

VIRTUAL PRODUCTION BOOTCAMP

Generative AI · Unreal Engine · Real-Time Filmmaking

WHAT IS IT ABOUT

This bootcamp takes participants through the creative and technical pipeline behind Virtual Production, from the first visual idea to a production-ready world inside Unreal Engine.

Over the week, you'll explore how AI-generated ideas, 3D assets, scans, materials, lighting and environments come together for real-time filmmaking and LED-stage workflows. You'll learn not only how to make things look good, but how to make them work on set — with the right performance, scale, organisation and flexibility. With hands-on workshops, demos and guidance from experienced tutors, you'll build and refine your own virtual production content, experimenting with Generative AI while learning practical Unreal Engine workflows, look development and real-time optimisation.

By the end of the bootcamp, you'll have a production-ready world package and a clearer understanding of how creative content moves from concept to camera.

PARTICIPANTS WILL:

- Create and optimise Virtual Production-ready environments and assets
- Explore Generative AI for concept development, lookdev and creative iteration
- Translate AI-generated references into practical Unreal Engine workflows
- Work with scans, procedural elements and hybrid assets in real-time environments
- Learn how lighting, materials, reflections, scale and performance affect content on LED stages
- Build multiple visual variations while keeping real-time performance under control
- Use key Unreal Engine tools such as Sequencer and Virtual Camera for cinematic workflows
- Develop organised project structures, versioning and content packages designed for real production
- Apply sustainability thinking to digital production, from efficient workflows to reuse and reduction

WEEK STRUCTURE

Seven days of creative development, technical workshops and real-time production practice.

DAY
01

Day 1 – Virtual Production Content Pipeline

TUTORS · Roni Rodriguez & Jan Adamus

- What makes content VP-ready
- The role of data, organisation and versioning in production
- Differences between VFX, game and Virtual Production assets
- Performance, scale, realism and on-set constraints
- Introduction to Unreal Engine and real-time environment building
- Sustainability and efficient digital production workflows

DAY
02

Day 2 – Generative AI for Virtual Production

TUTORS · Ivan Garriga & Jan Adamus

- Generative AI for concept development and lookdev
- Using image, video, 3D and text-based AI tools
- Developing consistent visual directions with AI
- Prompting and controlled creative iteration
- Translating visual references into production ideas
- Ethical, legal and copyright considerations

DAY
03

Day 3 – AI-Assisted Environment Creation

TUTORS · Josep Antoni RR & Ake More

- Turning AI references into usable production assets
- Generating textures, skies, environments and visual references
- Exploring AI-assisted approaches to terrain, foliage and architecture
- Translating 2D ideas into 3D environment workflows
- Building Unreal Engine-ready content
- Creating and testing different visual variations

DAY
04

Day 4 – 3D Assets, Scans & Hybrid Workflows

TUTORS · Josep Antoni RR, Oscar Olarte & Ake More

- Introduction to photogrammetry and scan-based assets
- Combining scans with AI-generated and procedural content
- Cleanup, retopology and optimisation for real-time use
- Building hybrid environments and asset sets
- Maintaining visual consistency across different content sources
- Preparing assets for integration into Unreal Engine

DAY
05

Day 5 – Green Production & Unreal Engine for Virtual Production

TUTORS · Paloma & Ramon Olivero

- Sustainability as a practical part of digital production
- Energy efficiency, reuse and smarter iteration
- Connecting sustainability with AI, VFX and Virtual Production
- Making production decisions with time, budget, risk and footprint in mind
- Unreal Engine as the VP execution and integration layer
- Bringing together scans, AI-assisted assets and hybrid content
- Preparing and organising real-time environments
- Introduction to VP workflows, tools and production logic
- Real-time lighting, materials and look development for LED and camera workflows
- Virtual Camera, Sequencer and real-time scene control

DAY
06

Day 6 – Real-Time Look Development & VP Workflows

TUTORS · Ramon Olivero

- Building and refining VP-ready environments in Unreal Engine
- Integrating AI-assisted, scanned and hybrid assets
- Materials and look development for LED and camera workflows
- HDRI-based lighting
- Lumen, global illumination, reflections and shadows
- Balancing visual quality with real-time performance
- Identifying and troubleshooting common VP issues
- Creating multiple looks for creative flexibility
- Camera iteration, shot blocking and real-time previs
- Sequencer and Virtual Camera workflows
- Preparing a clean, documented on-set content package

DAY
07

Day 7 – Showcase, Review & Certification

TUTORS · Josep Antoni RR, Ake More & Ramon Olivero

- Presenting the final virtual production world
- Practical assessment of the completed workflow
- Reviewing stage readiness, performance and creative flexibility
- Structured feedback from the tutors
- Final improvements and presentation
- Certification and closing

PROGRAMME DETAIL

A closer look at the learning journey across the week.

Day 1 — Virtual Production Content Pipeline

With Roni Rodriguez & Jan Adamus

The week starts by looking at what it really means for content to be **ready for Virtual Production**. With Roni Rodriguez, participants explore the production mindset behind VP workflows — from stage readiness and realism to camera movement, practical filmmaking constraints and collaboration between departments.

Jan Adamus then introduces participants to Unreal Engine, helping them understand the basic project structure and begin building their first environment. The day establishes the foundations for organised, production-friendly content while introducing the importance of scale, performance, versioning and efficient workflows.

Day 2 — Generative AI for Virtual Production

With Ivan Garriga & Jan Adamus

Generative AI becomes a creative tool for developing ideas, references and visual directions. Ivan Garriga introduces participants to AI as a **controlled design and look-development tool**, exploring how to create consistent results rather than relying on endless experimentation.

The practical session with Jan Adamus takes these visual ideas into Unreal Engine. Participants explore how references can inform materials, lighting, reflections, atmosphere and composition, while beginning to consider what is required to make an AI-inspired visual direction work in a real-time environment.

Day 3 — AI-Assisted Environment Creation

With Josep Antoni RR & Ake More

The focus moves from AI-generated ideas towards **Unreal Engine-ready building blocks**. Josep Antoni RR explores how AI references can be translated into practical materials, textures, skies and environment elements, with particular attention to coherence, scale and controlled detail.

Working with Ake More, participants continue developing their environments in Unreal Engine, testing composition and camera paths while creating different visual variations. The aim is to turn creative experimentation into content that can function within a real-time production workflow.

Day 4 — 3D Assets, Scans & Hybrid Workflows

With Josep Antoni RR, Oscar Olarte & Ake More

Day 4 explores reality capture and scan-based content as part of the Virtual Production pipeline. In the lecture and masterclass, **Josep Antoni RR and Oscar Olarte** introduce photogrammetry and scan data as production assets, looking at how they can be combined with AI and procedural tools to build richer, more flexible digital environments.

In the afternoon, **Ake More continues the hands-on Unreal Engine workshop started on Day 3**, helping participants bring these new elements into their existing environments. The focus is on integrating scan-based, AI-assisted and procedural content, while cleaning up, optimising and refining assets for real-time use.

By the end of the day, participants will have further developed their environments and a clearer understanding of how different content-generation methods can work together within a production-ready Virtual Production workflow.

Day 5 — Green Production & Unreal Engine for Virtual Production

With Paloma & Ramon Olivero

Day 5 connects the creative possibilities of Virtual Production with the realities of production. In the morning, **Paloma** introduces a practical approach to sustainability, looking at how energy use, reuse, travel, iteration and workflow choices can influence the environmental impact of digital production. Participants explore how sustainability connects with AI, VFX and Virtual Production, and how creative and technical decisions can also be evaluated through time, budget, risk and footprint.

In the afternoon, **Ramon Olivero** begins the Unreal Engine integration module. Participants start bringing together the content developed during the previous days, using Unreal Engine as the execution layer for Virtual Production. They work with real-time environments, VP-ready assets and production-oriented project organisation, while being introduced to lighting, materials, Virtual Camera and Sequencer workflows.

Day 6 — Real-Time Look Development & VP Workflows

With Ramon Olivero

Day 6 continues with Ramon Olivero, taking participants deeper into the practical Unreal Engine workflows needed for Virtual Production. Using the assets and environments developed throughout the week, participants refine their scenes and explore how materials, lighting, reflections, shadows and global illumination behave in real-time and under camera conditions. The focus is not simply on making an environment look impressive, but on making it **stable, flexible and usable for production**. Participants learn to balance creative quality with performance, troubleshoot common real-time issues and develop multiple looks that can be adapted to different on-set scenarios.

The day also brings together key cinematic workflows, including Virtual Camera, Sequencer, shot blocking and camera iteration. By the end of the module, participants package their work into a clean and documented environment ready for review and final presentation on Day 7.

Day 7 — Showcase, Review & Certification

With Josep Antoni RR, Ake More & Ramon Olivero

The final day is about bringing the week's work together. Participants present their completed virtual production worlds and demonstrate how their content, assets and workflows have developed throughout the bootcamp.

Josep Antoni RR, Ake More and Ramon Olivero review the projects, providing structured feedback on creative quality, organisation, performance, stage readiness and flexibility. Participants complete their practical assessment before closing the week with **certification and a final showcase**.

HOW YOU'LL LEARN

The bootcamp combines focused technical sessions with hands-on studio practice. Participants apply AI-driven workflows, optimise assets for real-time rendering, and develop content with the practical constraints of an LED stage in mind.

Throughout the week, exercises mirror real production scenarios; from adapting to last-minute creative changes and performance limitations to working across camera, stage and content workflows. Participants work individually and in small teams, building both technical skills and the collaborative mindset required in contemporary Virtual Production.

WHO SHOULD JOIN?

This bootcamp is designed for creative and technical professionals who want to develop their skills in Virtual Production, Generative AI and Unreal Engine.

- Digital and environment artists
- VFX and technical artists
- AI creatives working with visual content
- Unreal Engine users developing film-ready assets
- Mid-career post-production professionals transitioning into Virtual Production

POTENTIAL CAREER PATHS

The skills developed during the bootcamp can support a range of roles across real-time and Virtual Production environments:

- Virtual Production Operator
- Media / Playback Operator
- Junior Virtual Production Supervisor
- Technical Artist