STEP 2:

Once you have completed your filming, you need to move your masterpiece to the editing table. First up, you need to transfer your videos to your computer. This step depends on your camera and

Contest 38

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL



Q Which actor played the character Toroop in the 2008 film *Babylon A.D.*?

A Vin Diesel

B Eric Bana

C Gerard Butler

D None of the above

For more details about the contest turn to page 9



the availability of different transferring modes on it. Usually with today's cameras, videos are transferred using USB.

The bridge between your camera and your computer can be a USB cable. Ensure that you import the videos in the uncompressed format. This format will give you very good quality through editing and exporting. Many legacy cameras feature a direct disk write that would incorporate a mini-DVD in the camera, on which the movie would be recorded. These disks could later be used to back-up the movie on your computer.

STEP 3:

If you're transferring the videos on your camera to a computer without the aid of any software, you will need a video card or a TV tuner card. In any other case, you can transfer your videos to your computer using the standard import functions of editing software. Even Windows Movie Maker has the option to 'Capture Video'. We've explained how to do this later in detail.

When you transfer videos through editing suites, you can view them frame-by-frame and get information on dropped frames and various other glitches. In this procedure, you will have to rewind the tape in your camcorder and playback the video on your camera and hit 'Record' or 'Capture' in the editing software.

STEP 4:

This step is in case you have a camera which records on to a DVD or a hard disk. If your videos are recorded onto a DVD, you will have to finalize the DVD through the menu of your camera and then transfer it using the bundled software that comes with such cameras.

Another way to transfer data from a camera that records on a DVD is by simply copying the files onto a computer using the finalized DVD and then converting the files to .AVI for editing using conversion software such as VirtualDub. However, you should try and avoid this option as much as possible.



The camera used in this workshop is the Panasonic SDR-H90 camcorder. It is a decent buy and comes at very affordable prices for home users.




When shooting outdoors, make sure that there is ample source of natural light. Otherwise your videos may look very dark.



Once your video is shot, you can transfer the video clips to a computer using a USB cable, which is provided with your camcorder.

© Neha Mithbawkar

Contest 39




JAMES CAMERON'S
AVATAR

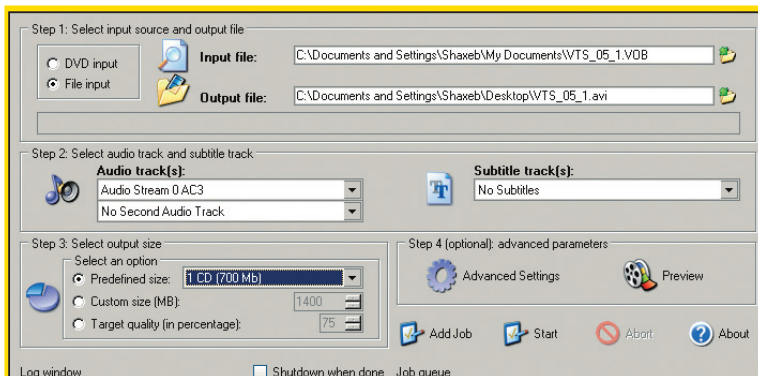
RETURN TO THE WORLD ON BLU-RAY & DVD
IN ENGLISH, HINDI, TAMIL & TELUGU
IN 5.1 DOLBY DIGITAL

Q Quantum of Solace is Daniel Craig's _____ movie as James Bond. Fill in the blank space

A First	B Second
C Third	D Fourth



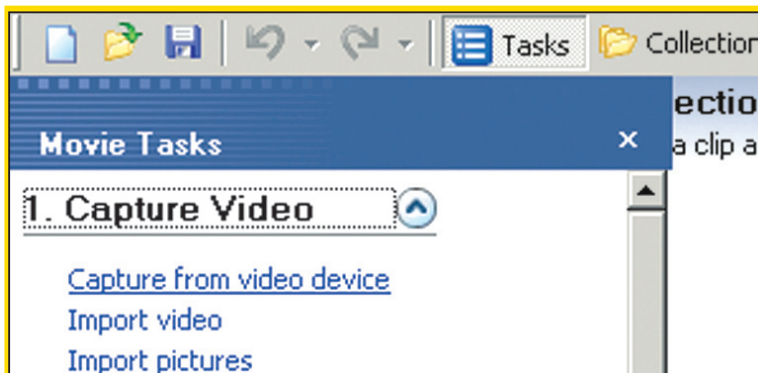
For more details about the contest turn to page 9



If you'd like your videos in a specific format, you can choose custom video and audio settings in Windows Movie Maker.

STEP 5:

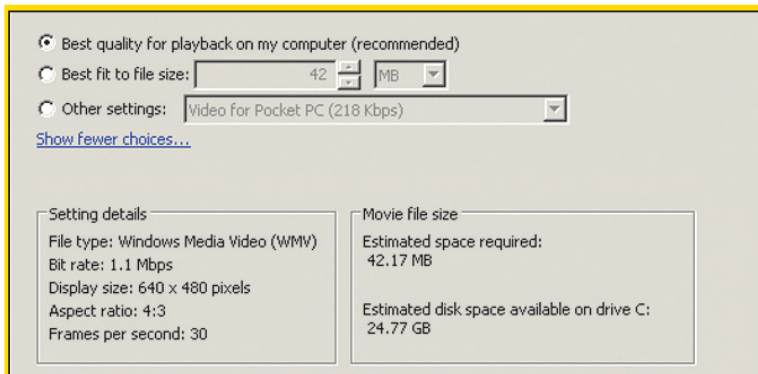
If you've connected your camcorder to a machine that does not have the software to grab video, you can use Windows Movie Maker that comes bundled with the Windows OS (Windows 7 does not come with an explicit video editing application, but Windows Movie Maker 6 is compatible with the OS). Just plug in your camcorder to your computer and go to 'Start | All Programs | Windows Movie Maker' to start the application. After the application begins, use the 'File | Capture Video' menu command. You can also use 'Capture from video device' appearing in the 'Tasks' shortcut on the main window. Save the files in the AVI format.



You can capture videos directly from the 'Tasks' option appearing in the Standard toolbar of the Windows Movie Maker application window.

STEP 6:

Once you have successfully imported all your files in the required format (AVI) on your computer, you can skim through them to mark and edit the sequences or add the required effects, text and music for your movie. You can also discard the unwanted scenes here. This step will help you filter through data and not carry forward redundant video to the editing suite. In most cases, you will be using the same program for editing that you used for capturing the videos, which means you will already have all your data in your editing software. In recent camera models and editing programs, the data is automatically imported as individual clips.



You can preview the effects before applying them to your videos. Once you have completed editing, save your file for future reference.

STEP 7:

Once you are satisfied with the video editing results, you should save the video files for future reference. For that, you can export the mix of your video edits, music, text, transitions and effects into a complete movie from the 'File | Save Movie File' menu option of Windows Movie Maker. You can also render your video in a range of sizes to fit your needs. If you wish to share the video, there is an option for saving to the web and e-mailing it, which renders the movie in a lower file size. Check your final export settings properly and then enjoy your golden moments with some popcorn. ☺

JAMES CAMERON'S
AVATAR

RETURN TO THE WORLD ON BLU-RAY & DVD
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IN 5.1 DOLBY DIGITAL



Q Quantum Of Solace is the _____ film in the Bond series. (fill in the blank)

A 20th

B 21st

C 22nd

D 23rd

For more details about the contest turn to page 9

