

MEAN CAT
ENTERTAINMENT

THE MEAN CAT FX STUDIO

**Making High-Quality Movie
Magic Accessible to
Everyone**

TABLE OF CONTENTS

Intro - Virtual Production (VP)	—————	01
Problems with VP	—————	05
The Mean Cat FX Studio	—————	06
What are People Saying	—————	07
The Features	—————	08
Products and Services	—————	15
Upcoming Releases	—————	16



INTRODUCTION

Virtual production is one of the most important innovations in film since digital cameras replaced traditional film stock. It is being used for all kinds of content creation and it is changing production processes forever.

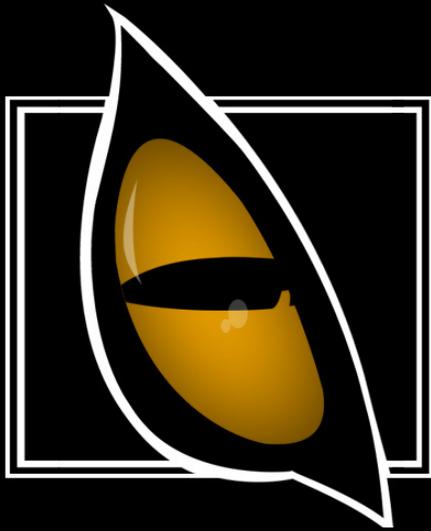


VIRTUAL PRODUCTION

Virtual Production: is an innovation that allows filmmakers to lay out and establish a film in a digital environment before, or instead of, going to a physical set. According to Technicolor, this includes defining lensing, set dimensions, asset placement, and exact camera movements. However, as many studios are finding within their creation process, virtual production is becoming so much more.

The most well-known method of virtual production involves creating a live-virtually-rendered scene surrounding physical props and actors, with either a green screen background that is erased live, placing the actor in a digital environment for the shoot, or massive LED panel installations that produce live digital backgrounds for the content's capture. When the camera moves, the virtual environment background shifts perspective as well, using video game creation software as a powerful 3D visualization tool for film production, selling the illusion that the environment really exists around the props and actors.



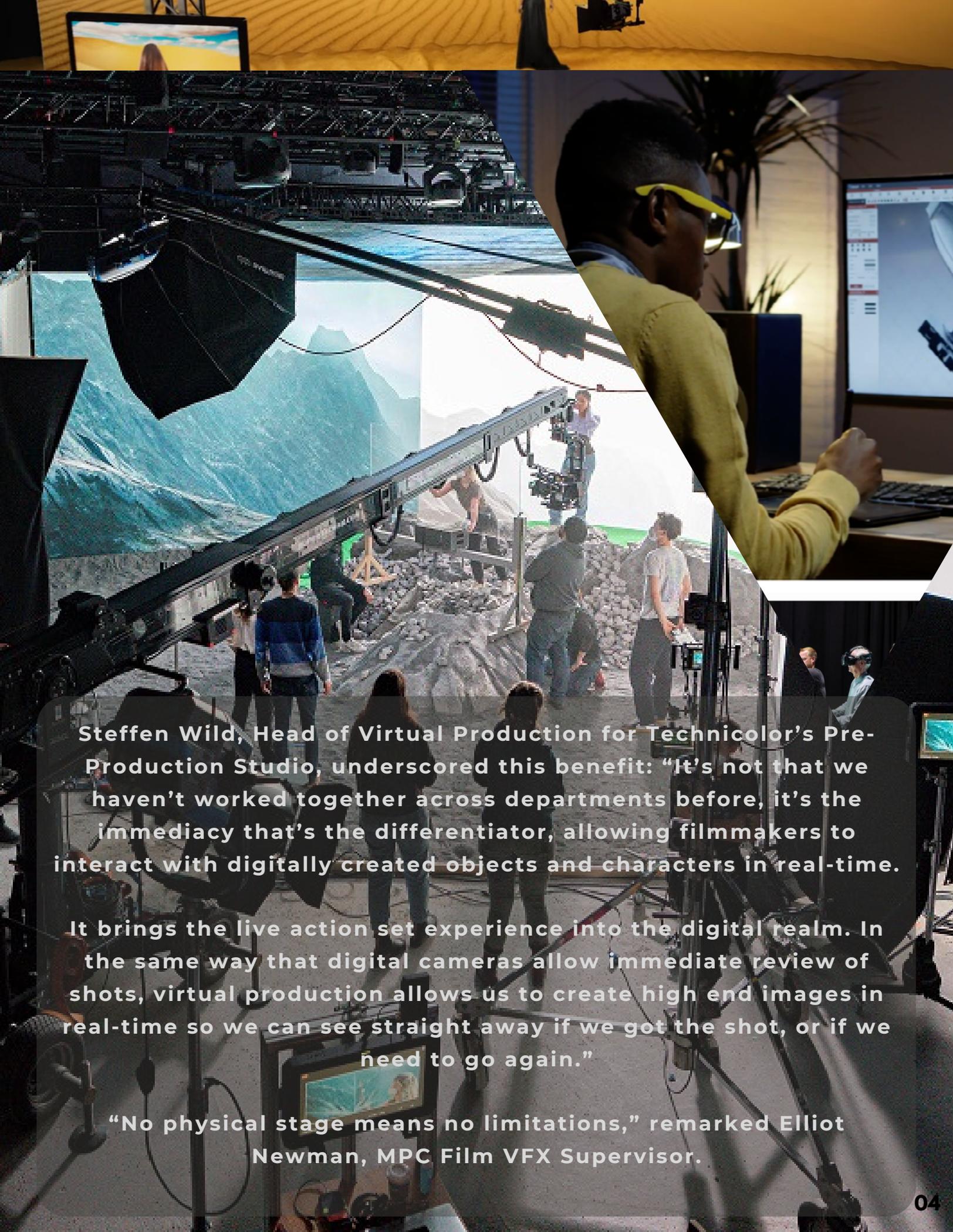


MEAN CAT ENTERTAINMENT

The unison of movement between camera and virtual imagery creates the illusion of actual physical locations for the film. Live camera tracking translates accurate camera movements into the rendering background environment in live. This is one of many new virtual production methods. This method is referred to as real-time compositing (compositing real physical actors and props into digital environments live). We will explore a little more about real-time compositing within the Mean Cat FX Studio features section.

Currently, there are several new workflows developing with virtual production, within many different departments. For example, there are new pre-production workflows developing within virtual production that influence a film's creation, such as virtual lighting setups, virtual location scouts, and the defining of precise camera and actor movements. Using these virtual production workflows allows film crews the ability to solve complex issues in creative ways during pre-production and production processes, rather than being locked into solving such difficult tasks during the post-production process alone after having been blind to the visual effects during the entire shoot, which often results in having to schedule very expensive pick-up shoots.

One of the biggest advantages of Virtual Production is that it allows real-time collaboration among filmmakers, regardless of where they are in the world. They can use tools that simultaneously integrate and manipulate live action and computer-generated assets. The real time feedback loop allows for creative participation in real time, expanding the limits of pre-visualization (viewing visual elements of the film before its capture) by rendering final pixels and photorealism in-camera with little to no post augmentation required. Directors, cinematographers, set decorators, set designers are now able to use the real time virtual production workflows in high definition.



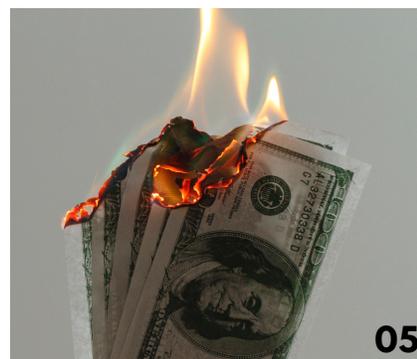
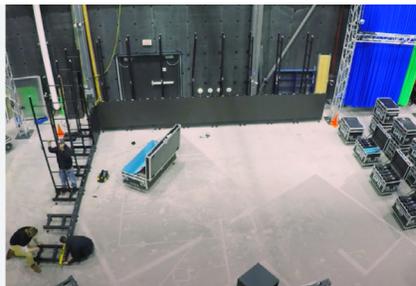
Steffen Wild, Head of Virtual Production for Technicolor's Pre-Production Studio, underscored this benefit: "It's not that we haven't worked together across departments before, it's the immediacy that's the differentiator, allowing filmmakers to interact with digitally created objects and characters in real-time.

It brings the live action set experience into the digital realm. In the same way that digital cameras allow immediate review of shots, virtual production allows us to create high end images in real-time so we can see straight away if we got the shot, or if we need to go again."

"No physical stage means no limitations," remarked Elliot Newman, MPC Film VFX Supervisor.

THE PROBLEMS WITH VIRTUAL PRODUCTION

It takes a large team to run a virtual production, which is very costly and often impossible during covid times. It also requires a large space and often days of setup, as most tracking systems need hundreds of markers placed in an environment to track the camera accurately.



The Mean Cat FX Studio

SOLVES THESE PROBLEMS

Marker-less - Any one person with an understanding of basic camera function can operate it - Significantly less expensive than competitors - Saves enormous costs in pre-production, production, and post

Feature to feature, this tool is democratizing these virtual production storytelling tools and workflows, making them available to everyone.



MC FX Tracker



Mean Cat FX Studio
(Open)



TED SCHILOWITZ

Futurist at Paramount Pictures & Technology Podcast Star



Michael Fink

Academy Award Winner - Chair of Film & Television USC



Steele Filipek

Producer of Transmedia & Brand Builder at Starlight Runner Entertainment



Alex Daley

Marketing Specialist & e-Commerce Executive at GBI

WHAT ARE PEOPLE SAYING

Michael Fink, "Visual Effects Academy Award Winner and USC Professor, responsible for helming the visual effects in X-Men, X-Men 2, Batman Returns, Golden Compass, Life of Pi, Tropic Thunder, Braveheart, and many more explains, "The Mean Cat FX Studio is wonderful. It takes computer science out of the equation and allows for focus to be placed back on the most important part of filmmaking - storytelling."

Ted Shilowitz, "Futurist of Paramount Pictures states, "In terms of new meaningful technology in the Virtual Production space, Mean Cat Entertainment has done something significant and highly useful for our industry. The combination of affordable and powerful is what sets this team and their approach apart from others. Their tech is smart and solid. It is worth a very serious look."

Steele Filipeck, "Producer at Starlight Runner Entertainment and responsible for producing the transmedia of Men in Black, Ninja Turtles, and Transformers says, "The Mean Cat FX Studio is a powerhouse of a toolkit that can help a production of any size. It facilitates easier production schedules, reduces budgets, and is just plain amazing to use!"

Donnie Ocean, Mean Cat Entertainment CEO says, "Reality has become more malleable than ever; it is virtually what we make it."

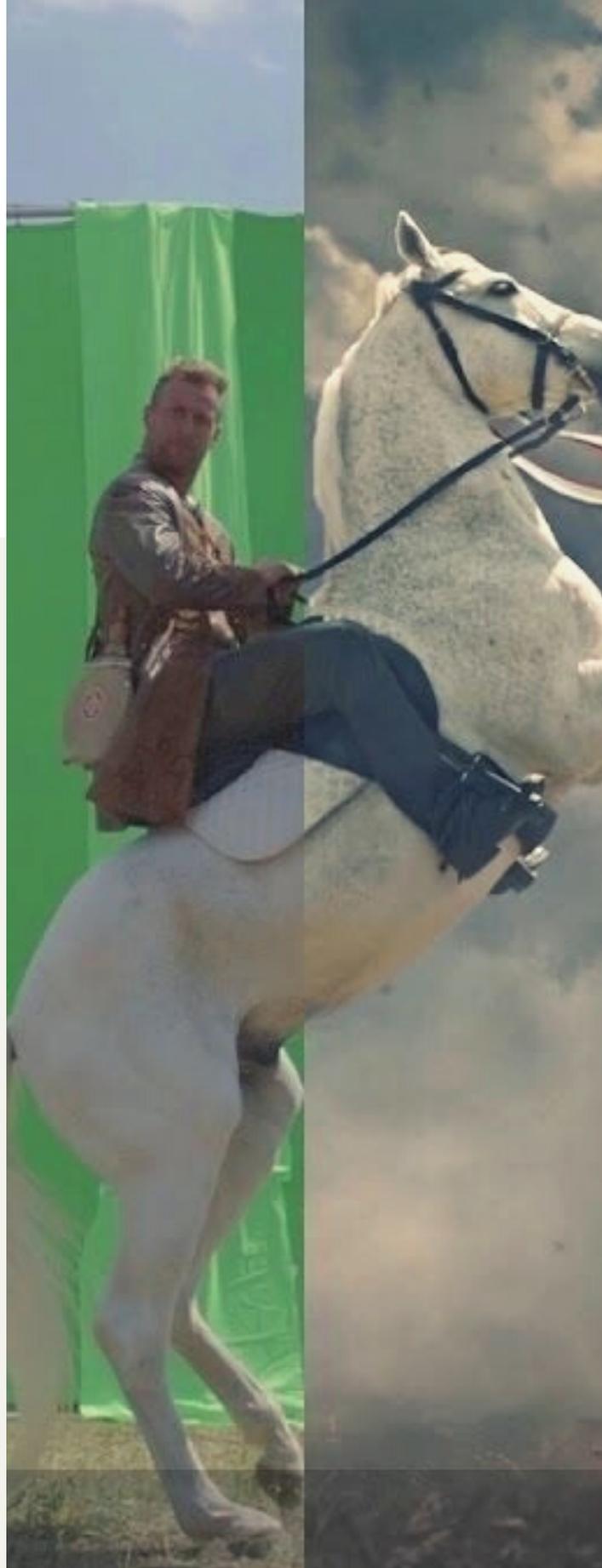
THE FEATURES

REAL -TIME COMPOSITING

Real-time Compositing:

As mentioned in the first few paragraphs of this paper, real-time compositing is the process of compositing imagery together, enabling one to combine visual elements that are digital with physical, such as computer generated (CG) with real-world actors and props, to layer together into a single seamlessly blended image live, onset. Before recent times, for Film and Television in the visual effects (VFX) industry, compositing a single frame has primarily been an offline process with heavy time, expensive render farms, and difficult workflows to render. (render farms are large stacks of computers working together on digital rendering)

When one begins compositing with previsualization in mind, it's especially helpful for enabling directors/other creatives working on set to get a sense of what the final render will look like, even helping alter performances and how to best set up for a particular shot. For compositors, previsualization can be used as a guide for completing their work in other third-party industry standard software.



THE PROBLEM WITH REAL -TIME COMPOSITING

It requires large team of varying professionals and an equally large dedicated studio space. Setup includes days if not weeks of setup, as well and hours of recalibration throughout the production process. These are all contributing factors as to why such heavy costs are associated with virtual production and why most studios have not been able to afford the luxury off such innovative tool sets.

THE MEAN CAT FX STUDIO SOLVES THESE PROBLEMS

Allowing setup to be done anywhere within 5-minute process. With our software's lens and camera-body calibration library, each calibration can be saved and logged for future use at any time. Operation setup requires no more than one person. And, not only is the Mean Cat FX Studio the fastest to setup, the easiest to use, one of the most accurate and feature-driven virtual production tracking systems on the market, it is also vastly less expensive than any other option available.





MOTION CONTROL RECORD

Motion Control is a technique used in video that enables precise control of, and repetition of, camera movements - often performed and recorded by a mechanical crane. The process can involve filming several elements using the same camera motion (performed over and over by the crane). Then, each of the separately recorded physical elements can be composited into a single image. Once these camera movements are recorded, motion control can also be used to facilitate the movement of special effects in post-production. By assigning these camera movement tracks to animations or other digital assets, it gives the digital assets a set of instructions on how to move to create the illusion that those digital elements were part of the original camera footage all along.

Example: Repeating Precise Camera Movements – Andy Warhol is back from the dead and decides to direct his first big feature, Mars Attacks 2. For the opening scene, Andy directs a shot capturing a beautiful winter morning in Paris along a cobblestone street well-decorated for Christmas. The street is blocked off on both sides to prevent cars or foot-traffic, leaving the cobblestone street and adjacent sidewalks empty. The shot is captured by a motion control camera crane. The shot is simple: camera drops in from 20' above and inches its way forward for 15' along the empty street - end of shot. This simple shot is then sent to a studio in LA that has a green screen stage and motion control camera crane. The shot is repeated with the original motion control recorded from the shot in Paris as Warhol directs extras - dressed in the most modern Christmas wardrobe. They walk safely down virtual sidewalks. Once he has the background and extras composited into his shot, he clears the set and brings on 3 of his star cast and works with them directly without the distraction of the weather, the extras, the travel ect. He achieves the ultimate performance from his actors and his principal photography is set and locked. All of the physical elements for his shot are captured. Moving into postproduction, Andy uses motion control for visual effects in order to complete this opening shot, attaching the same camera movement to digital assets. Computer generated spaceships pour out of the sky like flock of angry pterodactyls. Fire bursts of lasers shred the old buildings and explode little European cars. – Now, if you remember, the original shot is still the background “camera drops in from 20' above and inches its way forward for 15' along the empty street.” The street is no longer empty, as it has been filled with repeated shots of composited extras and actors. Still, the background and camera movement are the same. And, in order to create the illusion that these spaceships, burning buildings, and exploding Fiats are also real, the CG assets (cars, spaceships, fire and smoke, ect.) must stick to the background as though were really there when the original shot and camera movement were performed. This means the exploding CG cars must get bigger as the camera shot approaches them and that the smoke and fire appear closer and with more detail as the audience moves toward the burning chaos within the camera shot. All of these computer-generated visuals are capable of using the motion control recording file as a set of instructions. Once these instructions are connected to each digital effect or animation (in 3D Software) these instructions direct that animation in how to precisely adapt visually to appear as though it were present during the original shot in Paris and actually part of the scene's environment.

THE PROBLEM WITH MOTION CONTROL PHOTOGRAPHY

It is very difficult to record and there are very few options for recording such data. The systems and professional personnel that can capture such data accurately come at a very high costs along with their complicated machinery and difficult project management workflows.

THE MEAN CAT FX STUDIO SOLVES THESE PROBLEMS

A one button trigger, saves motion control within the video file as metadata (Metadata is a set of data that describes and gives information about other data. In this case, motion control files are saved and stored within each video file, making both the capture of motion control capture and project/data management of that capture, simple, easy, and automatic).



STORYBOARD

A storyboard is a series of images which show everything that is going to happen in a finished film before it is shot. It is an important part of the preproduction process. Think of the storyboard as the graphic novelization of your script, where each panel represents a new camera angle or a key moment in the action. Many storyboards are hand-drawn. Other creators use a variety of storyboarding software.

The aim of the storyboarding process is twofold: to ensure that you get all the coverage you need on set to craft a coherent and exciting story in the editing room, and to do so in an economical way, so as to avoid spending time filming unnecessary shots or lose money in video production or special effects.

Good storyboards can be supremely useful when directing big action sequences. Drawing out your shot list can be an organizing principle in the cacophony of producing complicated shoots. Storyboards become a precise map of what's almost certain to be a hectic shoot day. You want to get this right.





THE PROBLEM WITH MAKING A STORYBOARD

It is rarely created by the director herself. Therefore, every idea must be very clearly communicated for each shot-concept or it will have to be redone. This communication process alone is quite time consuming, let alone actually having these storyboards drawn up. And, as we know, time is money.

THE MEAN CAT FX STUDIO SOLVES THESE PROBLEMS

The storyboard feature within our software makes it possible for the director herself to create her own storyboards with the click of a button. Within these digital sets, the director can choose her lens choices and camera angles, and lighting setup with her cinematographer and capture all of that information with a touch of a button. Not only is the image captured and logged to the storyboard library, but all of the lens, camera position, lighting and scene information is saved within the metadata of each image. Now, the director can load all of those scene details instantly by clicking on the storyboard photo within the Mean Cat FX Software. Therefore, not only is this feature tremendous save saving time on storyboarding, but it also saves tremendous amounts of time during production as well, allowing the production team to cycle through scene setups by simply clicking on the related storyboard image. This loads that scene with all of its chosen settings instantly.



PRODUCTS



MC FX Tracker



Mean Cat FX Studio
(Open)

Mean Cat FX Tracker: \$8,550
Mean Cat FX Studio: \$35,000
Mean Cat FX Studio Deluxe 8k: \$55,000
Extended Warranty & Software: \$2,500
Annual Software Subscription: \$5,000
Monthly Mobile App: \$85

SERVICES

Daily Mean Cat FX Studio Rentals w/Technician: \$5,000/Day

Productions can rent the Mean Cat FX Studio along with a mandatory operator to ensure quality control and equipment protection.

Technicians: \$1,500 /Day

Some studios will want purchase the system and still use people they trust to hold the responsibility of making it work for them as they learn how to use and manage the workflow of this new technology themselves. Others will not have an interest in learning or taking the responsibility and will want technician support indefinitely.

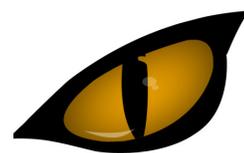
Pre-Production Consultants: \$1,500

As movie making shifts into new workflows of methodology, many studios would benefit tremendously from having producer support to help assist in problems solving and laying out new but tried and true workflows.



UPCOMING RELEASES

LIVE SUIT-LESS MOTION CAPTURE
LIDAR & PHOTOGRAMMETRY DRAG & DROP
DEPTH BACKGROUND DELETE
MOBILE APP



MEAN CAT
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