Pixilica Signs Development Agreement with SiliconArts for RayCore GPU Core

SiliconArts today announced a development agreement for its RC-MC, its next generation RayCore graphics architecture with Pixilica, a RISC-V developer.

Ray tracing

RISC-V processors

SEOUL, SOUTH KOREA, May 4, 2021 /EINPresswire.com/ --
The Most Advanced Path Tracing GPU for Photo-realistic Graphics.

SiliconArts today announced a development agreement for its RC-MC, its next generation RayCore graphics architecture with Pixilica, a RISC-V developer. The license agreement provides for Pixilica to evaluate and potentially integrate its real time path tracing GPU into a RISC-V based platform. RayCore Monte Carlo (RCMC) is scalable and modular to enable integration on a wide variety of gaming platforms including cloud, desktop, mobile, console and VR/AR.

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>
> *Jon Peddie*

Silicon Arts CEO Yoon Hyung-min said, "We will focus on establishing a strategic partnership with Pixilica, a leading company targeting the RISC-V graphics market." "SiliconArts' path tracing GPU supports high-quality 3D graphics required in the 5G era in real time."

Pixilica CEO Atif Zafar explained, "SiliconArts has perfected a very efficient architecture for path tracing that is sufficient to introduce path tracing to mobile devices, AR, VR, and other power constrained devices. This is a perfect complement to our support of a broad community led effort on a RISC-V based GPU. It will broaden advanced graphics processing capabilities in an open programming

environment.”

Jon Peddie, principle and founder of Jon Peddie Research, sees the development agreement a sign the market would like to bring more advanced features to the open source RISC-V community in graphics. “Ray Tracing is being released in most major game consoles and PCs today. It provides realistic graphic effects by tracing light to realistically express effects such as reflection, refraction, transmission, and shadow. In addition to providing physically accurate renditions, it has the added benefit of simplifying the amount of labor needed to create them. Ray and path tracing is recognized as the most attention-grabbing graphics rendering technology in the 5G era. Its utilization in various fields is expected to explosively increase.

About Silicon Arts
Based on a licensable IP core incorporating patented innovations that brings low power, real-time ray tracing (RC1000) and path tracing (RCMC) to mainstream markets, Silicon Arts is Leading embedded ray tracing GPU technology for all applications. SiliconArts® and RayCore® are registered trademarks of SiliconArts Inc. Contact Steve Brightfield (858)692-6727 or Visit

About RayCore Monte Carlo-Series GPU
Silicon Arts’ path tracing architecture can be integrated into conventional shader GPU designs. It will upgrade their performance for path traced content while preserving legacy GPU support. It can be integrated into desktop and cloud-based ray and path tracing solutions as well as integrated GPU solutions requiring the ultimate in performance and quality.
The RayCore MC-Series’ utilizes SiliconArts’ unique path tracing algorithms to provide a scalable, low-power 3D GPU rendering core. The RayCore MC-Series provides over 300 million path tracing Rays/sec/mm2 with power dissipation as low as 5 million Rays/sec/mW in advanced semiconductor manufacturing technology (1). When complemented by an optimized caching methodology the core’s silicon compute efficiency reduces bus bandwidth and DDR transfers for constrained systems. (1) SilArts simulation/ extrapolation of 7nm TSMC process geometry utilizing low Vt.

About Pixilica
"Pixilica is a North American hardware development company that is developing a variety of RISC-V based IP cores for a variety of markets, from education to embedded systems, and is also leading a community based open-source RISC-V GPU ISA development effort."

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