
**Sony Computer Entertainment Inc. (SCEI)
Tools & Middleware Licensee Newsletter
E3 2003 (English)**

Table of Contents

The Electronic Entertainment Expo 2003

- **Sony Computer Entertainment America Press Conference**
- **E3 Conference Sessions**
 - **Taking Your Game Online**
 - **New Hooks In Gaming**
 - **Reaching the New Gamer: Understanding the Mature Mindset of Today's**

Consumer

- **Marketing Solutions for Every Budget**
- **The Brave New World of Console Gaming: The Web Changes Everything**
- **Game AI Update: New Ways of Engaging the Player**
- **Tap the High-Tech Pulse of Gaming**
- **Sony Computer Entertainment America Booth Tour**
 - **989Sports**
 - **Polyphony Digital**
 - **Square Enix**
 - **Sony Computer Entertainment America**
 - **Insomniac Games**
 - **Zipper Interactive**
 - **Incog, Inc.**
- **Case Studies**
 - **Performance Analyzer for PlayStation®2: Burnout 2: Point of Impact**
 - **Playlogic**
- **Game Titles with Tools & Middleware Technology**
 - **Criterion Renderware**
 - **BAM!Entertainment**
 - **Spark**
 - **Havok Physics Engine**
 - **Mind's Eye**
 - **Edge of Reality**
 - **Paradox**
 - **Midway Games**



The Electronic Entertainment Expo 2003

By Christine Arrington and Samantha Staples

If times are tough in the U.S., you couldn't tell by the crowds

at this year's E3 event held in Los Angeles, CA May 14-16, 2003. According to event organizers, the Interactive Digital Software Association, approximately 62,000 attendees made their way to L.A. for the event.

The crowds were treated to a sensory cornucopia of delights from some of the best game title developers in the world.

Sony Computer Entertainment America lived up to its expectations again this year with a huge presence in a booth that rivaled many Hollywood sets. With racing pods and the ability to go head to head with other players, in some of the online game title offerings the booth was packed with attendees trying to get a glimpse at some of the new offerings coming from the company.

Sony Computer Entertainment America Press Conference

Sony Computer Entertainment America showcased new technology and new data showing that PlayStation®2 is still leading the industry at the company's annual press conference held at E3 on May 13, 2003. Kaz Hirai, President & Chief Operating Officer of Sony Computer Entertainment America, announced that the company had achieved an installed base of 19 million units in the North American market. Mr. Hirai also said that the company had shipped 600,000 units of Network Adaptor (Ethernet/modem) (for PlayStation®2) to end users since the introduction in August of 2002.

EyeToy™, which is scheduled to be launched in October 2003 for \$39, enjoyed a starring role at the press conference. The company has developed its own demo disc of 12 sample game titles to launch with the device, giving consumers a taste of what they can look forward to in future game titles.

The company also announced plans to launch a USB headset for PlayStation®2. The device is currently available for *SOCOM: U.S. Navy SEALs* and will be compatible with many upcoming game titles including *SOCOM II: U.S. Navy SEALs*, *Syphon Filter: The Omega Strain*, *NFL GameDay 2004*, *NBA ShootOut 2004*, and *NCAA GameBreaker 2004*. The company said it also has commitments from EA Sports and Sega Sports to develop other popular franchises with headset capability. The headset will be made available in September 2003 for \$29.99.

Continuing its focus on the online aspect of console gaming, Sony Computer Entertainment America announced that PlayStation®2 Online Pack will be available this summer at the retail price of \$199. PlayStation®2 Online Pack will include a Network Adapter. The company expects to have 50 online titles in the PlayStation®2 library by the end of 2003.

Creating some of the biggest buzz at the show was Sony Computer Entertainment Inc.'s announcement that it would launch a portable machine at the end of 2004. "PSP" is designed to broaden the arena of entertainment according to the company.

E3 Conference Sessions

Taking Your Game Online

As with many game conferences, this year's E3 had a huge focus on online gaming. At the session Taking Your Game Online, Brian Soderberg, CTO of Zipper Interactive, gave a little more insight on the development of *SOCOM: U.S. Navy SEALs*. Soderberg updated some of the data presented at the Game Developers Conference saying that *SOCOM* has 400K active players with 50K to 60K playing every day. On the weekends it gets 170K hours of game play with each player averaging 3 hours. The game title has sold over 1 million units.

Zipper Interactive was concerned mainly with providing full online game play, not just an online component tacked on to a single player game title. Building in community support was very important with clans, rankings and communications including voice and text being built into the game title.

Soderberg stressed that developers should keep things simple in the game title including a well designed user interface that is quick and easy to navigate using familiar interface conventions. He said to focus on the game play, picking one thing and doing that very well and then building on it. For *SOCOM* that one thing was team play.

The company has learned the lesson that when developing an online game, title test as much as possible, prepare for the worst and remember reality will prove more trouble than you prepared for. When developing an online game title you're essentially developing two game titles: online and single player. Make sure that those developing the single player understand that something that may seem simple to add to a single player game title can become much more complicated in the online version. The two development teams must communicate so this sort of challenge doesn't cripple the development process.

And last, but critically important, prepare for cheating and have a long term strategy for dealing with new cheat methods that evolve over the life of the game title.

New Hooks In Gaming

The session New Hooks In Gaming actually took a step back in time in its discussion with the creator of a hugely popular game title now available on PlayStation®2, *The Sims*.

Will Wright, the creator of *The Sims*, gave a bit of insight on his thinking in creating such a popular and long standing franchise. He said that he was focused not only on creating a community, but also giving the gamer an enormous amount of freedom and creating a community that reflected and refracted the world around us. Wright expanded on his thought process in coming up with new game titles saying that he picks a subject that he finds fascinating, but that doesn't necessarily dictate the game play. He also finds that what

intrigues him is a game title that stays in a player's mind, something that he can play in his head and think about what he is going to do the next time he plays.

With his game franchise, *Sim City*, he noted that at some point in the life time of the game title, players began to refer to the cities as "my city," meaning they had taken possession of what they had created in the game title. That hook was very important in the success of the franchise.

He pointed out another interesting hook that he thinks is common with many popular game titles and that is that they are populated with interesting failures.

Reaching the New Gamer: Understanding the Mature Mindset of Today's Consumer

The changing profile of the average gamer is becoming a very significant issue in gaming. Questions are evolving such as how to appeal to gamers who've been playing for years but are getting older. How does the industry keep these players, and keep them paying for game titles?

The panel Reaching the New Gamer first attempted to define this more mature audience. In addition to being chronologically older, they have less time for game play than younger players. There are not a lot of two- to three-hour stretches where an adult has nothing to do. Teenagers frequently play in an attempt to waste time, or at least make it go faster, and they can afford to devote hours on end to a game title of choice. Beginning with young adulthood, more responsibilities present themselves and the amount of available game playing time is seriously reduced. As expressed by Jason Rubin, mature players want to do something interesting with their time, and the social aspect of gaming is an important factor.

Many game titles are complex and require a significant time investment in order to figure out strategies for successful game play. To appeal to older players with less time to play, game titles need to be more intuitive – challenge levels shouldn't be set so high that initial stages can't be fairly easy to learn and master. There should be a level of rewards that can be achieved in the earliest stages of game play.

The panelists agreed that game titles today are not very forgiving when a player is distracted. With a minute's inattention, most players would be killed and the game play would be over – or it's necessary to continually pause the game play to attend to adult responsibilities. One idea put forth was to make a game title that can recognize a player's attention level, letting the game play itself for short periods of time.

Vince Broady, Senior Vice President, GameSpot, mentioned the very real possibility that the mature player can make a significant investment of their time, only to find out the game title is not very good. Will such experiences lead players to mistrust new titles? Will they invest in unknown quantities? One solution to this problem, according to Broady, is to develop game titles with a familiar aspect – known and trusted by the audience – in order to inspire confidence among mature gamers. Examples of this would be sports stars or themes that are

known to the players. In addition, game title developers need to look carefully at the types of titles that have managed to span age groups and genders – titles such as *The Sims* and sports game titles – and try to isolate the factors that make these titles a success.

The Sims is not a linear game title and as such doesn't really have an objective, which appeals to many gamers outside the hardcore category. It lets the gamer devote a limited amount of time, if necessary, yet still achieve objectives. Sometimes older players want a game title that's not stressful and doesn't isolate them from their environment. In such a game title the player who puts in the effort would be rewarded, but game play can remain in the background when necessary. Older players seem to be interested in the overall environment of the game title, rather than just killing opponents. This requires strengthening the storytelling and character development aspects of video game titles.

Bing Gordon, Executive Vice President & Chief Creative Officer of Electronic Arts, stated that future moviemakers will have grown up playing video game titles and that by 2010 movies and game titles will be even more convergent. The panel agreed that relying solely on comic books and films for gaming content could lead to creative bankruptcy for the games industry.

Finally, as developers themselves begin to age, they'll make game titles that interest them and their older audience. These game titles will reflect world events and popular culture, and game characters will have fuller ranges of emotion. There will be room for diverse game titles, just as there is in the visual effects industry (*Shrek* and *Southpark* being at opposite ends of the spectrum). And increased hardware performance will lead to even richer graphics and more complex gameplay, which will help attract a broader market.

Marketing Solutions for Every Budget

Traditional game marketing has focused on the hardcore gamers, and the primary marketing effort has consisted of advertising in the gaming press and retail point-of-sale marketing. Marketing Solutions for Every Budget addressed new ideas in marketing, as well as strategies for developers with limited marketing budgets.

John Heinecke, Director of Global Brand Management at Activision, observed that most game marketing is similar in nature. Therefore "your creative has to sing" in order to stand out from the pack. The creative part of the campaign – which includes the box design, television and print advertising – is how you'll build mindshare with the customer. It's especially important, when dealing with a small marketing budget, to ensure all the creative elements match. That way, the box art looks familiar when the customer enters the retail outlet.

Liz Allen, Director of Marketing at LucasArts Entertainment, agreed that the console game title industry needs to look outside itself for marketing solutions and said they do affinity groups – focus groups comprised of gamers – at LucasArts to "make sure we're not talking to ourselves about ourselves" but appealing to customers.

Different game genres appeal to different audiences – for example, first person shooters appeal to hardcore gamers – and marketing has to appeal to the intended audience, so

sometimes the traditional approach is best. This traditional approach was defined by the panelists as “by gamers, for gamers” and there was some agreement that traditional marketing should be the core of most campaigns. Marketing licensed products – such as *Spider-Man* or *Madden 2002* – is altogether different.

Movie game titles used to have a less-than-stellar reputation, and launches frequently took place at the end of a movie’s lifecycle. These days film studios work much more closely with game title developers to ensure high-quality game play and capture the feel of the movie, not just make use of the characters. Game titles are launched in coordination with movie releases, and each helps market the other.

The panelists discussed the importance of creating the appropriate genre of game title for a specific film. Allen, who works with the *Star Wars* franchise at LucasArts, noted that a great video game title can serve to keep the public interested in a film while the next sequel is in development.

The discussion of film character licensing led into a conversation about in-cinema advertising. It’s now possible to buy 30-second spots to be shown in theaters before the feature attraction. In-cinema advertising is significantly less expensive than television advertising, and it’s possible to target specific age groups in theaters. In addition, it’s possible to cross-sell a movie and game title during the same event – for example, the audience for *Matrix Reloaded* can view an advertisement for the game title, *Enter the Matrix*.

Consumer expectations are high when a prominent movie is made into a game title, and it’s important to meet or exceed those expectations. But there is a significant benefit to marketing a licensed game title, and it’s that the public is already aware of the brand. Sports titles, on the other hand, have more longevity than movie or comic book titles, because team rosters change and the teams play every year. Marketing these types of licenses is easier and not as time-sensitive as the others.

There is usually a minimum marketing spend clause in a licensing agreement; sometimes this clause also dictates specifics, such as when and where to spend the money. The panelists suggested that publishers try to make this clause as general as possible so they might guide their own marketing campaigns.

In addition to traditional marketing methods, the panelists suggested lifestyle marketing in consumer publications such as *Rolling Stone*, *Spin*, or *Maxim*, which are beginning to cover video game software as a form of entertainment. Radio advertising doesn’t work well, but radio promotion campaigns that drive traffic to retail sites are a great way to reach consumers. Television advertising reaches the broadest audience, but is also the most expensive form of marketing.

One of the least expensive marketing tools is the internet, where the fans will literally do the marketing for you. Fan sites let players communicate on a global level – and these influencers can drive sales. Link to these sites from your home page and have your team members go online to talk to the gamers.

The methods for marketing to hardcore gamers are well-established, but the broader market is harder to define. There are numerous categories just among casual gamers, making it hard to reach this audience effectively. It's a combination of traditional methods and creative techniques that best serves the marketing needs of developers and publishers at this point in the industry.

The Brave New World of Console Gaming: The Web Changes Everything

One of the first topics on The Brave New World of Console Gaming broached by moderator Daniel Sieberg, Technology Reporter at CNN/Headline News, was the issue of broadband versus dial-up. Several panelists agreed that dial-up offers an acceptable online gaming experience, but broadband increases the richness of that experience. John Smedley, President of Sony Online Entertainment, pointed out that dial-up is not an option when voice is being used as a component of the game title, and the discussion turned to the fact that it's a real challenge to perform real-time translation of multiple languages when using VoIP as opposed to keyboard text. Yet many players prefer to use VoIP rather than having to remove their hands from a controller or joystick long enough to type in text.

Smedley also talked about the subscribers for *Everquest* on PlayStation®2, noting that 60% of them are using dial-up to access the online game title. The panelists agreed that for the present time, the slow rate of broadband adoption is not affecting online gaming to much extent.

The discussion then turned to more general topics, such as the panelists' specific experiences with online gaming to date. Smedley discussed Sony Online Entertainment's efforts to attract new subscribers by mailing an *Everquest* demo disk to everyone who purchased Network Adapter for PlayStation®2, offering a free seven-day trial period for the online game title.

Sega is making a bigger commitment to online play, with over 20 online titles. According to Charles Bellfied, Vice President of Strategic Planning, SEGA of America, there are one million online consoles in North America.

Console game title publishers haven't truly embraced online gaming yet. There are many technical challenges and the infrastructure required for online gaming is significant and many publishers don't have the financial resources for such an undertaking – presenting a great opportunity for network solution providers such as Quazal, Butterfly.net, and Zona. The panelists suggested the console makers need to develop relationships with publishers to get them to bring game titles online.

Online gaming also requires a higher level of customer care. Skill levels have to be matched so players can enjoy the gameplay rather than find themselves annihilated instantly by more experienced players. PC and console gamers have to be kept separate because PC players can create cheats, ruining the gaming experience for console players. And in these early days of online gaming, there are always going to be technical issues that need to be resolved.

Episodic, downloadable content has yet to be embraced by the console game industry. The panelists pointed out that episodic releases allow for faster responses to the needs of players instead of making them wait up to two years for a sequel. The hope was expressed that the industry would turn to this model for online gaming.

The panel also discussed subscription models for online gaming – it is important to understand the customs of your audience. As an example, most teenagers do not have credit cards and have to have another means of paying the monthly fees. In some countries, monthly bank transfers are preferred over credit card billing. And “game cards” with prepaid amounts can be purchased at retail sites where the consoles and game titles are sold. Approximately 15% of the *Everquest* for PlayStation®2 subscribers use these prepaid game cards. Retailers can also share in the revenue generated by game cards.

There are many challenges to online gaming but the rewards are real and will continue to grow over time. Charles Bellfield of SEGA stated, “Online is a feature, not a genre,” putting the focus back where it belongs, on the quality of gameplay.

Game AI Update: New Ways of Engaging the Player

Artificial intelligence, or AI, makes a game environment believable. It lets creatures learn and provides a level of variety that can't be achieved by scripting. The panelists on the session Game AI Update at E3 were all designers and programmers with hands-on experience designing AI for video game titles.

AI is useful for much more than controlling the actions of characters within the story line. It can act as a foil to the player, creating an edge between what's safe and what's not. As Doug Church, Game Designer at ION Storm, pointed out, AI can be used to “create dynamic hazard in the environment.” It is also useful in managing action and economy within a world.

The panelists discussed how first-person shooters have presented two choices to players: either I'm going to kill you, or I'm not going to kill you. Having chosen the former, the player then makes a decision regarding which weapon to use. AI can be implemented to extend gameplay into more interesting realms, where player decisions are not so cut and dried. Jonty Barnes of Lionhead Studios spoke about an experience where players were accompanied by their own creatures within a game environment. These creatures were given the ability to learn each time the game was played, in order to provide continually fresh gaming experiences. An unexpected result was that the creatures began to learn that each time the player came near, they would be hit or hurt in some way as the player met enemies along the way. Consequently, the creatures would move to different areas of the game where they could stay away from the players and feel safe. Barnes' team had to resort to scripting to keep the creatures from seeking solace and calm.

Because there are certain events within a game which must be controlled, it is sometimes necessary to use scripting instead of AI, which a player could possibly use in order to cheat the game. Ideally, AI will learn the player's proclivities and step up to make the game more challenging each time it's played.

An effective AI program needs to consist of a bunch of smaller modules in order to ensure the utmost flexibility. This allows different actions within the modules whereby each can affect the other. If AI is designed as one large system, it limits the number of actions that can be exercised.

The biggest challenge facing artificial intelligence programming is the popularity of game titles such as *The Sims* and *Grand Theft Auto*, wherein the player wants to make the majority of the decisions about how the game title will be played. Designing game titles for the audience that wants to “play it the way they want” is going to be a goal for game title developers hoping to reach out to casual gamers.

Tap the High-Tech Pulse of Gaming

Moderator Chris Taylor, San Francisco Bureau Chief for *Time Magazine*, opened the wide ranging panel Tap the High-Tech Pulse of Gaming by asking each panelist to briefly describe the most innovative technology advance they envision for the near future. Kim Pallister, Technical Marketing Manager, Software Solutions Group of Intel, felt that home computing networks will advance to the point where myriad interconnected household devices will play movies, game titles and music. David Perry, Founder and President of Shiny Entertainment, gave a response pertaining specifically to the games industry, and his vision was one wherein characters will be created and stored as mathematics in order to be completely scalable.

Fred Swan, Director of Marketing with Logitech, envisioned a future of high-speed global networking, where millions of people will be connected via PDAs, home computers, consoles, etc., and distributed computing across all these devices will lead to much more powerful computing. Nihilistic Software’s Director of Technology, Robert Huebner’s view was somewhat similar: networked consoles, televisions and a number of other devices.

This vision of a completely networked world brought the discussion around to the fact that music is drifting across platforms – it can be played on your home computer, portable MP3 player, traditional stereo or boom box, or Discman – but what about game titles? Will the consumer be able to purchase a game title that can be transported from one platform to another, so play can continue in transit or in other rooms of the house?

The panel also addressed issues relating to the game title development process vis-à-vis technology advances. Perry talked about a visit to the Massachusetts Institute of Technology where he learned about their research into providing long-term memory and common sense for game characters. Pallister stated his opinion that adding emotion to an interactive medium will be a significant challenge.

A discussion ensued about the relationship between feature films and video game titles. Photorealism is an important part of the 3D visual effects created for movies. Should game titles attempt to achieve the same level of detail? The panelists concurred that gamers are not interested in reality, but an alternate reality, and therefore it isn’t necessary to take advantage of the same technological advances. And in movies the audience is expected to empathize with the protagonist, an essential connection that has yet to be explored in game

title development. Can game title developers use empathy to enhance game play and thereby increase the popularity of a game title? This is a question that was left unanswered by the panelists, but developers wishing to reach a more mature gaming audience (see related article) might want to consider this option.

Another technology advance covered mapping players' faces onto game characters. The panelists concurred that previous attempts at this have not been entirely successful, but they are encouraged by the introduction of EyeToy™ for PlayStation®2, which was very popular on the show floor.

Finally, the panelists were asked to give their prognostications for game title development by the year 2010. Huebner said he feels game titles will be more convincing, with a visual convergence between PC game titles and console titles. Perry's view of 2010 is that graphics will be much better – they won't just look better, the improvements will be more substantial. Fantasy will be making a big comeback, and more celebrities will be involved in licensing and fantasy worlds. Gamers will want more freedom of play, as is currently available in *The Sims*. Swan felt there will be a marked increase in interactivity. Game titles will use high-definition displays and the resolution will need to increase accordingly. We'll see artificial intelligence used to create characters that become aware of you when you're in the vicinity of the console, and beckon you to begin playing. And Pallister stated that game titles will gain recognition as an artistic medium, ranking with novels and film in the eyes of the public.

Technology developers frequently have specific ideas of how their technology will be used. Because the game title development community is so imaginative, however, the ways they use this technology are frequently much more creative than originally planned. So although the requirements of game title development do serve to spur technology advances, many times those advances are kicked up a notch when game title developers get their hands on them, to the benefit of both sides

Sony Computer Entertainment America Booth Tour



One of the highlights of the Sony Computer Entertainment America booth was the demonstration of EyeToy™. The USB camera allows the user to control game play through gestures. The device also projects the player's image on the screen so they can see themselves as they are interacting with the game software. The company says users will also be able to record video messages using the camera and the Memory Card on PlayStation®2. Attendees lined up at the demo stations to try their hand at the sample game software that will be provided with the device at launch.

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There was no shortage of game software on display in the booth with a flurry of announcements from first and second party developers.

989Sports

989 Sports launched *NFL GameDay™ 2004* with online play and enhanced animation and graphics for spectacular new detail including new lighting and textures in stadium models and interactive crowds to enhance game play. The game software also boasts enhanced artificial intelligence to allow the computer to “think” like real pro football players. The playbooks have been completely redesigned to allow the gamer to use a variety of plays. 989 Sports announced that several of its popular sports game titles will be online enabled including *NBA ShootOut 2004*, *NCAA® GameBreaker® 2004*, and *NCAA® Final Four® 2004*.



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Polyphony Digital

Several of the most popular franchises on PlayStation®2 had sequels announced at the show. *Gran Turismo 4* is enhanced with more cars, sources, race modes and online game play. Polyphony Digital, Inc. developed *Gran Turismo 4* with an all new physics engine which the company says provides near realistic racing simulation.

Square Enix

Square Enix announced *FINAL FANTASY XI* with online game play. It is the first in the Final Fantasy series to have online game play. The *FINAL FANTASY XI* has incorporated many communications tools including chat and messaging systems to assist in interaction between

players.

Sony Computer Entertainment America

Sony Computer Entertainment America announced its first internally developed game software *Rise to Honor*™. The game software is based on the Hong Kong action movie genre and stars Jet Li. Li provides voiceover for the game software's main character and, using motion capture technology, the game software recreates Li's signature moves. The game software incorporates a 360 degree martial arts fighting system which allows gamers to battle enemies in any direction simultaneously.



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Sony Computer Entertainment America launched the new installment of *Syphon Filter* at the show. *Syphon Filter: The Omega Strain* will hit the market in the winter of 2004 exclusively for PlayStation®2. The newest version has added peer-to-peer game play allowing up to four players, plus an innovative character customization feature, new features and weapons, and larger and more richly detailed international environments.



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Insomniac Games

The creators of the extremely popular *Spyro* series, Insomniac Games, were back at the Sony Computer Entertainment America booth this year with the second offering in the new *Ratchet & Clank* series. *Ratchet & Clank: Going Commando* follows on the critically acclaimed original *Ratchet & Clank* introduced at last year's E3.

This version offers new challenging elements including experience-based character growth,

upgradeable weapons and armor, a more dynamic economic system and unique game play modes including gladiatorial arenas, space combat and “spherical worlds”.

Zipper Interactive

Not only was Zipper Interactive on hand to discuss the development of *SOCOM: U.S. Navy SEALs*, the company also introduced its sequel to attendees, *SOCOM II: U.S. Navy SEALs*. Building on its existing base the game title features all new game play, incredibly detailed graphics, increased chat and online functionality, unique mission types, additional weapons and communication (voice and text chat) improvements.

Incog, Inc.

Incog, Inc. announced the summer release of *Downhill Domination™*. The game title is playable in both the first and third person perspectives with 14 available riders including five pro riders, three unique course styles and 27 track designs. Players can choose from five different multiplayer modes allowing up to four players to race simultaneously. The game title also features music from many genres including alternative, punk, hip-hop, techno and classic rock.

Case Studies

Performance Analyzer for PlayStation®2: Burnout 2: Point of Impact

Criterion Games felt strongly that a 60 Hz frame rate was necessary for its *Burnout 2: Point of Impact* title for PlayStation®2 and was faced with the challenge of extracting as much performance as possible from its code in order to include all the details and features envisioned by the artists and designers on the development team. The solution, according to senior lead programmer Richard Parr, was to use Performance Analyzer for PlayStation®2 in order to pinpoint bottlenecks in the code and identify areas of untapped performance.





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Criterion Games first used Performance Analyzer for PlayStation®2 during the development of the initial release of *Burnout*. That limited exposure convinced the development team they could achieve significant performance improvements for *Burnout 2* – increasing the texture throughput by a factor of three, and making more use of VU0 allowing considerably better physics and artificial intelligence.

Parr stated, “Without the Performance Analyzer (for PlayStation®2) we certainly would have found that achieving the results we did with *Burnout 2* would have taken a huge amount of extra effort.”

Parr’s team found Performance Analyzer for PlayStation®2 very easy to use because of their in-depth knowledge about the PlayStation®2 hardware. And for those game software developers who might not have such a depth of knowledge, says Parr, “Sony Computer Entertainment Inc. can and will provide enough support to make sense of the results you get out of Performance Analyzer (for PlayStation®2), and that really helps you understand the issues involved with getting the maximum performance from your code.”



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During the development of *Burnout 2* Criterion Games used Performance Analyzer for PlayStation®2 at its Sony Computer Entertainment Europe facility because it was the only option available. However, the company purchased its own Performance Analyzer for PlayStation®2 once the tool was made available to game software developers. The team finds itself running more code now that it has the tool in house, leading to even more performance improvements. And the sophistication of PlayStation®2 platform, combined with the advanced capabilities of Performance Analyzer for

PlayStation®2, has produced some very interesting results for Criterion Games.

“With *Burnout 2* we achieved some very impressive results in terms of graphical quality and some great special effects like our specular bloom, but Performance Analyzer (for PlayStation®2) has taught us that there is plenty more performance to be extracted from PlayStation®2 yet,” stated Parr. He went on to say that any developer who’s serious about creating high-quality game software for PlayStation®2 should, without a doubt, be using Performance Analyzer for PlayStation®2.

Playlogic



Cyclone Circus



Airborne Troops

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Playlogic's *Cyclone Circus* for PlayStation®2 is set in the year 2078, and the oceans have risen dramatically due to global warming. Resulting increased wind velocities are at the heart of the game title as players attempt to master wind propelled, high tech vehicles. The goal is to achieve maximum speed and perform stunts by taking advantage of the physics of both the vehicle and the wind.

Cyclone Circus was developed using Metrowerks' CodeWarrior, Criterion's RenderWare, and Firelight Technologies's FMOD, an audio library that supports multiple file formats, 3D sound, surround sound output, DSP processing, and IOP based software mixing for extended audio storage capability. The arcade racing game title is scheduled for release in the fourth quarter of 2003.

"The profiler is a strong asset for our development team in our production process, and the Code Coverage brings structure for our programmers and gives a clear overview of the coverage," said Rogier Smit, managing director of Playlogic's in-

house studio about CodeWarrior. "The RenderWare platform helps us face and overcome complex challenges in our graphical production process and seriously cuts down our time-to-market, maximizing our opportunities and reducing our costs."

Criterion's RenderWare graphics engine was also a key component in the creation of *Airborne Troops*, developed by Widescreen Games and published by Playlogic. This action-adventure game title for PlayStation®2 takes place during World War II. With the Sergeant at the helm of the plane, two secret agents are dropped behind enemy lines, but one is injured in the process. As a result, the stealth missions are in jeopardy. The player takes on the persona of the Sergeant and has to complete the missions, which are based on actual events recreated from historical documents.

The enemy can detect the player's presence through either sight or sound, creating an atmosphere where stealth is of the utmost importance. *Airborne Troops* is scheduled for release in the fourth quarter of 2003.

Game Titles with Tools & Middleware Technology



Criterion Renderware

BAM!Entertainment

Founded in 1999, San Jose-based BAM! Entertainment, Inc. develops and publishes interactive entertainment software worldwide and has such established franchises as *Reign of Fire*, *WipEout Fusion*, and *Way of the Samurai* on PlayStation®2. At E3 BAM!Entertainment was previewing *Ice Nine* for PlayStation®2, scheduled for release in September 2003.

In this first person shooter, the player acts as a covert CIA operative attempting to thwart the theft and deployment of the deadly Ice Nine virus, which can travel over common power lines to cripple the power grid of any city. Unique weapons include a PDA that not only provides valuable information to the player, but can be used as a taser.

Ice Nine was developed by Torus Games using Criterion's RenderWare graphics engine and physics. It features 12 levels and allows the gamer to play as the traitor if so desired, with multiple endings that depend on mission objectives and the player's activities throughout the game title.

Spark

Spark is a newly formed studio comprised of developers with experience on the *Medal of Honor* series. In their latest effort being published by Activision, *Call of Duty: Finest Hour*, the latest in the Call of Duty series, players are again taken back to the World War II battlefield.

Developed using Criterion's RenderWare, this version features what the company calls a unique story line and a series of missions which are squad based. Players can fight for an alliance of different countries. *Call of Duty* is scheduled to launch in 2004.

Havok Physics Engine



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Mind's Eye

Published by Empire Interactive and developed by Mind's Eye, Havok's physics engine technology and Criterion's RenderWare 3.3 were used to bring one of American pop culture's icons back from the 1970s. In *Starsky & Hutch*, which is based on the hit television show, players must create episodes for the TV series that keep ratings high and get new episodes ordered.

Single player and two player modes allow cooperative play where driving and shooting must be done cooperatively.

Edge of Reality

Published by Activision Publishing, Inc. and developed by Edge of Reality, *Pitfall Harry* also uses Havok's physics technology. Harry is a fearless explorer on an expedition when his plane goes down over the jungles of South America. As he attempts to save his group, he encounters natives, ancient ruins, tons of enemies and even his arch rival. Harry must find the treasure, return the ancient artifacts to their rightful owner and save the day!



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Paradox

As art imitates life imitates art Paradox has brought backyard wrestling out of the shadows in *Backyard Wrestling: Don't Try This at Home*. Published by Eidos, this game title takes a new angle on the professional wrestling genre.



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In this "anything goes" version of wrestling, grab anything you like and try to beat your opponent. Developed using Havok's physics engine, the title includes various devices such as stop signs, barbed wire, light bulbs, etc. to use on your opponent. The title includes what the company calls an innovative damage model that shows the damage to both players

and opponents.

Midway Games

Set to launch in the fall of 2003 *ESPionage* is a psychic thriller developed by Midway games using Havok's physics engine. As an elite American forces soldier the player must use their psychic powers such as telekinesis, pyrokinesis, mind control, remote viewing, mind drain and aura view to defeat a group of psychic terrorists bent on overthrowing the world.

In addition to psychic weapons the player also has access to traditional weapons such as handguns, automatic weapons, rifles and grenades. Combining the two powers creates an "extraordinary and powerful game play dynamic" according to the company.



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