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Stardock and Oxide Complete First Optimization for AMD Ryzen CPUs Delivering Up to 30 Percent "Average FPS All Batches" Uplift in "Ashes of the Singularity" DirectX 12 Benchmark

Releasing today on Steam, optimized game impressively scales with new AMD Ryzen CPU architecture to achieve from 26 to 33 percent score uplift in benchmark testing

SUNNYVALE, CA -- (Marketwired) -- 03/30/17 -- AMD (NASDAQ: AMD) today announced, in conjunction with game developers Stardock and Oxide Games, the completion of initial optimization of "Ashes of the Singularity" for AMD Ryzen desktop processors resulting in significant performance increases. The popular game title, which initially launched one year ago, demonstrates significant performance increases in game play and an up to 30 percent increase in "Average Frames Per Second All Batches" in-game benchmark performance, placing AMD Ryzen 7 1800X in elite performance levels for the game.[1] Stardock and Oxide Games are premier participants in the AMD Ryzen game development program that spans numerous significant game development houses and titles.

"Unleashing the full high-performance value proposition of the 'Zen' core and AMD Ryzen CPUs requires close collaboration with software, hardware, and game developers. The results Stardock and Oxide have achieved show impressive gains," said Jim Anderson, SVP and GM of the Computing and Graphics Business at AMD. "We're very pleased with the results, not just because of the statement it makes about incredible AMD Ryzen performance headroom, but more importantly what it means for fans of 'Ashes' -- a state-of-the-art implementation of DirectX® 12 in a real-time strategy game."

"I've always been vocal about taking advantage of every ounce of performance the PC has to offer. That's why I'm a strong proponent of DirectX 12 and Vulkan® because of the way these APIs allow us to access multiple CPU cores, and that's why the AMD Ryzen processor has so much potential," said Stardock and Oxide CEO Brad Wardell. "As good as AMD Ryzen is right now -- and it's remarkably fast -- we've already seen that we can tweak games like 'Ashes of the Singularity' to take even more advantage of its impressive core count and processing power. AMD Ryzen brings resources to the table that will change what people come to expect from a PC gaming experience."

Performance Uplift

In testing with an AMD Ryzen 7 1800X CPU paired with DDR4-2933 memory at 1920x1080 resolution and "High Preset" image quality setting, the updated game and its in-game

benchmark showed a minimum increase of up to 26 percent in "Average Frames Per Second Large Batches", to a maximum uplift of up to 33 percent in "Average Frames Per Second Normal Batches", compared to testing with the previous version of "Ashes of the Singularity".[1]

Game Update Availability
"Ashes of the Singularity" game owners may download the updated game free of charge on Steam starting today at 9 a.m. EDT, while new customers will be able to purchase and download the same new standard version. All three models of AMD Ryzen 7 CPUs are available at retailers and etailers worldwide.

Supporting Resources

- Learn more about AMD Ryzen processors at AMD.com/Ryzen
- View video of Stardock and Oxide CEO Brad Wardell discussing game optimizations for the AMD Ryzen CPU
- Learn more about the "Zen" core architecture at AMD.com/Zen
- Learn more about AMD Products, Solutions, and Innovations
- Become a fan of AMD on Facebook
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About Stardock
Stardock is a developer and publisher of PC games and desktop software founded in 1991 by nationally recognized technology expert Brad Wardell. Located in Plymouth, Michigan, Stardock is a powerful leader in the video gaming and software development world. Its PC games include Sins of a Solar Empire, the critically acclaimed Galactic Civilizations series, and Ashes of the Singularity. Stardock puts the user experience first through software that enriches the Windows experience for everyone from casual computer users to highly technical professionals. Products offered by Stardock include Start10, Fences, WindowBlinds, Multiplicity, and more at www.stardock.com.

Please contact press@stardock.com for all media inquiries.

About Oxide Games
Oxide games was founded in 2013 by industry veterans Tim Kipp, Dan Baker, Marc Meyer, Brian Wade, and Brad Wardell. Located in Timonium, Maryland, Oxide is a world class game and engine developer, with its key members having worked in leadership positions on such well known titles as Civilization, Elder Scrolls Online, Command and Conquer, and many more. Oxide develops the powerful Nitrous engine, used by Ashes of the Singularity and many upcoming titles. The Nitrous Engine has been recognized as world class leader in state of the art technology, often considered the gold standard for both next generation API development and multicore scaling.

Please contact press@oxidegames.com for all media inquiries

About AMD
For more than 45 years, AMD has driven innovation in high-performance computing, graphics, and visualization technologies -- the building blocks for gaming, immersive platforms, and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses, and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work, and play. AMD employees around the world

are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit the AMD (NASDAQ: AMD) website, blog, Facebook and Twitter pages.

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[1] Testing conducted by AMD performance labs as of 3/27/2015. Baseline Ashes of the Singularity version (2.10.25624): 63.85 average FPS of all batches (avg FPS for normal, medium and large batches 68.62, 63.65 and 59.8 respectively). New version (2.11): 83.7 average FPS of all batches (avg FPS for normal, medium and large batches 92.25, 84.65 and 75.6 respectively). Total % increase in avg FPS for all batches: 31.1%. System configuration: AMD Ryzen 7 1800X, 2x8GB DDR4-2933 (15-17-17-35), GeForce GTX 1080 (378.92 driver), Gigabyte GA-AX370-Gaming5, Windows 10 x64 1607, 1920x1080 Resolution, HIGH image quality preset. RZN-27

Contact:
Jay Marsden
AMD Communications
+1 289 695 0850
Jay.Marsden@amd.com

Alina Ostrovsky
AMD Investor Relations
(408) 749-6688
alina.ostrovsky@amd.com

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