K SERA SERA
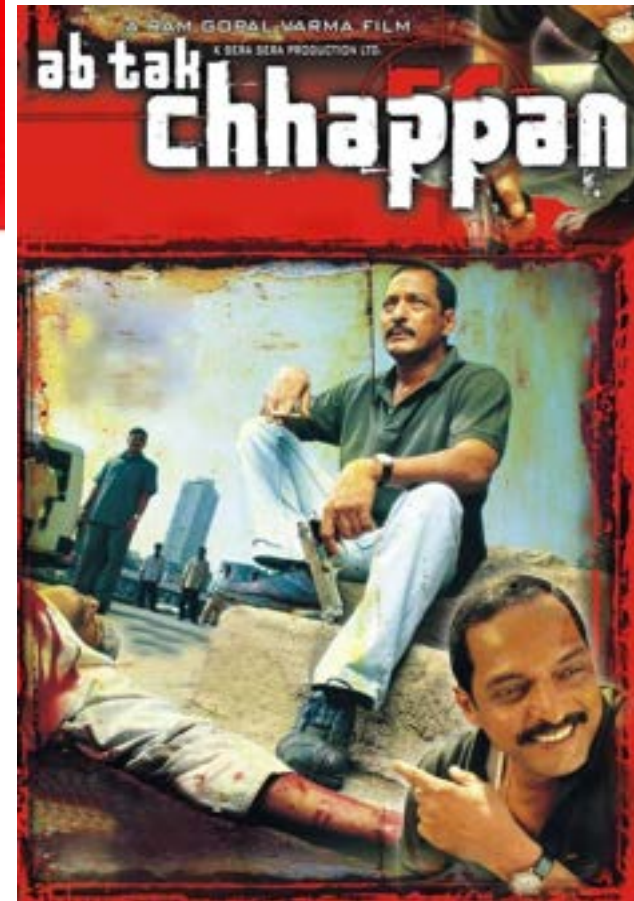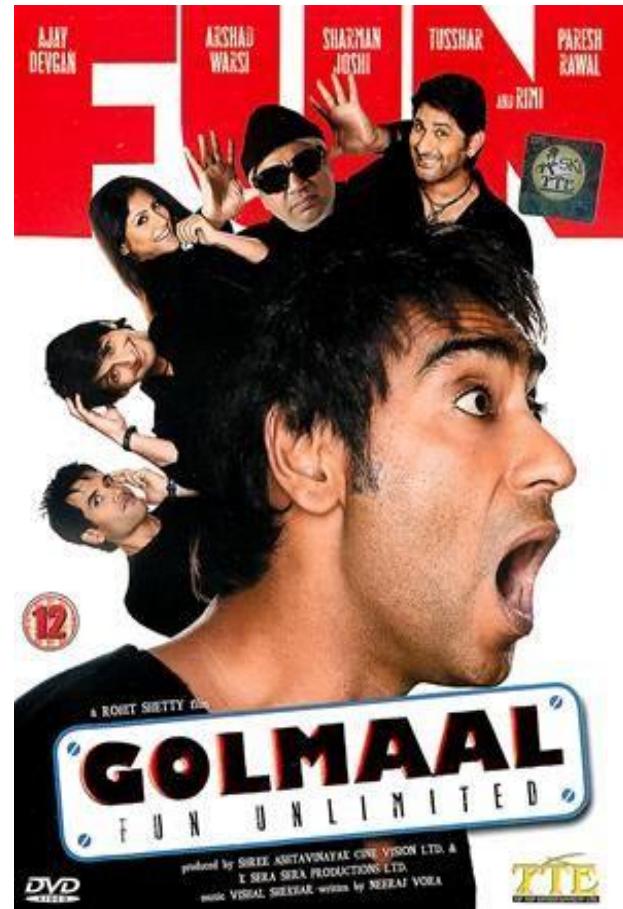
VIRTUAL PRODUCTION STUDIO

EFFECTIVE

COST

TIME

QUALITY
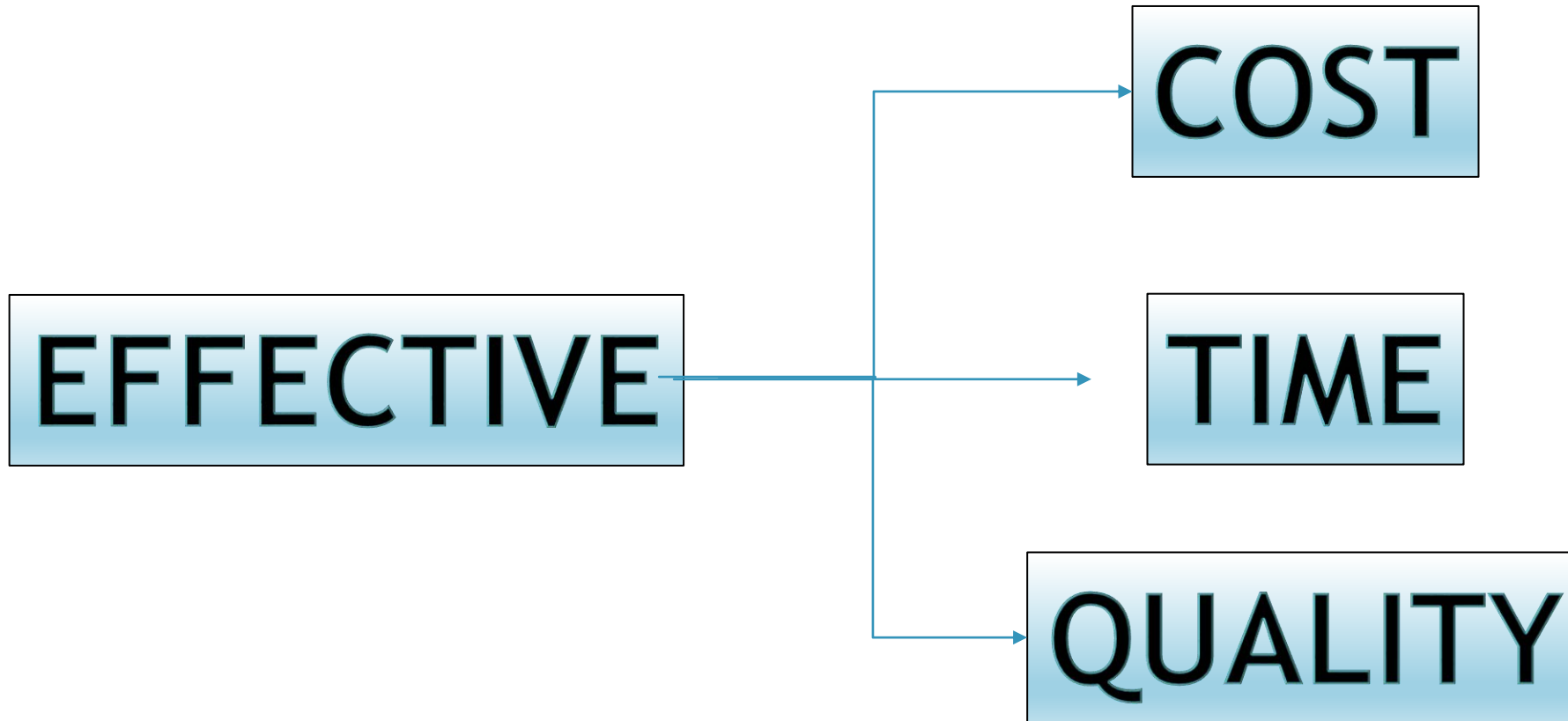
K SERA SERA

K Sera Sera Group (KSS) is a 360 ° Media & Entertainment Company. We are the largest Digital Service Providers in India and the first Indian Company to be a Producer, Distributor & Exhibitor all together.
KSS has produced and distributed over 100 films and hold approx. 1100 Theatres across India in the name of Chhotu Maharaj Cine Restaurants and KSS Miniplex as well as owning Indias First and Largest LED Virtual Production Studio in Mumbai.

"K Sera Sera has always been a futuristic and a Visionary Company. We believe in changing the world with emerging technologies that improves the speed, quality, and cost of services. Right from launching the First Miniplex concept, First full HD Digital Service technology, First dome cinema and now First and largest Virtual Production Studio in India, we develop the technology of the future where we work towards creating a better world long term."

-- MR. SATISH PANCHARIYA
Group Chairman

BLOCKBUSTER FILMS

K SERA SERA'S SERVICES FOR PRODUCERS / STUDIOS / FILMMAKERS :

1) **Production :** We Provide Complete Production services in both traditional filming method and virtual production from development of the project, pre-production, production, post-production, and finally Distribution.

2) **Distribution**: We Provide both National and International Distribution Services with marketing and P&A Guidance

3) **Virtual Studio :** We Have India's First and Largest 4 floored LED Virtual Production Studio in Mumbai which consist of all the services a filmmaker requires in Virtual production with top technical Team of India for your assistance.

4) **Studio** : We finance the projects that we shortlist and present the films/ webseries and other approached contents from various film makers

5) **OTT Deals :** We help the producers to presale their projects to Studios and other OTT Platforms and also assist in syndication of their completed projects

6) **Digital Content :** We are one of the largest Digital Service Providers in India.

7) **Film Exhibition :** The public screening of the movie or the film's release in theaters.

8) **Previz:** A Sequence Of visuals of your entire project, Typically With Some Directions And Dialogue, Representing The Shots Planned For A Film , Web-series Or Any Content Production with detailed camera angles and specification to provide overall look of your project before principle photography .

9) **Post Production:** In Film, the phases of post-production include: **Editing, video editing, color grading, sound editing, animation and visual effects insertions, etc.**

10) **Subsidy :** We help the filmmakers to complete the government process and gain subsidy.

VIRTUAL PRODUCTION – THE FUTURE OF STORYTELLING

Virtual Production seamlessly combines physical and virtual elements using a suite of software tools. Studios can film on a stage and view virtual graphics together in real-time. Changing locations is as simple as swapping out a background. Directors and D.O.P can see the final film assets and instantly make changes on the environments created even on the day of shoot.

WHAT IS VIRTUAL PRODUCTION?

Virtual Production (VP) is a rapidly growing area of content production. By combining CGI game – engine, and virtual reality technologies, VP enables completely new ways of making film, from virtual scouting , to set design, to real –time, on-set visual effects, VP techniques impact many core disciplines within filmmaking, from cinematography, to production design, VFX, animation, directing and beyond.

VP project uses an LED stage driven by Unreal Engine through which filmmakers can now shoot the entire world under one roof which includes any outdoor/indoor location , any period / futuristic project, a car chase or dog fight scene and any climatic conditions etc. VP also requires artistic and technical disciplines, including Technical Artists, Lighting Specialists, Color Specialist , Technical Designer/ Directors, Camera Hardware/ Software Pipeline Engineers, LED Hardware Engineers, Or VP Technical Generalists.

VIRTUAL STUDIO

K Sera Sera's Virtual Production Studio is India's first and largest LED volume studio which offers innovative methods of filming, a new age technical team, visualizations, post-production, editing and support on the unreal engine to the producers as per their requirements.
This Studio is your preferred partner for the provision of Virtual Production services. With some of the industry's brightest talent on hand, we offer a streamlined solution to bring your team and assets into the next generation of film making.

This Studio is located in Mumbai which consist of 4 shooting floors equipped with LED. Along with that we own N-Cam and other camera tracking equipment's.
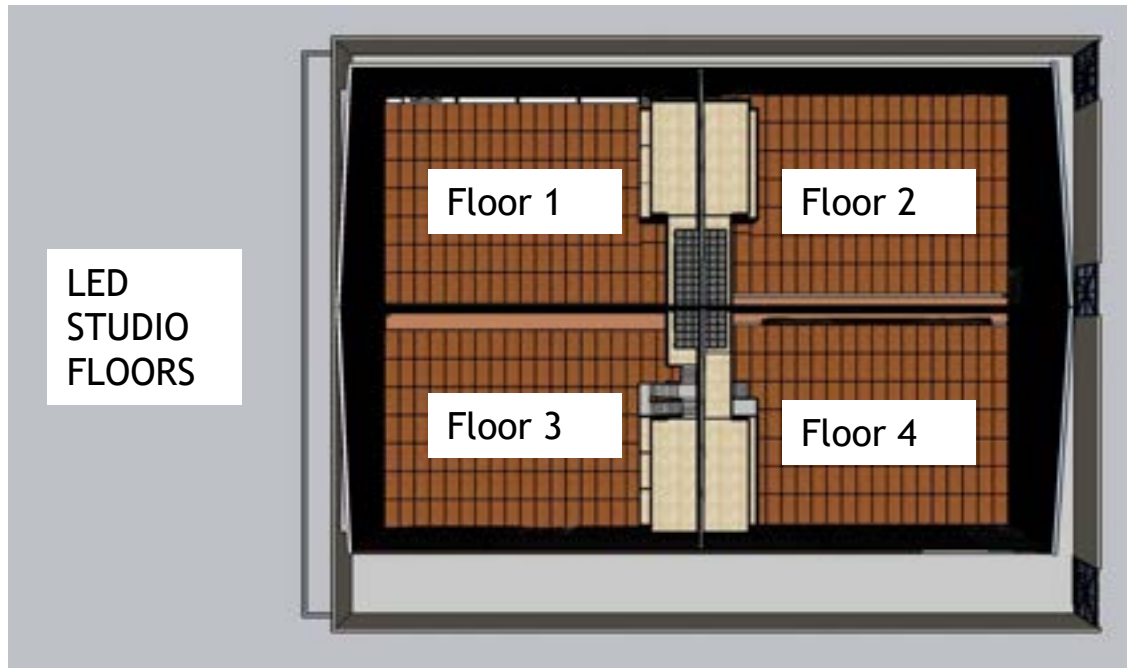
ADDRESS :

Haiban Studio, D 3/4/5, 401107, Hatkesh Udhog Nagar, Mira Road,
Mira Bhayandar, Maharashtra 401107

CONTACT :

+91 9372773141
+91 9321702125

LED STUDIO FLOORS

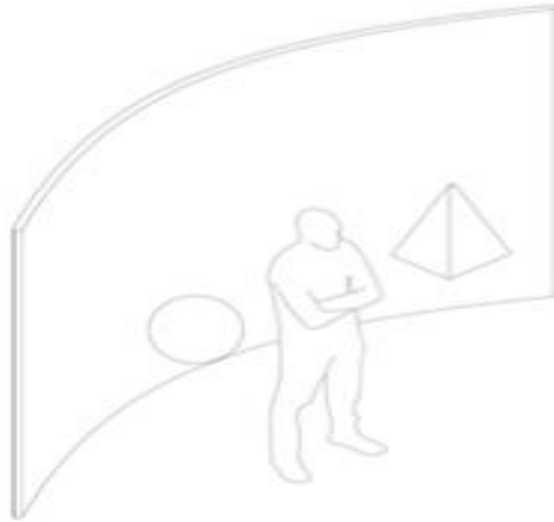|	
Floor 1	Floor 2
Floor 3	Floor 4

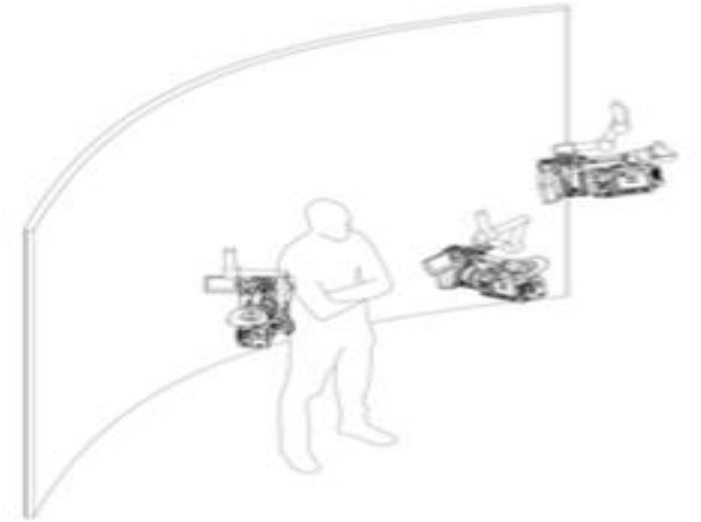MUMBAI STUDIO

SOON K SERA SERA'S VIRTUAL STUDIO IS COMING IN YOUR CITY MADHYA PRADESH WITH 25% OFF SUBSIDY UNDER MP GOVERNMENT.
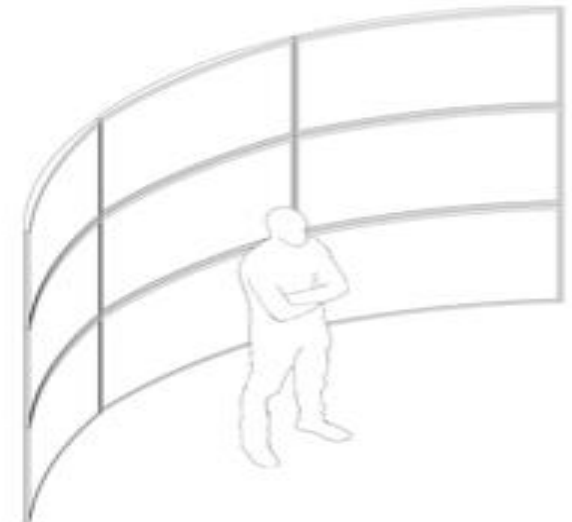
TYPES OF VIRTUAL PRODUCTION

Visualization

Performance Capture

Hybrid Green Screen Live

Full Live LED Wall

1) Visualization

Visualization is probably the virtual production use case most filmmakers are most familiar with. We can define visualization as prototype imagery created to convey the creative intent of a shot or sequence. Visualization can take the form of pitchvis, previs, virtual scouting, techvis, stuntvis, and postvis.

Pitchvis is imagery created to help an in-development project earn a greenlight from a studio or gain interest from would-be investors. Pitchvis might include specific signature sequences from the proposed project or an overall trailer to help convey the filmmakers' creative intent. Some examples of movies which were greenlit in part due to a trailer created as pitchvis include Godzilla (2014), Men in Black 3, World War Z, Jack the Giant Slayer, and Oz: The Great and Powerful.

Previs is the most widely-recognized form of virtual production, as it's regularly presented in behind-the-scenes clips and in before/after visual effects presentations from popular movies. Previs can include music, sound effects, and dialogue designed to approximate the look and feel of final sequences. The advantage of previs is that it enables filmmakers to experiment with different staging and art direction options such as lighting, camera placement and movement, stage direction, and editing without incurring the higher costs of actual production. Storyboards and animatics are both precursors to previs and today, it's rare to find a major motion picture which doesn't deploy previs in some capacity.

Virtual scouting presents a completely digital version of a location or a proposed set which crew members can interact with. The interaction might take place in an HMD (head-mounted display) or simply on a computer screen. The VR version of virtual scouting can include repositionable props and virtual cameras with lenses which can be used to plan out shots, define set builds, and/or shoot entire sequences without building a single flat. It also enables filmmakers to focus on specific areas of importance and filter out areas of less importance to avoid creating assets that won't be used. To date, many films have involved virtual scouting as part of their pre-production process.

Techvis is the combination of virtual elements with real-world equipment for the process of planning shots as well as combining already captured footage with virtual assets. It is also the area where camera moves, camera placement, and lens choices can be validated, mitigating the risk of physically implausible virtual choices.

Stuntvis is a type of techvis tailored specifically to the planning of stunt work. Stuntvis is usually guided by the stunt coordinator or action choreographer. It includes the development of scene blocking, choreography, stunt testing and rigging, set design, prop and weapon concepts and—in conjunction with the director of photography—camera placement and movement, together with lighting setup. By leveraging the real-world physics simulation available in real-time engines, stunt coordinators can directly translate digital results into the real world. Stuntvis has multiple purposes, It's used to sell the director and producers on the vision, to work out certain beats before a shoot to make sure they play correctly to camera and, most importantly, to act as a souped- up storyboard that can be referenced by multiple departments."

Postvis involves the creation of imagery merging live-action elements with temporary visual effects, or the creation of new CG shots to provide placeholders for editorial. For example, Halon Entertainment provided postvis shots on War for the Planet of the Apes by adding temporary versions of CG apes as well as military vehicles and artillery into many live-action plates, along with fully CG shots for shots intended to be completely CG. Postvis provides the director and editor more visually developed scenes to guide their work, especially for sequences with partial sets and in which visual effects drive the story. It also functions as a visual communication tool for the director to communicate with the visual effects team.

Postvis combines already captured live action with visual effects in progress to help guide post-production.
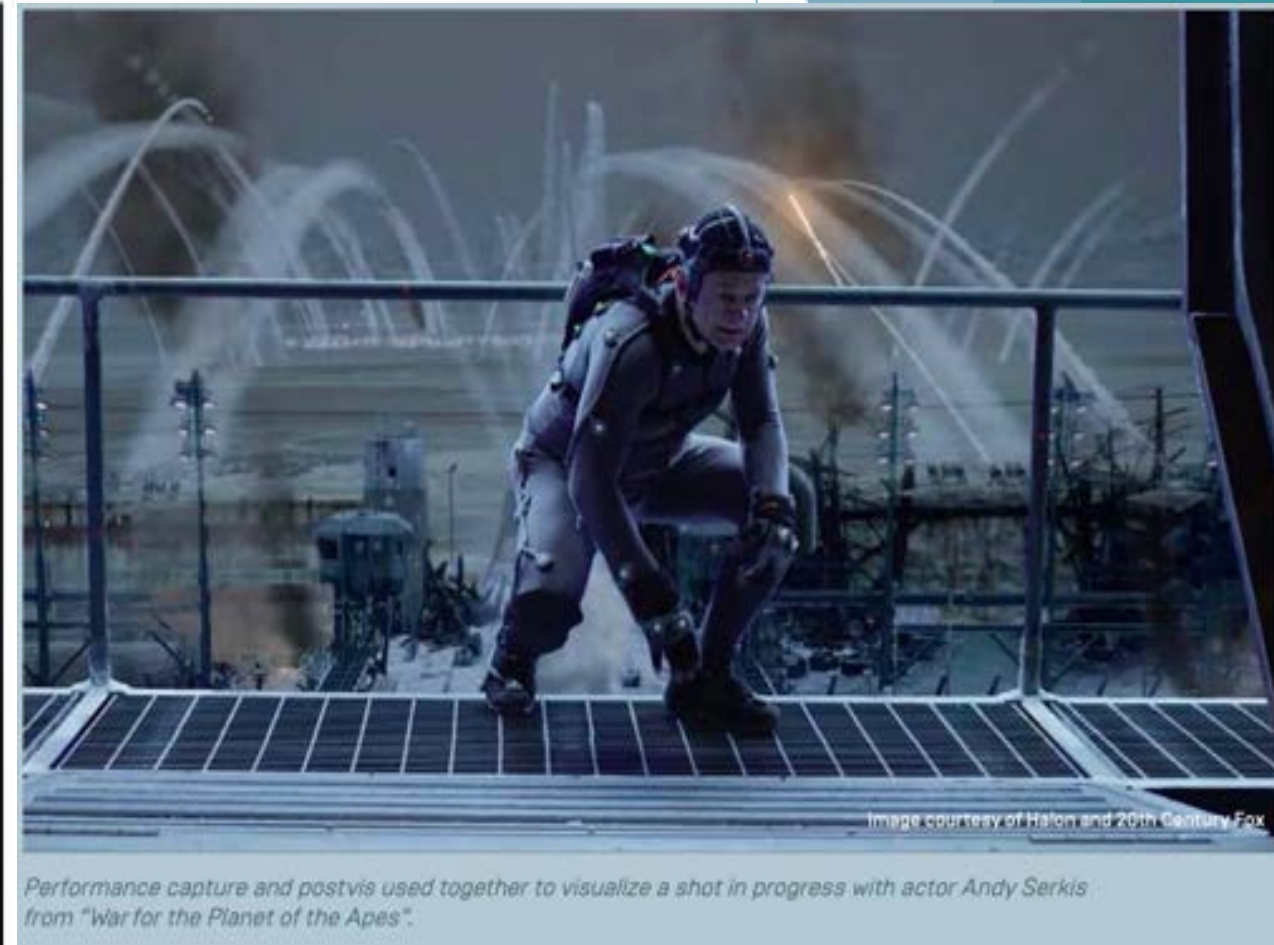
2) Performance Capture

Motion capture is the process of recording the movements of objects or actors and using that data to animate digital models. When it includes the actor's face and more subtle expressions, it's often referred to as performance capture. Body capture is accomplished by the actor wearing a suit covered in markers that are tracked by special cameras or a suit with built-in sensors. Facial capture involves using either depth-sensor cameras for markerless facial capture, or tracking markers drawn directly onto the performer's face.

Performance capture can be accomplished on a traditional set where virtual characters are intended to interact within real-world environments. Simulcam is a technique where a virtual camera is synchronized to the movements of a real camera in the physical world. Simulcam is often used to superimpose virtual characters over the live action in real time and aid in framing and timing for the crew.

Or if the film is entirely animated, the capture process occurs on a specially designed performance capture stage called a volume. A capture volume has the added advantage of decoupling the camera from the performance. That is, once the motion data has been captured from the actors, the scene can then be re- animated from any camera perspective desired.

Although the performance capture process is advanced and refined, it has its roots in 2D rotoscoping, where the actors are filmed in scenes and then animation is hand-traced to match their actions. Many animated Disney films used forms of rotoscoping and it was also used extensively in the animated films of Ralph Bakshi. Performance capture can take the form of facial capture and full-body animation.

Performance Capture

Performance capture and postvis used together to visualize a shot in progress with actor Andy Serkis from "War for the Planet of the Apes".

Facial capture is performance capture concerned primarily with capturing the facial performance of the actor. This data is used to transfer their performance to another character either human or non-human. Although full-body animation often includes facial capture, sometimes facial capture alone is required or can be done separately from the body performance. Some examples include Tarkin from Rogue One and The Curious Case of Benjamin Button.

Full-body animation transfers the entire movement of an actor onto another character. This usually involves some form of retargeting or scaling, specifically if the animated character is of a markedly different body geometry compared to the actor. Some popular examples of full-body animation include Avatar, Gollum from The Lord of the Rings, the dolls in Welcome to Marwen, and the most recent Planet of the Apes series.

3) Hybrid Virtual Production

Hybrid virtual production is the use of camera tracking to composite green screen cinematography with CG elements. This is created either as a live preview for the director of photography and the camera operator, and completed in post- production, or is intended as final pixel in camera. This type of virtual production has been used for a while for live broadcast, especially in sports, but has also proliferated increasingly into feature and episodic production. The two primary modes of hybrid virtual production are real-time and post-produced.

Real-time hybrid virtual production on green screens first appeared in broadcast news weather reports, where the weather person is chroma keyed live over a map with the forecast. These results are typically of passable quality with a locked-down camera and never intended to approach feature-level quality. That said, the quality of solutions has improved greatly in recent years with the addition of faster GPUs and real-time engines. For example, the Zero Density system leverages Unreal Engine to produce live-to-air composites for a variety of news and entertainment shows. Users of Zero Density for real-time virtual production in studio broadcasts include FOX Sports, Canal +, RTL, TF1, and Sky News.

Post-produced hybrid virtual production uses camera tracking data to provide a live, in-camera composite image when shooting green screen. The live composite is typically at a proxy resolution and meant as a reference to block out the shot while capturing/filming the actors and props in front of the green screen. It is meant to help the director, director of photography, and camera operator gain a better spatial understanding of virtual elements such as CG characters and set extensions so that visual effects in post are better integrated. An advanced version of this approach was used to create The Jungle Book. This technique has also been popular in episodic TV series such as Revenge, Pan Am, Once Upon a Time, and American Gods.

Composite

Foreground

Real-Time VFX

Matte

Background Image courtesy of MR Factory

Post-produced hybrid green screen virtual production uses Simulcam and camera tracking to make live-action production more interactive.

Live LED Wall In-Camera Virtual Production

Imagine stepping onto a film set that lets you capture a golden hour that lasts the entire day, change the weather, move photo real background mountains, see a blockbuster-quality VFX creature interact with actors, or scout for locations around the world, all without leaving the room.Now imagine doing this entirely in real-time. That's what happens when you use LED virtual production technology.

The use of image output from real-time engines to a live LED wall in combination with camera tracking to produce final-pixel imagery, completely in camera, represents the state of the art for virtual production. At its most basic level, LED virtual production is what happens when a combination of technologies lets filmmakers replace their green screens with walls made up of LED panels. With the help of a game engine, these LED walls display real-time backdrops and visual effects, all directly on set. This creates a far more immersive experience for the entire film crew compared to using green screens Using an LED virtual production stage means filmmakers can see—and capture—all the final pixels of a shot in-camera on set

The benefits of live imagery projected behind the actors are massive. In some respects, it's also the culmination of all of the previous development work done in the sphere of virtual production.

The camera operator can frame as they would any real object and the actors can react not to a marker representing an imaginary image, but the actual final imagery live in front of them. All of the natural reflections and lighting from the screen provide important artistic cues and enhance the realism of the imagery, compared to the typical struggle to avoid contamination from the green screen's color spilling onto the subject as well as creating unwanted reflections.

Some notable films over the years which used film projector front or rear projection include The Wizard of Oz, North by Northwest, 2001: A Space Odyssey, The Fugitive, and Terminator 2: Judgment Day.
And recently the film " BULLET TRAIN" released in 2022 was completely shot on LED Virtual production.

# Benefits of using LED Virtual Production For filmmakers

1. There is no need to travel, We can shoot the entire world under one roof which include all location, climatic condition , period films, futuristic, Sci-fi, genres, etc.
2. Virtual Studio set is much faster to set up than a normal studio set.
3. The entire location can be changed in one click without having to shift the cast, crew and equipments to other location.
4. LED virtual production reduces the production budget / COP up-to 40% for the producers / studios
5. Post-production teams will no longer have to spend time keying from green screens.
6. Post-production teams will automatically have correct reflections and contact lighting on actors or physical set pieces, as well as no more green spill.
7. If a director wants to change the angle of the light so that the shadow on the actor goes in a different direction, the director no longer has to move any real lights. They just have to move the sun in the virtual LED environment.
8. Directors and cinematographers will be able to see, modify and sign-off on background locations and visual effects in pre-production (even doing virtual location scouts) so there are fewer re-shoots or iterations needed in post.
9. Large-scale set extensions can be created to seamlessly match with the LED backdrop in post, just in case the LED wall doesn't fill up the whole camera view.
10. Dynamic augmented reality elements can be seamlessly added for LED assets that need to move in front of your actors.

How Virtual Production Solves the Problem- In Contrast To Traditional Production Techniques :

1) Encourages a more iterative, nonlinear, and collaborative process.
2) It empowers the filmmakers (including department heads) to collaboratively iterate on visual details in the moment, not deferring all of these decisions to post. Iteration begins much earlier in the production schedule.
3) With a real-time engine, high-quality imagery can be produced from the outset. Instead of different teams creating incompatible assets siloed off from one another, assets are cross-compatible and usable from previsualization through final outputs.
4) For filmmakers, the uncertainty of traditional pre-production and visual effects production are replaced with working imagery far closer to final pixel. And because this high-quality imagery is produced via a real-time engine, iteration and experimentation are simplified, cost-efficient, and agile.
5) The process feels much more connected and collaborative.
6) Pre-production and principal photography can be executed organically and holistically.
7) Filmmakers and department heads are empowered to respond to discoveries of the moment.
8) Creative decisions about shots and sequences can be resolved much earlier in Pre production, when the entire team is present, and not left to the last minute of post-production when crews have long since disbanded.
9) When it comes to editorial, virtual production also alleviates uncertainty by providing provisional imagery much closer to its final appearance and helping to eliminate missing or in-progress shots. When shots that might have been previously photographed in front of a green screen are replaced with in-camera, LED wall visual effects, the editor has much more to work with. It becomes possible to edit shots and sequences featuring major visual effects the same way as traditional non-effects scenes. The editor edits during principal photography so the crew can immediately shoot pickups, or make adjustments while shooting, instead of finding out about the issues long after principal has wrapped.

10) This has the potential to shave off days of unnecessary shooting. The result is much greater shot-to-shot continuity, fluidity, and agency over the scene.
11) Definitive edits of scenes can be arrived at more quickly and collaboratively.
12) Creating previs imagery via a real-time engine unlocks additional benefits. Sequences can be quickly updated and output at very high levels of image quality. As a result, more members of the team can share the vision of the final content much earlier in production.
13) Sets can be built to more exacting specifications with a closer match to the filmmakers' vision, stunts and special effects can be prepared in advance and executed with greater safety, and integration with visual effects can be accomplished in the most efficient and visually dynamic ways.
14) Previsualization and visual effects teams can also collaborate directly, playing in the same sandbox with shared assets and a unified pipeline because real-time assets and final effects shots can leverage the same base model.

All of these efficiencies and increased image quality offer a trickle-down effect to more modest and tightly scheduled productions. By leveraging virtual production techniques with a real-time engine, network series, streaming productions, and indies can all achieve very high-quality imagery and epic scope. A real-time engine has the potential to eliminate many of the bottlenecks of budgeting, schedule, and development time that can prohibit smaller-scale productions from producing imagery on par with blockbusters.
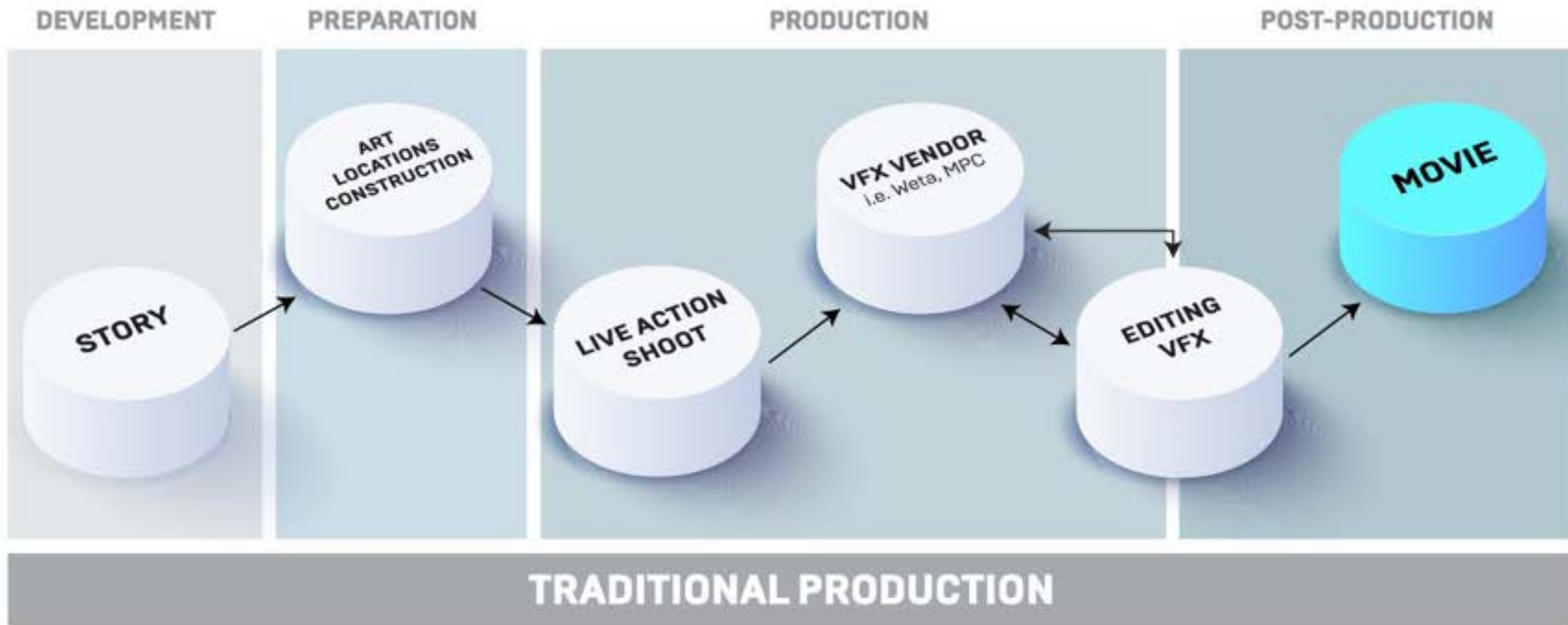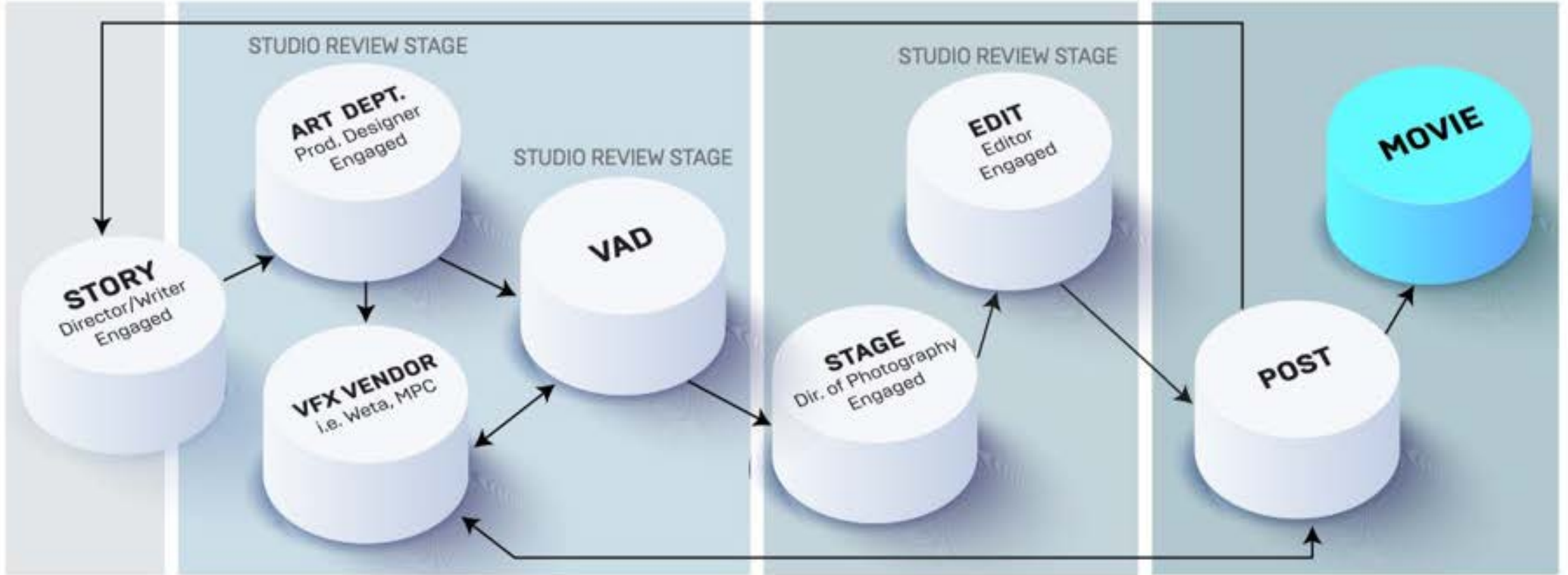
Virtual Production Project Types

Fully Animated Virtual Productions

Virtual production in the form of performance capture has already massively changed the way many animated films are produced. To understand this, we should take a few steps back to consider the history of animation. In many of the early hand-animated films, animators used a variety of reference footage to achieve more lifelike animation.

Rotoscoping is the practice of tracing over frames of live-action footage to create realistic movement. The process was originally invented in 1915 by Max Fleischer, whose Fleischer Studios went on to apply the technique to animated characters such as Betty Boop, Popeye, and Superman. Disney used a variation of this process by filming actors enacting scenes for reference and then using that to guide the movements in animation, though not traced precisely frame by frame. The technique enabled the animators to achieve an overall lifelike motion while not being rigidly tied to the live action footage.

The Disney rotoscoping process was used on films like Snow White and the Seven Dwarfs, Alice in Wonderland, The Little Mermaid, and many others.

We mention rotoscoping in particular because performance capture is its virtual production equivalent, in which the motion of an actor's body and face are accurately sampled for transfer to digital characters and environments.

With performance capture, animated films gain much more realistic and lifelike animation, and do so far more rapidly and cost-effectively when compared to manual animation processes. Performance capture is often combined with virtual cameras, where the filmmakers create camera moves using real camera rigs or other virtual control devices as tracking devices to record the movement of the camera, which can then be replicated in the CG environment.

Some specific examples of fully animated films and series created via performance capture include: The Polar Express, Beowulf, Tintin, Word Party, Zafari, and The Lion King.

A frame from a fully animated virtual production.

Live-Action Virtual Productions

Virtual production has been used to plan or directly enhance imagery in a variety of major motion pictures. Typically, virtual production is more common on visual- effects-driven movies, but can also include effects enhancements to more traditional or non-effects films.

Major visual effects films of the past decade have come to rely the most on virtual production, and that reliance is increasing steadily. Virtual production helps from the planning phase in the form of pitchvis and previs. It continues on for performance capture, stuntvis, techvis, and postvis. Some examples of major motion pictures heavily reliant on virtual production include Disney's Marvel movies, Avatar, Star Wars, The Lord of the Rings, Jurassic World, Pirates of the Caribbean, Harry Potter, Transformers, and many others.

Of course, we should broaden our perception to encompass projects that are not necessarily effects-driven but still rely heavily on virtual production. These are films that leverage virtual production to portray an impossible situation or setting with veracity. Some examples include Rent, Jarhead, Life of Pi, Mad Max: Fury Road, Logan, Bohemian Rhapsody, Welcome to Marwen, Rocketman, bullet train and more.

EQUIPMENTS & SOFTWARES OF VIRTUAL PRODUCTION

LED volume is made up of a cluster of **cabinets.** Each cabinet has a fixed resolution that can range from a very low resolution, such as 92x92 pixels that can be used for outdoor signs, to 400x450 pixels for ultra-high-resolution indoor displays. The physical size of each cabinet can vary from manufacturer to manufacturer.

LED processor is the hardware and software that combines multiple cabinets into an array that displays a single image. You can arrange the cabinets in any configuration inside the canvas that the LED processor drives. On a large LED stage, there could be ten or more LED processors driving a seamless LED wall.

Pixel pitch describes the density of the pixels in a cabinet and correlates with its overall resolution. The pixel pitch is typically described in millimeters and represents the distance between each LED light. The closer the LEDs are together—the lower the pitch—the higher the pixel density. A higher pixel density means a noticeable increase in resolution and quality—and higher cost for each cabinet.

The LED stage design and its intended use is integral to the in-camera VFX setup. The number of panels in an LED volume that are needed and how they are laid out drives the rest of the hardware setup. LED panels can be placed in an arc pattern around the actor to provide better ambient lighting and reflections. It is also useful for providing an LED ceiling to contribute to the ambient lighting and reflections on the overall scene. Productions that intend to create a fully virtual environment may require at least a 270-degree enclosed volume to achieve accurate set lighting and reflections. If a substantial part of the set is a physical build, and the virtual world is only needed for a portion of the set, such as for set windows, then a one-sided or curved wall can be considered. Other factors, including production budget, physical space constraints, and, in some cases, the availability of panels from the manufacturer, may also impact the LED stage design.

CAMERA TRACKING

Camera tracking is needed to relay the position and movement of the camera from the real world to the virtual world. With this technology, the correct perspective of the production camera is rendered relative to the virtual environment. There are several different methods available for camera tracking with in-camera VFX.
Some of the most common methods for camera tracking include:

Optical Tracking: Optical tracking systems leverage specialized IR-sensitive cameras to track either reflective or active IR markers, in order to determine the location of the production camera.

Feature Tracking: Instead of tracking the custom markers that optical tracking systems use, feature tracking involves identifying specific image patterns of real-world objects as the tracking source.

Inertial Tracking: Inertial Measurement Units (IMUs) contain a gyroscope and accelerometer to determine the position and orientation of the camera. IMUs are frequently used with both optical and feature-tracking systems. Using multiple sources for measuring the camera position and orientation, such as optical tracking combined with inertial tracking, is recommended for in-camera VFX. Multiple sources can enhance the overall camera-tracking data compared to using any single technique.

CAMERA TRACKING

Time code and Gen-lock for In-Camera VFX

On an in-camera VFX film set, it is very important to have highly accurate synchronization between all devices. Each device, such as the camera, computers, and tracking systems, has an internal clock. Even though two devices may be exactly the same, their internal clocks will not be in sync with each other. This can cause problems in the resulting display, such as tearing, if they are not unified. Gen-locking with Display prevents these issues.

Multi-User Editing for In-Camera VFX

For shots that can't quite be achieved as in-camera finals, the system provides a fallback option. The inner frustum can be easily changed to a green screen with adjustable tracking markers. The outer frustum can continue to display renders from the Unreal Engine environment.

Using a green screen only in the camera's FOV minimizes the amount of green screen required for a given shot. Less green screen means less green spilling onto the actors and set. Continuing to display renders from the Unreal Engine environment on the outer frustum allows the production to still take advantage of the real world lighting and reflection capabilities of in-camera VFX. Both contribute to improved green-screen elements for compositing. Green-screen shots also benefit from live compositing, which allows filmmakers and performers to get a fuller sense for what the final shot is going to be as opposed to the classic sea of green. These comps can also be very valuable as preview shots for editorial.

Composure is Unreal Engine's framework for real-time compositing. With this suite of features, you can include live video feeds, AR compositing, green-screen keying, garbage mattes, color correction, and lens distortion in your shots. Composure is a flexible system where you can extend and create your own material effects.

Remote Control for In-Camera VFX

Since there can be so many machines involved in an in-camera VFX shoot, controlling the scene in real time from a web app can be useful on set. For example, you can change the color correction, lighting, and virtual actor positions from the web app. Included in the In-Camera VFX Example Project is a sample Remote Control Preset and Web Application to show how you can incorporate this technology into your production workflow.

OpenColorIO

OpenColorIO, or OCIO, is a color management system used primarily in film and virtual production. OCIO guarantees that the colors of captured video remain consistent through the entire film pipeline. This pipeline includes from initial camera capture, through all the compositing applications that need to work with the captured media, all the way to the final render.

Timed Data Monitor

Unreal Engine can ingest a variety of data types from multiple sources at the same time. For example, in Virtual Production, the engine can receive captured frames from the camera on SDI as well as the position and orientation of the camera from the tracking system through Live Link. The **Timed Data Monitor** is a solution to configure and visualize how all this incoming timed data relates to each other and the engine's time.

Level Snapshots

Level Snapshots enable you to save a particular configuration of the Actors in the World Outliner of your Level and instantly restore your scene to that state. This can dramatically streamline complex setups and avoid duplication and management of multiple variations of the same Level for different scenarios. Level Snapshots are especially useful for Virtual Production, as they enable users to reset virtual environments to their starting position between takes as well as track per-shot changes that may occur during a shoot while preserving the base starting point of the Level.

Live Link

Live Link is a framework in the Unreal Engine for ingesting live data, including cameras, lights, transforms, and basic properties. For in-camera VFX, Live Link plays a critical role in distributing the tracked camera information and can be enabled to work with nDisplay to carry the tracking information to each cluster node. Unreal Engine supports many camera-tracking partners through Live Link, such as Vicon, Stype, Mo-Sys, and Ncam, as well as several other professional tracking solutions.

Camera Calibration

Creating accurate compositions from CG renders and live video requires a virtual camera in Unreal Engine that accurately simulates the physical camera used to capture the real-world video footage. The virtual camera's position and orientation must closely match that of the physical camera, and its tracking information must match the video feed's exact timing to ensure each video frame is accurately synced to the position of the camera for each moment in time.

The Camera Calibration plugin provides users with simplified tools and workflows to calibrate a camera and lens in the Editor. This calibration process generates the data necessary to accurately align the virtual camera with the physical camera's position in space, and to model the lens distortion of the physical camera. The plugin introduces the Lens File asset type which encapsulates all of the calibration data for the camera and lens.

VIRTUAL STUDIO SET BENEFITS

One unique feature of the virtual studio set is the option to use the camera to move in the 3D virtual space, which means that the virtual scene can adapt to camera settings for functions like zooming, angle, pan and so on. Compare to normal studio settings, virtual studio set does not require any post-production as the virtual background can be easily programmed and edited by graphic artist and programmers specializing in 3D graphic design.
Other technical features and tools for virtual studio set included camera tracking using mechanical or optical measurements for the creation of live stream data, Software that renders the image of the studio set in real time and video mixer that combines the video form the camera and real-time rendering software to create the final video output or replacing of the chroma key background.

Compared to the normal studio set which is often more time consuming and expensive. Virtual studio set has more advantages and benefits as described below.

1. Virtual Studio set is much faster to set up than a normal studio set.
2. It is possible to get a video footage in a different environment and merged the video to the virtual studio set together in real time.
3. Virtual studio sets can be shot in multiple angles using cameras set from a different point of view.
4. It is even possible to create the virtual area in the studio set for the purpose of animation or "picture within a picture" effect.

Nowadays virtual studio set use green or blue screen technology as the background stage that will show the video-recorded image that is imposed in digital design. This means that the images are mixed together using the Chromakey tool when the green or default blue screen is replaced by the digital image accordingly.

Services/ Facilities We Provide To The Clients:

We provide the following facilities for the shoot according to your storyboard/ Previz (Additional equipment's or facilities apart from these will be charged extra.)

(Kindly note that the quotation of the following services will be provided according to the storyboard of your script.)

1- Studio setup
-Shooting floor
-Power
-Fixed assets
-Chroma setup
- Tarafa
- Flooring
- Air condition
-Makeup rooms (6)
-Base props
- Shooting props (required as per the provided story board)
- canteen
Etc

2- Virtual Setup with Technicians
- LED Wall
- N Cam camera tracking
- Unreal Engine
- Animation 2D and 3D
- VFX
- Computers

3- Equipment's
- Camera Red helium with accessories
- Lights and Accessories
- Panther Dolly or Track Trolly as per requirement
- Effects, Smoke machine and Fan etc
- Sound recording equipment 5.1 and Boom rod with recordist.

4- Technicians and crew members
- Art Director, Assistants and team
- Executive producer
- Production managers and team
- Gaffer
- Light men's
- Electrician
- Production Boys
- Location manager

5- Production
- Production material (Basic) for lighting, Camera, Art, Sound, Makeup and other
- Refreshments, Tea Coffee, Mineral water etc.,
- Food- Breakfast, Lunch, snacks and dinner if required
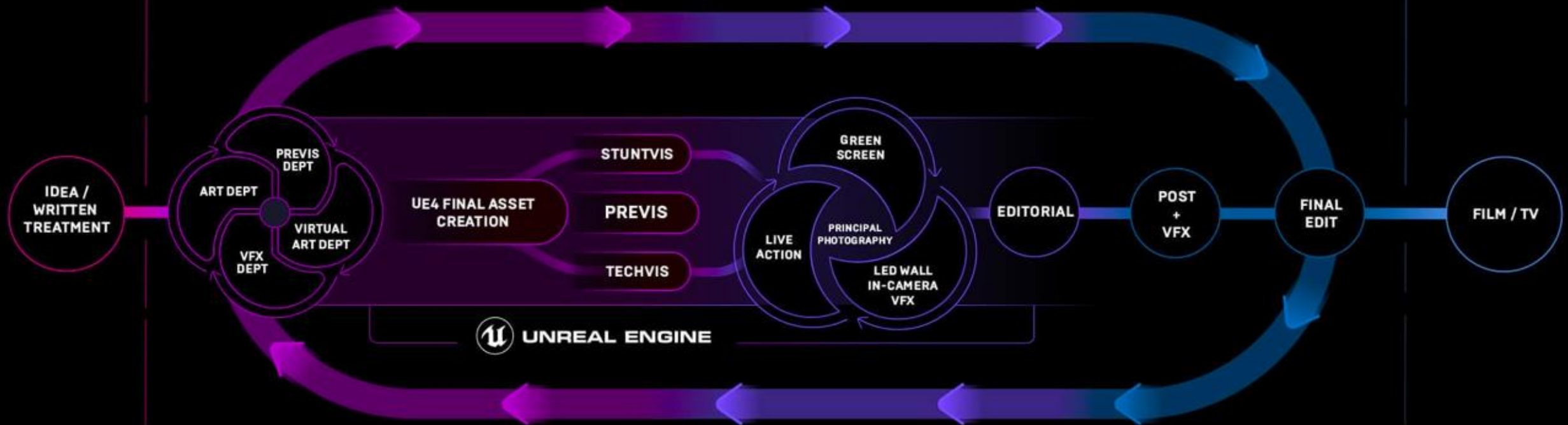- Base props, Table chairs etc.

WHAT WE REQUIRE FROM YOU :

1. DIRECTOR
2. CAST
3. COSTUME
4. STORY BOARD
5. DOP
6. Makeup & Hair Artist
7. Technician as per storyboard Requirements
8. Choreographer
9. Fight Master

K SERA SERA
BOX OFFICE

THANK YOU...

**FOR MORE INFORMATION
CONTACT :**

**+91 9372773141
+91 9321702125**