

Success Story

Intel® Software Partner Program
OC3 Entertainment



"We dedicate enormous effort to perfecting workflows that give developers rich animation automatically, as well as letting them dive down for fine tuning. All those operations are very computationally intensive, so optimizing for the latest platforms is a vital part of our success."

- Doug Perkowski, CEO
OC3 Entertainment

Challenge:

Deliver an automated workflow for facial animation that offers realistic results while also enabling fine-grained adjustments that make them more human. Keep up with the latest hardware and market trends while focusing on core competencies.

Solution:

OC3 Entertainment works with the Intel® Software Partner Program to put the capabilities of the Intel® Core™ i7 processor and other cutting-edge platforms to optimal use. As a result, the company has had a hand in more than 100 popular game titles, delivering excellent results to delighted end-users.

Learn more:

www.intel.com/partner

Controlling the Emotions of Animated Faces

FaceFX* technology from OC3 Entertainment uses computational intelligence to add human dimensions, such as humor and expression, to facial animation.

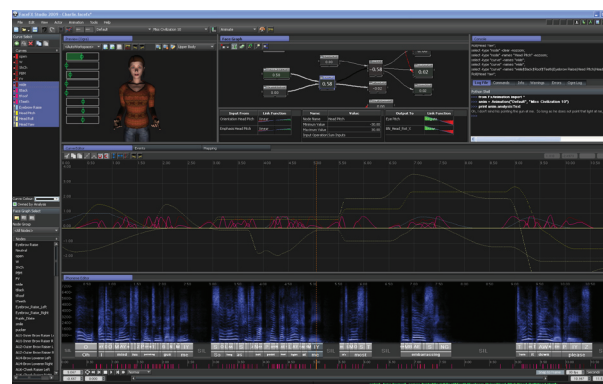
OC3 Entertainment, located in Research Triangle Park, North Carolina, builds facial animation software that is perhaps best known through the many games based on Unreal Engine* 3, which integrates the company's technology. In addition to the Unreal-based licensees, their FaceFX product has been used in more than 100 other game titles. It has also been widely used in applications such as 3D communication systems, training simulations, and web-based customer relationship management systems.

Adding Humanity to Facial Animation

FaceFX provides multiple complementary approaches to facial animation, allowing developers to find the appropriate balance between automated efficiency and detailed control. In the simplest case, the environment generates animation based on an audio recording, using phonetic elements to produce appropriate facial movements. The interpretation involved is so computationally intensive that optimization is very important to achieve a smooth workflow and naturalistic results. In a slightly more complex case, a text file can provide

tags to guide the animation, raising an eyebrow to evoke a question or smiling to emphasize a point.

The software includes the ability for the developer to have animated virtual actors redo a scene, reinterpreting the probabilistic input data much as a real actor might reinterpret a line of a movie script. This ability to generate a new "take," with its own gestures, eye blinks, and head movements, requires a lot of



processing, and to be useful, it must happen quickly. FaceFX uses Intel Software Partner Program resources to make excellent use of the hardware pipeline here, giving the scene developer very high control over the outcome. That degree of control also extends to the manual manipulation of facial expressions, fine tuning them further to match the developer's creative vision.



"Intel's marketing support at GDC and other venues was critical to OC3 Entertainment's success early on. We like to say that our technology speaks for itself, but Intel helped us make sure people were listening."

- Doug Perkowski, CEO
OC3 Entertainment

Building Outward from a Brilliant Core

Delivering state-of-the-art facial animation software is a specialized activity, and OC3 Entertainment relies on the Intel Software Partner Program to help add breadth and context to their efforts. For example, the company's software needs all the platform horsepower it can get, and the program delivers tools and expertise that help keep OC3 Entertainment's technology on the leading edge. That includes guidance in using Intel® Compilers, Intel® VTune™ Performance Analyzer, and other tools to full benefit and providing pre-release hardware platforms, such as the Intel Core i7 processor, for a look into the future.

Of course, delivering excellent software results is only part of the challenge. It's not a success if you don't get your product deep into your target market, and OC3 Entertainment has been wildly successful in that area as well. Having FaceFX incorporated into Unreal Engine 3 means that the technology is licensed by many of the world's most popular games, across genres. One of the company's early avenues to top-tier exposure was through the Intel Software Partner Program, which continues to this day. Participating in the Game Developer Conference and other industry events with Intel gave the company instant credibility in showing the world that a new and important technology had arrived.

Years later, animated faces continue telling the story, all over the world.



Learn more about OC3 Entertainment:
www.oc3ent.com

About the Intel® Software Partner Program

The Intel® Software Partner Program provides a framework for collaborative solution development around Intel® architecture. From business planning and product development to marketing and sales, the program helps to drive increased business success and market opportunities. Learn more at www.intel.com/partner.

Success Story by:



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