Welcome to Ontario’s first Previsualization and Virtual Production: BRINGING IT ALL TOGETHER conference organized by the Screen Industries Research and Training (SIRT) Centre. SIRT was established a year ago at Pinewood Toronto Studios to broaden Sheridan’s presence in the development of research capacity, knowledge dissemination and innovation in Ontario’s screen-based industries.

SIRT is a natural extension of Sheridan’s curriculum excellence and international reputation in animation, live-action storytelling and digital design. The Centre works with academic and industry partners, such as the sponsors of this conference, to address present and future production challenges and to identify areas where technological and business innovation can be rapidly translated into new jobs and increased capacity.

We’re excited about the conference as it brings together a variety of sponsoring organizations with interests in these fields, as well as international, Canadian and Ontario-based experts. We look forward to the collective wisdom of our distinguished conference speakers and we anticipate a dynamic exchange of ideas, techniques and experiences among conference participants.

Jeff Zabudsky, Ph.D.
President and CEO
Sheridan College

Previsualization and virtual production are key areas of research, capacity building and skills development at the SIRT Centre. We’re working with many of Ontario’s technology, production content and service companies to further innovation, and are coordinating our efforts with those of key international groups such as the Previsualization Society to ensure Ontario remains at the forefront of global technological and business developments.

Locally, we’re partnering with our conference co-sponsors FilmOntario, CASO, DGC – Ontario, I.A.T.S.E. 667 and Pinewood Toronto Studios to foster excellence and capacity building in these areas.

Many people from these organizations are sitting on panels at this conference. We’d like to thank them and other presenters for their participation and willingness to share their expertise. In addition, we’d like to acknowledge the Ontario Media Development Corporation for its funding support, which has not only enabled this conference to take place, but has also been a catalyst for the establishment of the SIRT Centre.

Previsualization and virtual production are both ultimately about people working with technology and with other people. Evolving roles and responsibilities and new skill requirements impact our daily lives as we collaborate to tell stories and engage audiences. We hope this conference will give participants the insight, impetus and connections to help them move forward in their creative work.

John Helliker
Director
Screen Industries Research and Training Centre
One key goal of the conference is to generate a common basis for communication and collaboration among live action and animation/visual effects creative, technical and administrative personnel—among those from film, television and interactive/game sectors. A single stream of panels and presentations with integrated technology demos will ensure that all attendees come away with a common experience and a basis for collaborative discussion.
Virtual Production is also increasingly being recognized as a distinct process with the appearance of new credits for the virtual art department and the virtual cinematographer among others. This introductory address will outline work in these areas by two joint committees that have been established by a broad spectrum of groups from the Hollywood production community.

KEYNOTE SPEAKER: David Morin, Chair, Joint Technology Subcommittee on Virtual Production (American Society of Cinematographers/Art Directors Guild of America/Visual Effects Society/International Cinematographers Guild/Previsualization Society/Producers Guild of America)

9:45 – 10:30 A.M.
By Design: Previsualization Throughout the Production Cycle
How can new digital technologies foster economic efficiencies and enhance the creative development of a project? This question is being pushed to the forefront by technological developments and economic realities that are putting downward pressure on budgets and tightening production schedules. With the all-digital workflows of HD and digital cinema cameras and real-time generation of CG performances and camerawork, the ability to visualize elements of a production before final decisions are made is increasingly attainable. How is previsualization being used to meet the challenges and opportunities of today's production environment?

PANELISTS: Ron Frankel, Founder of Proof Inc., and Co-Chair of the joint Committee on Previsualization of the American Society of Cinematographers/Art Directors Guild/Visual Effects Society; Founding Member, Previsualization Society; Aaron Weinstaub, Visual Effects Supervisor, Co-founder, Mr. X; Dan May, Co-Founder, Previsualization Supervisor, Painting Practice

10:35 – 11:30 A.M.
Working Smart: The Impact of Previs on Crew Roles, Responsibilities and Interactions
Previsualization is an interactive process whereby directors, cinematographers, production designers, visual effects artists, producers and others work through technical and creative aspects of production planning. What are the implications of these developments for your role in the production process? How can you become part of the international group of screen industry professionals shaping the future application of these processes?

PANELISTS: Brian Pohl, Previsualization Supervisor, Founding Member, Previsualization Society; Darren Cranford, President, Keyframe Digital; John Courte, Senior Houdini Artist, Side Effects Software; Bob Munroe, Visual Effects Supervisor/Second Unit Director, Splice, Dolphin Tale (in post-production)

11:35 A.M. – 12:15 P.M.
Shaping Your Future: Professional Development Needs for Previsualization and Virtual Production
As technologies, workflows and production relationships change with incorporation of previsualization and virtual production practices, what are the professional development requirements? How can today's top artistic, technical and management personnel best prepare themselves to take control of these processes and help shape their development and application to meet today's and future production needs?

PANELISTS: Brian Pohl, Founding Member, Previsualization Society; Parag Havalder, Research Supervisor, Sony Pictures Imageworks
12:30 – 1:45 P.M.
Lunch and Networking

2 – 2:20 P.M.
Case Studies in Previsualization:
Resident Evil: Afterlife

A presentation on the use of previsualization in the production of Resident Evil: Afterlife, this year’s Golden Reel Award winner as Canada’s highest grossing domestic feature. Join Producer Don Carmody and VFX Supervisor Dennis Berardi, President of Mr. X in this conversation on the role of previsualization in the most successful production in Canadian feature film history.  

PRESENTERS: Don Carmody (Producer, Silent Hill, Chicago, Resident Evil: Afterlife); Dennis Berardi (VFX Supervisor, TRON: Legacy, Scott Pilgrim vs. the World, Resident Evil: Afterlife)

2:30 – 2:50 P.M.
Case Studies In Previsualization:
Previsualization within Commercial Production

Join Painting Practice’s Dan May, a hybrid artist of the digital age, with one foot in the Art Department and the other in Visual Effects. Dan will discuss the varying role that previsualization has played in the production of commercials, with specific examples from the work of his company Painting Practice.

PRESENTER: Dan May, Co-Founder, Previsualization Supervisor, Painting Practices.

3 – 3:25 P.M.
Previsualization for Stereoscopic 3D:
A Case Study

This presentation will explain how previsualization was used in pre-production and principal photography for Starz Animation’s new hybrid short, Lovebirds. To meet tight budget and schedule constraints Starz used stereoscopic previs techniques extensively to solve technical and production challenges proactively and to minimize creative exploration on set. Decisions regarding set design and construction, camera rigging, shooting schedules, and stereo cinematography were mostly driven by data gathered in the previs process.

Lovebirds is an innovative new hybrid stereoscopic short being produced by Starz Animation Toronto in collaboration with the 3DFlic initiative, a collaboration between leading filmmakers and top research scientists to bring a new stereoscopic experience to the screen.

PRESENTERS: Don Carmody (Producer, Silent Hill, Chicago, Resident Evil: Afterlife); Dennis Berardi (VFX Supervisor, TRON: Legacy, Scott Pilgrim vs. the World, Resident Evil: Afterlife)

3:35 – 4:20 P.M.
Virtual Filmmaking Using Smart Assets

Working with computer graphics applications, technical artists work with many assets such as geometry, textures, motion data and more. These assets live separately from each other and only in the hands of a professional can they be set up and deployed. With smart assets, these pieces can be pre-rigged and packaged then used by artists who don’t have an in-depth knowledge of computer graphics. In this presentation, Paul Salvini, CTO at Side Effects Software will introduce you to the use of smart assets in Houdini to previsualize a feature film shoot.

PRESENTERS: Paul Salvini, CTO, Side Effects Software; Robert Magee, Product Marketing Manager, Side Effects Software

4:30 – 5 P.M.
SIRT Previs Research Demo: Integration of Game and Film Technologies

The convergence of film, TV and gaming technologies and business models is a featured panel topic on Day Two. Today’s technology demo offers a brief overview of a SIRT research project developing custom software linkages to integrate animation and camerawork from Vicon motion-capture equipment and digital visual effects from Houdini within the Unreal game engine. This real-time visualization is in the early stages of development, but has implications for previs and virtual production in film, TV, and gaming.

PANELISTS: Avrim Katzman, Sheridan College; Lesley Northam, University of Waterloo; Michael Irwin, SIRT Centre

5:45 P.M.
Cocktail Reception and Social Networking

Complimentary hot and cold appetizers and cash bar.

Sponsored by CASO.
8–9 A.M.  
Registration and Continental Breakfast

9–9:10 A.M.  
Welcome: Edith Myers, Managing Director, Pinewood Toronto Studios

9:10–9:50 A.M.  
Developments in Virtual Production

This panel focuses on emerging trends in virtual production given significant impetus by the technological developments and publicity surrounding their use in *Avatar*. “As a starting point, virtual production is defined as ‘computer graphics on stage’, or the process of shooting a movie with real-time computer graphics, either for all-CG movies (such as *A Christmas Carol*) or visual effects movies with live action (such as *Avatar*).”

*As defined by the Joint Technology Committee on Virtual Production*

**PANELISTS:** Jason Walter, Virtual Production Team Consultant, Autodesk; Bret Culp, Visual Effects Producer/Supervisor, Starz Animation Toronto; Dan May, Co-Founder, Previsualization Supervisor, Painting Practice

10–10:50 A.M.  
Previsualization and Virtual Productions at Sony Pictures Imageworks

Sony Pictures Imageworks has been involved in a variety of visual effects and animation productions, which start with on-set data capture, previsualization and final post-production of real and virtual worlds with real and virtual characters. This talk will showcase technologies, challenges and solutions that the Imageworks team accomplished over a number of productions. Case studies in this talk will include the comprehensive challenges on projects such as Tim Burton’s *Alice in Wonderland*, Zemeckis’s *Beowulf*, Warner Brother’s production of *Watchmen*, etc.

To realize Tim Burton’s vision of *Alice in Wonderland*, Imageworks had to research/develop technologies to capture photography on set, set up pipelines to deliver over 2,400 shots with complex environments, rich characters and virtual worlds, as well as conversion of the project into stereo. At the same time, since this was a live action capture, Imageworks had to maintain a low acquisition footprint on set. On the other hand, projects such as *Beowulf* allowed Imageworks to have a more active onset involvement resulting in a refined control while delivering final digital renderings of virtual actors in virtual environments. This talk will discuss the challenges in virtual productions and will showcase the technologies and solutions that were developed and used by SONY Pictures Imageworks to bring many prominent visual effects and animation projects to a successful completion.

**PRESENTER:** Parag Havaldar, Ph.D., Software R&D Supervisor, Sony Pictures Imageworks

11–11:40 A.M.  
Virtual Production: An Approach to Collaborative Storytelling

Virtual production technologies and workflows can impact the process from pre-production through post in a variety of ways. As with previzualization, the process can impact both the relationships among the key creative and financial personnel involved in a production and their ability to
effectively apply their skills and experience. This presentation will consider approaches to virtual production with a particular focus on its implications for collaboration within production departments and between key creative personnel.

PRESENTER: Ron Frankel, Founder, Proof Inc.

11:50 A.M. – 12:30 P.M.
Convergence: Virtual Production Technologies in Film, TV and Gaming

Executives and creative leads from game and film/television companies will discuss the convergence of film, television and game projects within today’s multi-platform delivery environment. What do people mean by “convergence” and how is it affecting different sectors of the entertainment industry? Panelists will discuss how projects are developed with multiple delivery platforms in mind, how digital assets are shared as part of the business model, and how a convergence strategy impacts technology choices and traditional project development cycles.

PANELISTS: Jim Laird, CFO, Bedlam Games; Lui Francisco, Artistic Director, Bedlam Games; Steve Hoban, Founder, Producer, Copperheart Entertainment

MODERATOR: Jennie Punter, Entertainment Industry Journalist

12:30 – 1:50 P.M.
Lunch and Networking

2 – 2:50 P.M.
Technology/Workflow Demo:
Real-Time Scene-Blocking and Virtual Cinematography Using Motion Capture

Virtual Production is an immersive process combining gaming technologies and real-time graphics performance to provide filmmakers with feedback similar to that of a live-action shoot. One of the main technologies being employed is motion capture. Representatives of Vicon, a world leader in optical motion-capture systems, will demonstrate how their system—which was developed in collaboration with Autodesk—is being used for virtual cinematography and animation within a pipeline for previs and virtual production.

PRESENTERS: Jimmy Corvan, Jeff Beavers, Jarrod Kozeal, Vicon

3 – 3:50 P.M.
Animating Your Performance:
The Actor’s Role in Virtual Production

Motion capture is a software and hardware-based process that transfers an actor’s performance to a digital character, and can also record the movement of cameras, props and set pieces. Motion capture of acting (whether for feature films or games) is generally referred to as performance capture. This panel will look at how this process affects the actor’s preparation and on-set work. What are the approaches to performance capture and the skill sets required by the actor engaged in a motion capture shoot? Where is technology heading in terms of the role of the actor in the virtual production process? This session is sponsored by ACTRA Toronto.

PRESENTER: Helmut Kungl, Founder and CEO, XYZ RGB

4 – 4:15 P.M.
3D Models for the Masses

XYZ RGB is one of the top 3D scanning companies in the world, producing digital doubles for actors and 3D objects for major feature film projects including The Matrix, The Lord of the Rings, and Resident Evil: Afterlife. In this demonstration Helmut will describe and demonstrate the results that can be achieved through the use of his company’s new inexpensive online service, Scanner-Killer, that allows for the creation of high quality 3D models that can potentially be used by smaller studios and individuals needing to create 3D models.

PRESENTER: Helmut Kungl, Founder and CEO, XYZ RGB

4:25 – 5:15 P.M.
A Virtual Production Workflow:
Autodesk Pipeline

This talk will review a virtual production test drama recently completed by the Autodesk consulting team. The project was used to help explore virtual production/cinematographic workflows and develop consulting services around the process. Autodesk collaborated with SIRT to acquire motion data and perform virtual cinematography. This session will provide an overview of the project, a technical summary, lessons learned, current results and next steps. Performance capture and voices by David Ferry and Sean Lawrence, with the participation of ACTRA Toronto.

PRESENTER: Jason Walter, Autodesk Media and Entertainment Consulting Team

NOTE: All panelists, moderators and speakers are subject to change.
Keynote Speaker:

DAVID MORIN is Chair of the Joint Technology Subcommittee on Virtual Production, a joint effort of six Hollywood-based organizations: the American Society of Cinematographers (ASC), the Art Director’s Guild (ADG), the Visual Effects Society (VES), the Previsualization Society, the Producers Guild of America (PGA), and the International Cinematographers Guild (ICG). David is also past co-chair of the ASC-ADG-VES Joint Technology Subcommittee on Previsualization.

David earned a B.Sc.A. in computer science from Laval University in 1982 and followed with the International School of Computer Animation program (Sheridan College) in 1990. In 1991 he joined Softimage, then a start-up, where he participated in the early development of motion capture and 3D software, and later opened the Softimage office in Santa Monica, California. David led the Special Projects Group as Director when Softimage became part of Microsoft, and as Vice-President when Softimage became part of Avid Technology. In 2000 David joined Manex Entertainment as President of the MVFX division, a visual effects house. Since 2007 David is an independent consultant and currently assists the Media & Entertainment division of Autodesk from his base in Los Angeles, where he chairs industry efforts centered on the analysis of new workflows in the motion picture industry.

Speakers/Panelists:

JEFF BEAVERS received an MS in Biomechanics from the University of Oregon where he performed motion capture on people suffering from walking disabilities. Using very similar motion capture techniques and tools, he later found his true calling to be in Animation and Visual Effects. His in-depth knowledge of techniques in recording human physiology and biomechanics properties have proven to be a huge asset to VFX and animation studios alike. Jeff is now Vicon Motion System’s VFX Business Development Manager based out of Los Angeles.

DENNIS BERARDI, President / VFX supervisor and founder of Mr. X studios, has a love for creative storytelling that’s been impacting the big screen for 20 years. The combination of his exceptional creativity, prolific technological expertise and dedication to delivering the highest quality images, has earned Dennis the reputation of being a leader in the industry.

In 2001 Dennis founded Mr. X, a world-renowned animation and visual effects studio, which now employs over 130 artists and technicians. Partnering with some of the most talented directors and producers of our time, Dennis has been responsible for inspiring his team to create stunning, out-of-this-world visuals, provoking effects and giving life to the most imaginative concepts that consistently draw people to the theatres in droves.


ROB BURTON serves as VP of Technology at Starz Animation Toronto where he directs pipeline development and R&D. As a 30+ year veteran of the VFX and Animation industry and having held similar posts at Dream Quest Images and The Secret lab, Burton has decades of experience building production environments for artists, designers and filmmakers. As a freelance consultant he’s provided expertise in production and design visualization..
infrastructures to entertainment and industrial design entities such as Disney, Paramount Pictures, The Weinstein Company, Weta Digital, General Motors, Hewlett Packard and Bombardier Aerospace.

**DON CARMODY** has been producing films for almost 40 years and recently surpassed 100 feature films and television productions to his credit—a milestone rarely achieved by any producer—anywhere. He started his producing career in Montreal in the early 70’s with David Cronenberg’s first feature film, *Shivers*. In 1976 *Meatballs* was produced and shortly thereafter he and his producing/directing partner, Ivan Reitman decamped for Hollywood. There he started a successful, independent production company, among which’s many credits were the smash hits, *Porky’s, Porky’s–The Next Day* and the *Weekend at Bernie’s* films. While he has produced films all over the world during the ensuing years, he has always remained fond of Canada and is perhaps best known in the industry as the founding father and perennial driving force behind Hollywood North. In 2001 he produced the hit musical *Chicago*, which became the first feature film, entirely produced in Canada, to win the Academy Award for Best Picture.

Carmody has won the Golden Reel Award from the Academy of Canadian Film and Television for Highest Grossing Canadian Film, an unprecedented five times. With the release of * Resident Evil: Afterlife* in 2010, Carmody surpassed his own record for highest grossing Canadian film established by *Porky’s*, registering a worldwide theatrical gross of more than $300 million. In 2009 Carmody produced Denis Villeneuve’s *Polytechnique*, which won nine Genie Awards including Best Picture from the Academy of Canadian Film and Television. He is currently in pre-production of the sequel to *Silent Hill* to be written and directed by Michael Bassett.

**JIMMY CORVAN**, Vicon, was born and raised in Los Angeles, California and stayed in LA to receive his BA in Finance and MBA in Marketing. With a wide variety of experiences within the business world, Jimmy was able to transfer his knowledge to his current position of Business Development Manager at Vicon. While at Vicon, Jimmy has worked on many different motion capture stages which included applications in animation and game design, life science research and engineering testing.

**JOHN COURTE** has been a club DJ, an architectural lighting designer and an indie film composer, before becoming an animator and FX artist. He started in CGI in 1996 with Luc Besson’s *The Fifth Element*, and has contributed to numerous projects since then, the most recent of which was 2009’s *Terminator: Salvation*. Also an avid gamer, he has always been at the forefront of fusing game, film and haptics technology to build real-time and near real-time environments for previsualization and production. Currently, he is the Senior Houdini Artist and a technology consultant for Side Effects Software in Los Angeles, where he continues to explore new applications for procedural systems.

**DARREN CRANFORD**, President/Director/Co-Founder of Keyframe Digital Productions Inc., a digital effects and animation studio located in Niagara-on-the-Lake, Ontario. Darren has over 15 years of experience in Animation, Visual Effects and Previsualization. He was the Previsualization Director for major films such as *X-Men* (Fox Entertainment), *Driven* (Franchise Films), *Secret Window* (Sony Pictures), *The Tuxedo* (Blue Train Productions), *Bulletproof Monk* (Cub Five Productions), *K-19: The Widowmaker* (Paramount Pictures) and most recently for the upcoming 2011 movie release *Premium Rush* (Columbia Pictures) by David Koepp. His company also did previz work for such recent films as *Zombieland* (Columbia Pictures) and *Red* (Summit Entertainment).
Recently, he has directed 52 episodes of the *Pinky Dinky Doo*—a preschool animated series for Sesame Workshop. At present, he is the Visual Effects Director for the hit TV series *Warehouse 13* (NBC SyFy Network), *Lost Girl* (Prodigy Pictures) and a host of other documentary TV series.

**Bret Culp** brings over 20 years of experience in the film and television industry. As an award-winning Visual Effects Supervisor, Visual Effects Producer and Second Unit Director, Bret has contributed to more than 40 feature films, mini-series and television shows, including four seasons of *The Tudors*, *IMAX: Hubble 3D*, *Silent Hill*, *Resident Evil: Apocalypse* and *Saw II*. He is currently Visual Effects Producer and Supervisor on *Camelot* at Starz Animation. He is also an acclaimed art photographer and author of the book, *The Beauty of Impermanence*.

**Dusan Dukic**, a graduate of the prestigious National Theatre School, has numerous film, television and theatre credits. They include being cast as Simon Lockridge in Ashton Kutcher’s series for the CW, *The Beautiful Life*, a supporting role in CBC’s *18 to Life*, a recurring role in Paul Gross’ ZOS: *Zone of Separation*, and a guest starring role in CBC’s Gemini-nominated, *The Border*. Currently, Dusan is lending both his voice and body to numerous Ubisoft video games utilizing Motion Capture technology, and touring his band, Roma Carnivale, around Canada.

**David Footman** has over 12 years of experience in the film industry as an assistant director, second unit director and motion capture supervisor. A member of the Director’s Guild of America, the Director’s Guild of Canada and the Visual Effects Association of B.C., David has worked on over 20 high profile video games, both game-rendered scenes and fully-rendered scenes and loves the challenges of run-time cinematics and interactive story telling.

**Lui Francisco** is the Art Director at Bedlam Games Inc. After a stint in the Graphic Design Program at George Brown College, Lui went on to graduate from Sheridan College’s prestigious Animation program in 1998. His professional life began in a boutique animation house that created work for film and television. Longing to try his hand in the 3D world, Lui joined Rockstar Toronto as a lead cinematic animator and was responsible for the well-regarded cut scenes in Rockstar’s *The Warriors*. When given the opportunity to join Bedlam as a founding member, he jumped at the chance. Examples of Lui’s direction can be seen in *Scratch: The Ultimate DJ* and the recently announced *Dungeons & Dragons: Daggerdale*.

**Ron Frankel**, President and Founder of Proof Inc., is a pioneer in the field of feature film previsualization. He was the first to introduce directors such as Steven Spielberg, David Fincher and Darren Aronofsky to the use of previs and has been a driving force behind the integration of previs throughout the entire film production process. Recent collaborators include Marc Webb, Michel Gondry, Tarsem Singh, Francis Lawrence, Zack Snyder and Alex McDowell. Ron continues to push previsualization into new areas of film production and into worlds beyond Hollywood. His most recent work involves using augmented reality technologies to create live, in-camera visualizations. In addition to his work on feature films, he has used previs to problem solve a large-scale architectural installation (in collaboration with Doug Aitken, Workshop and
Apologue), to create an immersive environment for the Museum of Modern Art, New York (in collaboration with Imaginary Forces, Greg Lynn and Alex McDowell) and to provide motion capture planning for video games such as Mortal Kombat vs. DC Universe and Blitz (in collaboration with Midway Games, Chicago).

Ron has a bachelor’s degree in Philosophy and a Master of Architecture from MIT. He is a founding member of the Previsualization Society, the Virtual Production Committee and 5D: The Future of Immersive Design. His work has been published in Cinefex, VFX World, American Cinematographer and The New York Times. In addition to his work at Proof Inc., Ron has taught classes in animation and previsualization at SCI-Arc and the UCLA School of Architecture and Urban Design.

**PARAG HAVALDAR**, PhD, Software R&D Supervisor at Sony Pictures Imageworks, leads the stereoscopic and performance capture technology group, which develops proprietary software solutions for the facility’s stereo production pipelines and performance capture pipeline. Currently, Dr. Havaldar is implementing workflows to create stereoscopic imagery for CG features, post stereo conversion, and natively acquired stereo projects. Along with stereoscopic technology, he has also advanced performance capture technologies for animating digital bodies and faces in a variety of movies such as Tim Burton’s Alice in Wonderland and Warner Bros. mystery adventure Watchmen. Dr. Havaldar’s advances have incorporated the use of Facial Action Coding System to create expressive character animation systems which has been as used in various capacities, such as video based markerless capture for animating Dr. Manhattan’s face in Warner Bros. mystery adventure Watchmen, and also traditional motion capture systems to animate numerous digital faces on Imageworks’ performance capture projects Beowulf and Monster House.

Dr. Parag Havaldar is also currently a part time professor at the University of Southern California in the Computer Science department, has authored numerous technical papers, presented at international conferences and also authored a graduate level textbook in the area of Multimedia. He holds a BTech in Computer Science from the Indian Institute of Technology and a PhD in computer Science from the University of Southern California with a specialization in computer graphics and computer vision.

Producer [STEVEN HOBAN](#) is founder of the Toronto-based film and television production company Copperheart Entertainment. His productions include the 2005 Academy Award® – winning computer animated short, Ryan; the world’s first IMAX 3D animated film, Cyberworld, and several live-action feature films including last year’s Warner Bros released science-fiction thriller Splice. Upcoming projects include an adaptation of Anne McCaffrey’s bestselling science fiction novel series, The Dragonriders of Pern; a 3D animated feature, Lovecraft, which will be directed by Chris Landreth; and a television series based on Silicon Knights’ game Too Human.

**WM MICHAEL IRWIN**, Technical Director of Virtual Production at SIRT has over 10 years of postsecondary education and an additional 10 years of industry experience. As a student, his specializations ranged from gaming technology, 3D modeling, computer science, digital art, fine art, photography and social sciences. He possesses industry experience in Production and Post-Production for Film/TV/Video Games/Animation Shorts. He has taught in postsecondary schools as a Professor and/or served as Program Coordinator specializing in Video Game Design and 3D Animation/Modeling for over six years. He is also skilled
in course creation, curriculum development, lecturing, presentations, tutorial writing, pipeline and project work flow preparation and execution.

**AVRIM KATZMAN** has been the senior professor in the internationally renowned Computer Animation Program at Sheridan College and was the founding Director and principal investigator of Sheridan’s first research institute, the Visualization Design Institute. He currently teaches Game Design and Theory, and Game Development, in the Communication, Culture and Information Technology Program, a joint program with the University of Toronto, and is the curriculum architect of Sheridan’s Bachelor of Applied Arts degree in Game Design. His current research focuses on inclusive game design and the application of game technologies to feature film production.

**SARAH KER-HORNELL** is the Executive Director & CEO of screen-based industry consortium FilmOntario (film, television, interactive, games). A seasoned industry executive with extensive business development, marketing and public policy experience, Ms Ker-Hornell holds a BA from the University of Toronto. Other honours include Canadian Women’s Who’s Who, Canada’s Who’s Who and University of Toronto Arbor Award for Mentorship. Before joining FilmOntario in 2003 as Managing Director, Ms Ker-Hornell established award-winning commercial production company, Angel Films Inc., handling domestic and international commercial production. Ms Ker-Hornell sits on a variety of industry boards and committees, including the Toronto Film Board, Ontario Media Development Corporation Screen-based Advisory Council and Toronto Board of Trade, Economic Development Committee.

**JARROD KOZEAL** grew up in Casper, Wyoming and moved to California to study Animation and Visual Effects at Ex’pression Digital College in Emeryville. He moved to Los Angeles to work for ImageMovers Digital as a Motion Capture Technical Director, and is now an Advanced Services Consultant at Vicon Motion Systems.

**HELMUT KUNGL** is CEO of Ottawa based XYZ RGB Inc. Helmut has over 15 years experience in 3D imaging for applications in entertainment and reverse engineering. In 2004 Mr. Kungl and his company were nominated for an Academy Technical Achievement Award for their innovative 3D work on numerous Hollywood films including the “Matrix Trilogy” and *Lord of the Rings*.

**JIM LAIRD**, CFO Bedlam Games, is a veteran finance executive with nine years of experience, including six years in venture capital making investments in high-tech companies. He has made investments in the gaming industry in companies like Groove Games and Transgaming Technologies. Jim was previously Vice President, Investments with Covington Capital, which he joined in November 2002. Prior to Covington, Jim was a managing partner with New Millenium Venture Partners, a high-tech focused labour-sponsored venture fund and an equity analyst with HSBC Securities and Gordon Capital. Jim holds a Bachelor of Business Administration and a Bachelor of Law degree. Jim also served on the Board of Directors of MITACS, an NCE for the Mathematical Sciences.

**ROBERT MAGEE** is the Product Marketing Manager at Side Effects Software. He studied Architecture at the University of Waterloo before spending the
last two decades writing tutorials for 3D software packages such as Houdini. Robert is a champion for the artists and always looks for ways technology can support and enhance the creative process.

**DAN MAY** is co-founder of the UK’s leading digital art department, Painting Practice, and has over 10 years experience in both Film and Commercial production. Dan is very much as a hybrid artist of the digital age, with one foot in the Art Department and the other in Visual Effects. Improving the cross over and communication between these two departments is what drives a lot of the work through Painting Practice, where art direction and previz come hand in hand.

Dan founded the studio together with Production Designer Joel Collins after the two collaborated on *Hitchhikers Guide to the Galaxy*. It was during this production that the methodology for the studio began to take shape as the boundaries began to blur between art direction and previz.

Shortly after Hitchhikers Dan moved on to supervising the previz for both *Quantum of Solace* and *Angels & Demons*. Dan was also the vfx art director and previz supervisor for the BBC reboot of *The Day of The Triffids* it was here that everything came together perfectly and subsequently the show was awarded the BAFTA for best Visual Effects. Since *Triffids* the studio has now branched out into post-production providing digital matte painting and set extensions for film and TV with their most recent credits being Coke’s latest Superbowl commercial: “Siege”.

Dan continually solves problems both technically and visually on a daily basis - most recently he was called in to work on The *Chronicles of Narnia: Voyage of the Dawn Treader*, and the medieval fantasy comedy *Your Highness*.

**ROBERT (BOB) MUNROE** has been the Visual Effects Supervisor on films such as *Cube*, *Caveman’s Valentine*, *Finding Forrester*, *Against the Ropes*, *Splice* and, most recently, *Dolphin Tale*, an Alcon/WB film, and *The Borgias*, a Showtime/CTV series, both currently in production. As a Digital Effects Director, Bob led teams of artists on *Nutty Professor II: The Klumps*, *Doctor Dolittle* and *Mimic*. He was also Second Unit Director on *Splice*, *The Tudors* and *Nothing*, Co-Producer of the final season of *The Tudors* and Executive Producer of Academy Award-winning director Chris Landreth’s short film *The Spine*. Bob is Immediate Past Chair of the Board of Directors of the Canadian Film Centre and is a member of the Academy of Canadian Cinema and Television, The Director’s Guild of Canada and the Academy of Television Arts and Sciences. In 2006, Bob was named the recipient of the Premier’s Award for the Creative Arts and Design sector.

**EDITH MYERS** is Managing Director of Pinewood Toronto Studios, Canada’s largest studio complex providing facilities for film, television and commercial production. Previously, Edith was the Chief Operating Officer for the Scott Group of Companies owned by film directors Ridley Scott and Tony Scott. The Scott Group includes RSA Films (London and Los Angeles), one of the world’s largest television commercial production companies, and Scott Free, a film and television production company responsible for *Black Hawk Down* and *Déjà Vu*, as well as the television series *Numb3rs* and *The Good Wife*. Edith has an MBA from Concordia University and a post MBA from McGill University.

**LESLEY NORTHAM** is a PhD student in computer science at the University of Waterloo studying film pre-visualization, aesthetics and director notation. She is a member of the Computer Graphics
Lab and is supervised by Dr. Craig S. Kaplan. Currently, Lesley is working on a collaborative project with SIRT called RTFX, which aims to provide high-quality, real-time visualization of motion capture and special effects.

**BRIAN J. POHL**

has nearly 16 years of experience as a graphic designer, visual effects artist, technical director and previs supervisor. A veteran of George Lucas’ JAK Films’ previsualization team and Industrial Light and Magic’s art department, Pohl is credited for creating or supervising previs on over 20 films including Star Wars Episode II: Attack of the Clones (2002), I, Robot (2004), Open Season (2006), Star Trek (2009) and Battle: Los Angeles (2011). Recently Pohl participated in the formation of the Previsualization Society and acts as its Secretary and Chairman for its Web and educational committees. Currently Pohl is working on a new independent venture that focuses on creating unique intellectual properties for entertainment and educational materials designed to train the previs process.

**JENNIE PUNTER**

writes film reviews and features for The Globe and Mail and reports on the Canadian entertainment industry for Variety. Over the past 11 years, she has also worked on documentaries for Ron Mann’s Sphinx Productions, the National Film Board of Canada and Storyline Entertainment.

**LISA RYDER** is a Canadian actress best known for her role, Beka Valentine, on the long running science fiction television series, Gene Roddenberry’s Andromeda. Ryder was born in Edmonton, Alberta and attended the University of Toronto, where she began acting. Upon graduation, she formed a local theatre group, Bald Ego Productions, in Toronto and starred in numerous stage productions including the one woman show, Put Me Away which she also wrote. Ms. Ryder began to work regularly in film and television in the mid-1990s including roles in Gene Roddenberry’s Earth: Final Conflict, Total Recall 2070, Kung Fu: The Legend Continues, Wind at my Back and Psi Factor: Chronicles of the Paranormal. She had a recurring role on The Newsroom (CBC) and she gained a following as Detective Tracy Vetter on the final season of the science fiction drama Forever Knight in 1995-1996. Ms. Ryder also co-starred as android Kay-Em 14 in the 2002 movie Jason X before joining the cast of Gene Roddenberry’s Andromeda which ran for five seasons and 110 episodes. Ms. Ryder was nominated for a Gemini award for her performance as Beka Valentine. Recent credits include a recurring role on Good Dog, Degrassi: The Next Generation, The Ron James Show and the vampire Web-series Valemont for MTV.

**DR. PAUL SALVINI** is Chief Technology Officer and Vice President of Canadian Operations at Side Effects Software, a global leader in the development of 3D animation and visual effects software. He leads a two-time Academy Award-winning team of computer scientists and mathematicians who are passionate about advancing the art and science of computer graphics. The company’s Houdini software has been used in over 400 blockbuster films including 11 of the past 13 films to receive the Oscar™ for Visual Effects. He received his BMath from the University of Waterloo and M.A.Sc., Ph.D. and M.B.A. degrees from the University of Toronto where he serves as a KMDI Research Fellow and Adjunct Professor. In 2007, Paul was recognized as one of Canada’s Top 40...
Under 40™, a national award that honours individuals for outstanding achievement in innovation, leadership, vision and community involvement.

**DAVID SPARROW**, an ACTRA national councilor representing Toronto, crashed an audition in 1989 and wound up in the Second City’s National Touring Company out of Toronto. It was the most fun he’d ever had and since that time he has brought laughter to bellies across North America. He has appeared in more than 80 film and television roles including *Serendipity*, *Star Trek Voyager* and *Shall We Dance* and in stage productions from coast to coast. He has voiced radio spots and character voices for the cartoons *JoJo’s Circus* and *Totally Spies* and has directed for the stage, corporate/industrial film projects and for his own projects. As a writer, David has completed four films, a TV pilot, hours of sketch comedy, a children’s book and the parody theatre hit, *The Honey Murders*, which played to sold-out crowds in Los Angeles in 2000.

**JASON WALTER** is a senior technical consultant/software developer on the Autodesk Consulting team. He joined the team via the acquisition of Alias by Autodesk, and he has been acting as a technical consultant for over eight years. He has extensive experience in real-time animation using Autodesk MotionBuilder and Autodesk Maya. He was the principal engineer on the *Magic Mirror* project—a live-to-stage real-time system designed for DreamWorks’ *Shrek The Musical*. He also was the principal developer of Autodesk Maya’s stereo camera/viewer implementation and continues to work directly with customers on integrating stereo into their pipelines. Over the years as a principal consultant, he has contributed individual features to Autodesk Maya and Autodesk MotionBuilder for a variety of film, games and design companies. He now leads the consulting Virtual Production Technology team where they are working to define, create and refine workflows in the area of virtual cinematography, previs and virtual moviemaking.

**AARON WEINTRAUB**, Visual Effects Supervisor/Co-Founder of Mr. X., is one of the most progressively minded visual effects supervisors you’ll come across. Driven by his passions for the creative filmmaking process and his thirst for pushing technological boundaries, he’s committed to always finding the most relevant solutions. Aaron applies his skillful eye as an artist with his broad understanding of all things VFX to every project he works on. Some would say that Aaron is Mr. X’s secret weapon.

Over his tenure at Mr. X, Aaron has been instrumental in developing the Mr. X process, consulting on script breakdowns and devising innovative solutions to create dynamic visual effects on numerous feature films. He has since acquired many battle stories to brag about including rebuiding an entire pipeline and process during production amidst delivering award-contending work, an endeavour that’s rarely achieved with such success. Mr. X’s guerrilla style philosophies foster Aaron’s abilities to cater each project’s methodology to its unique vision; not restricted by process but to solution and artistic integrity.

Aaron’s most recent projects include Visual Effects Supervision on *Tron: Legacy*, *Scott Pilgrim vs. The World* (co-supervision with Dennis Berardi), *My Soul to Take*, *Repo Men*, *Remember Me*, *The Factory*, *Eastern Promises* and *A History of Violence*, to name a few. He has also been credited as Compositing Supervisor on such films as *Max Payne*, *Balls of Fury* and *Shoot ‘Em Up*.