# INTEL'S CORE PROCESSORS FUEL 4D ART

The intense processing power of Intel's Core Processors enable stereoscopic conversion (and potentially real-time stereoscopic flythrough) of a 4D art piece created by major LA artist Miles Regis in concert with visualization and technology expert, Brian Quandt.



# THE PROJECT

Miles' work has always been edgy and Brian's understanding of technology and visual

systems has always been cutting edge so the workspace was set. Brian suggested that Miles could express his art in 4 Dimensions utilizing his new 2D to 3D conversion techniques. As Miles created a new painting for the collaboration, the team took hundreds of very high-resolution, time-lapse photos. Each of these photos represented a specific "slice" in time in the chronology of the painting. These slices were then separated and reassembled into a stereoscopic image utilizing techniques developed by Quandt.

# THE PROCESS

The development of the stereoscopic image contained literally dozens of very high-resolution images. The compilation of these images into a single stereoscopic image was an extremely processor-intensive operation. Utilizing custom techniques on PC equipped with Intel Core processors, Quandt was able to accomplish this task much more quickly than with other systems.

"In creating artwork, I was simultaneously manipulating over fifty individual very high-resolution images to create one stereoscopic image. The load on the processors is really heavy. Thankfully, I had Intel's Core Processors on board, which saved a great deal of time," said Quandt. "The increased speed really made a difference in our artistic choices--allowing us to experiment more, refine more, and ultimately to create a more meaningful piece of art."

# THE DEMO

The demo system consists of a very fast, multiprocessor, multi-threaded Intel box with a standard display and an "autostereoscopic" display. The demo system has a large number of the high-resolution images open on the desktop. Utilizing a script, the demonstrator clicks a single button to begin the process of integrating all of the high-resolution images into a single stereoscopic image. The demonstrator may then speak about how the massive processing power of the Intel system makes this process possible. In addition, the team is considering an advanced demo incorporating the latest Intel core processors to enable a "joystick-controlled fly-through" of the painting. Thus, utilizing a joystick for zoom and movement in all three dimensions, the demonstrator can take the viewer on a real-time "tour" of the painting. This advanced demo would require a very fast multiprocessor system with as much throughput as possible as well as additional funding in the form of a grant or commission. Whether utilizing the current version or advanced version, the demo will communicate the speed and power of the Intel system in a meaningful way, while offering great "eye-candy" to pull folks in from the aisles. The demo is highly portable and could easily integrate into a live staged demonstration or could live simply in a single pod within the booth.



# **4D PLASMA ART**

World celebrated artists and technologists--Miles Regis and Brian Quandt present art as you've never seen it. *"A BEAUTIFUL MARRIAGE OF ART AND SCIENCE,"* JEFF PHILLIPS

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#### **OLD MEETS NEW**

Artist Miles Regis and Technology expert Brian Quandt have combined one of the earliest art forms (painting) with one of the world's hottest technologies (stereoscopic viewing) to create art which is fresh, new and inspiring.

## 4-D

Utilizing leading-edge technologies including 2D-3D conversion, autostereoscopic viewing and more, Brian and Miles offer a unique view into the world of the artist. As Miles creates his painting, each layer of paint is carefully photographed and separated. Brian then takes each of these layers and presents them in a stereoscopic image. This gives the painting not only the z-dimension of depth, but also represents the fourth dimension (time). Through the stereoscopic image, the viewer may easily interpret the chronology of the painting and the emotional journey of the work as it was originally created by the artist.





#### STATE OF THE ART

The collaboration between Brian Quandt and Miles Regis offers a unique opportunity for companies seeking to increase brand awareness for their products--technological and otherwise. The installation can be displayed utilizing on a wide variety of technology platforms highlighting various chipsets, screens, glasses, filters, lighting and more. In particular, the installation highlights the intersection of **state-of-the-art** technology and **fine arts**. Making an opportunity to connect **specific brands and sexy science** in the minds of viewers.

## THE CONNECTION

Miles Regis' talent has been applauded and celebrated by top art enthusiasts, cultural institutions, celebrities, and brands around the world. The artist has been featured on CNN, the Huffington Post, and Extra TV to name a few. His professional collaborations include entities like American Rag Cie, Tonny Sorensen Collection, Zagg Industries, and the United Nations.

Regis' work is highly sought and his supporters and collectors include: Ron Perlman, CCH Pounder, Nicolette Sheridan, The Marley Family, Isaiah Washington, Wendy Fitzwilliam (former Miss Universe), The Remedee Foundation, Planet Illogica, Ato, and Boldon (Olympic Medalist).



## THE OPPORTUNITY

The installation is configurable and may be used to highlight a variety of technologies including:

- Auto-stereoscopic monitors (no glasses)
- Stereoscopic display systems and glasses
- Computers (and embedded chip-sets and components) for playback
- 3D-capable game systems, mobile displays and players

This installation is highly portable and can be used in a variety of settings for a variety of applications such as:

- Art Shows
- Premieres and Movie Pre-shows
- Parties
- Concept Houses and Digital Living Rooms
- Lobbies
- Museums

#### **TEAM LEADERS**



#### **BRIAN QUANDT**

For over two decades Brian Quandt has served as a pioneer of visual and interactive technologies and businesses. He put his considerable entrepreneurial and engineering expertise to work developing new technologies and award- winning products that allow audio and video to be experienced in a wide variety of environments—from a movie set on- location in a remote village in Romania,

to exhibits with Matthew Barney at the Guggenheim museum, to a Mars 3-D visualization center at the Jet Propulsion Laboratories to websites and living rooms throughout the world.

Currently, Quandt is in high demand for his deep understanding of both the stereoscopic business and stereoscopic technologies. Quandt's stereoscopic and other visualization systems as well as consulting services have been used on over 100 major motion pictures in the past 10 years including *My Bloody Valentine 3D, 2012, Julie and Julia, Year One, Underworld, Love Ranch, Zorro, Casino Royale* and many more.

Quandt has worked directly with many of the Hollywood major studios including, Fox, Sony, Disney, and Lionsgate and his technology products have been used extensively by some of the largest production services companies in Hollywood including Deluxe, Fotokem, Laser Pacific, and Technicolor.



#### MILES REGIS

Based in Los Angeles, Miles Regis is a Trinidadian-born artist whose work taps into the emotion and experiences of exotic cultures around the world and presents them in ways that are relevant to today's modernized societies. Over the years, the USC graduate has honed a technique that incorporates drip painting and collage work that is both unique and striking. With a style reminiscent of many of history's great master painters, Miles' imagination is saturated with notions, ideas, and images reflective of a world filled with conflicting interests.

His cultural duality and diverse perspectives play a large role in the humanistic consciousness he manages to present in his work. With broad enthusiast appeal, his work has appeared in association with CNN, NextAid World's Day, CCH Pounder (Avatar, The Shield), Nicolette Sheridan (Desperate Housewives), American Rag Cie, Manifest Equality, Senegal's La Musee Borindar, Isaiah Washington (Grey's Anatomy) and several art communities around the country and throughout the world.

Miles' work consists mainly of oversized canvases, often stretching up to twelve feet in length and/or height. In addition to the larger pieces, the artist also finds himself drawn to medium sized canvas, linens, diptychs, triptychs and objects like cell phone cases, clothing and fashion accessories, recycled denim and even newspapers. While serious collectors can find themselves caught in a whirlwind of themes and series he has developed over the years, selections of his work are also available in print.

With such a diverse medium interest, Miles has developed exclusive merchandise for American Rag Cie, Zagg Incorporated, and fashion mogul Tonny Sorensen. He also creates customized apparel for a wide range of clientele around the world.

Philanthropy and humanitarian efforts have always been a part of Miles' world- view. He has teamed with numerous non-profits over the years to garner support for issues such as AIDS/HIV Awareness, LBGT Equal Rights, children's art education, underserved community development and foreign relief efforts. In 2010, Miles partnered with The Remedee Foundation in effort to bring art, film, and technology together for youth education in impoverished communities around the world.