



RTX Blackwell for Creators

CES Editor's Day 2025 Session 5

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NVIDIA Studio

The Generative AI Era of Content Creation

Compute

Generative AI

Analog Video



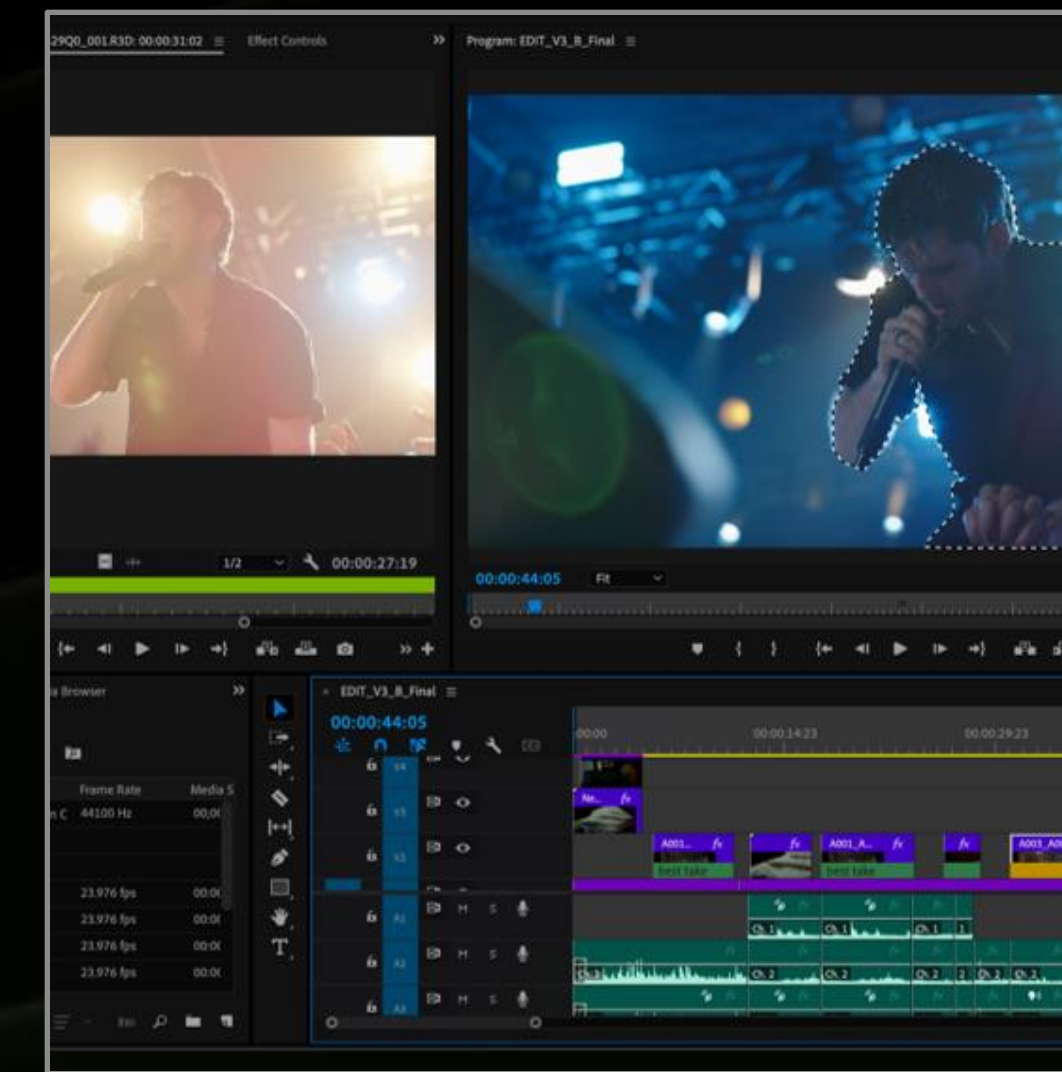
1956

Digital Editing



1991

AI Tools



2019

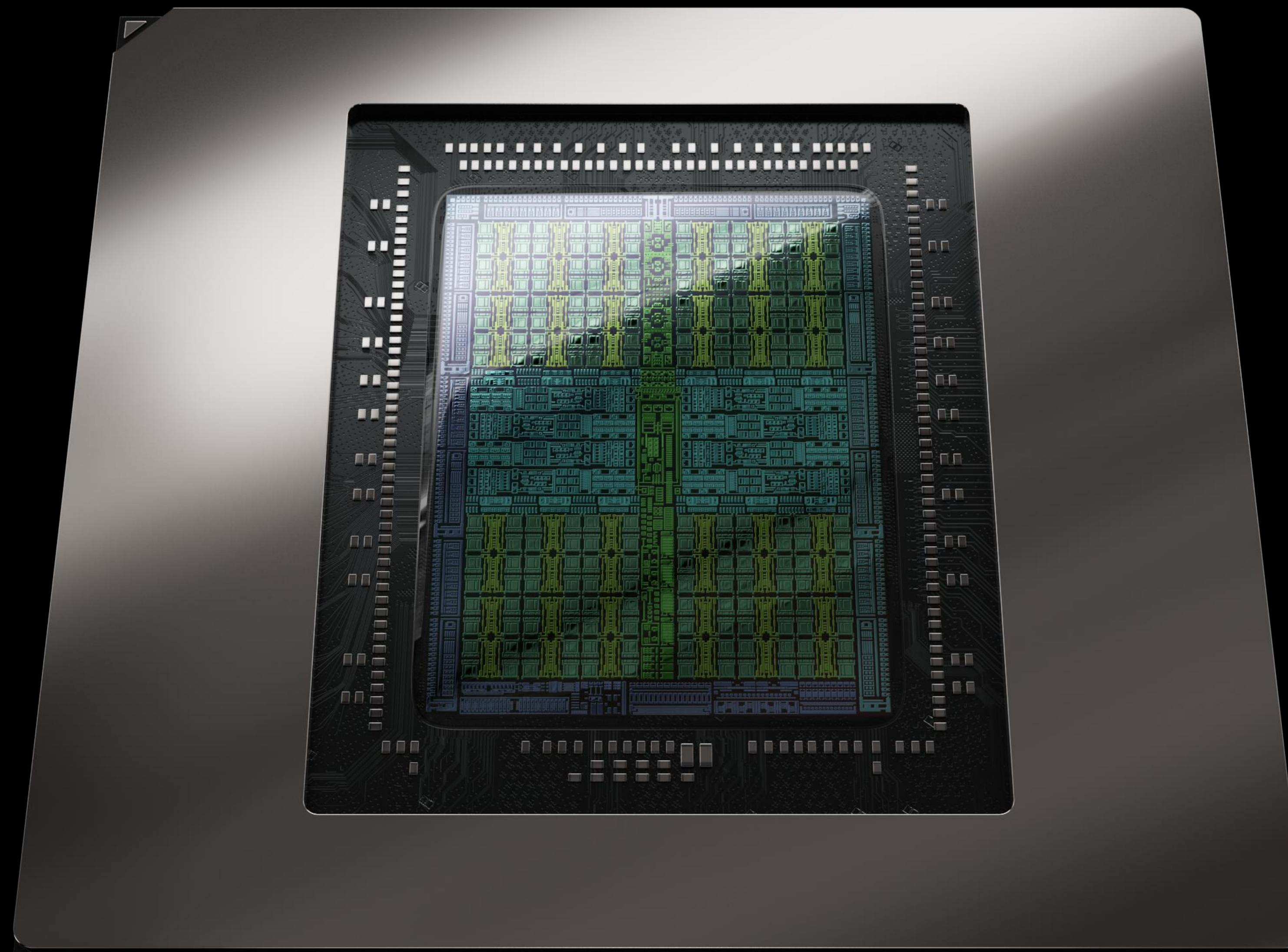


A starlit field beneath moonlight



2024

NVIDIA Blackwell For Creators



5th GEN TENSOR CORES

FP4 Support, DLSS 4

9th GEN ENCODERS & 6th GEN DECODERS

4:2:2 & MV-HEVC Support, Improved Quality, AV1 UHQ

4th GEN RT CORES

RTX Mega Geometry

G7 MEMORY

Up to 32GB, World's Fastest Memory

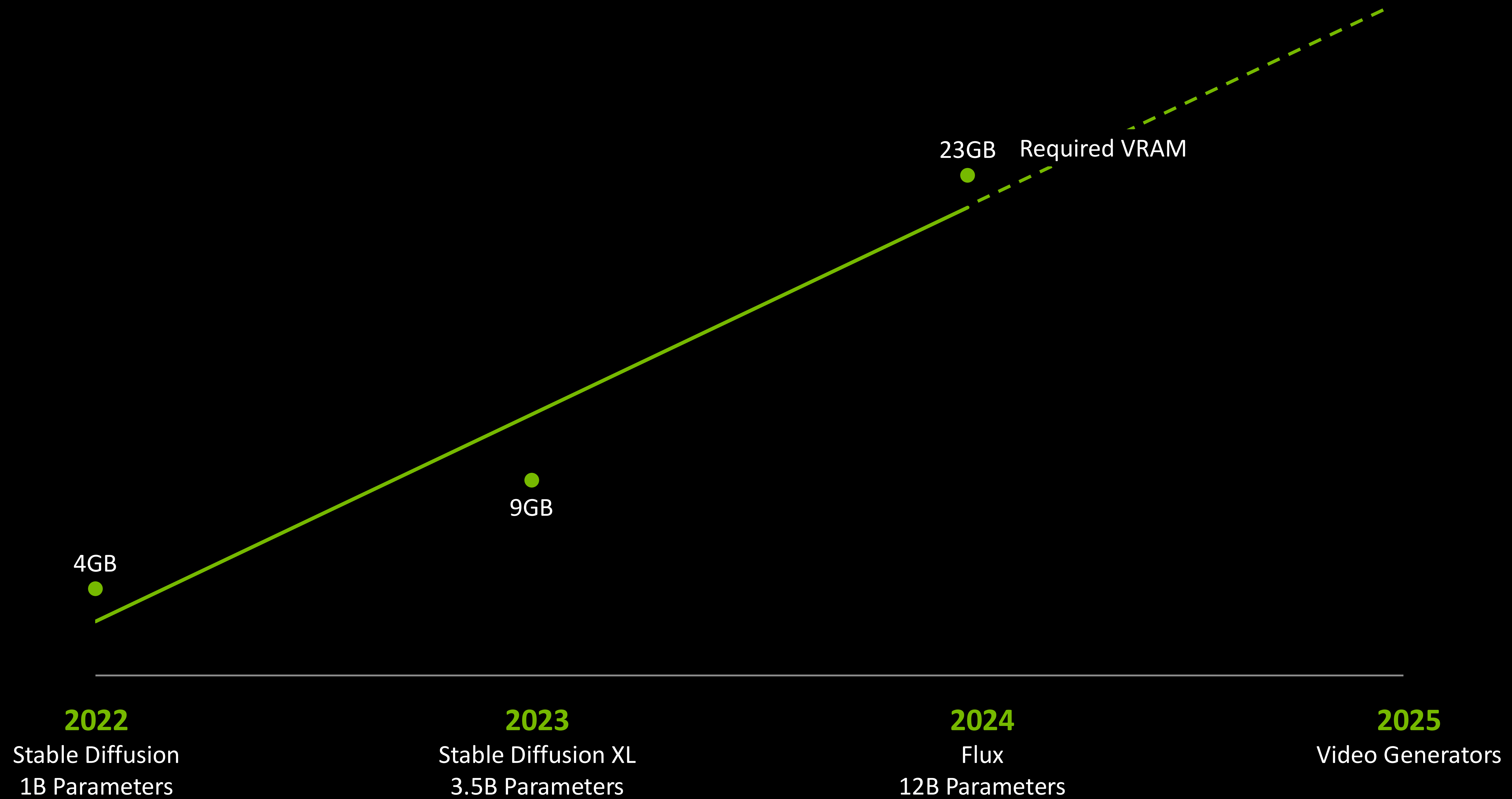
BLACKWELL MAXQ

2X Power Efficiency

AMP

AI Models + Graphics

AI Models Outpacing GPU Compute and VRAM



Blackwell FP4

Over 2X performance and half the VRAM with comparable quality



Flux.dev FP16
RTX 4090

23GB VRAM
15 sec generation



Flux.dev FP4
RTX 5090

10GB VRAM
5 sec generation

3D Guided Generative AI Blueprint

Powered by NVIDIA NIM

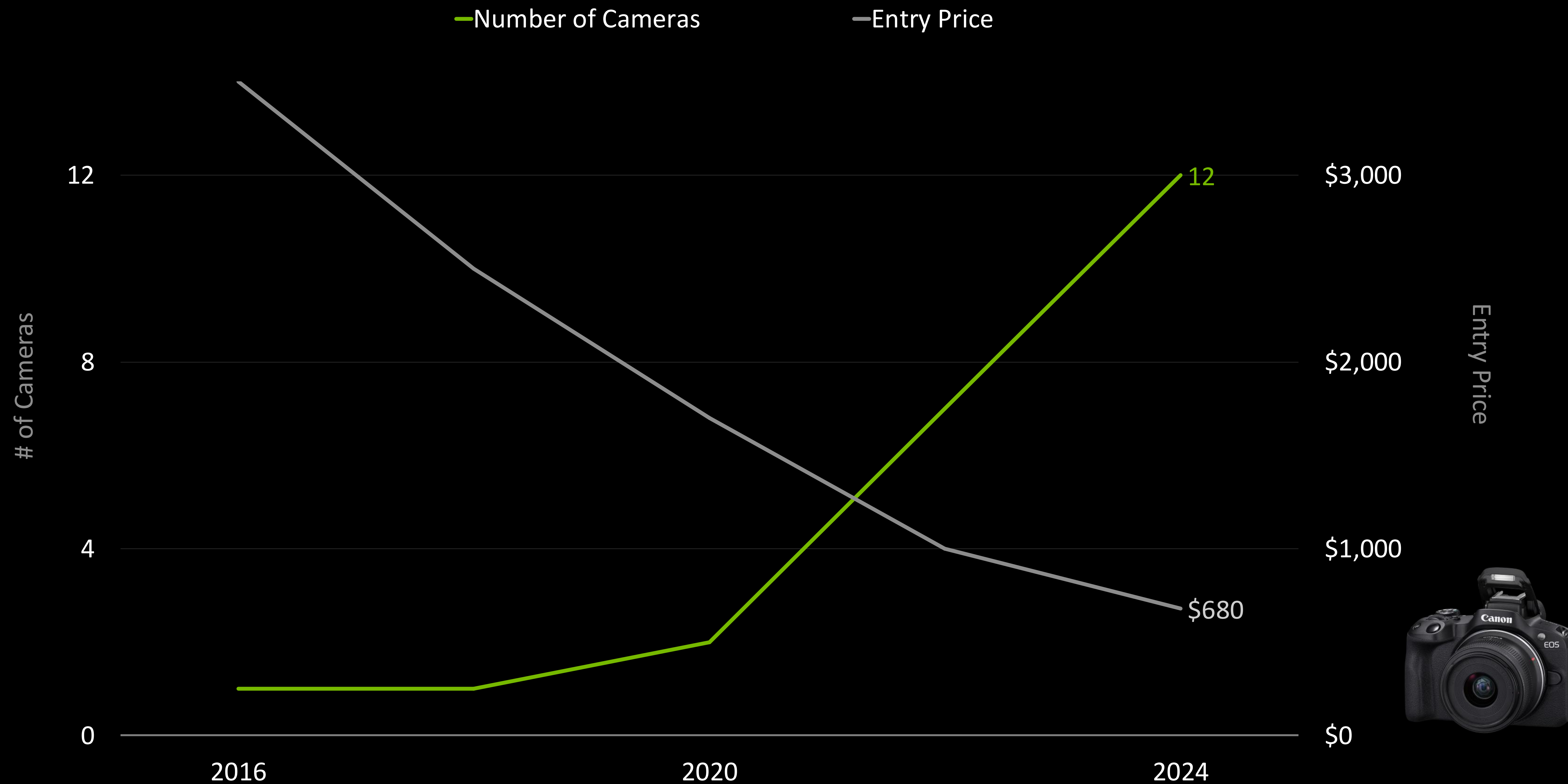


Available in February from ai.nvidia.com



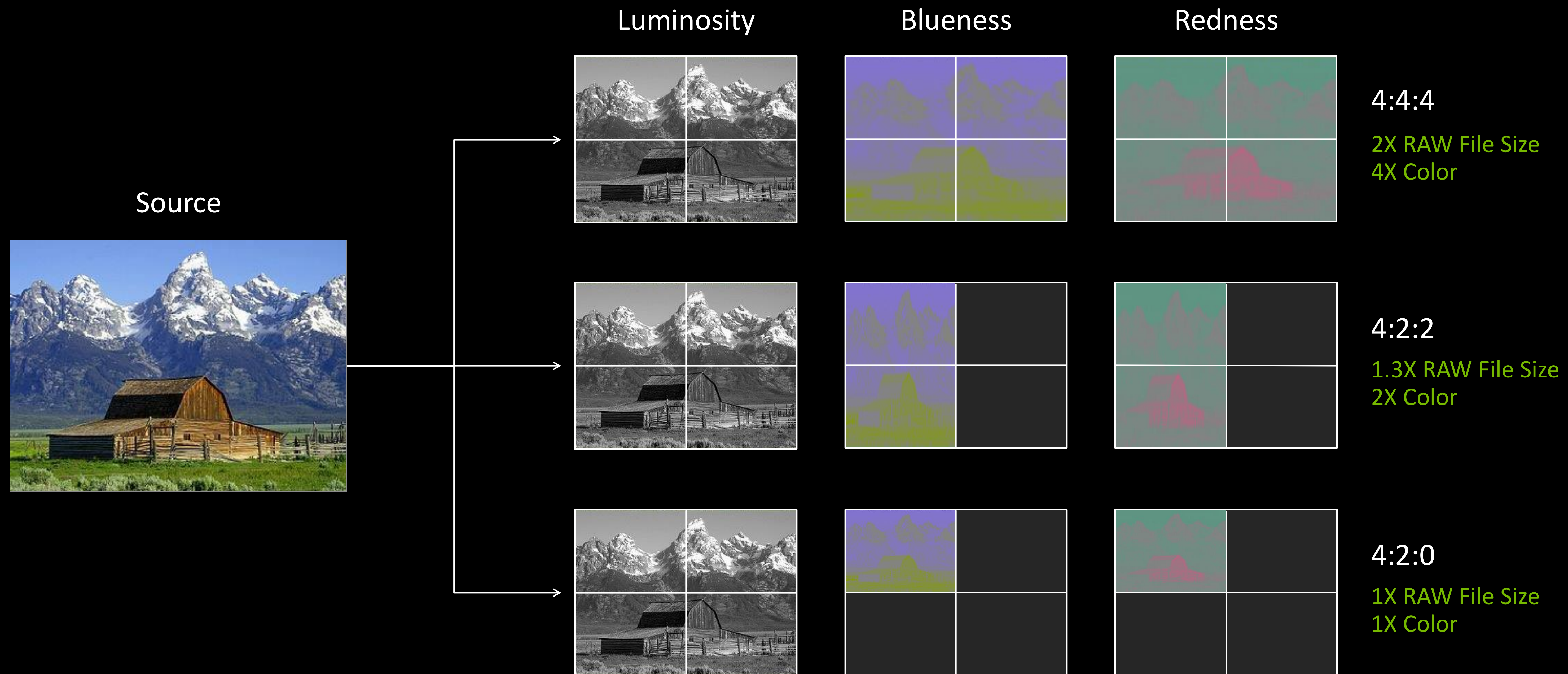
Live Demo: 3D Guided Generative AI Blueprint

The Rise of 4:2:2 Video Cameras



Source: RTings.com

4:2:2 Provides 2X the Color Information for 1.3X the RAW File Size



Improved Edges and Color



4:2:0 8-bit



4:2:2 10-bit

Sharper Chroma Key



4:2:0



4:2:2

Sharper Text

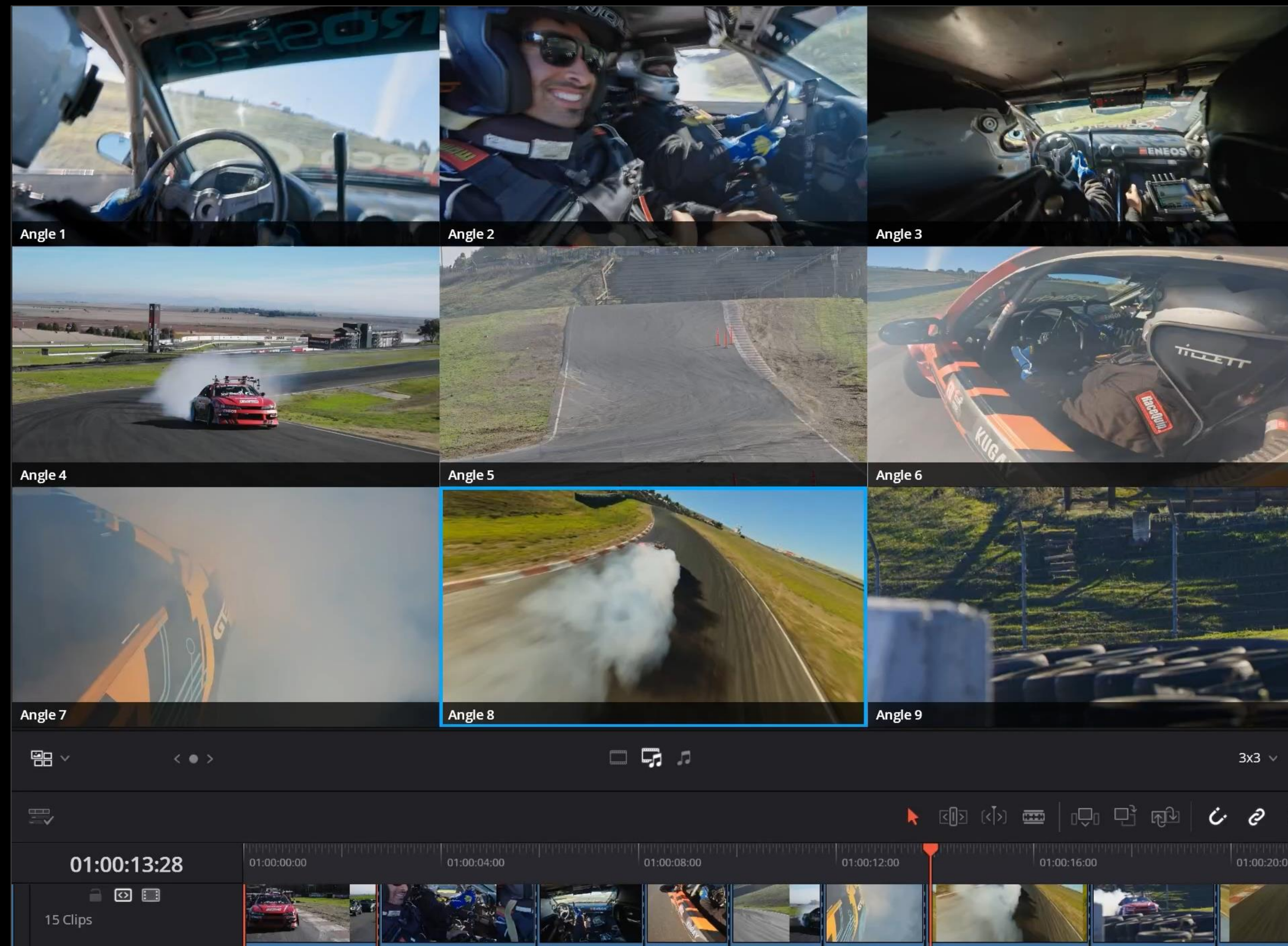
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This

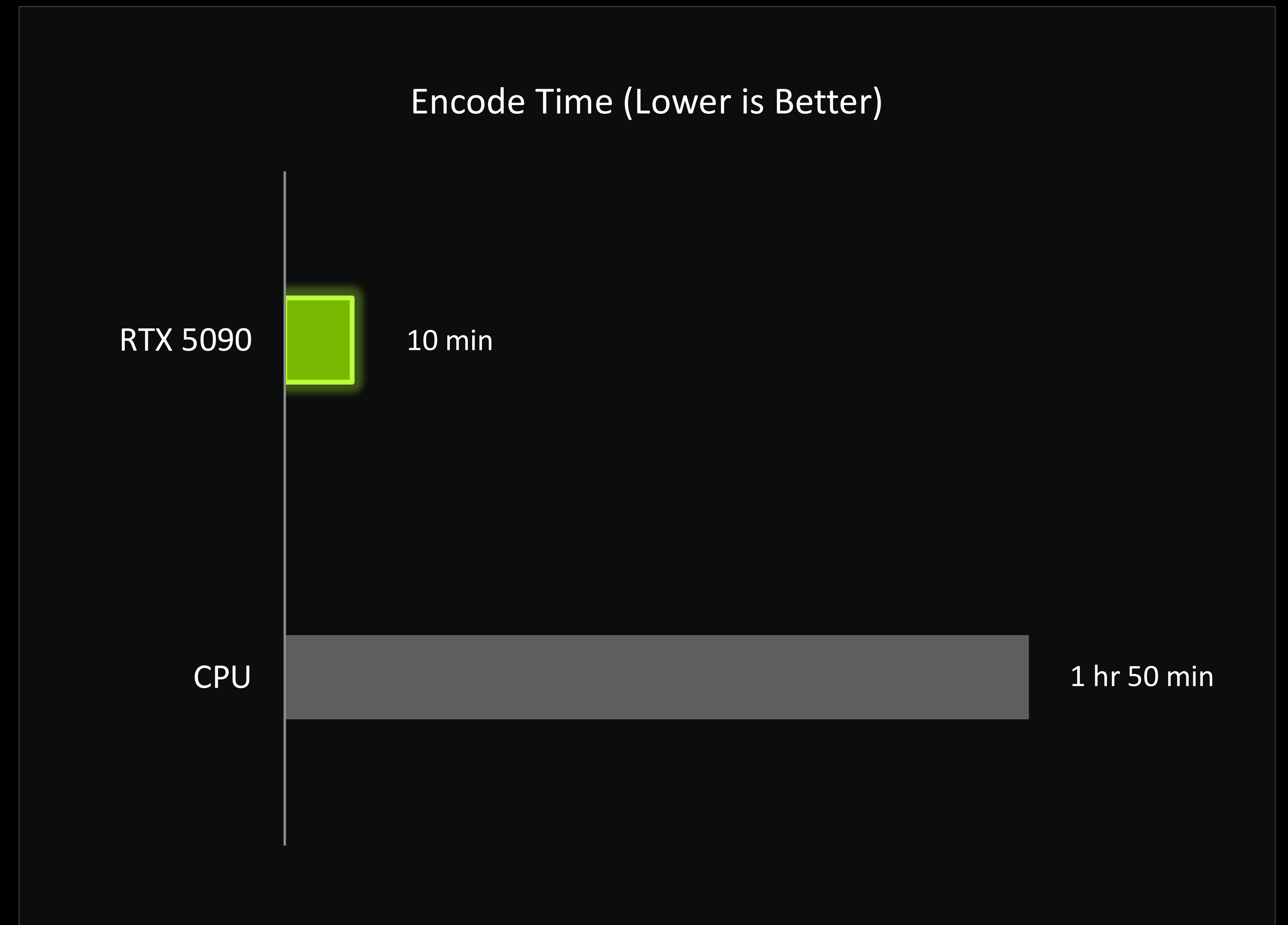
4:2:0

4:2:2

Blackwell Adds 4:2:2 Decode and Encode Support



Playback up to 9X 4K60 4:2:2 Streams per Decoder

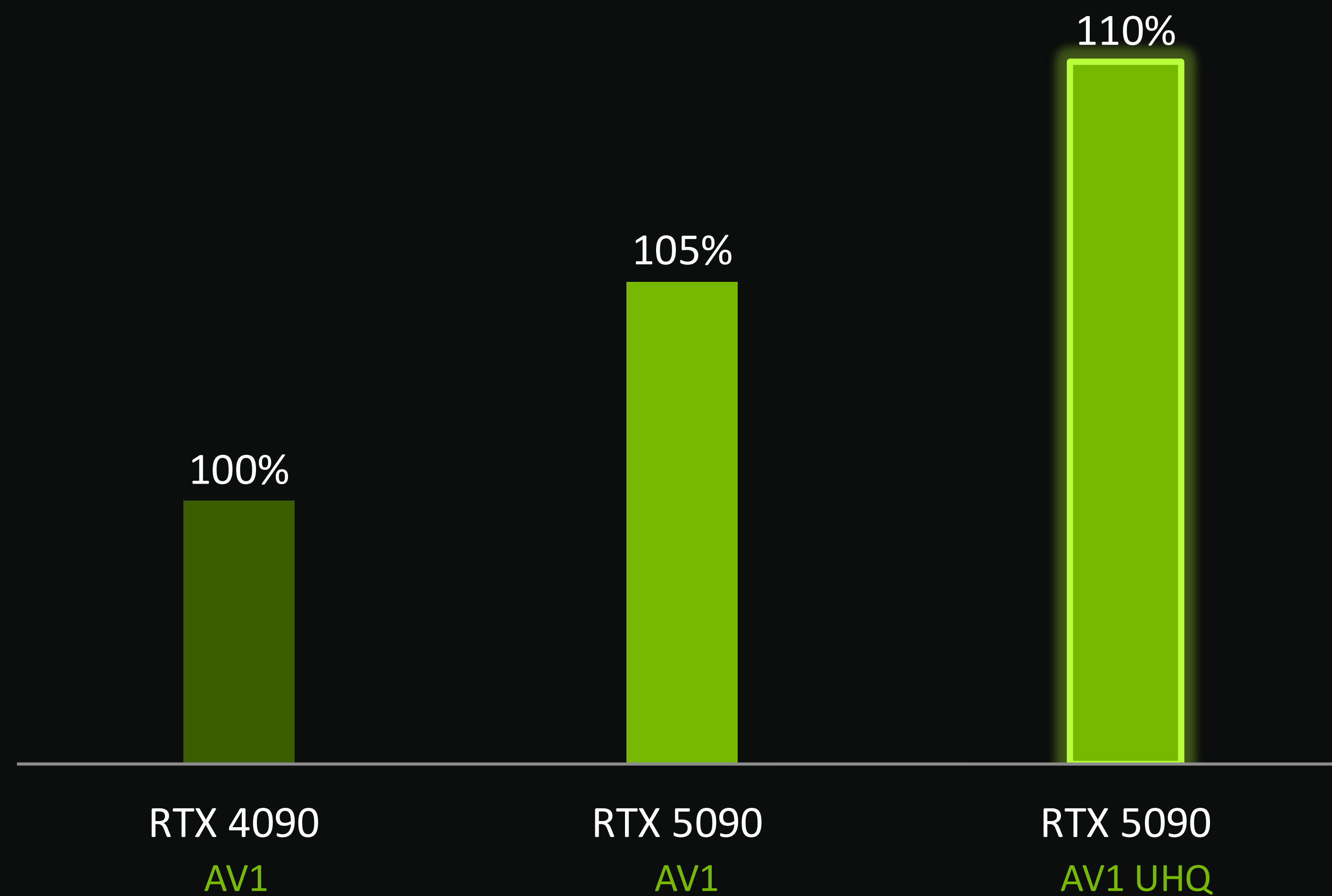


Encode 4:2:2 up to 11X Faster

9th Generation Encoder

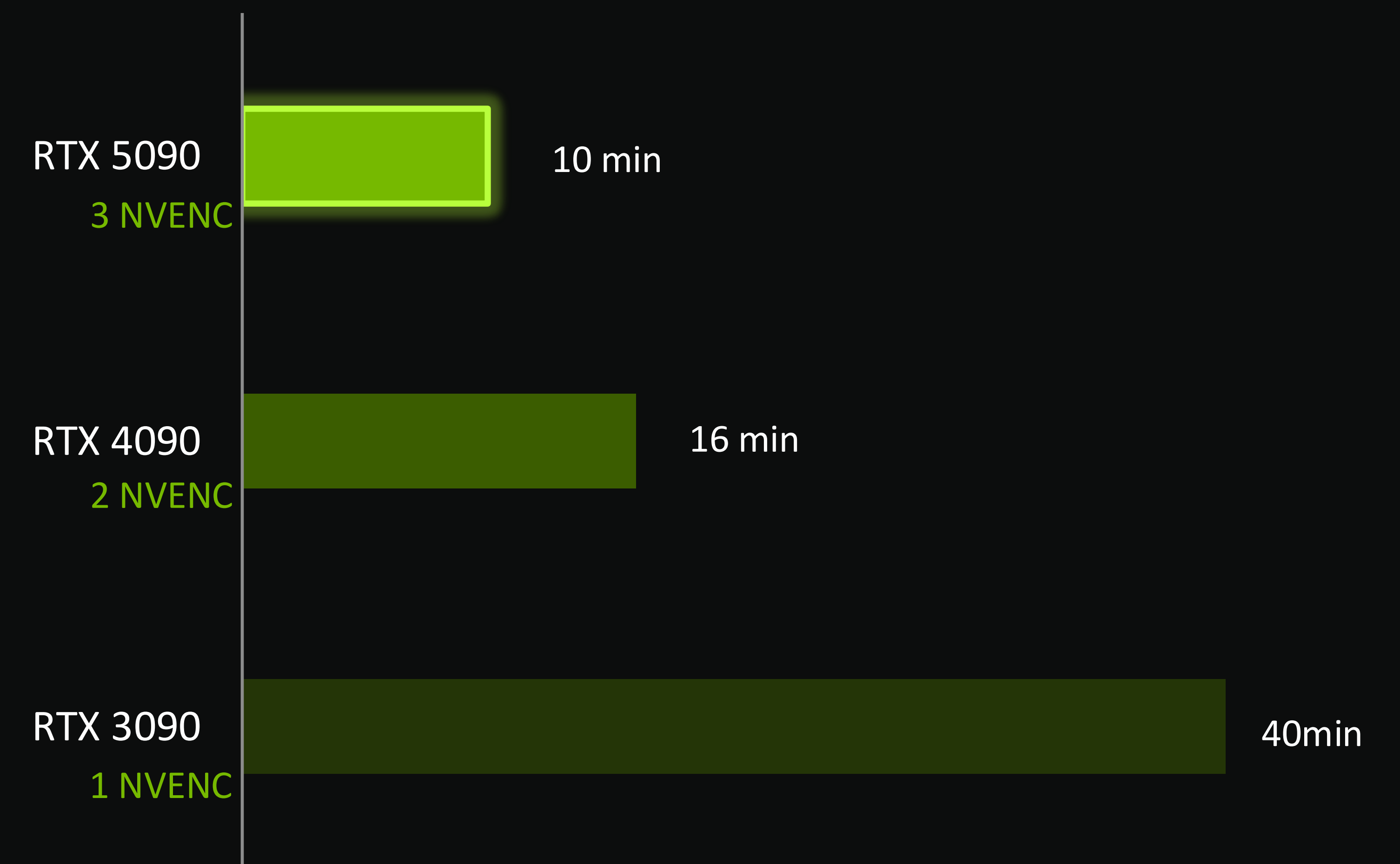
Up to 3 encoders with improved quality

Encoder Quality (BD-BR PSNR)



Improved AV1 & HEVC Quality
New AV1 UHQ Mode

Encode Time (Lower is Better)



Faster Exports with Triple NVENC

Pro-Grade Video Editing with GeForce RTX 50 Series

- Optimized for Generative AI
- 4:2:2 Decode and Encode
- Faster Exports with Multiple Encoders
- Improved Quality and AV1 UHQ mode

Starting in February:

 Adobe

 CapCut

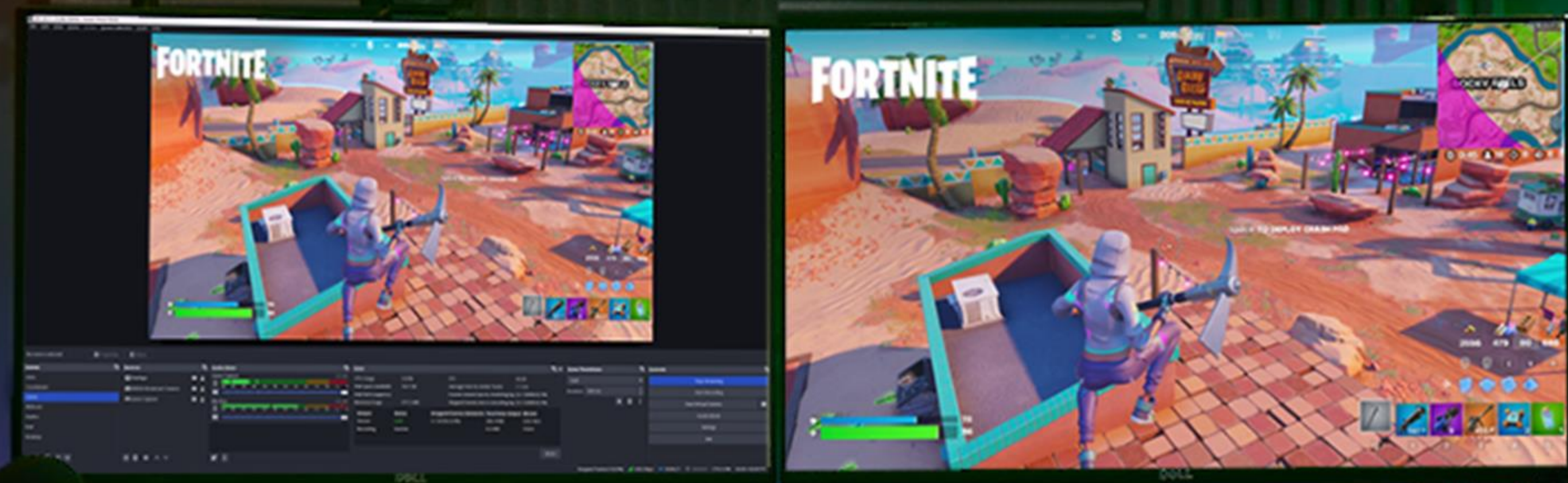
 DaVinci Resolve

 Wondershare
Filmora



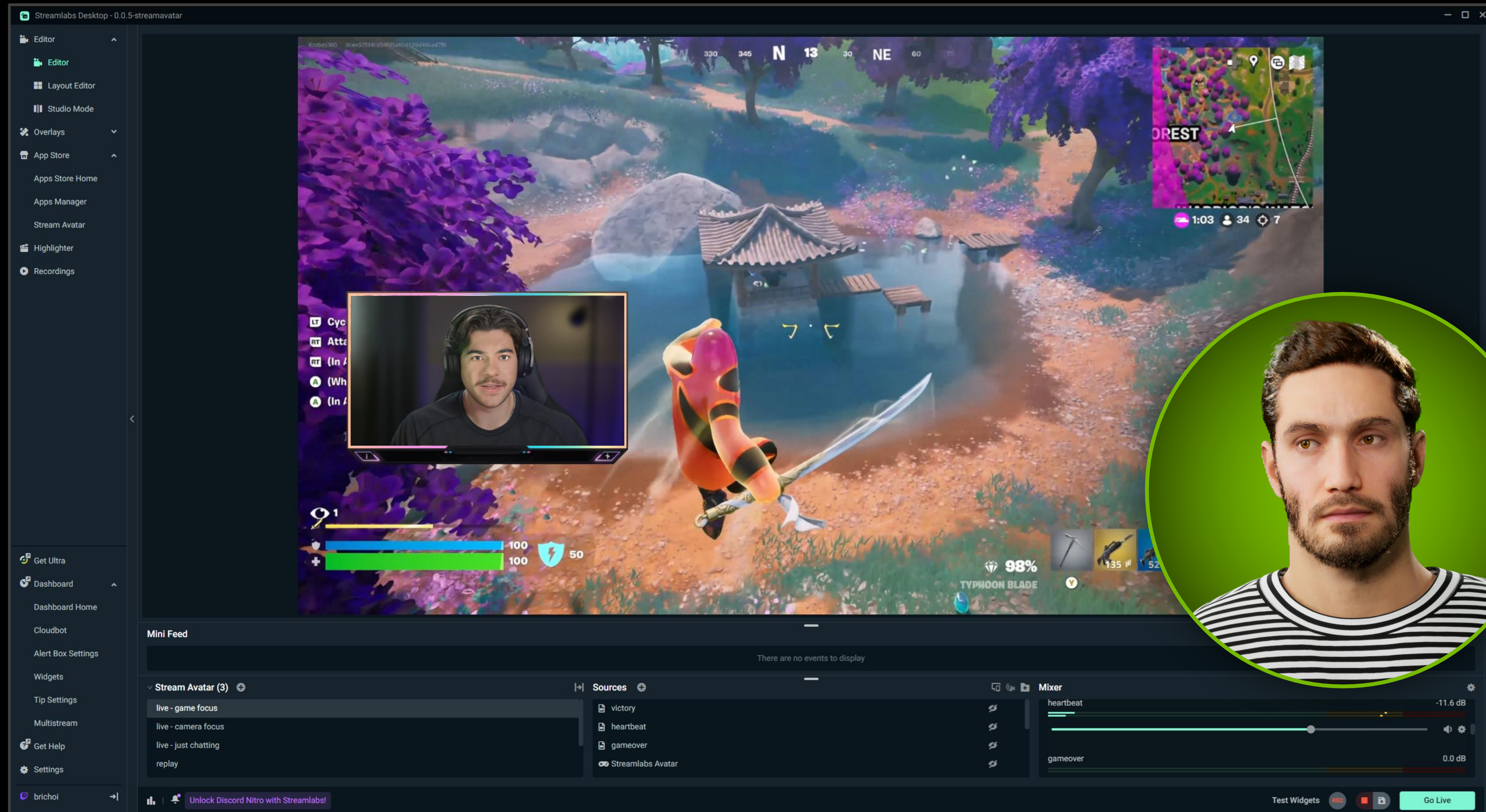
The Livestreamer's Challenges

Multitasking | Setup cost and complexity | Video quality



Announcing Streamlabs Intelligent Streaming Assistant

AI sidekick, producer, and technical support





Scenes

Livestream

Scene 2

Ending Screen

Sources

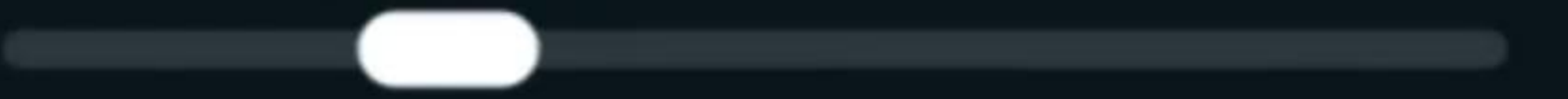
Facecam

Bar Overlay

Alertbox

Mixer

Desktop Audio



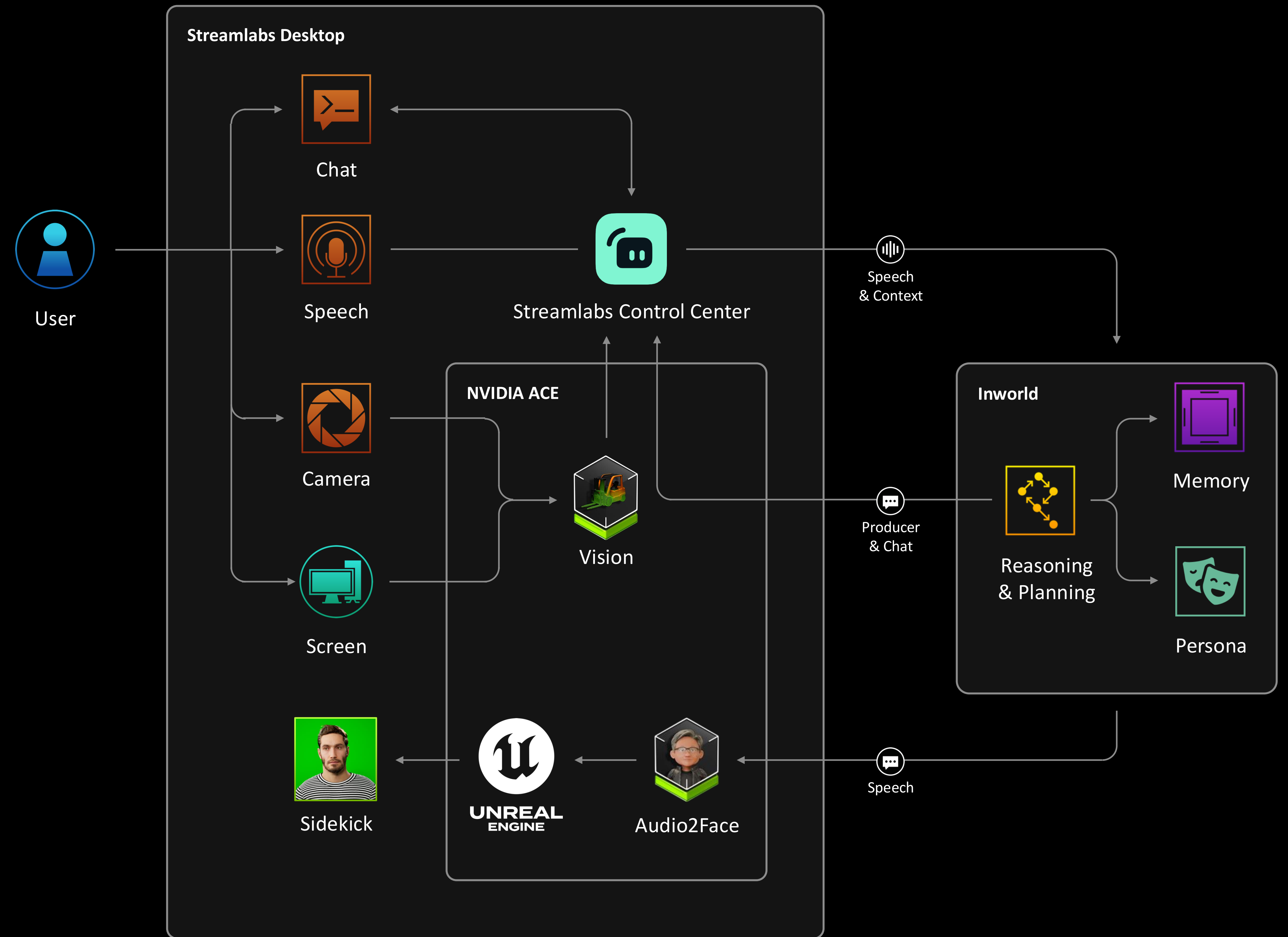
Mic/Aux



Live Demo: Streamlabs Intelligent Streaming Assistant

Streamlabs Intelligent Streaming Assistant

Powered by NVIDIA ACE & Inworld





The New NVIDIA Broadcast

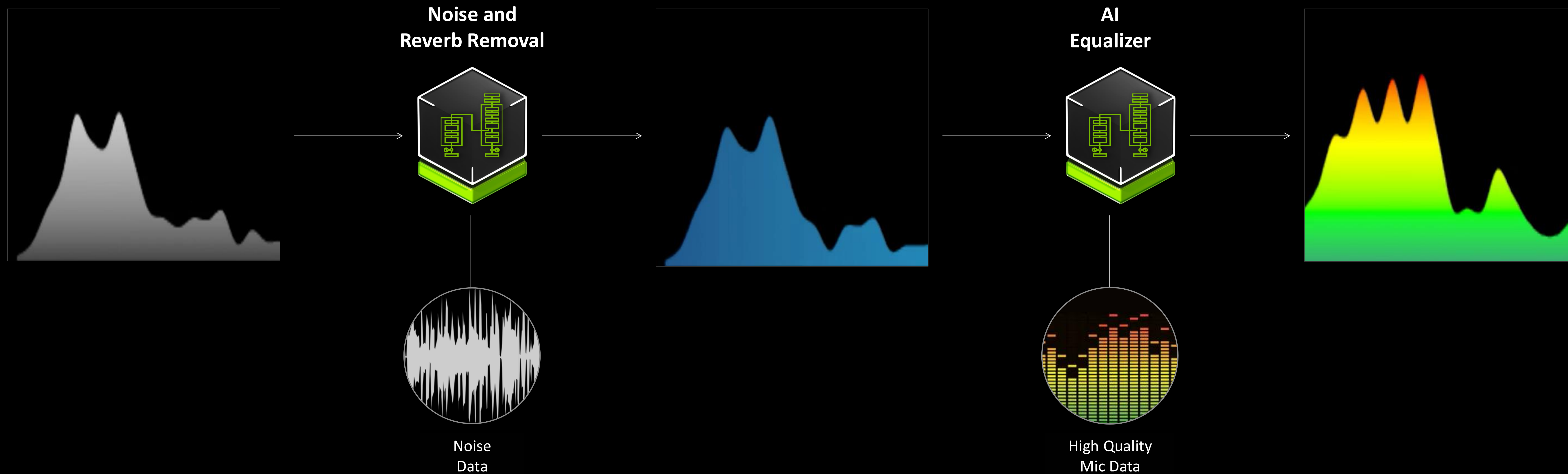
Your AI-powered home studio

- New Studio Voice and Virtual Key Light
- Updated Noise Removal, Virtual Background, and Eye Contact
- Refreshed UI

Available in February

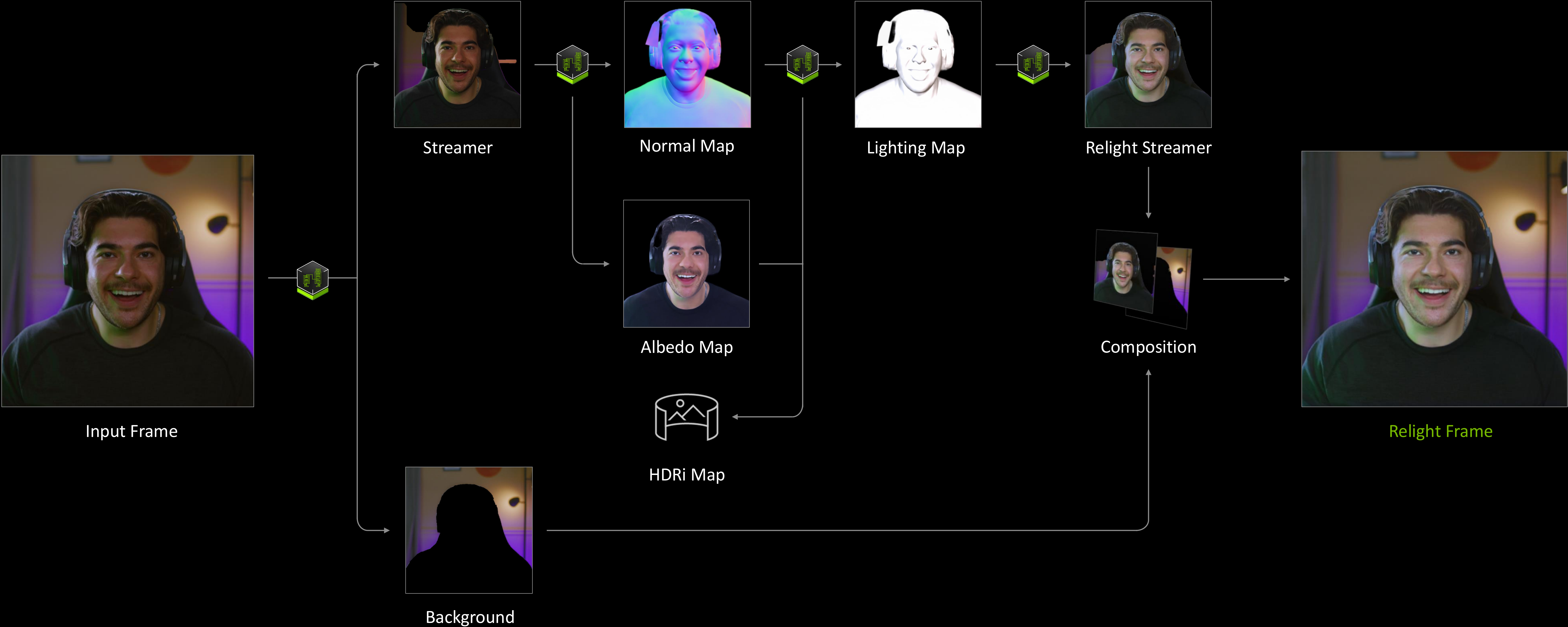
Studio Voice

Premium audio quality with any microphone



Virtual Key Light

AI face relighting



Virtual Key Light

AI face relighting



Camera Input

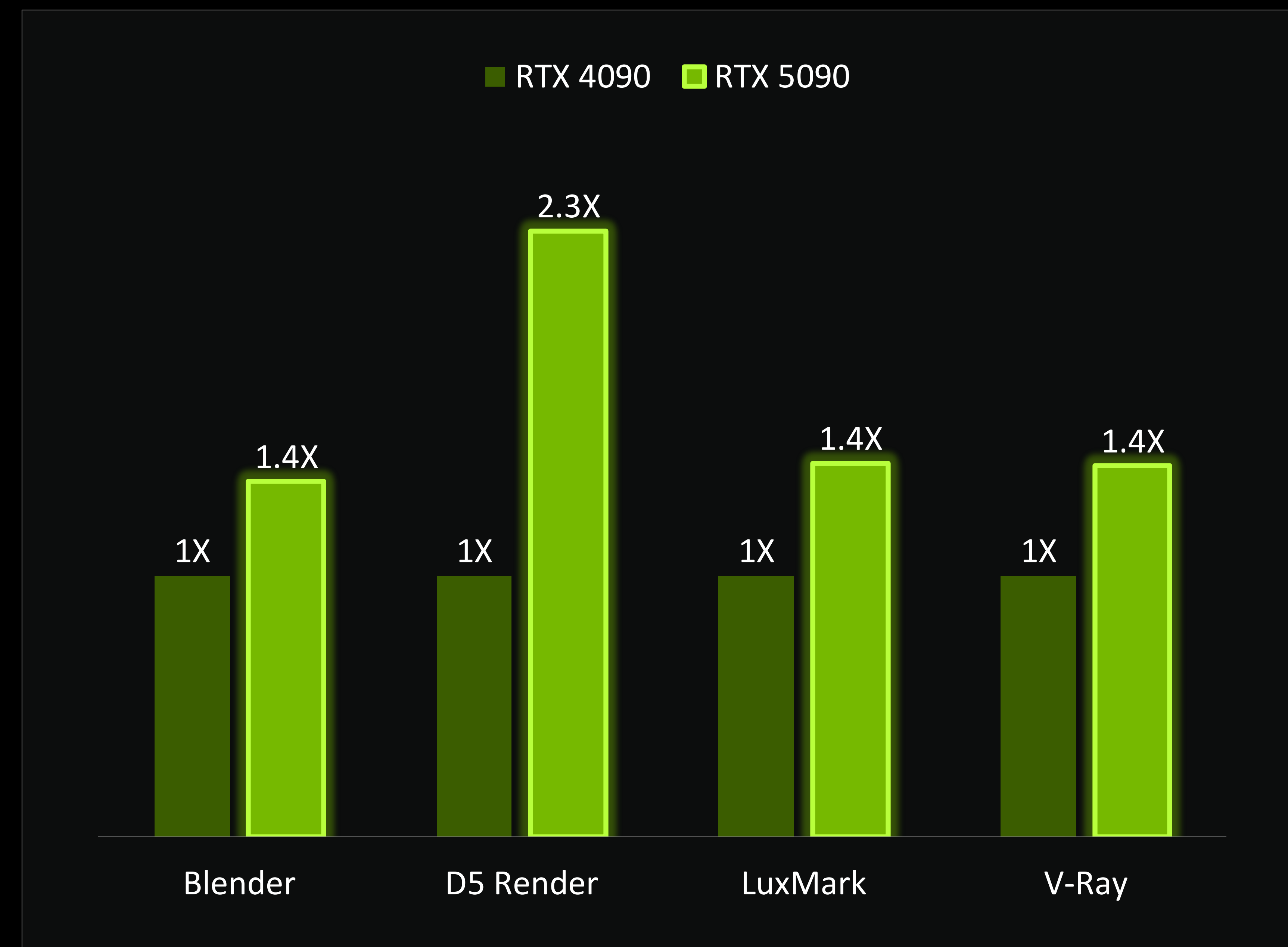


NVIDIA Virtual Key Light

Ultimate 3D Rendering

Powered by 4th generation RT cores

- 1.4X performance
- Up to 32GB and Mega Geo for larger 3D scenes
- DLSS 4 for smoother viewports
- RTX Remix with Neural Rendering and DLSS 4

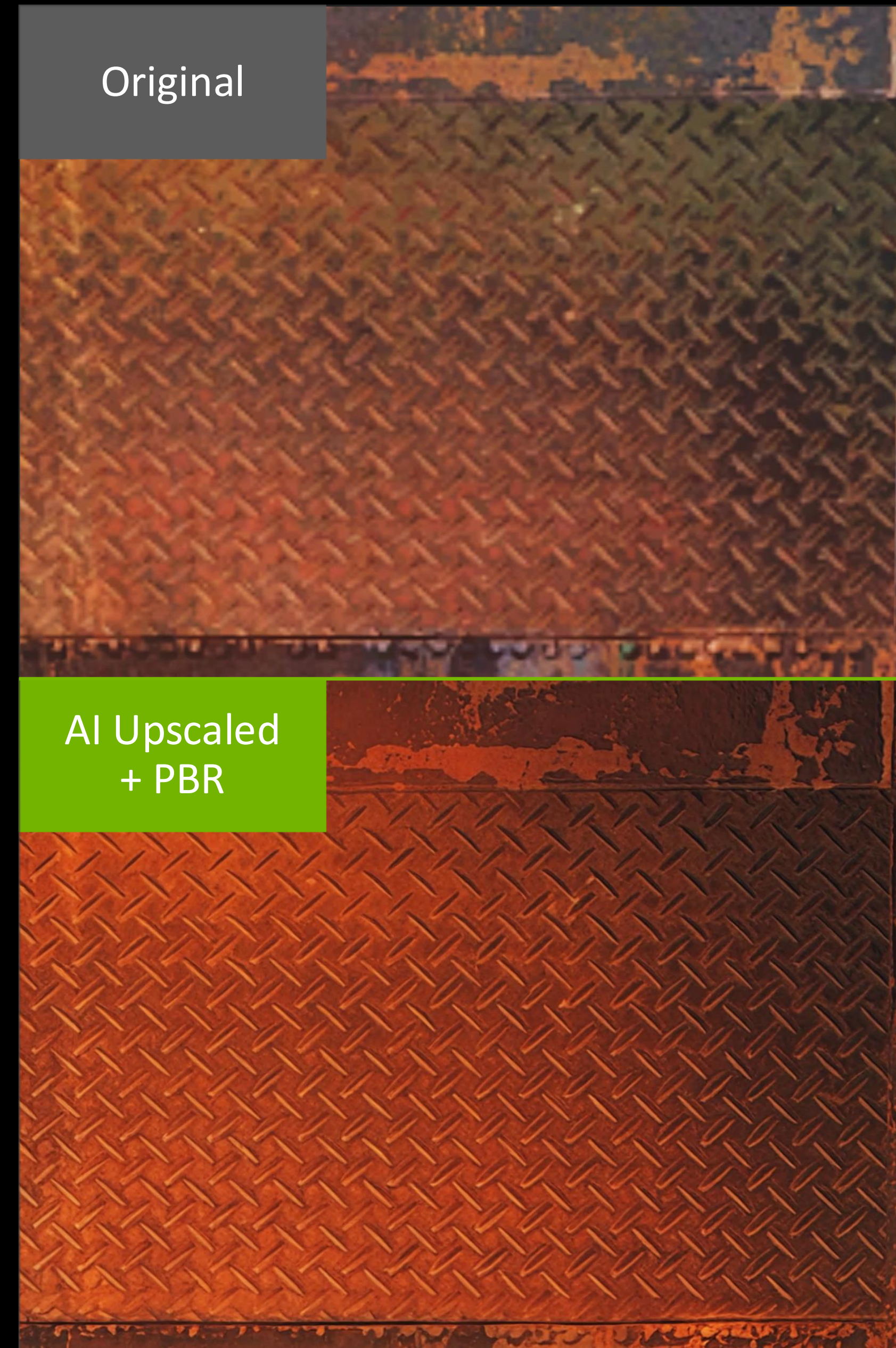


Accelerate 3D Workflows with Generative AI

1.5X Performance with GeForce RTX 50 series



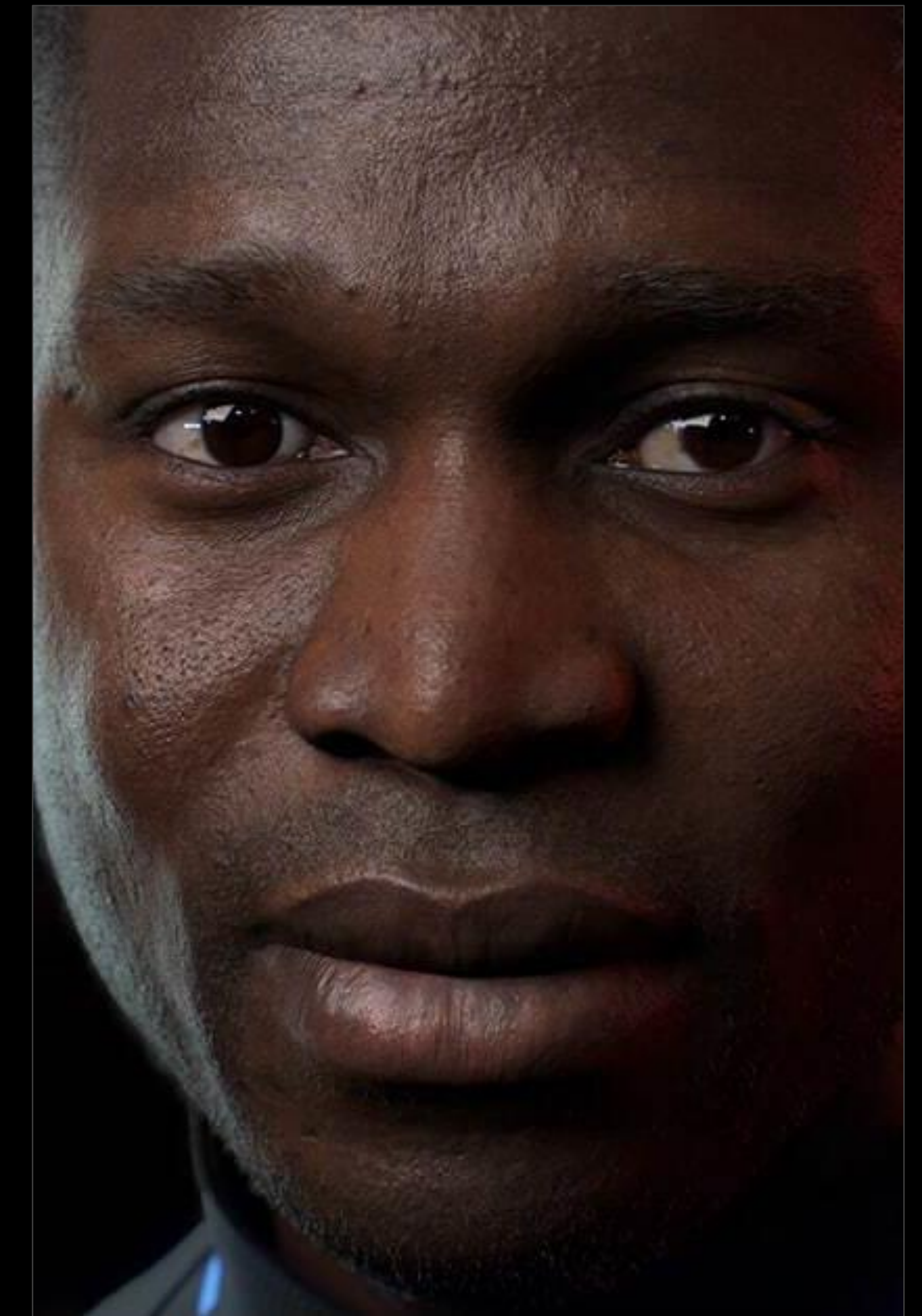
Object Generation
Stable Fast 3D



Texture Generation
RTX Remix



HDRi Generation
Stable Diffusion



Animation Generation
NVIDIA Audio2Face

Announcing SPAR3D model from Stability AI

Generate 3D meshes in seconds with RTX AI PCs



Available in HuggingFace today; NIM coming soon

GeForce RTX 50 Series

Built for the GenAI content creation era



Generative AI
2X Performance and Half the Size with FP4



Pro-Grade Video Editing
4:2:2 Support and Faster Exports



AI Livestreaming
Streaming Assistant and NVIDIA Broadcast



AI 3D Rendering
DLSS 4 and 4th Gen RT Cores



Thank You