

# Full Mental Jacket takes CNBC's virtual studio to new heights of realism using BRAINSTORM and the NVIDIA® Quadro® FX 5600 SDI by PNY

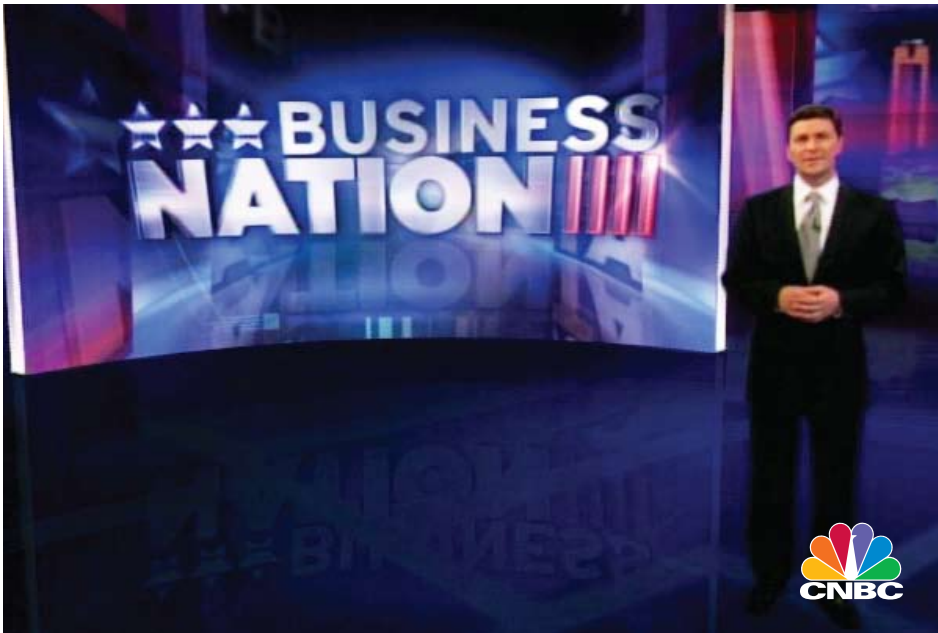


When CNBC executives decided they wanted to use a virtual set to enhance the production of their monthly news magazine program, Business Nation, they turned to Full Mental Jacket (FMJ), a design agency with a solid reputation for its virtual set design. In the short time that virtual sets have existed as a truly viable option for the industry, FMJ has managed to acquire a wealth of experience and its impressive client-list includes: Global National, Date-line NBC's Michael Jackson Unmasked, and Discovery Channel's Greatest American. As a result, the FMJ design team is well known

the show's creators did not have to go far to find a solution: the virtual studio. "The virtual studio was not only a creative choice, it also made good business sense," said Gary Kanofsky, CNBC's Director, Digital Production and Broadcast Technology. Using virtual technology allowed CNBC to lower the cost of set construction on a per unit basis, especially when it took into account storage and turnaround costs of physical sets. Moreover, the creative flexibility provided by the virtual set was a highly attractive feature for CNBC. Now, for example, they can create interesting very large video surfaces within the virtual set rather than

rely on cumbersome projections or plasmas. "It used to be that virtual sets were simply not an option because of the costs involved. Now the technology has reached the point where it can meet our production standards without breaking the bank," said Kanofsky.

CNBC was confident that combining the new Quadro FX 5600 SDI by PNY with BRAINSTORM's software, high-end HP computers, AJA cards and the Ultimatte 11 HD/SD would provide them with the technology stack they needed. CNBC had already been using BRAINSTORM's software and NVIDIA's SDI graphics-to-video technology to produce real-time 3D content for live broadcasts for several years. One of CNBC's main concerns was believability: how good would it look? "The combination of Brainstorm's virtual set software and the Quadro FX



- David Faber hosts Business Nation using CNBC's new virtual studio.

for breaking new creative ground and producing unique environments, which is just what CNBC was looking for. In December 2007, CNBC and its virtual set systems integrator, BRAINSTORM America, completed the build-out of infrastructure to support virtual productions at CNBC's headquarters in Englewood Cliffs, NJ. One of the key components of the virtual set solution recommended by BRAINSTORM was the NVIDIA Quadro FX 5600 SDI by PNY graphics board.

A world leader in business news, CNBC wanted to deliver Business Nation's fact-driven financial content in a way that would enhance the show's impact and maximize its studio space. Luckily,

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- Ronen Lasry, Creative Director, FMJ.

5600 SDI by PNY lets us achieve a level of realism in virtual sets that has not been possible before," said Paul Lacombe, President, BRAINSTORM America. "Using the Quadro FX 5600 SDI by PNY we can produce smoother, cleaner lines, better antialiasing, and with a 1.5 GB frame buffer, it has more than enough memory to handle the complicated shaders in real-time," enthused Lacombe.

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- Large, curved virtual panels display Business Nation's topical images.

Working closely with the Business Nation's production and creative team, FMJ produced the virtual studio environment that now delivers the monthly news magazine program in a bold and creative fashion. Using the virtual set, CNBC is able to deliver a "large network" look for Business Nation without incurring the huge costs of a full blown set. FMJ was free to innovate with its set design and achieve results that would not be possible with a real physical set. "For Business Nation we are able to use the whole 3D environment to tell the story," said Ronen Lasry, Creative Director, FMJ. "All the elements of the studio are graphics, this allows us to fly in any form of media and have the host interact with it. We can create interesting, beautiful environments to make the stories more expressive and to re-enforce the subject matter, making the show much more dynamic and visually interesting."

Using the same configuration as CNBC ensures that what FMJ sees in their LA office is exactly what will be aired during the show. FMJ relies on the advanced features of the NVIDIA Quadro FX 5600 SDI by PNY for its new set designs and interfaces such as a massive 1.5GB frame buffer, and genlockable, multi format video output. The multi format video output includes uncompressed SD and HD-SDI. According to Lasry: "The NVIDIA Quadro FX 5600 SDI by PNY is a REALLY powerful graphics board. Very powerful, it lets



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us push around pixels, polygons and data in real-time, allowing us to be way more creative with the sets than we could ever be before. The sets are now an active component of the storytelling. It all helps to tell the story in a compelling way for the viewers. Not only can we make the sets much more interactive, the visual results are spectacular. This is important because none of this matters if the final product doesn't look good or doesn't run well."

Full Mental Jacket has just finished designing three shows for CNBC and is currently working on four new virtual set projects for MSNBC. FMJ has also just completed work on Global National news broadcast for Global Television in Canada.

#### ABOUT FULL MENTAL JACKET

Full Mental Jacket is a Los Angeles based design and production company creating virtual sets and realtime graphics for news, entertainment, simulation and corporate training applications by combining technologies from the broadcast, film and game industries. For more information visit: [www.fullmentaljacket.com](http://www.fullmentaljacket.com)

#### ABOUT BRAINSTORM

Brainstorm is a worldwide leader in real-time 3D graphics solutions for the broadcast and feature film industries. Clients include the BBC, NBC, ILM, and the Pentagon. BRAINSTORM is headquartered in Santa Valencia Spain and has offices throughout Asia, Europe, and the Americas. Brainstorm is represented in the United States by BRAINSTORM America, headquartered in New York City and Great Barrington, Massachusetts. For more information visit: [www.brainstorm.es](http://www.brainstorm.es)

#### ABOUT CNBC

CNBC is the recognized world leader in business news, providing real-time financial market coverage and business information to approximately 400 million homes worldwide, including more than 95 million households in the United States and Canada. The network's Business Day programming is produced at CNBC's headquarters in Englewood Cliffs, N.J., and also includes reports from CNBC news bureaus worldwide. Additionally, CNBC viewers can manage their individual investment portfolios and gain additional in-depth information from on-air reports by accessing [www.cnbc.com](http://www.cnbc.com)

#### ABOUT PNY TECHNOLOGIES, INC.

Established in 1985, PNY Technologies®, Inc. is a leading supplier and marketer of NVIDIA® Quadro® by PNY Technologies professional graphics boards and XLR8™ and Verto® brand consumer graphics cards. The company also offers a full line of high-end memory upgrade modules, flash media, USB flash drives, portable hard drives and flash peripherals. Headquartered in Parsippany, N.J., PNY maintains facilities in North America (Santa Clara and Orange County, Calif., Miami, Fla. and Parsippany, N.J.), Europe (Benelux, France, Germany, Italy, Norway, Spain, United Kingdom,) and Asia (Taiwan and China).

For more information, please visit [www.pny.com](http://www.pny.com).

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