## X3D TECHNOLOGIES CORPORATION

## **BACKGROUNDER**

# X3D Technologies Introduces a Whole New Dimension: Extreme 3D Technology (X3D)

## About X3D Technologies Corp.

X3D Technologies, the world's leading company in 3D technology, has produced the most sophisticated software and hardware applications in the 3D arena. The company's family of award-winning patented X3D applications showcases technology capable of performing an unprecedented 90 million complex calculations per second, creating the ultimate in *Extreme* 3D imagery. Still and moving media are so realistic, they appear to float deep inside and up to three feet in front of the screen. This state-of-the-art glasses-based and glasses-free technology for the PC, TV and X3D Display<sup>TM</sup> screen allows for virtually unlimited content capabilities for professional and personal application.

## **Our Mission Statement**

X3D Technologies is set to revolutionize advertising, gaming, home entertainment, medicine, education and industry by transforming standard 2-Dimensional images into *Extreme* 3D images. From our state-of-the-art software and hardware technology to our customized content development to our award-winning products—X3D Technologies is dedicated to delivering the ultimate in 3D experiences.

Advertising: With X3D Technologies' breathtaking Display screens, advertisers have available to them an innovative and exciting forum to market products to the public at-large. Enhanced content is produced expressly for X3D viewing, creating 3D imagery of unrivaled quality. For the first time, passersby can view Extreme 3D images that appear to float in midair and leap off the screen (up to three feet)—at distances and peripheries available only with the company's innovative technology. The 43" and 50" plasma X3D Display screens can be placed in nearly any environment for maximum, convenient exposure, engaging onlookers and creating greater impact, heightened awareness, targeted penetration and increased product recognition.

Gaming and Home Entertainment: Gaming and home entertainment have already enjoyed unmatched user experience and interaction with our enhanced *Extreme* 3D conversion software for the TV and PC (*Extreme* 3D SystemTM, X3D PCTM and X3D TVBoxTM). From game consoles and Internet content to broadcast, cable, DVDs and videotapes, viewers are able to experience traditional 2-Dimensional content in unmatched *Extreme* 3D at the push of a button.

*Medicine, Industry and Education:* The use of X3D technology in the medical, industrial and education communities will breathe new life into the way we learn. From X3D Technologies' patented conversion software (*Extreme* 3D System, X3D PC and X3D TVBox) that transforms existing PCs and TVs into *Extreme* 3D environments, to our 17" and 19" LCD X3D Display screens—application traverses nearly every profession, creating engaging, captivating and informative models and increasing penetration, impact and learning experiences.

**Business Partners:** Industries across the board benefit from the company's innovative technology with the groundbreaking X3D software and hardware products. X3D Technologies has built a host of relationships with advertising agencies, imaging solutions providers (for medical, pharmaceutical and technology companies) movie theatres, educational institutions and production companies.

## **How X3D Works**

Humans perceive three dimensions and depth in images through the use of both eyes, each of which sees a slightly offset view of a scene. Our brain fuses the two slightly different views in a complex way that creates our perception of depth.

The X3D-Glasses<sup>TM</sup> technology (X3D PC, Extreme 3D System, X3D TV BOX) allows viewers to see a two-eye view of the world from the monitor or television screen. With X3D-Glasses technology, depth is simulated using glasses with lenses that can alternate many times per second between clear and opaque (i.e., blocks light). During use, a left-eye image is first displayed on a monitor, and the glasses' left lens is clear, while the right lens is dark. The image on the monitor is then switched to the right-eye view, and the lenses of the glasses are reversed (left lens dark and right lens clear). The result is an image that appears to be floating in front of the screen, offering viewers an *Extreme* 3D experience.

X3D Display technology allows viewers to see a two-eye view of the world with the naked eye, without the use of special glasses. This technology works by filtering specifically formatted content through the patented Wavelength-Selective X3D Filter. Display content is created by capturing eight or more views and arranging them in a specific pattern. The filter directs the light from the screen image to project multiple sets of left/right views to various viewing positions. Thus, most viewing positions in front of the X3D Display generate a correct 3D image.

## **Industry Recognition**

X3D Technologies Corp. has been recognized as an industry leader for its unprecedented technology and developmental efforts.

The Extreme 3D System received the *Best New Technology* award at the RetailVison Fall 2002 show. The award, given by a panel of key retail executives and buyers, is considered to be one of the most esteemed in the consumer software industry. A second award, *Best of Show*, was received in the entertainment category at the Internet World Fall 2002 show.

X3D Technologies received major coverage from mainstream and industry media for the first championship chess match broadcast on the Internet in true *Extreme* 3D, featuring World Chess Champions Karpov and Kasparov in December of 2002, and a second match pitting Kasparov against the well-known chess program Deep Junior, in January 2003. The company has also conducted an online, *Extreme* 3D broadcast of famous works of art from the Louvre museum in Paris. Additionally, the x3dworld.com Website features the largest online collections of biographies of famous people in 3D, and thousands of hours of 3D educational content.

## **Key Executives**

## **Corporate Site Bios**

## **Elliot Klein - Chief Executive Officer**

Elliot Klein leads X3D Technologies with 25 years management experience specializing in computer-based imaging, strategic business development and sales of consumer and digital advertising-based products. Prior to X3D Technologies, Klein served in senior management positions at American Express Company, America Online, Tribune Company and leading advertising agencies. These include: President - AOL PicturePlace; Director - Corporate Development, Tribune Co.; Vice President - Merchandise Services for American Express Company; CEO, CyberSites, Inc.; and, media and account management assignments for Grey Advertising and Y & R Advertising in New York. Mr. Klein also led business units and branding initiatives for IBM and Walt Disney Company at Digitas, Boston, and Leo Burnett in Chicago. Elliot Klein received a Master's of Business Administration from New York University in Marketing and second Master's Degree in Interactive Telecommunications.

## William J. Rose - Chief Financial Officer

William Rose oversees global financial operations, and is responsible for managing relationships with the investment community, and developing and implementing the company's financing strategy, financial reporting and compliance with securities regulations. Mr. Rose has held various senior financial positions at Metromedia Company for thirteen years, and holds an MBA from Fairleigh Dickinson University.

#### Steven Schwartz - COO / CTO

Steven Schwartz has held senior executive positions in management, marketing and business development in the Internet and real estate development industries, which include K2 Digital, Morgan Stanley Dean Witter, ING, NCR, Bristol-Myers Squibb, Silversea Cruises, WorldCom, GreyDirect and Bella Vena Inc., As a developer of commercial real estate for nonprofit organizations, Mr. Schwartz supported projects for many New York companies, including Trust for Public Land, the Fund for the City of New York and the Federation of Protestant Welfare Associations. Steven Schwartz holds an undergraduate degree from Clark University and a graduate degree from Hunter College.

## Dr. William Hopewell - Chief Scientist

Dr. Hopewell is an experienced 3D scientist and engineer with experience in domestic and international business development. He led a team of IBM scientists, mathematicians and computer experts in the development of very high-speed in-situ detectors, feedback control mechanisms, mathematical analysis software and the associated commercialization of inventions. Dr. Hopewell holds a degree in Chemical Physics from The University of California at Los Angeles, and was a Post Doctoral Scholar at the University of California at Berkeley/Lawrence Berkeley Laboratory where he worked on picosecond spectroscopy of molecular systems.

## Bernd Riemann – Vice President, CEO X3D Technologies GmbH

Bernd Riemann was recently CEO of 4D Vision GmbH and is now CEO of X3D Technologies GmbH, the German engineering arm of the company. He earned his degree in engineering and has extensive experience in international management in the fields of laser, optics and optical industry. Mr. Riemann has held senior management positions at Doctor Optics GmbH, Neustadt and the DEWB AG, Jena.

## **Brad Bent - Director of 3D Visualization**

Brad Bent has enjoyed a successful career in entertainment production. His career in the entertainment industry spans more than 28 years where he worked extensively in the performing, technical, creative, and production arenas, specializing in video, audio, music, theatre, broadcast and multimedia/new media. Bent's credits include working onstage as a musical performer and comedian, performing voice-over talent, and working behind the scenes as a technical consultant, creative director, writer and engineer. Mr. Bent's key focus at X3D Technologies is to provide endviewers with improved communication impact through the design, development and enhancement of electronic entertainment viewing experiences using 3D stereographic sciences.

## Martin Mandl – Executive Vice President, Operations

Martin Mandl has extensive operational experience and competency having held various senior positions in the United Nations. His assignments led him to several areas of conflict around the world where he managed multi-disciplinary teams in middle management and senior executive positions. Mandl speaks eight languages and is fluent in five. Before his UN career, he held economist and management positions in consulting and manufacturing companies. Mr. Mandl holds a MA in International Relations and published a number of articles on economic, policy and strategic issues. He also served as lecturer at universities in Austria, Mexico and Switzerland.

## **Tom Bowen Wright – Executive Vice President, X3D Displays**

Tom Bowen Wright joined X3D Technologies in October 2002. He previously held various positions at JP Morgan Chase, latterly heading-up the credit and interest rate derivatives marketing to UK Banks. Bowen Wright brings management and organizational skills to the company thanks to his experience in running various charitable organizations. In 2002, he successfully started his first company, a real estate fund, investing in coastal land on the Croatian Adriatic before joining X3D Technologies. Tom Bowen Wright holds an MA in Mathematics from Worcester College, Oxford.

## **Cheryl Brinkman – Executive Vice President, Internet Services**

Cheryl Brinkman brings a solid background in Web development and multimedia production to X3D Technologies. Her experience prior to X3D Technologies includes developing multimedia marketing tools for Blueline Software, architecting an investment Web application for Iempower, Inc., and, as founder and CEO of RedFishBlueFish Design, developing websites for small businesses. At present, Cheryl is responsible for development and management of all X3D Technologies' Web properties. She also oversees the production of company creative and provides project management for several of the company's multimedia products and event presentations. Cheryl graduated Magna Cum Laude from the University of Minnesota (BFA) and completed her graduate studies at the New York City School of Visual Arts, specializing in 3D computer animation (MFA).

## Paul-Louis Meunier - Vice President, Licensing

Paul-Louis Meunier has an extensive background in hi-tech project management and consumer-oriented new product creation and development. He has held a number of key positions at Thomson Multi Media for the last 23 years. Mr. Meunier has been on the forefront of technology breakthroughs such as heteroepitaxy, hi-density mass storage technology for the multimedia digital industry, diamond-like carbon, filing 70 patents. Meunier has been in charge of HDTV consumer and marketing studies and related video applications; he has built and developed new product offerings such as flat screen, rear projection, compact audio mass storage and video content management, filing more than 120 patents, such as seminal patents on TV memory (PVR) and content data management and professional broadcast; and most recently, he has spearheaded the licensing of Thomson's broad base of technologies in Europe and Asia. Paul-Louis Meunier currently teaches Physics at Civil Engineer University in Paris, and a hi-tech development course at the Institute for International Trade and Diplomacy in Paris. Among his career assets, he has published twenty international scientific articles, is currently lecturing in international symposiums, and guest lectures on the subject of business units at several business schools throughout Europe (HEC-ISA, ILERI, ARII).

## **Aaron Gavios – Executive Vice President, Sales**

Aaron Gavios has enjoyed a successful career devising and executing marketing plans and creating dramatic business growth for many companies. He is an experienced marketer of products and services with nearly twenty years experience managing marketing and sales for companies such as Nintendo, Casio, Rolodex, DSTV Holdings, MondoSoft, K2 Digital and Essential Reality. At present, Mr. Gavios performs many sales responsibilities for X3D Technologies, including overseeing international sales and the marketing of the company's entire 3D product offering, providing revenue and sales forecasts to senior management, and overseeing all direct marketing efforts, such as infomercials and direct response television advertising. Aaron Gavios received his B.A. in Sociology from Brandeis University, and his M.B.A. in Marketing/International Business from New York University (Stern) Graduate School of Business Administration.

## Sam Zagoren – Senior Vice President, Sales

Sam Zagoren, a sales and marketing guru, successfully started his first company, Customized Cigars International Inc., in 1997. Having built solid relationships with top hotel chains and special events and major international companies, Zagoren gained extensive experience in finance, marketing and branding. He implemented his products into some of America's most well known companies, including the Ritz-Carlton, Hyatt, Hilton, Westin, Swissotel, Sheraton, Loews, Four Seasons, Marriott, Guidant, Proxycom, Medtronic and the MGM Grand Hotel. Having majored in Entrepreneurial Studies, Mr. Zagoren holds a Bachelor of Arts degree and a Bachelor of Science degree from the Barney School of Business, University of Hartford.