

SPECTRAL

SPECTRAL  
STUDIOS  
BUDAPEST

VFX



Gergely Takacs  
VFX Supervisor, Producer & Founder  
Spectral Studios



# WELCOME TO SPECTRAL STUDIOS



We look forward to working with you in the near future.

Spectral Studios is an independent visual effects studio based in Budapest, Hungary, founded in 2019 by VFX Supervisor and Producer Gergely Takacs. In just five years, we've grown from a boutique team into one of Hungary's leading VFX companies, supporting international and local film and television productions.

Leveraging the country's generous tax rebate and vibrant industry, we offer end-to-end creative services—from development and previz to on-set supervision and post-production—driven by a collaborative, talent-focused culture.

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# SPECTRAL STUDIOS SERVICES





# Pre-Production Services

## VFX BREAKDOWN PREPARATION

Our VFX Breakdown service makes planning your visual effects straightforward and stress-free. We carefully analyze every scene requiring VFX and design a structured, concise roadmap. This approach minimizes errors, ensures efficient workflows, and keeps your project aligned with both schedule and budget.

From intricate effects to minor adjustments, we guarantee your team is well-prepared to bring your vision to life. Partner with us to make the VFX process seamless and enjoyable.

# SPECTRAL

## VFX BREAKDOWN

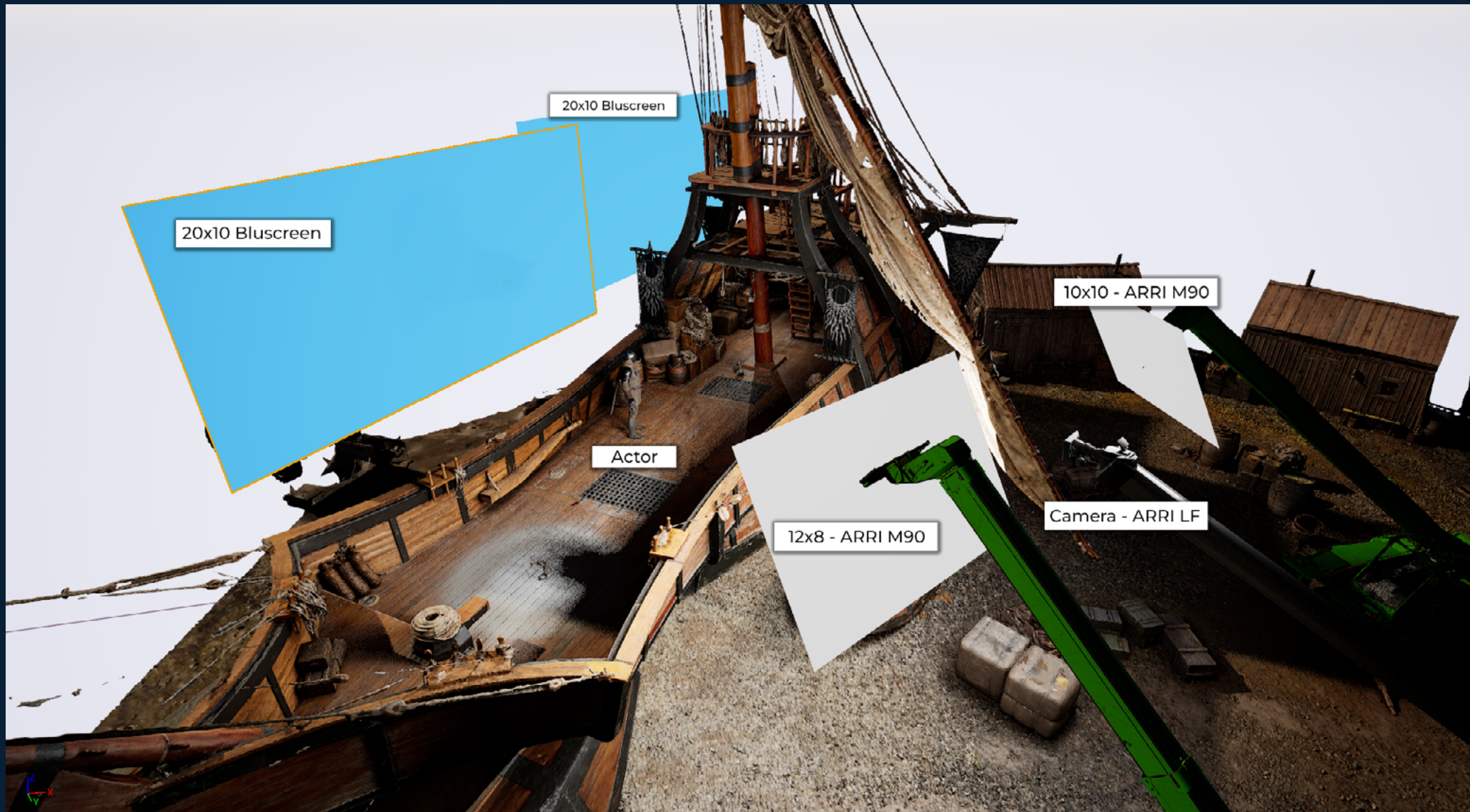
	CMP	ROTO	TRK	KEY	LAY	ANIM	CRWD	FX	LIGHT	
SPE_001_00100	10	2	1	0.5	1	2	2.5	10	4	
SPE_001_00110	11	2	1	0.5	2	0	2	0	2	
SPE_001_00120	4	0	0	0.5	2	0	1	0	4	
SPE_001_00130	8	1	2	0	1	0	0	3	2	
SPE_001_00140	10	5	1	0	1.5	1	0	5	4	
SPE_001_00150	1.5	0	0	0	0	0	0	1	3	
SPE_001_00160	5	0	0	0	1	0	2.5	10	2	
SPE_001_00170	1	0	1	0.5	2	0	2	0	0	
SPE_002_00100	2	0	1	0.5	2	0	1	3	4	
SPE_001_00110	10	2	1	0.5	2	3	0	2	3	
SPE_001_00111	11	2	1	0	1	1	0	1	1	
SPE_001_00112	4	1	2	2	1	1	1	3	1	
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SPE_001_00114	10	0	0	0	1	0	0	0	1	
SPE_001_00115	1.5	0	0	0	0	0	0	0	1	
SPE_001_00116	5	0	0	0	0	0	0	0	1	
SPE_001_00117	1	0	1	0	0	0	0	0	1	
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# VFX SHOOTING METHODOLOGY DEVELOPMENT

Our VFX Shooting Methodology service lays the groundwork for flawless visual effects integration. We craft a customized plan specific to your project, detailing everything from camera setups and lighting to on-set procedures.

By addressing challenges early and aligning creative objectives with technical needs, we help you optimize efficiency, reduce costs, and achieve exceptional results. Whether you're tackling sophisticated CGI scenes or subtle touch-ups, we ensure every shot is prepared for a flawless transition to post-production. Let us guide your team to VFX success with expert planning.







# VFX BUDGET PLANNING

Our VFX Budget Planning service ensures you maximize your resources through a clear, tailored financial strategy. We evaluate your production, break down the required VFX tasks, and propose cost-effective solutions to achieve your creative goals without compromising quality.

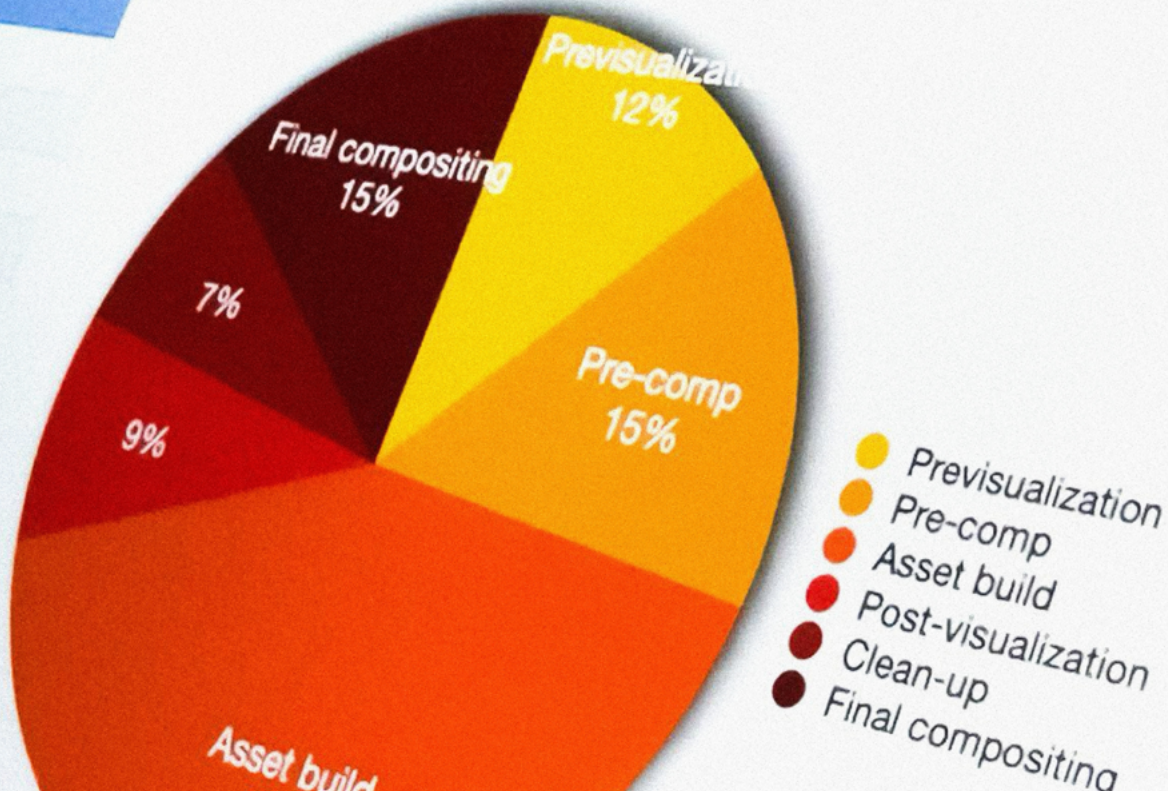
By proactively identifying opportunities for efficiency, we keep your project within budget while maintaining realistic deadlines. Whether your project includes large-scale CGI or smaller effects, we'll help you invest your budget wisely for optimal results. Let us help you navigate the financial side of VFX with confidence.

# SPECTRAL

VFX BREAKDOWN BUDGETING

Category	Cost (EUR)	Man-Days
Previsualization	278000	56
Pre-comp	542000	260
Asset build	1000000	150
Post-visualization	200000	45
Clean-up	175000	23
Final compositing	455000	5.6

VFX BREAKDOWN COST



# CONCEPT ART

Our Concept Art service transforms your ideas into captivating visuals that embody your project's spirit. From characters and environments to props and mood concepts, we develop detailed artwork that aligns perfectly with your vision.

By turning abstract thoughts into concrete visuals, we provide a solid creative foundation for your team. Whether your focus is film, games, or advertising, we deliver inspiring concepts that shape the creative process. Let us craft the visual identity of your project with imaginative, high-impact art.









MENYHEP







# PREVIZ

Our Pre-Visualization service enables you to plan and simulate complex VFX scenes before filming begins, ensuring your creative vision is both clear and achievable.

We produce animated previews of shots featuring camera movements, basic effects, and staging, providing a reliable blueprint for both filming and post-production. This process allows you to test ideas, resolve technical concerns, and identify issues early, saving time and resources.

From films to commercials, our service ensures confidence and clarity in executing intricate visual effects. Let's collaborate to bring precision to your VFX planning.

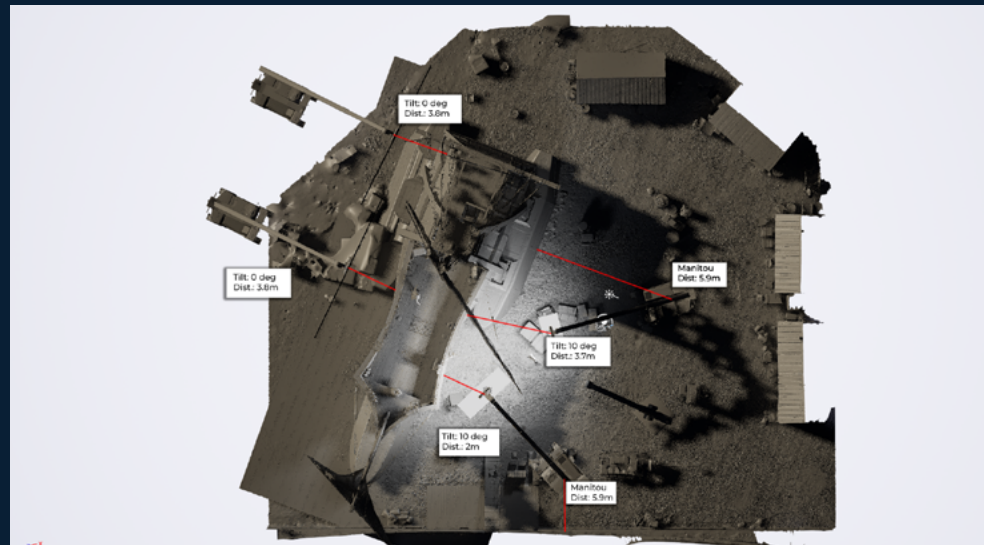


# TECHVIZ

Our Techviz service bridges the gap between creative vision and technical execution by providing meticulous technical frameworks for complex VFX shots. We detail everything from camera setups and rigging to motion pathways, ensuring that all technical aspects align with your creative objectives.

By addressing potential obstacles in advance and offering practical, innovative solutions, we help streamline production and avoid costly delays.

Whether your focus is challenging CGI, stunts, or dynamic sequences, our techviz expertise ensures every detail is carefully managed. Trust us to bring your ambitious ideas to life with precision.





# On-Site Services

## VFX ON-SET SUPERVISION

VFX on-set supervision ensures that your visual effects perfectly integrate with live-action footage. A skilled supervisor works closely with directors, cinematographers, and crew members to meet VFX requirements during filming, maintaining streamlined workflows and capturing critical data.

By handling camera tracking, lighting references, and green screen setups in real time, we help prevent costly errors and post-production setbacks.

This hands-on service guarantees VFX elements blend naturally into your footage, delivering a polished final product. It's an essential solution for projects with demanding visual effects.







# CYBER SCAN

Cyber-Scan is an innovative 3D photo scanning service that creates high-fidelity digital replicas of actors, props, and environments. It enhances creativity and precision in post-production while reducing costs.

Ideal for digital doubles, crowd simulations, stunts, and immersive previsualization, Cyber-Scan is a game-changing tool for studios seeking efficiency and unmatched photorealistic results.





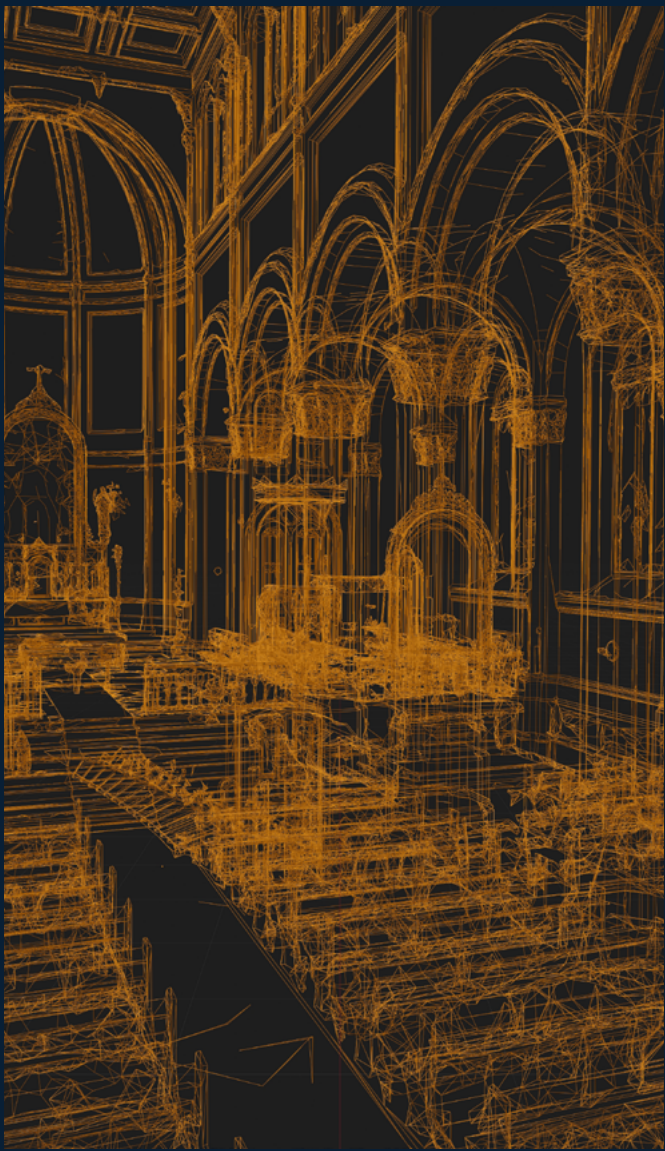


# LiDAR SCAN

LiDAR scanning uses advanced laser technology to create extremely accurate 3D models of environments, sets, and objects, making it an invaluable asset in filmmaking. It provides precise digital recreations, supporting virtual set design, previsualization, and seamless CGI integration.

By capturing exact spatial data, LiDAR scanning improves production efficiency and ensures continuity for complex scenes. It's ideal for large-scale scene reconstructions, delivering incredible accuracy and realism.





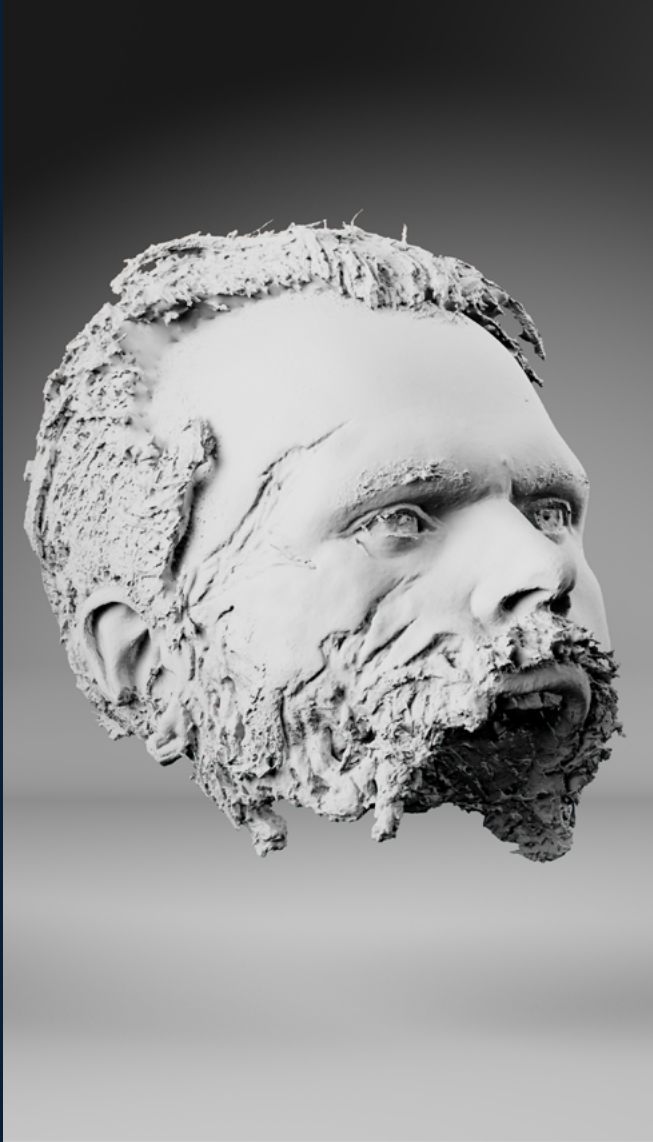


# PROP SCAN

Prop scanning produces detailed digital models of physical objects for film and game production. It allows props to be digitized and manipulated in 3D, facilitating smooth integration into CGI, virtual environments, and game worlds. With precise texture and detail capture, this service eliminates the need for physical duplicates and streamlines the production workflow.

Filmmakers and developers can adjust, replicate, or scale props digitally, enhancing creativity and minimizing costs. Prop scanning is a must-have for productions demanding flawless visual effects.







# DRONE PHOTOGRAPHY

Our drone photography service captures breathtaking aerial imagery with a perfect blend of precision and creativity, catering to a variety of industries.

From film and advertising to construction and real estate, we deliver cinematic visuals that are meticulously tailored to your needs.

Handling everything from planning to expert post-production, we ensure high-quality results that elevate your projects. With access to hard-to-reach locations and unique vantage points, our service offers exceptional value for your operations.







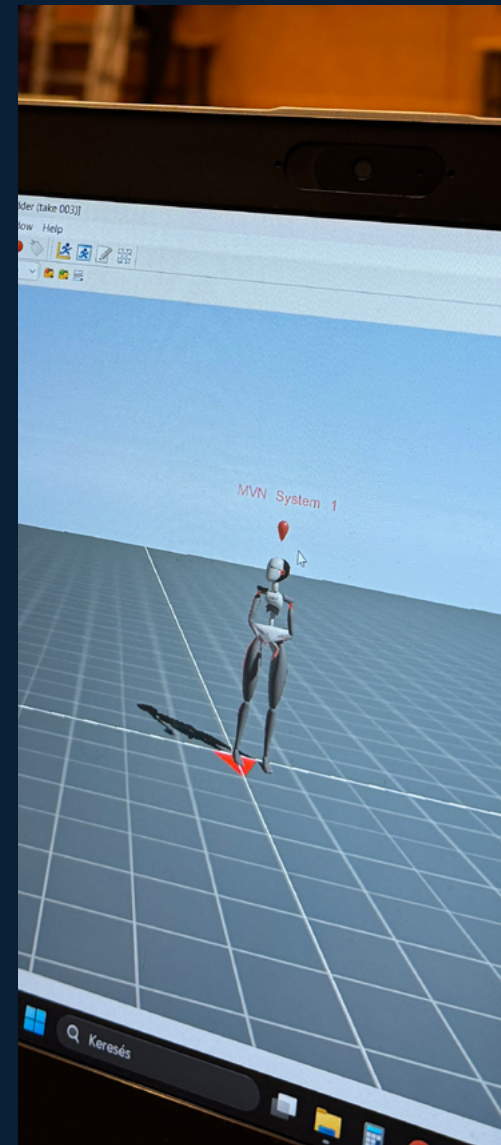


# ON-LOCATION MOTION CAPTURE

On-location motion capture brings advanced performance capture technology directly to your chosen setting, allowing realistic data collection in real-world environments.

Featuring wearable rigs, advanced sensors, and an experienced team, this service delivers accurate animations for VFX, character creation, and gaming projects.

By adapting to diverse locations and streamlining workflows, it reduces costs and unlocks new creative possibilities.





MP4

S&F ● REC

24/24.00P

08:19:53:06 P

USB PD

Full

3840x2160

YCC420 8bit

29 mm

AF

CP 2

C.LOG3

C.Gamut

V.Assist

FAN

383 min

MP4



# DATA WRANGLING

VFX data wrangling ensures all essential production data is captured and organized for flawless integration during post-production. Specialists manage details such as camera settings, lens information, motion tracking, and environmental references, ensuring consistency and precision throughout VFX workflows.

By simplifying data collection and maintaining comprehensive documentation, this service minimizes errors and accelerates production. It acts as a critical link between on-set teams and VFX artists, forming the foundation for creating seamless and realistic effects.





# Post-Production Services

## CGI INTEGRATION

Our CGI integration service merges computer-generated imagery with live-action footage to create compelling, immersive visuals. With expertise in lighting, motion, and textures, we ensure digital elements appear natural and cohesive. From lifelike characters to dynamic environments, we bring your ideas to life with unparalleled precision.







# LOOKDEV AND LIGHTING

Our Look Development and Lighting service produces visually stunning assets and scenes tailored to your project's tone and style. By creating realistic materials, textures, and lighting setups, we ensure seamless integration between live-action and CGI.

From intricate character rendering to dramatic light effects, every detail is perfected to achieve cinematic quality.



# COMPOSITING

Our Compositing service combines expert craftsmanship and technical finesse to deliver polished, cinematic visuals. By blending CGI elements into live-action or fully digital scenes, we create cohesive and visually stunning images.

From color grading to realism adjustments, we ensure every shot matches your creative vision. Using advanced tools, we deliver production-ready visuals that elevate your project.





# 3D ENVIRONMENT BUILD

Our 3D Environment Build service designs immersive digital landscapes for films, games, and virtual experiences. Whether crafting realistic cityscapes, natural landscapes, or fantastical worlds, we focus on every detail to ensure authentic and visually impressive results.





# 3D CHARACTER BUILD

Our 3D Character Build service creates high-quality digital characters with lifelike textures, detailed anatomy, and expressive features. From humanoid figures to fantastical creatures, we design fully rigged characters optimized for performance and tailored to your creative goals.







# 3D ASSET BUILD

Our 3D Asset Build service produces meticulously detailed models of props, vehicles, and other assets for films, games, or advertising. Designed with precision and functionality in mind, these assets integrate seamlessly into your pipeline and enhance your project's uniqueness.





# DIGITAL MATTE PAINT

Our Digital Matte Painting service creates breathtaking backdrops that enhance visual storytelling. From photorealistic landscapes to imaginative worlds, we deliver high-resolution, production-ready assets that perfectly complement live-action or CGI.





# LIVE ACTION INTEGRATION

Our Live Action Integration service merges multiple live-action shots into cohesive, immersive scenes. With expertise in aligning lighting, perspective, and motion, we ensure all elements feel like they belong to the same world. Whether integrating characters or objects, we achieve seamless realism.







# POSTVIZ

Our Post-Visualization service provides detailed previews of complex scenes by merging live-action footage with CGI and effects. This blueprint allows for creative alignment and technical precision during production, reducing revisions and saving time. Perfect for films, commercials, or games, it bridges the gap between concept and completion with clarity and efficiency.







# REFERENCES





# RISE OF THE RAVEN



©Rise of the Raven - Beta Film, Serendipity Point Films, Twin Media, HG Media, and MR Film, in association with TV2, ORF, and National Film Institute of Hungary

# Rise of the Raven

Client: Beta Film, Serendipity Point Films, Twin Media, HG Media, MR Film, Hungary's TV2 Network, Austrian co-producer public broadcaster ORF

Showrunner: Balázs Lengyel

Director: Robert Dornhelm, Attila Szász, Orsi Nagypál, Balázs Lengyel

VFX Supervisor: Gergely Takács





© NCIS: Tony & Ziva - Paramount Global

# NCIS: Tony & Ziva

## SEASON 1

Client: Paramount Plus

VFX Supervisor and Producer: Ante Deković



©Constellation, Apple TV+

# CONSTELLATION

# Constellation

Client: Apple TV+

Director: Michelle MacLaren, Joseph Cedar, Oliver  
Hirschbiegel

VFX Supervisor: Douglas Larmour





©Shadow and bone, Netflix

# Shadow and Bone

## SEASON 1

Client: Netflix

VFX supervisor: Ted Rae

VFX producer: Tolly Swallow

VFX set producer: Mark H. Weingartner

Art directors: Francesc Masso, Zoltán Sárdi

## SEASON 2

Client: Netflix

VFX Supervisor: Ante Dekovic

VFX Producer: Helen Jen

Art Directors: Francesco Masso, Karl Probert





©Deborah Harkness, Bad Wolf and Sky Studios

# A Discovery of Witches

Client: Bad Wolf

VFX Supervisor: Stephen Coren

VFX Producer: Antony Bluff



# CASE STUDY HIGHLIGHT RISE OF THE RAVEN

# Case Study Highlight

## RISE OF THE RAVEN

Rise of the Raven - 'One of the Most Epic European TV Productions of All Time' - has been the longest and largest project the company has done to date. It involved almost a year of filming and constant onset presence from the team, from daily scannings to the widest range of tasks and challenges. Spectral Studios oversaw and produced the whole VFX production of the 10 episode series from pre-production, to on-set supervision through post-production.

The 15th-century setting of the show required extensive VFX to bring exotic locations to life, with around 1,400 VFX shots handled by five vendors, led by Spectral Studios.

Rise of the Raven tells the story of János Hunyadi (played by discovery Gellért L. Kádár), the epic tale of a hero born into modest circumstances, who, in 1456, with relentless determination and against all odds, defeated the much larger Ottoman army, at the Battle of Nandorfehevar (current day Belgrade, Serbia).

The series had its world premiere at MIPCOM on 22 October 2024 in Cannes and first aired on the 8th March in Hungary to more than 1 million people tuning in on opening weekend. International distribution will expand in April 2025 in Austria and Germany with more regions announced in the coming months by distributor Beta Film.

Rise of the Raven is produced by Executive Producer, Robert Lantos and his Serendipity Point Films, Beta Film, Twin Media, HG Media, MR Fil, and co-produced by Austria's public broadcaster ORF and Hungary's TV2 Network.





# HUNGARIAN TAX REBATE





# Hungarian TAX Rebate

HUNGARY

## A Premier Destination for Film Incentives and Tax Rebates – Up to 37.5% Rebate for Film & TV Productions

Hungary has cemented its status as one of Europe's top destinations for international film and television production, offering one of the most competitive tax rebate schemes in the industry—up to 37.5% on eligible expenditures. This incentive is part of the Hungarian Film Support Programme, approved by the European Commission and recently extended until 2030, ensuring long-term stability for producers seeking strategic, cost-effective and high-quality production solutions.

# WHY HUNGARY?

With its world-class studios, skilled workforce, and unmatched financial incentives, Hungary has rapidly become the second-largest international production hub in Europe after the UK. Whether you're producing an independent feature or a large-scale franchise film, Hungary's film incentive program makes it a strategic and cost-effective location for global filmmakers.

Hungary's film tax rebate is structured to support a wide range of productions, from major Hollywood blockbusters to independent films and high-end TV series that meet cultural eligibility requirements.

Productions benefiting from this incentive include *Dune: Part One & Two*, *Blade Runner 2049*, *The Martian*, *Gemini Man*, *The Brutalist*, *Poor Things*, *The Witcher*, and *The Alienist*.





**12:12:12 (2025)**

47 Ronin (2013)

**A Good Day to Die Hard (2013)**

Atlanta S3 (2022)

**Ballerina:**

**A John Wick Story (2025)**

Being Julia (2004)

Berlin Station (2016-2019)

**Blade Runner 2049 (2017)**

Borderlands (2024)

Borgias (2011)

Drakula (2020)

**Dune Part: I (2021)**

**Dune Part: II (2024)**

**Dune: Prophecy (2024)**

**Dust Bunny**

Eragon (2006)

**Eric (2024)**

**Escape room: Tournament  
of Chamipons (2021)**

**Evita (1996)**

Extinction (2015)

FBI: International (2021–)

**Gemini Man (2019)**

Good (2008)

**Halo (2022)**

Hanna (2011)

I Spy (2002)

Inferno (2016)

**Jack Ryan S3 (2022)**

Marco Polo (2014-2016)

**Marvel's Black Widow (2021)**

**Marvel's Captain America:**

**Brave New World (2025)**

**Marvel's Moon Knight (2022)**

**Midsommar (2019)**

**Mission: Impossible – Ghost**

**Protocol (2011)**

Modi (2023)

Mrs. Harris Goes to Paris (2022)

Munich (2005)

**NCIS: Tony&Ziva (2025)**

Nuremberg (2025)

**Poor Things (2023)**

Red Sparrow (2018)

Robin Hood (2018)

SAS: Red Notice (2021)

**Season of the Witch (2011)**

**Shadow and Bone (2012-2023)**

**Spectral (2016)**

Spy (2015)

**Spy Game (2001)**

Stockholm Bloodbath (2023)

**Strike Back (2010–20)**

**Sunshine (1999)**

**Terminator: Dark Fate (2019)**

**The Alienist (2018-2020)**

The Boy in the Striped

Pyjamas (2008)

**The Brutalist (2024)**

**The Continental (2023)**

The Crown s02 (2017)

**The Day of the Jackal (2024)**

**The Informant /**

**A Besúgó (2022)**

The Josephine Baker  
Story (1991)

**The Killer's Game (2024)**

The King (2019)

**The Last Kingdom (2015-2022)**

**The Martian (2015)**

The Phantom of  
the Opera (1998)

**The Pillars of the Earth (2010)**

The Rhythm Section (2020)

The Unbearable Weight of  
Massive Talent (2022)

Tinker Tailor Soldier Spy (2011)

Underworld (2003)

Until Dawn (2025)

#### BASE REBATE: 30%

Applicable to both Hungarian and non-Hungarian eligible production spend.

#### ADDITIONAL INCENTIVE: UP TO 7.5%

Available when including non-Hungarian eligible expenses, capped at 30% of Hungarian spend.

#### CASH REBATE

The incentive is post-financed, guaranteed by the Hungarian State, and accessible through the Hungarian National Film Institute's Collection Account or via local corporate tax relief programs.

#### MULTI-CURRENCY SUPPORT

Expenses can be covered in USD, EUR, GBP, and HUF, making it flexible for international productions.

#### NO CAP ON ANNUAL SUPPORT

Unlike other European incentive programs, Hungary offers uncapped financial support, ensuring projects of all sizes can benefit.



## WHO CAN APPLY?

### ELIGIBLE PRODUCTIONS INCLUDE

Feature films, TV series, documentaries, and animations made for cinema, television, or streaming platforms.

### EXCLUSIONS

Reality shows, commercials, soap operas, extreme violence, and adult content.

## HOW TO QUALIFY?

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Hungarian-registered companies (such as Spectral Studios) can apply directly and it applies to post-production as well.

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Foreign producers can access the rebate by partnering with a Hungarian co-producer or service provider registered with the National Film Office (NFO).

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Productions can spend up to 20% of their budget outside Hungary without reducing their rebate eligibility.

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See the detailed [incentive breakdown below!](#)

# CALCULATION EXAMPLES OF YOUR 30% HUNGARIAN TAX REBATE



BUDGET



HUNGARIAN  
SPEND



NON  
HUNGARIAN



30%  
REBATE

1.000.000

1.000.000

0

300.000

1.000.000

800.000

200.000

300.000

1.000.000

800.000

400.000

225.000

1.000.000

200.000

800.000

75.000

SPECTRAL

To inquire about our services please  
contact us on [sales@spectral.hu](mailto:sales@spectral.hu)