

2008 SIGGRAPH Autodesk® MasterClasses

Storyboarding/Story Development at Pixar: Work Methods and Insights, Part I, with Matthew Luhn, Pixar Animation Studios

Skill Level: All levels, non-technical

Synopsis: This three hour long workshop is designed to give story artists insight into the storyboarding process at Pixar. The workshop will be broken down into the following sections:

Preliminary Storyboards – We will look at the process of “Beat” boarding and generating new ideas.

Sequence Boards & Character Development – We will explore how to create new characters and scenarios.

Story Reel Boards – We will see how to take characters, ideas and sequence boards to the next level using composition and cinematography.

Storyboarding Digitally– Matthew will explain how he does storyboarding digitally, including specific techniques used.

Note: This three-hour lecture is an abbreviated version of a two-day MasterClass. Each topic will be explored at a high level only.



Matthew Luhn, Pixar Animation Studios

Matthew Luhn joined Pixar Animation Studios as an animator in 1993, during production of the studio's first feature film, *Toy Story*. Although Matt loved animating, he soon realized his favorite aspect of production was the story development process and storyboarding. He was given an opportunity to develop his skills in these areas during the production of *Toy Story 2*, the first project in which he worked as a storyboard artist. Since *Toy Story 2*, Matt has served as a story artist on almost every subsequent Pixar film including *Monsters, Inc*, *Finding Nemo*, *Cars*, *Ratatouille*, and the upcoming Disney/Pixar film, *Up*, scheduled for release in June 2009. Prior to Pixar, Matt worked as an animator on the hit series *The Simpsons*, and at Industrial Light and Magic.

Matt grew up in the San Francisco Bay Area and attended the California Institute of Arts (CalArts) and later the Academy of Art. He presently lives in Montara, California and is working on the upcoming Pixar film, *Toy Story 3*. As a story artist, Matt works closely with a film's director to bring the director's vision to life. While half of Matt's time is spent on storyboarding, the other half is dedicated to developing new characters and gags, writing dialogue, and creating story structure. In addition, as an experienced lecturer and teacher, Matt has taught the art of story and character development to students, animators and artists all over the world. He has lectured at CalArts and The Academy of Art in San Francisco, in addition to conducting workshops and master classes in Denmark, the San Francisco Bay Area, and Hawaii.

Character Animation at Pixar: Work Methods and Insights, Part I with Andrew Gordon, Pixar Animation Studios

Skill Level: All levels, non-technical

Synopsis: This three-hour workshop is designed to help animators understand the types of things taken into consideration at Pixar to animate a feature film. The class will be broken down into the following sections:

Preplanning – Understanding the shot and/or characters in the scene before you start animating is crucial. The great animators of Disney always said, “spend half your time thinking about the shot and the other half animating it.”

Shot Blocking – We will discuss shot blocking methods and look at various early incarnations of shots, and how they progress. Pose to pose, straight ahead and layering will be discussed.

Pushing Poses – One of the hardest aspects of animation is the design of a good pose. We will examine how intern work can be used to improve upon the pose using draw-overs.

Facial Animation – Facial animation can be a painstaking process. In this section we will discuss some of the aspects involved in creating believable, appealing facial animation. Eyes, brows, mouth, dialogue etc., will be touched upon.

Polish – This section focuses on what it takes to get that last, extra finishing on a shot. Spline work, shape change, overlap, as well as many tricks and tips will be discussed.

Note: This three-hour lecture is an abbreviated version of a two-day MasterClass. Each topic will be explored at a high level only.



Andrew Gordon, Pixar Animation Studios

Andrew Gordon has been animating characters professionally for over 12 years. He joined Pixar Animation Studios in 1997 where he has been an animator on *A Bug's Life*, *Toy Story 2*, *Monsters, Inc.*, *Finding Nemo*, *The Incredibles* and most recently, *Ratatouille*. The characters he has worked on include Mike Wazowski from *Monsters*, Gill, from *Finding Nemo* and Edna Mode, the costume designer in *The Incredibles*. He recently finished production animation on *Ratatouille*. His work also includes directing several promotional spots for broadcast, web and Blu-ray content. Currently, he is supervising animation for Pixar's new short film, to be released with the new Pixar feature *WALL•E*.

Andrew studied animation in Vancouver and New York, and prior to his work at Pixar, worked in the Looney Tunes division of Warner Brothers. His work on *Finding Nemo* earned him the Visual Effects Society's "Outstanding Character Animation in an Animated Motion Picture" award. Andrew has been teaching animation in California since 2000 and has given lectures around the world, including MasterClasses in China, Spain, Singapore, Australia and Italy. He is a contributing teacher to *Animation Mentor* and the *CSU Summer Arts* program, as well as being one of the founders of *Spline Doctors*, a blog/podcast dedicated to animation education.

Autodesk® Maya® and Autodesk® MotionBuilder® software, Room: TBA

Mental Breakdown: Insane Optimization for Rapid, High-Quality Renders

Skill Level: All levels

In this class you will learn proper workflows, tips and tricks for faster, higher quality renders with mental ray® renderer for Autodesk Maya software. The goal of the session is to show you how to use mental ray for Maya to achieve the best render for your buck! Tessellation, texture, sampling, fur, and motion blur optimizations will be covered.



Cathy McGinnis, Autodesk

A certified Maya instructor, author and editor of countless Maya Learning Tools, (as well as a budding deep sea fisher), Cathy McGinnis is also a senior member of the Maya product support team at Autodesk. Her in-depth knowledge of lighting, cameras, shading, and rendering has made her a sought-after resource by Maya users around the world.

Not long ago, Cathy took a three-year hiatus from the frigid plains of Toronto and moved to New Zealand, where she ran a 3D animation program in Auckland and worked as a lighting technical director at Weta Digital. She is back, shoveling snow in Toronto with her loving husband and son, answering cries for computer graphics (CG) help with lightning speed, and helping 3D artists everywhere create their ideal image.

Autodesk® 3ds Max® and Autodesk® MotionBuilder® software, Room: TBA

Recreating Real World Materials for Superior Visualizations

Skill Level: Advanced

This class is geared toward Autodesk 3ds Max software users who wish to reproduce material samples as precisely as possible, for use with physically based renderers such as mental ray, Vray or Final Render.

In this session you will learn objective methods of measuring color, as well as techniques for estimating the glossiness of material samples, with affordable hardware such as digital cameras and light metering tools. Finally, maintaining color consistency throughout the pipeline, as well as incorporating gamma correction and hardware calibration will be discussed.



Pierre-Felix Breton, Autodesk

Pierre-Felix Breton is a software designer specializing in the field of physically based lighting simulation and rendering. As an employee of Autodesk Media & Entertainment, he helps develop such products as Autodesk 3ds Max and Revit® Architecture software, focusing on the integration of the mental ray® software rendering engine as well as daylight

simulation technologies. He also contributes to the design and development of sophisticated 3ds Max / Revit Architecture materials and shader libraries – for those who require color consistency and physical accuracy. With his background in electrical engineering, computer programming and theatrical lighting, Pierre-Felix consults regularly on architectural lighting-design projects as a designer, technical coordinator and simulation specialist. In recent days, Pierre-Felix has contributed to the Washington Air-Force Memorial, Scottish parliament and New York Times lighting redesign projects.

See <http://www.pfbreton.com> to learn more.

Synthesizing Film & Games: Creating a GPU-based Studio Rendering Pipeline

Skill Level: Intermediate to Advanced

This session is designed for Autodesk® Maya® software users with a strong understanding of Maya Embedded Language (MEL), and an interest in real-time rendering techniques. No previous knowledge of high level shading languages is required.

In this session you will learn how to accelerate your Maya 2008 rendering pipeline by creating hardware shaders using the CgFX plug-in and then migrating those effects and techniques into a custom, hardware shading network for Maya. Things to consider when working with lighting and shadowing will be covered, as well as approaches to authoring models and textures to get the best results. Additionally the session will explore methods for decoupling and abstracting materials from models to allow for parallel workflows and more rendering options, including examples of how these techniques have been applied in production. Attendees should leave with a variety of techniques and methods that can be used to augment their own rendering workflows.



Wes Grandmont III, The Dreamhive Animation Studio

Wes Grandmont III is a co-founder and senior computer graphics (CG) supervisor at The Dreamhive Animation Studio. With clients in the film and game industry, the studio specializes in feature and broadcast CG animation, game asset production, as well as bringing original creative properties to market. Before founding the studio, Wes spent nine years with Electronic Arts (EA). His most recent game credits include work as technical art director on *Superman Returns: The Video Game*, *Madden NFL 2005*, *NFL Street*, and *NASCAR Thunder 2003*. Prior to EA, he worked at Curious Pictures in New York on many projects, including those for HBO, Oscar Mayer, Quaker Oats, Kraft, and Martini & Rossi. Wes has taught classes and workshops at the University of Central Florida, Bowling Green State University and lectured at the 2005 Game Developers Conference. He holds a Bachelor of Fine Arts with honors in computer graphics from Syracuse University.

See <http://www.TheDreamhive.com> to learn more.

Sweetening your Autodesk 3ds Max Software Renders with Autodesk Compositing Solutions

Skill Level: Intermediate to Advanced

This class is aimed at anyone wanting to take their Autodesk® 3ds Max® software renders to the next level using compositing applications for post-processing or to add special effects.

In this session you will learn how to output renders from 3ds Max so as to accommodate a shot progression into Autodesk® Combustion® and Autodesk® Toxik™ software. Specific areas that will be covered include render elements, tracking, particles, ambient occlusion renders, selective color effects, motion blur and depth of field.



Gary Davis, Autodesk

Gary M. Davis began his career after receiving a Bachelor of Fine Arts in Computer Graphics from Bowling Green State University in 1992. Since that time he has been heavily involved in visual effects and motion graphics for numerous television, film, video game and architectural visualization clients. After spending nearly six years developing “ride” films and digital photography systems for themed entertainment venues, at the turn of the millennium Gary formed visualZ, LLC. From 2004-2007, visualZ served as the only independent, worldwide-certified training center for 3ds Max, Combustion and Toxik. During this time he also authored The Focal Press *Easy Guide to Combustion*. At the SIGGRAPH 2007 conference, Davis was awarded the title of Autodesk 3ds Max Master. Shortly thereafter, he joined Autodesk Media & Entertainment as a specialist for 3D animation and compositing software solutions. He maintains visualZ as a private consulting and training boutique in Orlando, Florida.

See <http://www.visualZ.com> to learn more.

Charming the Snake: Introducing Maya Python for MEL Users

Skill Level: Intermediate to Advanced

This class is best suited to those with an existing knowledge of the Maya Embedded Language (MEL) and/or an overall familiarity with Autodesk® Maya® software, (its user interface, tools, and functions) however, these are not required. The course will also briefly touch on the Maya advanced programming interface (API) libraries, though no in-depth API knowledge is required.

With the release of Maya 8.5, Python™ technology was incorporated into the software as one of its standard scripting languages. This class focuses on learning to translate scripts from MEL to Python. You will learn to leverage your existing programming skills through examples of building tools, interfaces, and automation. Specifically, we will explore Python as it pertains to Maya 2008, the benefits of Python, the basics of Python syntax, and a translation of current MEL functionality not immediately evident to the new Python user.



Mike Weiss, Mackevision

Mike Weiss is the head of research and development for Mackevision, USA in Detroit, Michigan. He is part of a team that delivers the highest creative and technical levels of digital and print media. Mike is a highly skilled technician and artist, balancing the creative and logical sides of his brain to generate great imagery, animation, and visualization, as well as developing automated

solutions with APIs and scripts. Mike has developed tools for the creation of product-correct virtual vehicles that are highly scalable and repeatable. His true passion is bringing ideas to life through design, development, and production. Mike lives in South East Michigan with his beautiful wife and daughter, and spreads his love of art and computer graphics by teaching production-based classes in the area and producing 3D shorts with long time colleagues.

SK or Smart Kinematics: Use Both IK & FK At The Same Time

Skill Level: Intermediate to Advanced

This course will introduce you to smart kinematics (SK), a new way of rigging your joints. The new SK rigs blend seamlessly between inverse kinematics (IK) and full kinematics (FK), changing how the rig is positioned based on what manipulator the user selects.

In this class you will learn the basics of setting up an IK/FK blending rig with

Inside the MotionBuilder SDK for Production

Skill Level: All levels

This class is aimed at technical directors, developers, and anyone else who is interested in learning how the Autodesk® MotionBuilder® software SDK can improve the efficiency of their animation pipeline.

In this session you will learn how to use the SDK to develop a customized animation pipeline. Specifically, we will look at the concept of structuring individual assets, such as characters and props, in order to build and maintain organization within a larger animation scene. We will also cover different uses of the *merge* feature in order to reduce some programming and share a simple file asset manager and scene manager to demonstrate how the SDK could assist during file opening, saving, and importing. Finally, you will learn how creating custom Autodesk® FBX® software plug-ins can simplify creating connections in a relation constraint.



Greg Elshoff, Kickstand

Greg Elshoff is a co-founder and developer at the research and design firm Kickstand in New York City. He is also the pipeline and software developer at New York's Launch where he creates tools to assist and automate fast-paced, test commercials. Greg has been working with Autodesk MotionBuilder and its SDK for the past two of his six years in the industry. He started his education at The Ohio State University in Computer Science and Engineering and

finished in the Computer Animation program at Full Sail Real World Education. Greg began his development career using Maya Embedded Language (MEL) for Autodesk® Maya® software at The Ballistic Pixel Lab in Orlando, Florida where he created tools and pipelines for 3D character animations, game cinematics, and an online 3D home interior design application.

Stereoscopic Image Creation with Autodesk 3ds Max

Skill Level: Intermediate

More and more computer graphics (CG) films today are created and showcased in stereoscopy with 3D glasses. This "don't miss" class is geared toward those looking for a thorough overview of stereoscopic production: from theory to developing an Autodesk® 3ds Max® software centric pipeline. The session will cover stereoscopy theory, including many visual examples, and then move on to

custom controls. Next, you will move on to setting up pose snapping with these rigs and then look at how MEL techniques and workflows can be used to augment their functionality. Finally, we will conclude with production tips, caveats, and how to set up tools to help animate in this new paradigm.



TJ Galda, Electronic Arts

Returning instructor TJ Galda has distinguished himself in the fields of film, animation, and video game development since the '90s. Most notably, TJ has been honored with a Lifetime Achievement award from the Ontario Government and McLean's magazine and was one of three recipients of the Autodesk Maya Master awards in 2006. TJ has worked as a Computer Graphics supervisor for

Technicolor Creative Services, working out of their Vancouver office; he helps to guide their visual effects department across multiple feature films. In his current role at Electronic Arts Canada, TJ was in charge of all art production for their 250 million dollar handheld gaming division, overseeing over 25 games at a time. His credits include DreamWorks' newest animated logo, *Shark Tale*, *Over the Hedge*, *Kung Fu Panda*, *Fantastic Four*, *Rolie Polie Olie* and *Rescue Heroes*. As an industry expert, TJ is frequently asked to speak at round table discussions.

See <http://www.tjgalda.com> to learn more.

custom stereoscopic camera rig creation. Finally, you will see how MAXScript and Autodesk® Combustion® software can be used in the creation of stereoscopic images and animation.



Laurent M. Abecassis, Di-O-Matic

Laurent M. Abecassis is an Emmy® award-winning visual effects supervisor and computer graphics (CG) character specialist.

Having worked in the field of computer graphics for more than 12 years, Laurent has tackled many aspects of CG production and CG software development, from leading CG character research efforts at Di-O-Matic, to supervising visual effects and designing production pipelines. He has spent over a decade pushing Autodesk 3ds Max to the extreme in countless productions: for games, TV series, visual effects, CG feature films, commercials, and interactive kiosks. Since 2000, Laurent has been designing and actively developing CG character animation plugins for 3ds Max. His technologies are used today by leading 3ds Max production houses, including Activision, Blur Studio, Sega, and Rockstar Games. Some of the most well-known CG characters, including *Mickey Mouse*, *Sonic the Hedgehog*, *Spiderman*, *Superman*, *Crash Bandicoot* and *Spongebob Squarepants* have been brought to audiences through 3ds Max used in conjunction with technologies designed by Laurent. His most recent work includes overseeing the creation of the breathtaking plane crash sequences in the TV series *Lost*.

Tips & Tricks for the Everyday TD (and Animator)

Skill Level: All levels

In this class, geared toward professional technical directors and animators, you will get a wide range of tips and tricks compiled after years of research, testing and developing.

Over the course of the session we will look at numerous methods for creating robust, intelligent rigs and scene controls. These best practices will enable you, or the animator, to produce quality results faster and more efficiently.



Javier Solsona, DreamWorks

Javier Solsona is the lead creature technical director at Vancouver's Propaganda Games where he is currently working on the latest installment of *Turok*. He was born in Argentina and grew up in Patagonia. At an early age, he began creating graphics on his Commodore 64, painstakingly painting one pixel at a time. Many years later, still in front of a computer, Solsona obtained his Bachelor of Science degree in computer sciences from the

Elemental Series – Fire

Skill Level: Intermediate to Advanced

This class will cover the creation of realistic fire, ranging from base flames through to complex propane fireballs and explosions, smoke and special pyrotechnic effects.

Until recently the creation of digital fire was so difficult that most film-makers opted to shoot real pyrotechnics on set or separately (for compositing later). The introduction of advanced fluid solvers, volumetric shaders and rendering solutions have, however, enabled us to create convincing, directable, computer-generated fire and explosion simulations. In this session many areas of 3ds Max will be touched on, including particle flow (and some box sets), lighting, rendering, fume FX and materials. A lot of the theory discussed will be transferable over to Maya and other 3D applications.

University of Cape Town (UCT), South Africa. During his last year at UCT, he was introduced to multimedia and 3D animation, and there was no looking back. Javier worked for more than three years at Electronic Arts in Vancouver as a character animator before making the jump to Propaganda Games.

As a member of the 3D program advisory committee for the Arts Institute of Vancouver, Javier can often be found online, answering questions at one of the many rigging forums.

Maya in a 2D World

Skill Level: Intermediate to Advanced

Animation for network television and broadband requires streamlined workflows and creative thinking in order to deliver exceptional quality. The objective is to tell the story as efficiently as possible. Turner Studios incorporates traditional 2D animators into the 3D pipeline. This course will focus on the creative and technical processes we followed to integrate with or utilize 2D elements.

We will focus on designing an efficient 3D character animation pipeline for 2D animators, integrating Autodesk® Maya® software in 2D productions, and using Maya as a motion graphics design tool. We will be providing tips and tricks along the way both technically and creatively that helped us deliver.

Sean Pollack, Turner Studios

Born in Silicon Valley, CA, Sean Pollack is a generalist with fifteen years experience in 3D. He has been at Turner Studios for 7 years as the 3D Animation Developer where he currently develops efficiencies into production pipelines and leads production teams. Prior to Turner Studios, Sean was Computer Graphics Supervisor at Giant Studios, Technical Director at PDI/Dreamworks, and Animator at Silicon Graphics (SGI). He has worked in film and television with credits on the Academy Award® winning *Shrek*, *Antz*, *Forces of Nature*, and Emmy®/Telly/Bda award winning television spots for *Sega*, *Coke*, *Best Buy*, and *TBS*. Prior to animation, Sean spent 10 years in design, illustration, and multimedia.

Glenn Bundesmann, Turner Studios

With over seventeen years of effects animation experience, Glenn offers a wealth of knowledge in advanced imaging and the highest level of experience in 3D



Allan McKay, Catastrophic FX

Allan McKay is a VFX supervisor and the director of Catastrophic FX – a visual effects studio in Australia. This 3ds Max Master's credits include *Superman Returns*, *Day Breakers*, *Blade Trinity*, *Scooby Doo 2*, *Cinderella Story*, *Son of the Mask*, *IdleWild* as well as other film work, game cinematics and commercials. In the past, he has worked for such studios as Frantic Films, Blur Studio and Digital Dimension. He has been the recipient of two Oscar® award nominations, an Emmy® award and a gold Promax award. Outside of VFX production Allan spends considerable time releasing training DVD's and other educational material, and has lead VFX workshops all over the world.

Miracles and Magic: mental ray Photo-real Rendering for Production

Skill Level: Intermediate to Advanced

The course will focus on photo-realistic rendering in mental ray in the context of visual effects, as well as for product and architectural visualization. The session will open with a quick introduction to photometric concepts followed by a practical guide to a linear workflow and why proper gamma correction is imperative. It will then move on to efficient techniques for achieving highly realistic results when combining CG and live action by combining existing tools together (e.g. the architectural and production shader libraries), techniques for rendering flicker-free animations with Final Gathering, and tips for conserving memory.



Zap Andersson, mental images

Hakan 'Zap' Andersson has been working as "Shader Wizard" at mental images® company since 2004 and is the author of numerous mental ray shaders, such as the subsurface/skin shaders, the car paint shader, as well as the architectural and production shader libraries. Prior to mental images, Zap worked at EMT, Genius CAD Software and Autodesk, where he wrote software and designed user-friendly interfaces for advanced mechanical design software, and authored two US patents. Originally educated as an Engineer in Electronics, today Zap spends his days (and nights) writing shaders, documentation and tutorials for mental ray, and sometimes makes presentations at user events and conventions.

See mentalraytips.blogspot.com to learn more.

design and art direction. Since coming on board with Turner Studios in 1992, Glenn has held the position of both a digital animator and art director for various projects within the Turner Entertainment network. Glenn's expertise in motion, layout, and character work is best showcased in The Cartoon Network's Toonami and Miguzi brands. In addition to his animation and art direction efforts, Glenn determines creative treatments and production strategy.

Maya Grindhouse II: Planet Nucleus & Render Proof, Part I

Skill Level: Intermediate to Advanced

Picking up where they left off last year, the popular Grindhouse duo will be introducing new Autodesk® Maya® software Nucleus technology simulation workflows and demonstrating how Nucleus technology can be used in conjunction with other Maya solvers (Paint Effects, Hair, Fur, Fluids) to create amazing simulations.

This double-feature flick – “Maya Grindhouse II” – is lead by:



Sergey Tsypstyn

Sergey Tsypstyn is a Maya instructor from Moscow, Russia. He began working with Maya during the version 1 beta and has spent most of the time since then as a Maya instructor, teaching his students to “think the Maya way.” In addition to teaching, Sergey works as a freelance consultant and technical director for various

projects and studios in Moscow and St. Petersburg, and is the conference chairman for Russia’s computer graphics event. He is also currently involved in a research project at Moscow University on complex 3D-data visualization and OpenGL® application programming interface (API). This long-time teacher of Maya MasterClasses (going back to Siggraph 2005) is also the author of two books, one on Maya and the other on windsurfing.



Paolo Berto

Paolo Berto entered the industry as a rendering support specialist at the Alias|Wavefront European Support Center (Gent, Belgium) in 2000. He moved to the company’s Toronto headquarters shortly thereafter to work as a mental ray® renderer product specialist within the Autodesk® Maya® software and Autodesk®

ImageStudio software product development groups. In 2003, he moved back to Europe to work on a mental ray/Alias project focused on integration. His work has contributed to the development of Maya, Autodesk® 3ds Max®, ImageStudio, Autodesk® AliasStudio™ software, mental ray, several shaders, Mental Mill, and reality server.

Autodesk 3ds Max: Using Reactor in Production

Skill Level: Intermediate with some advanced topics

This course will begin with a short intro to the basic features of reactor in order to familiarize everyone with what is available and how it works. That said, the session is designed for the advanced user with some experience working with reactor and is not intended to be an *introduction to reactor in 3ds Max* class.

Focusing primarily on three reactor features, you will learn how to get simulations done on time for otherwise time-consuming shots. You will also get techniques and tips to help you make reactor a part of a production pipeline. Commonly used features including rigid bodies, water, and the fracture system – will be thoroughly explored; and, we will touch on how to create efficient rope, soft bodies, havok1/3, and world settings. Real examples from production – falling debris, explosions, under water falling objects, simple cached water puddles and more – will be used to demonstrate these features in action.



Joe Gunn

Joe Gunn is a senior, freelance 3D artist based in New York City who is currently busy working at many different studios throughout the United States. Joe has contributed to several productions making use of advanced simulations such as hair/fur, rigid body dynamics, soft body dynamics, fluids and more. In the past, Joe worked for Autodesk as an Autodesk® 3ds Max® software application specialist for the United

States east coast and has many years of experience using 3ds Max as a master toolset. Joe’s work has been featured in articles and highly acclaimed books such as *Elemental* from Ballistic Publishing. A self-proclaimed “tech-head” Joe has a contagious enthusiasm when it comes to learning how to squeeze the maximum productivity from the latest technology. He always says, “If you don’t know, you better ask somebody!”

See www.joegunn3d.com to learn more.

Since 2007 Berto has been an independent consultant in the field of film VFX working on several productions worldwide. He is the author of two Alias[®] LearningTools DVDs and has taught 10 Autodesk MasterClasses. Berto also helped launch the mental ray certification program at the University of Beijing in 2006 and is the creator of the TRIX R 4 KIDS educational series. See www.MayaGrindhouse.com to learn more.

Maya Grindhouse II: Planet Nucleus & Render Proof, Part II

Skill Level: Intermediate to Advanced

Continuation of the above.

Devil's in the Details: Entourage & Post-Production for Visualization Made Easy[-er]

Skill Level: Intermediate to Advanced

This class is primarily intended for design visualization professionals struggling to bring their renderings to the next level of believability. The session will cover the two main factors involved in turning a standard animation into a memorable visualization.

To begin, we will look at the options available for populating an otherwise lifeless scene with elements that make it truly believable: plant life, automobiles (parked and driving) and people (both static and animated). We will look at the pros and cons of generating these elements via 3rd party tools as well as how to create them efficiently from scratch. Next, you will learn what can be done with an image once it has left the frame buffer. Finally, we will evaluate the most efficient ways to use render elements and other specialized render passes, as well as how to use Adobe[®] Photoshop[®] and Autodesk[®] Combustion[®] software to make that rendered image look less rendered.



John Shulters, Ascension Studios

John Shulters is currently president and sole-proprietor of Ascension Studios, a multi-faceted creative production group providing 2D and 3D computer graphics, web design, video and audio editing, DVD mastering, music and film production, and game design. John specializes in architectural visualization and animation, with over 13 years of experience. He has worked with nearly every release of Autodesk[®] 3ds Max[®] software starting with 3D Studio DOS v1 through to the current release, and has served as a beta tester for several Autodesk products. His work history includes countless projects with architecture firms across the United States., from small, one-person operations to some of the largest firms in the world. By providing solutions in cutting-edge areas such as real-time visualization, virtual and augmented realities, and rapid prototyping, Ascension Studios is intent on bringing new meaning and value to the field of 3D visualization.

Rigging Customization Techniques in Autodesk MotionBuilder

Skill Level: Intermediate to Advanced

This session is designed for those familiar with the Autodesk® MotionBuilder® software workflow and interface, and who have a working knowledge of Python® technology and the MotionBuilder application programming interface (API).

In this class you will learn how to create flexible rigging solutions that let you efficiently edit your biped and quadruped animations, and even the animations of unconventional characters (e.g. those with extra limbs). These techniques can be applied to both motion capture and keyframed animation. Not only will we cover various rigging techniques, but we will also explore how to automate these rigs, and give artists control over specific areas, using the software's scripting capabilities.

Eric Lalumiere, Freelancer

Eric Lalumiere is an accomplished 3D professional with a long history of establishing complex pipelines, solving technical and creative production issues, and training technical artists. He is also a motion capture expert who has been involved in both the pre-visualization and final animation stages of both film and game-industry projects.

Most recently Eric has contributed to: *Avatar*, *Beowulf*, *Hellgate: London*, *Æon Flux*, *X-Men Legends II: Rise of Apocalypse*, *Area 51*, *The Punisher*, *The Polar Express*, and *Freelancer*.

The Secret World Of Autodesk 3ds Max: Scripted Manipulators

Skill Level: intermediate

This class is designed for Technical Directors and Autodesk® 3ds Max® software users with a working knowledge of the MAXScript language and familiarity with the existing 3ds Max UI paradigms. No previous scripted plug-in development knowledge is required. The session would also be of interest to artists who wish to learn alternative ways to communicate with the application.

In this session you will learn about the powerful, but often overlooked, Manipulator sub-system of 3ds Max, which is among the best-implemented, scriptable plug-in classes in the application. Discover new, faster ways to directly tweak properties of scene objects, modifiers, materials, etc., without leaving the viewport. See how simple manipulators can be created in a matter of minutes; witness the simplicity of advanced, self-manipulating Level 5 scripted plug-in development; and learn how to use Manipulators in place of graphic window drawing routines, or as a replacement for Extended Helper plug-ins.



Borislav (Bobo) Petrov, Frantic Films

Born in 1968 in Bulgaria, Borislav is now a citizen of Austria, living and working in Canada. He began programming in 1984 and started using 3D Studio Max in 1993, working his way to the level of Autodesk 3ds Max Master in 2006. As a technical 3D artist, Bobo has contributed to architectural visualization projects, multimedia productions, games and movie projects. In January 2004, he joined the creative team of Frantic Films as technical director. In the following years, he worked on such films as *Scooby Doo 2*, *Stay*, *Superman Returns*, *Mr. Magorium's Wonder Emporium* and *Journey 3D*. He is also involved in the development of commercial software at Frantic Films. Bobo has also been working on editing the *MAXScript Reference* for Autodesk, and has recorded two MAXScript-related DVDs published by CG-Academy. See www.scriptspot.com/bobo/ to learn more.

Autodesk Maya Tips & Tricks

Skill Level: Intermediate

In this class you will learn a number of the techniques used by Turner Studios to create content for five vastly differing, but highly demanding Turner network projects.

To start, we will look at how Autodesk® Maya® software was used to create 3D characters and environments from a still image for the popular Jeremy Piven/NBA Allstar spots. Following this, you will learn a number of the techniques used to develop effects, particularly dynamic effects, for the TV movie, *Ben 10: Race Against Time*. The unique *Cartoon Network Invaded* event required a unique, 2.5D approach to character modeling and rigging, which you will also see demonstrated. Next, you will learn how the Turner team was able to generate two minutes of lip-synched animation for the Norm McDonald *Fake News* series in 16 man-hours, using Trax and Magpie Pro. Finally, you will see the efficient facial rigging system developed for Turner Studio's Toonami character work.



Derald Hunt, Turner Studios

Derald Hunt is the creative animation supervisor at Turner Studios where he has the challenge of overseeing projects for all of the Turner networks: Cartoon Network, TNT, TBS, Turner Sports, and CNN, to mention a few. A 3D veteran of seventeen years, Derald is a generalist who is able to solve a variety of production challenges using Maya. Derald is a 2004 Maya Master who has co-authored training DVDs for Alias® software and continues to work on materials that help the 3D

animation community grow.



Erik Paynter, Turner Studios

Erik Paynter is currently a senior animator at Turner Studios where he recently served as lead animator on *Ben 10: Race Against Time*. With 12 years of experience as a generalist, he has strong skills in character rigging, modeling, animation and problem solving. Prior to Turner Studios, Erik was at Kleiser-Walczak in Massachusetts, where he contributed to many of the studio's projects,

including *Xmen2* and *Xmen3*. While there, he also served as computer graphics (CG) supervisor for *Son of the Mask*, *Exorcist: The Beginning*, and *Fantastic Four*.

Autodesk 3ds Max Elemental Series - Water

Skill Level: Intermediate

This class is best suited for those with a broad knowledge of Autodesk® 3ds Max® software. Specifically, the student should have some familiarity with procedural modifiers, materials, lighting, particle flow and animation controllers.

Many of the most fundamental computer graphics (CG) effects center on the creation of natural phenomena such as fire, smoke and water, and their sub-categories. In the area of water effects, there has been a definite shift over to CG from practical effects in the last ten years, following the introduction of advanced particle systems, lighting and shading tools and more recently the proliferation of fluid simulation research and tools. In this class you will see how we can use 3ds Max to realistically control the look and scale of water effects, as we create a water surface and then gradually build it into a stormy ocean with waves, spray and splashes.



Brandon Davis

Brandon Davis specializes in effects animation and technical problem solving for visual effects projects. He has worked on staff at CafeFX (Computer Cafe), Blur Studio and Digital Domain and his credits include *Armageddon*, *Battlefield Earth*, *Coronado*, *The Core*, *The Day After Tomorrow*, *Flags of Our Fathers*, *Speed Racer* and dozens of commercials. Based out of Los Angeles, Brandon also works as a military technical consultant for game and film projects.

Autodesk Maya Lighting & Render Layers

Skill Level: Intermediate

In this class we will discuss the art of 3D lighting, with an emphasis on how Maya Render Layers can be used to produce different kinds of passes, how passes should be assembled in different compositing software, and tips and tricks for improving the quality of 3D scenes through creative compositing.

Every project is different in terms of which passes and layers need to be rendered, and how they will be used in your final composite. This course will demonstrate different options and approaches to breaking down scenes into layers, and show their advantages, disadvantages, and what kinds of looks are possible with each of them.

Jeremy Birn, Pixar

Jeremy Birn is a lighting technical director at Pixar Animation Studios. He has lit shots in the films *Wall-E*, *Ratatouille*, *Cars*, *The Incredibles*, and *Evolution*. Jeremy is also the author of the book *Digital Lighting & Rendering, 2nd Edition* and has taught courses at The California Institute of the Arts and The Academy of Art University.

Advanced Particle Techniques

Skill Level: Advanced

This MasterClass will cover advanced techniques for creating particle simulations.

In this session you will learn how to go beyond the Autodesk® Maya® software built-in fields to create realistic simulations, with enough control for you to be able to art direct complex effects like smoke, fire and dust. Focusing on advanced particle expressions and dynamic setups, you will see how to gain total control over your simulation. Deterministic setups will also be covered so that you can explore ways to workaround some of the limitations present in dynamic engines, without having to over-sample the simulation.



Alex Ongaro, DreamWorks

Born in Switzerland in 1973, Alex Ongaro specializes in effects and dynamic simulations for the film industry. He started working for a small post-production company more than 10 years ago and today is one of the key figures of the FX department at DreamWorks Animation in Glendale. Currently Alex is the head of FX for the forthcoming animated feature *Shrek 4*. He has been using Maya in production since the very first beta version, and prior to

that he was an Alias|Wavefront Explore professional and Dynamation user. Alex's credits include *How To Train Your Dragon*, *Bee Movie*, *Flushed Away*,

Autodesk 3ds Max *Think Outside the Box* Series: Unleash 3ds Max in Your Pipeline

Skill Level: Intermediate

While this course is mainly aimed at technical artists and technical directors, it will also include tips for system administrators who need to maintain and deploy multiples copies of Autodesk® 3ds Max® software.

The overall goal of the class is to start you on the path toward using 3ds Max more efficiently in production. The session explores many of the techniques used by leading studios around the globe for taking full advantage of the power of 3ds Max and unleashing its potential. Specific topics that will be covered include folder management, user interface customization, legacy plug-in clean up, scripting, network installation, plug-in deployment, default scene management, database communication and version control.

Presented by Laurent M. Abecassis, Di-O-Matic

(see bio on page)

Shading & Texturing Sets, Props & Vehicles For Feature Films & Pre-rendered Game Cinematics

Skill Level: Intermediate

This course offers shading/texturing tips and tricks that will let you get the most out of your tools. A working knowledge of shading and texturing is required.

With so much focus on characters recently, we sometimes forget that our digital actors need environments to inhabit, props to interact with, and vehicles to travel in. This intermediate course will focus on shading and texturing all the non-living, non-deforming things in your film, whether the project is photo-real FX work, an animated feature film, ride film or videogame cinematic. All aspects of the process will be covered: getting references, shaders, patterns, and pattern placement.

Then all the theory will be put to the test as we create a number of common shaders: paint, rust, metals, stone, concrete, etc. The same shader will then be created in multiple renderers, both Brazil and mental ray® software for Autodesk® 3ds Max® software, to show how the theory in this course can be applied to your 3ds Max renderer of choice.



Neil Blevins, Technical Director

Neil was raised on a healthy dose of sci-fi and fantasy films, books and videogames, and was a traditional artist before getting into 3D graphics. After earning a Bachelor of Fine Arts

Over The Edge, Madagascar, Constantine, Baby Geniuses 2, and The Italian Job.

in Design Art at Concordia University, he moved to Los Angeles where he worked for Blur Studio, creating graphics for video games, commercials, TV and feature and ride films. Since 2002, he has lived in San Francisco working as a Technical Director for Pixar Animation Studios, creating environments and effects. In his spare time, he creates 2D/3D hybrid artwork, author's tools and writes art-related lessons and tutorials.
See www.neilblevins.com to learn more.

Autodesk Maya Bonus Session: Ask the Pros

For eligible pass-holders only
Skill Level: All levels

In this compelling and exciting, paneled question and answer period. You will get an opportunity to put your toughest questions to our 2008 MasterClass presenters. This panel of experts will address specific questions relating to the sessions you attended, or general questions about 3D production and pipelines.

If you have a general question now you would like to be addressed at this session, send it by e-mail at least a month prior to SIGGRAPH, to "me.training.events@autodesk.com". We will allot about two minutes per question and then open the session to questions from the audience.

Topics covered include:

- Design
- Modeling
- Rigging
- Animation
- Texturing
- Lighting
- Rendering
- Dynamics

Presented by **Maya MasterClass Presenters**

Moderator: Marc-André Guindon, NeoReel

Marc-André Guindon is the founder of NeoReel Inc., a Montreal-based production facility. He is an Autodesk® Maya Master and an advanced Autodesk® MotionBuilder software user. Marc-André and NeoReel have worked with Alias and Autodesk, Inc. on several projects, including the *Learning Maya* series, from version 6.0 to the present. Marc-André has established complex pipelines and developed numerous plug-ins and tools, such as *Animation Layers* for Autodesk® Maya® software and *Visual Mel Studio*, for a variety of projects in both the film and games industries. His credits include *The Day the Earth Stood Still*, *G-Force*, *Journey 3D*, *Unearthed*, *XXX: State of the Union*, *Scooby-Doo 2™*, *Dawn of the*

Autodesk 3ds Max Bonus Session: Ask the Pros

For eligible pass-holders only
Skill Level: all levels

In this compelling and exciting, paneled Q&A you get an opportunity to put your toughest questions to our 2008 MasterClass presenters. This panel of experts will address specific questions relating to the sessions you attended, or general questions about 3D production and pipelines.

If you have a general question now you would like to see addressed at this session, send it by e-mail at least a month prior to SIGGRAPH, to "me.training.events@autodesk.com". We'll allot about two minutes per question and then open the session to questions from the audience.

Topics covered include:

- Design
- Modeling
- Rigging
- Animation
- Texturing
- Lighting
- Rendering
- Dynamics

Presented by **3ds Max MasterClass Presenters**

Dead, Prey, Arena FootBALL™, Outlaw Volleyball™, Outlaw Golf™ and Outlaw Tennis™

See www.NeoReel.com to learn more.

The Making of *Dr. Seuss' Horton Hears a Who*

Skill Level: All levels



This session will focus on the making of *Dr. Seuss' Horton Hears a Who* by Blue Sky Studios. Specifically, we will discuss the process of recreating the designs of a classic children's book in 3D and then bringing them to life in the context of a major motion picture. The film's production pipeline will be explained, including how it was designed and how it evolved as the project progressed. We will also discuss the responsibilities of each team, starting with such

front end departments as story, character design, art, materials, and rigging and then moving on to the back-end teams such as previz, layout, assembly, animation, lighting, final rendering, compositing and paint.

Jayme Wilkinson

Jayme Wilkinson studied fine art at the Cleveland Institute of Art, computer science at the University of Akron, and Cinematography at Ohio State University Cranston Csuri Group (CCG). During the '80s, he worked at various post-production companies and then took a position as an industrial designer for Telxon Corporation designing portable computer equipment, the precursor to today's personal digital assistants (PDAs). Jayme then moved on to work for Alias|Wavefront, where he started using Autodesk® Maya® software while in its earliest stages. Next, Jayme spent time at Walt Disney Animation Studios contributing to *Lilo and Stitch*, *Brother Bear*, and *My Peoples* as CGI lead / technical coordinator. At Electronic Arts/Tiburon he worked as CGI supervisor / technical art director on such projects as *NASCAR 2005* and *NASCAR 2006*, *Madden 2006*, and the *Superman* titles. Recently, he has been in New York working at Blue Sky Studios, as technical supervisor on their feature animation projects *Ice Age 2: The Meltdown*, and *Dr. Seuss' Horton Hears A Who*. Currently Jayme is doing work as stereographer / stereoscopic lead on Blue Sky Studios' *Ice Age 3*, which will be released July 1, 2009.

Hand Motion Capture Solving in Autodesk MotionBuilder

Skill Level: Intermediate

Hands require us to create complex articulation within a very small area. For this reason, hand motion capture is considered highly advanced work. In this session we will discuss how to include hands in a general body capture, thereby greatly improving the level of your motion capture (mocap). We will cover the basics of optical mocap as well as the most frequently encountered challenges with hand mocap, bio-mechanism and data solving. We will also take a look at specific shooting techniques, and how to adapt your shooting and data process to a particular purpose. Also covered will be how to efficiently deal with the captured data and how to streamline your Autodesk® MotionBuilder® software workflow for production.

Thomas Champon

Thomas is a former traditional SFX artist and puppeteer who became a motion capture animator in 1996 at ExMachina, one of the first French optical mocap studios. He has been specializing in motion capture since that time and has collaborated on many projects including the TV series *Xcalibur* as well as on such video games as *Tomb Raider*, *Angel of Darkness*, *Primal*, *Fahrenheit*, in addition to numerous music videos. Thomas was also the motion capture supervisor at 263Films in Milano, Italy for the animated feature *Dear Anne - The Gift of Hope*, and motion editor for the 2006 Academy Award® winner *Happy Feet*. Recently, Thomas has been involved in setting up QuanticDream's new ViconMX system for *Heavy Rain* and was the lead motion editor for The Mill on the latest Orangina campaign.

Painting With Light: Creating Photo-Realistic HDR Interior & Exterior Environments with Dynamics, Phenomena Effects & Crowds

Skill Level: Intermediate to Advanced, but all levels welcome

This class covers both the creative and technical sides of making photo-realistic, high dynamic resolution (HDR) animations and integrating dynamics and phenomena effects into interior and exterior environments to produce stereoscopic 3D for both flat and domed theater environments.

This session will involve digging into a wide range of Autodesk® Maya® software and mental ray® renderer features, including many of Maya software's modeling, rigging, animation, dynamics, lighting, rendering and Maya Embedded Language (MEL)/ Python™ technology scripting capabilities. It will be one packed session, and notes will be available via .ftp after the class.



Mark Prusten, Silicon Arts

Mark Prusten is a visual effects director and optical sciences consultant with over 10 years experience in animation production, optics, and software development. He formed silicon-art.com to create photo-real, high dynamic range imaging content and technology for film and commercials that include phenomena effects, creature morphing/animation, crowd simulations, and stereoscopic content (for flat and domed virtual reality (VR) environments). Mark has worked as the VFX director on six feature films, four games, and three graphic novels: The Revenant, Cemetery Dancer, Kill Zombie Kill, Bleeding Heart, Mars Reality, Apollo 11: Sea of Tranquility and Matrix. Mark holds a Master of Sciences in Optical Sciences & Animation and a Bachelor of Science in Electrical & Computer Engineering (B.S.E.E) from the University of Arizona.

See www.silicon-art.com and www.OpticalDesignLabs.com to learn more.

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