August 28, 2013

AMD and Mixamo Revolutionize Character Art With World's First Real-Time Facial Capture Technology for the Unity Development Platform

AMD APUs and GPUs Deliver Advanced Facial Capture to Two Million Unity Developers

SUNNYVALE, CA -- (Marketwired) -- 08/28/13 -- AMD (NYSE: AMD) today announced its collaboration with Mixamo on the launch of Face Plus, an advanced real-time motion capture and 3D facial animation technology for the Unity game engine (v4.3). Mixamo, an AMD Ventures portfolio company, provides online 3D animation service for game developers. Mixamo's Face Plus plug-in for Unity is designed to enable developers to capture their facial expressions through standard webcams and transfer them in real time onto a 3D character using technology powered by AMD A-Series APUs and GPUs[1]. This real-time capture and animation capability is made possible by offloading Mixamo's innovative and complex algorithms from the CPU onto AMD's industry-leading GPU technology.

Face Plus was developed for devices that support OpenCL™ 1.1 or newer versions. Face Plus enables rich, detailed motion capture at full camera frame rates, including typical standard webcam conditions, using an AMD APU. It runs optimally on AMD APUs and GPUs; a system powered by an AMD A10-4600M APU was capable of up to 42 frames-per-second captures in real-time with GPU-acceleration enabled, a 13X performance improvement when compared to using CPU processing alone[2]. By leveraging the full, massive compute power of AMD APUs and GPUs, developers can animate 3D characters in real time allowing for simplified workflows and fewer interruptions in the creative process. While real-time motion capture of facial expressions is currently available as a development tool for content creation, it has the potential to make its way into consumer software such as video games and video conferencing applications, giving consumers the opportunity to animate avatars in real time.

"AMD is impressed with the results Mixamo has achieved in optimizing its technology and is excited not only about the capabilities it brings to Unity developers today, but also the potential it could bring to new consumer applications," said Manju Hegde, corporate vice president, Heterogeneous Solutions at AMD. "Thanks to incredible OpenCL performance, broad availability and the capability of AMD APU and GPU solutions across PC form factors, Unity developers can enjoy a much more streamlined development process, allowing their creativity to flow with technology so powerful it recedes into the background without interrupting the creative process."

"Mixamo is excited about enabling Unity's growing base of over two million developers to create even more engaging stories for its games and movies," said Stefano Corazza, CEO

and co-founder of Mixamo. "With Face Plus, Mixamo leverages mainstream AMD APU-based systems with simple off-the-shelf webcams to deliver real-time high-fidelity facial capture and animation for 3D characters. Our main mission is to democratize 3D character art, and Face Plus takes us one step further by revolutionizing how game and film developers create character art and emotional engagement."

Resources

- Learn more about Mixamo's technology
- Read more about Mixamo on AMD Blogs
- Learn more about Mixamo's Face Plus
- See competitive results for the Mixamo Face Plus plug-in
- Learn more about Unplugged, an interactive animated short, using Face Plus technology to show emotion in its characters and how developers can get access to all the project files
- Visit AMD AppZone for the best games and apps powered by AMD

About AMD
AMD (NYSE: AMD) designs and integrates technology that powers millions of intelligent devices, including personal computers, tablets, game consoles and cloud servers that define the new era of surround computing. AMD solutions enable people everywhere to realize the full potential of their favorite devices and applications to push the boundaries of what is possible. For more information, visit www.amd.com.

AMD, the AMD Arrow logo and combinations thereof are trademarks of Advanced Micro Devices, Inc. OpenCL and the OpenCL logo are trademarks of Apple Inc. and used by permission of Khronos. Other names are for informational purposes only and may be trademarks of their respective owners.

1-See www.mixamo.com for system requirements
2-Tests performed by AMD. Benchmark and test files provided by Mixamo. Test project measures the average speed at which the system can apply the Mixamo facial gesture recognition and animation algorithms using a 480p test video containing a full range of facial emotions and gestures that is loaded into system memory to simulate a live video feed from a standard webcam in an uncontrolled environment. An HP ProBook 6475b notebook PC with AMD A10-4600M APU with AMD Radeon™ HD 7660G Graphics, 8GB DDR3-1600 RAM, video driver 9.12.0.0, 12/19/2012, Windows 7 Professional 64-bit (6.1, Build 7601) Service Pack 1 achieved 42 frames per second with GPU acceleration on, 3 frames per second with GPU acceleration off. TRN-201

Embedded Video Available

Contact:
Kristen Lisa
AMD Public Relations
(512) 602-6020
kristen.lisa@amd.com

Source: Advanced Micro Devices