

# THE WAY

**It's Meant To Be Played**

Ultimate PC gaming with GeForce FX

# XIII

**The hard cel**



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Noir&DARCAUD BENELUX, (DARCAUD-LOMBARD), BRUXELLES, 1984 by Vance & Van Hamme





# Bring the games to life

NVIDIA is committed to delivering blistering performance and incredible visuals, and making PC gaming as easy as possible. This is the way it's meant to be played...

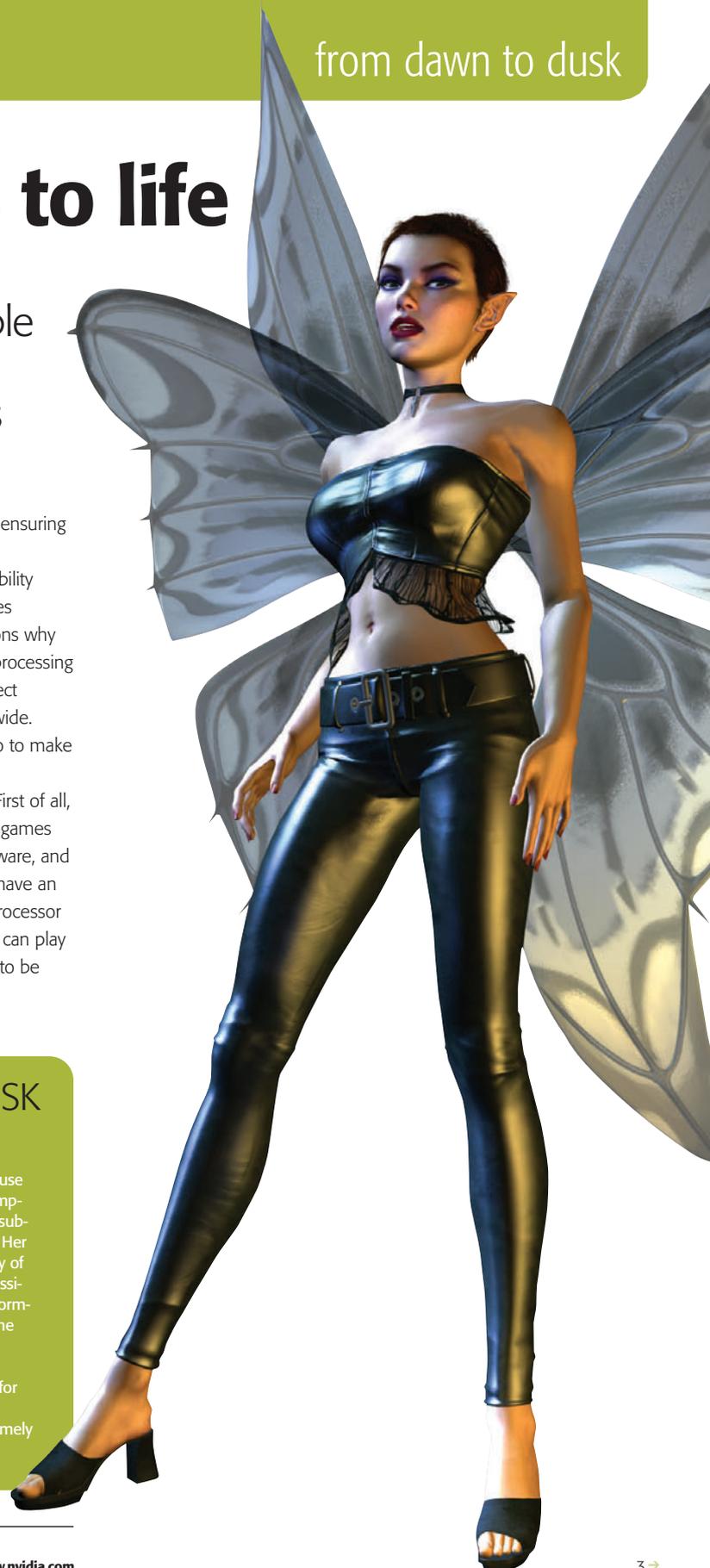
**T**he 'NVIDIA: The Way It's Meant To Be Played' (TWIMTBP) programme is a collaboration between NVIDIA, NVIDIA's hardware partners, and the world's finest game developers and publishers, and is designed to give consumers the ultimate out-of-the-box experience.

NVIDIA works directly with game creators, providing the hardware and software tools that make it possible to create compelling game content, such as realistic life-like characters and breathtaking cinematic environments.

With NVIDIA's Unified Driver Architecture, the gold standard in the industry, NVIDIA also tests and works with game developers to optimise their

games for NVIDIA's hardware, ensuring consumers benefit from full compatibility, stability and reliability when playing the hottest games today. It's one of the key reasons why NVIDIA® GeForce™ graphics processing units (GPUs) provide the perfect platform for PC gamers worldwide.

So what do you need to do to make sure you get the ultimate 'install-and-play' experience? First of all, look for the TWIMTBP seal on games and NVIDIA-powered PC hardware, and secondly, make sure that you have an NVIDIA GeForce FX graphics processor powering your PC, so that you can play games the way they're meant to be played.



## NVIDIA TECHNOLOGY DEMO: DUSK



Dawn ushered in the dawn of cinematic shading with the introduction of the NVIDIA® GeForce FX family of GPUs. Now, her twin sister Dusk shows us what's possible with the GeForce FX 5900 series of GPUs.

An urban, moonlit street is Dusk's stage as she relaxes to music outside a club. She dances to the beat, getting the attention of her nocturnal friends of the forest, who join her before flitting into the night.

Dusk's skin is a custom fragment shader that includes shadowing, diffuse and specular colour, bump-mapping, plus a simple subsurface scattering effect. Her hair is comprised entirely of geometry and is only possible due to the high-performance vertex shaders of the GeForce FX 5900 GPUs.

Together, vertex and fragment shaders allow for an anisotropic lighting model, resulting in extremely realistic hair.



## NVIDIA reinforces its leadership of the GPU market with two new high-performance additions to the GeForce FX family.

**W**ith the arrival of its GeForce FX GPUs, NVIDIA introduced the technology and tools that enable games developers to create a new generation of graphically advanced games software. Now, with the launch of the GeForce FX 5700, GeForce FX 5700 Ultra and GeForce FX 5950 Ultra GPUs, NVIDIA's takes graphics performance to new levels.

Making use of faster clock rates (courtesy of 0.13 micron process), AGP 8X and true 128-bit precision through the entire pipeline, the GeForce FX 5700 and GeForce FX 5950 Ultra GPUs

process floating-point shader operations twice as rapidly as in previous GPUs. Microsoft® DirectX® 9.0 optimisations have also been implemented, alongside complete support and compatibility for the OpenGL® 1.5 API.

The new GPUs also introduce the NVIDIA® CineFX™ 2.0 engine, which offers increased horsepower as well as more advanced pixel and vertex shader control for a range of ever more complex effects. NVIDIA® UltraShadow™ technology, a system for enhancing performance of bleeding-edge titles that rely on

complex shadowing, also comes as standard. And with second generation NVIDIA® Intellisample™ high-resolution compression technology, the GPUs remove the jagged edges using easily the industry's fastest anti-aliasing techniques.

Expanding on the foundation of the NVIDIA Unified Driver Architecture, the GPUs also embrace the new NVIDIA® ForceWare™ unified software environment (USE), which delivers the industry's highest visual quality and performance to GeForce GPUs, while enabling users to take advantage of cutting-edge technologies like HDTV and DirectX 9.0 ForceWare's robust set of display and desktop management utilities allow users to customise their Microsoft® Windows® desktop. Forceware also ensures the delivery of a compelling out-of-the-box experience for the user, by utilising just one driver for all products, which continually benefits from performance and feature updates.



■ The newest members of the GeForce FX family – the GeForce FX 5950 Ultra and GeForce FX 5700 GPUs – takes graphics performance to new levels.



Dominate your games with the power of the NVIDIA GeForce FX 5700 GPU. Powered by the advanced NVIDIA CineFX 2.0 engine and backed by NVIDIA® ForceWare® unified software environment (USE), the GeForce FX 5700 delivers high-performance, cinematic gaming experiences, unmatched features, and an absolutely rock-solid stability so that you can play your game 'The Way It's Meant To Be Played'.

## NVIDIA GeForce FX 5700



- Utilises advanced memory technology, including DDR2.
- Delivers 3x the vertex processing power over previous generation.
- Delivers 2x the floating-point pixel shader power.
- NVIDIA CineFX 2.0 engine.
- NVIDIA Ultra-Shadow technology.
- NVIDIA Intellisample high resolution compression.
- NVIDIA ForceWare software for unmatched features and stability.
- Microsoft DirectX 9.0 and OpenGL 1.5 support.

## NVIDIA Demo: Last Chance Gas



■ These are stills taken from the *Last Chance Gas* station demo.



■ The light and shade plays on the building creating amazing depth.

Equipped with a GeForce FX 5950 Ultra, interactive real-time cinematic effects can be seen for the first time at the *Last Chance Gas* station.

Watch the sun rise and set over the desert landscape and gas station. Walk around and practically feel the heat shimmer off the abandoned roadway, and the glare of the sun flare out over the pools of shadow with true-to-life shadow and lighting effects. Observe the volatile sky as it brightens, changes colour, and fades with the movement of the sun, and look for the changing shapes in the clouds.

*Last Chance Gas* features procedural sky, with a fragment

shader used to describe the light based on sun position, haze, and other environmental factors. The high-performance fragment-shader pipeline and vast amount of texture memory also allow for a new level of detail and realism, so objects remain realistic even upon close inspection. And a more realistic lighting environment is created using global illumination combined with soft shadows.

These effects are truly providing cinematic quality visuals, the like of which have never been seen. In turn, the GeForce FX 5950 Ultra delivers the most immersive gameplay ever experienced.

Alongside their formidable 3D capabilities, the two new GPUs also offer standard-setting display feature-sets and performance. Dual 400MHz RAMDACs support dual QXGA display at resolutions up to 2048x1536 and refresh rates to 85Hz. There's DVI support for flat-panel displays up to 1600x1200 resolution, plus television output up to 1024x768 resolution via an integrated TV encoder. Video facilities include full-screen, full-frame rate hardware MPEG-2 decoding and DVD scaling up to HDTV resolutions.

Crucially, the FX 5700, FX 5700 Ultra and FX 5950 Ultra are also architected so game developers will be able to create and implement cutting edge special effects faster than ever before. The way it's meant to be played has never been a more appropriate mantra. And as you read through the rest of this magazine, you'll see how this ethos is being used to create some of the most amazing, original and innovative gaming experiences that have ever been seen on any gaming format. So, let the games begin...



### Demo: Vulcan

The GeForce FX 5950 Ultra GPU turns up the heat in this technology demo. Vulcan, the god of fire, toils at his anvil forging the metals of the earth when one of the sparks of his forge takes flight. Angered, Vulcan attempts to crush the annoyance but it's too quick. He chases it all around his sanctuary to no avail, as he's too slow to vanquish the pest. Tired and dizzy, Vulcan makes one last attempt to get rid of the pest, but he is overcome with fatigue and he begins to fizzle out.

The demo features realistic fire, smoke and glow, using volumetric texturing and render-to-texture techniques. Next-generation lighting and shadowing with multiple light sources add further visual drama, while Vulcan himself is amazingly created using a true Blinn phong shader.



The NVIDIA GeForce FX 5950 Ultra GPU fires up gaming, delivering blazing speeds and ultra-high resolutions for next-generation games. Built on a proven state-of-the-art architecture and backed by the NVIDIA ForceWare unified software environment (USE), the GeForce FX 5950 Ultra delivers cinematic effects, unmatched features, and rock-solid stability so you can play your game the way it's meant to be played.

## NVIDIA GeForce FX 5950 Ultra



- 256-bit memory bus for increased memory bandwidth.
- Supports up to 256MB.
- NVIDIA CineFX™ 2.0 engine.
- NVIDIA UltraShadow technology.
- NVIDIA Intellisample high resolution compression.
- NVIDIA ForceWare software for unmatched features and stability.
- Microsoft DirectX 9.0 and OpenGL 1.5 support.



## Case study: Unreal Tournament 2004

**Publisher:** Atari  
**Developer:** Epic Games and Digital Extremes  
**Release:** December

For a way to measure exactly how fast PC gaming has advanced over the last four years, look no further than the *Unreal Tournament* series. The first in this spin-off series appropriated the game engine utilised by *Unreal* in the pursuit of multiplayer nirvana. Then came the 2002 edition. Boasting rather more than a lick of paint, its character models, lavish landscapes and luminous weapons' effects looked good enough to eat.

Now, a mere year later, along comes *Unreal Tournament 2004*. A quick cash in? Not a bit of it. "Many people that have played early versions of the game have commented to me that they really believe that the enhancements in *UT2004* have totally captured the *Unreal Tournament* 'feel,'" enthuses Mark Rein, Vice President of Epic Games.

It's also worth noting that Epic has always been committed to pushing the *Unreal* engine ever onwards. Thus, this latest model presents something of a quantum leap, fully capitalising on GeForce technology. "We've got new weapons effects, new



■ *Unreal Tournament 2004* may well boast the most beautiful and detailed game world ever seen on the PC.

death effects, some new weapon models/skins, a new user interface with underlying improvements to make it easier for mod makers, several new character models, some awesome new static mesh sets and much more," adds Rein.

*Unreal Tournament 2004* may well boast the most beautiful and detailed game world ever seen on the PC, such is the combined beauty of the many engine effects, the glorious texture work and the multiple, volumetrically lit particle systems. Harnessing GPU power so effectively while giving the CPU something to

chew on, with the highly realistic Karma Physics engine, *UT 2004* is more than just a multiplayer fragfest.

But then it does look set to perform very well on that score, too. Thanks to the inclusion of buggies, tanks and even aircraft, this promises to take the first-person shooter in a whole new direction. It might also mean big bucks for one lucky Mod creator, with news that the \$1,000,000 NVIDIA Make Something Unreal Contest is to accept *UT2004* entries.

**To find out more, visit:**  
[www.makesomethingunreal.com](http://www.makesomethingunreal.com)



**Publisher:** Take 2  
**Developer:** Illusion Softworks  
**Release:** Out now



■ GeForce power forms the driving force behind the much-awaited sequel to *Hidden and Dangerous* from Illusion Softworks.

## Hidden and Dangerous 2

**S**equelling a hit game is never easy, but for Illusion Softworks the stakes are undoubtedly higher than usual. Back in 1999, the original million-selling *Hidden & Dangerous* provided the blueprint for every squad-based combat game that followed. How, then, to top the seminal original game? It seems as though the developer's response has sensibly been to simply dig in and work hard on improving everything that made the original so irresistible. To this end, there are more than 20 mission-features this time around, encompassing the Arctic wastes, the Libyan desert and pretty much every potential all-terrain flashpoint in between. In addition to these vast incremental improvements to existing ideas though, it's the completely new game engine that rightly takes pride of place. Taking full advantage of GeForce power, it has an astounding breadth of detail that encompasses everything from motion capture-animated characters, to detailed and physically accurate weapons and vehicle modelling.



■ *Broken Sword* returns, and employs the Virtual Actor Engine in its pursuit of a new gaming genre.

## Broken Sword 3: The Sleeping Dragon

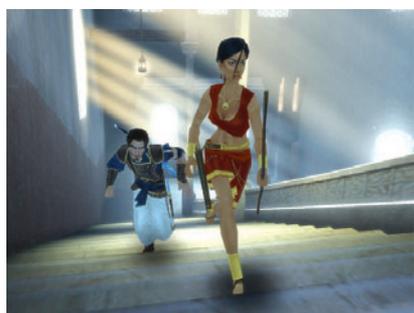
**R**evolution was – quite rightly – long regarded as the UK’s finest creator of point-and-click adventure games. But times change, and point-and-click is no longer where it’s at. Revolution’s defiant response has simply been to completely re-invent the videogame storytelling technique. This, the third episode in the multi-million selling *Broken Sword* series, is the impressive result of that approach.

“*Broken Sword: The Sleeping Dragon* fuses exciting gameplay with a radical new ray-tracing graphic engine, resulting in a fully 3D game that looks and feels unique,” explains Revolution’s Charles Cecil. Notably, it’s also a game that places much emphasis on characterisation. The 3D environments aren’t merely rendered, they’re actually choreographed using Revolution’s proprietary Virtual Actor Engine. The impressive results are full facial animation, a movie quality script, and quality voice acting, all of which further add to the cinematic production values of the game.



Publisher:  
Developer:  
Release:

**THQ**  
**Revolution**  
**Out now**



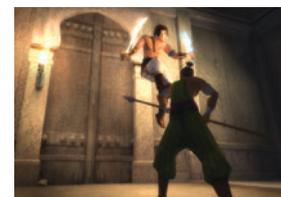
■ Physics effects add animation to clothing and hair – note the female character’s fringe as she runs up stairs.

## Prince Of Persia The Sands Of Time

**T**he very first *Prince Of Persia* ushered in a new era for computer game animation, so it’s highly appropriate that this new version of the title should work so hard to harness the potential of GeForce technology.

“We chose NVIDIA GeForce FX as the development platform for the project because it has the best DirectX 9 support, compatibility and performance in the market,” explains Steve Dallaire, 3D programmer at Ubisoft Studios, Montreal.

Blessed with an environment in which almost everything visible is interactive, and an athletic hero whose combat moves are informed by martial arts stars, *Prince of Persia The Sands Of Time* promises to deliver a cinematic experience par excellence. Advanced animation blending provides the characters with grace; physics effects add animation to hair and clothing; and cool lighting bathes scenes in a suitably exotic atmosphere. Finally, multiple camera options afford a great view of this fine detail.



Publisher:  
Developer:  
Release:

**Ubisoft**  
**Ubisoft Studios**  
**November**



■ Strategy gamers need no longer put up with substandard visuals in the wake of *Silent Storm*.

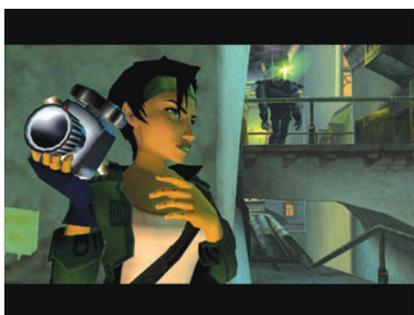
## Silent Storm

**W**hile the rest of the gaming world embraces the advances in graphics technology with gusto, strategy gamers have all too often been lumbered with visually substandard fare. *Silent Storm* doesn’t simply buck the trend, it transforms the turn-based genre into a thing of beauty. That it utilises full 3D environments, with open battlegrounds and multi-level building environments, is notable enough. Add to that though, the fact that the FX pipeline is also harnessed to render per-pixel, depth-based shadows and real-time specular, gloss and environment maps. Even soldiers’ models are impressive, with each character using skeletal animation and inverse kinematics. Meanwhile, fully deformable geometry makes it possible to blow entire building sections to pieces, a visually astonishing feature that gives *Silent Storm’s* World War II-based action limitless tactical possibilities. *Silent Storm* should completely revolutionise the way developers approach strategy games in the future.



Publisher:  
Developer:  
Release:

**Bigben**  
**Nival Interactive**  
**Out now**



■ Heroine Jade epitomises the ultra-stylised look that Ubisoft has developed for *Beyond Good & Evil*.

## Beyond Good & Evil

**F**our years in development, *Beyond Good & Evil* comes from the fertile imagination of Michel Ancel, creator of the award-winning *Rayman* series. The game is aimed at a far more adult audience than Ancel’s previous platform hero though. An epic in every sense, it depicts a futuristic world in the grip of a war with an alien race, and the efforts of heroine Jade to get to the bottom of a horrific conspiracy with potential global consequences. Blending high drama with ultra-stylised cartoon visuals, *Beyond Good & Evil* looks to possess many distinct and original qualities.

The characters, including Jade and sidekicks Pey’J and Double H, look every inch as good as those in an any animated movie, while the fantastical environments are stunningly rendered using the Direct X9-powered JADE game engine. Cinematic yet truly interactive, idiosyncratic yet marvellously appealing, *Beyond Good & Evil* has the potential to become a modern classic.



Publisher:  
Developer:  
Release:

**Ubisoft**  
**Ubisoft Studios**  
**November**

# The way it's meant to be played

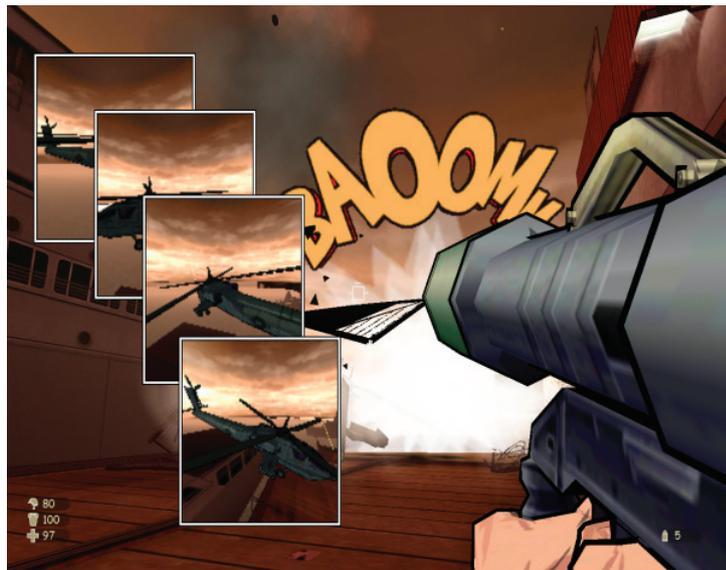


Publisher: **Ubisoft**  
Developer: **Ubisoft France**  
Release: **Out now**

## XIII

Ubisoft's goal was to construct an interactive comic book. It worked.

**V**ideogames based on comic books are, of course, nothing new. But the tradition has always been to take the characters and basic storyline, then quietly ignore the visual tone of the original material. *XIII* is different. With this game Ubisoft hasn't merely set out to create a game based around a comic book. Rather, the goal has been to construct an interactive comic book, one that mirrors the episodic nature of the source material with its sleek conspiracy theory-fueled



■ *XIII* is a superb original blend of comic book style, with exciting cinematic experience.

story and with cartoonish cel-shaded visuals that appear at once hand-drawn and finely detailed.

Though gamers may not be familiar with the original comic books by Jean Van Hamme and William Vance, they've been massively popular in Europe since the first episode was published back in

1981. The original authors provided support and approval throughout the development of the game, ensuring it remained true to their original vision.

"The game is based on the first five episodes of the series," explains Oliver Berteil, Game Manager for *XIII*. "The scenario has been slightly modified to

## Step Into The World Of XIII

The game begins as a man wakes on the beach. He has no memory, and no recollection of his past life. Only the numerals *XIII* tattooed on his chest and a key to a safety deposit box in one of New York's most prestigious banks give any clue as to his identity. But the assassins know. The men who come looking to finish the job they started know all about the mystery man. Fighting for his life, *XIII* takes the first steps on a journey that will lead him to that safety deposit box, see him accused of the murder of William Sheridan, the 43rd President Of The United States, and fleeing New York cops, government agents and those relentless assassins. Discovering he has the reflexes of an elite commando, *XIII* is able to survive, for a while at least. But it's only when he comes into contact with a

young female officer named Major Jones, and learns of the enigmatic General Carrington, that *XIII* can finally start to put all of the pieces of the puzzle together. And so starts a final battle for truth, justice and the safety of the United States itself.

For the telling of *XIII's* epic, involving and twist-laden storyline, Ubisoft opted to bolster the innovative graphical novel presentation with cinematic character work. And in the search for quality voice acting they then turned their attention to Hollywood stars. "Ideas popped up from both production and marketing sides, then we tried to recruit the stars," says Oliver Berteil, Game Manager for *XIII*. "It wasn't easy!" he adds.

Searching for a suitably laconic actor with an appreciation of conspiracy

theories they finally settled on David Duchovny, of *X-Files* fame.

"*XIII* isn't like any videogame I've ever seen," says Duchovny. "It plays like a suspenseful movie with a conspiracy-ridden storyline filled with enough twists and turns to keep everyone guessing. Players are in for a lot of surprises; things are not what they seem, making for good drama and a great game."

The sexy and sassy character of Agent Jones provides a strong contrast to that of *XIII*. Her role ultimately went to Eve, best known as a rapper, but also an accomplished actress with roles in *Barbershop*, *XXX*, and her own new sitcom. It marks the first time she has lent her talents to a videogame. "*XIII* is a true original, the most stylish game I have ever seen. When I saw the game, I



■ There is a distinct style to the graphics in *XIII*, which gives it a very strong brand identity.



■ *XIII* has been described as one of the most innovative and clever game of the year.

suit a videogame adaptation, but everything has been approved by the original author of the series. The main plot and all the major characters of the comics will be in the game."

The notion of using a first-person action format for *XIII* flowed naturally from the source material. "The strong and lonely hero at the centre of the story quickly led us to the first-person shooter genre," says Oliver.

A better example of advancement in graphics technology being used to deliver enhanced gameplay is hard to imagine.

The team responsible for the PC version of *XIII* includes Ubisoft stalwarts Julien Bares, David Fournier, Nathalie Moschetti and Eric Provost. Between them they've worked on such graphically inspiring titles as *Tonic Trouble*, *POD* and *Dinosaur*. For *XIII* they chose to build around the *Unreal II* technology, which itself makes great use of the GeForce FX pipeline. *XIII* then adds its unique graphical spin with the

clever and original use of cel shading techniques. For Bares it was a rewarding experience. "Working with NVIDIA on our specific technique made things a lot easier, you have several ways to program a cel-shading game, only one to make it look good and play good. The capacity of their last video chips and the support of the NVIDIA team is great when you want to make a game which is nice *and* fun."

The depiction of characters, objects and environments using strong lines and brushstroke edge details gives *XIII* an organic appearance quite unlike anything that's come before. Pop-up windows also aid the storyline and gameplay elements with stunning originality.

"The vertex shaders on NVIDIA video cards provide the perfect technology for the cel shading," says Olive Berteil. "And to reflect a comic book style, *XIII* also uses the render-to-texture capacity of NVIDIA's technology to display real-time pop-up windows." It works to perfection.



■ There is an amazing 3D feel to *XIII* despite looking like 2D at first sight.



■ Detailed cel shading was possible due to NVIDIA vertex shaders.



■ Adam West's involvement is ironic, given the graphical similarity of the game to the *Batman* TV series of the 60s.

knew I wanted to be involved. My character, Jones, is a strong, sexy female with attitude. My fans will easily relate her to me."

And then there's Major Carrington. This hard-nosed military man, whose role is pivotal to the *XIII* story, is voiced by none other than Adam West, the star of countless movies, though still best known for his iconic



■ Killing the President of America was always likely to lead to some FBI involvement...

role as *Batman*. For West the technology may be new, but he clearly felt right at home.

"*XIII*'s visual style is extremely eye-catching. The game's comic text and pop-up windows are similar to elements we used with the *Batman* series to stay true to the comic. In *XIII*, it builds this graphic-novel world to the last detail."

# The way it's meant to be played



Publisher: **Vivendi Universal**  
Developer: **Rebellion**  
Release: **Out now**



■ Rebellion brings the 22nd century law enforcer into the 21st century with stunning graphics, and a loving attention to the detail of the comics.

## Judge Dredd: Dredd vs Death

It's hard to imagine a safer guardian for the well-loved comic strip law enforcer. Not only was Rebellion responsible for the superlative *Aliens Vs Predator* a few years back, it also actually owns comic *2000AD*. Clearly this first-person action game is a labour of love. "We were very keen from the outset that we should attempt something out of the ordinary that didn't look like a run-of-the-mill videogame," explains Rebellion co-founder Chris Kingsley.

High-poly character models are further enhanced by the custom Asura engine using colour light sources for character hue, and rim lighting effects with dynamic texture layers to simulate shine. The Rebellion team finally tweaked character animations by hand, to give them a suitably stylised appearance. Asura is also adept at handling complex environments, so the designs were able to go to town on the depiction of Mega City One. "Overall, the city layout is definitely consistent with the comics," reveals Kingsley. It's a fittingly state-of-the-art treatment for the 22nd century law enforcer.



Publisher: **Electronic Arts**  
Developer: **Headgate Studios Inc**  
Release: **Out now**

## Tiger Woods PGA Tour 2004

Watching how Electronic Arts' sports franchises evolve from one year to the next is an amazing spectator sport in itself. A more accurate barometer of the changing face of PC graphics technology is hard to imagine. One of the elite games boasting 'The Way It's Meant To Be Played' status, *Tiger Woods 2004* demonstrates just how quickly things have progressed in the last 12 months. Most notable are the environment enhancements. A new terrain system, better light sourcing for trees, a dynamic debris system, and vegetation rendering that depicts individual blades of grass, promise to make the range of courses an exercise in pure immersion.

The 15 PGA Tour Pros are also rendered with an increased attention to detail, looking more rounded and realistic than ever before. Beyond the enhanced looks, the game also boasts new courses, an expanded Career Mode, World Tour and Tournament modes, improved swing simulation, and even a new 3D soundscaping feature. *Tiger Woods* remains the clear leader.



■ Improved lighting effects give the trees greater depth, and individual blades of grass now move depending on the weather and your club contact.



Publisher: **Bigben**  
Developer: **Phenomic Studios**  
Release: **November**



■ Phenomic Studios credits NVIDIA with helping to make the development of *Spellforce* a 'fun experience'. The game can only benefit from that enjoyment.

## Spellforce

Many have tried – and more often than not failed – to successfully add a modicum of originality to the real-time strategy genre. That *Spellforce* is tipped to buck the trend might seem surprising. Phenomic Games isn't exactly a household name. Having said that, the team's *Settlers'* series is, as the many millions of loyal fans will attest, a sublime gaming experience. *Spellforce* looks to exhibit a similarly keen eye for detail, but this time the strategy has been spliced with innovative click'n'fight role-playing action. The game's massive pitched battles have also been brought to the screen using a powerful, versatile 3D system. Phenomic credits the studio's relationship with NVIDIA as crucial to developing such an ambitious project. "NVIDIA's support on all levels was exemplary and allowed our game to reach further than we had expected," says lead designer Volker Wertich. "It allowed development to become fun again." If developing the game was fun, then expect the playing experience to fully reflect that.



War-torn New York is portrayed with gritty realism with the help of NVIDIA's GeForce FX rendering pipeline. Oh, what a beautiful war, as they say.

## Freedom Fighters

Successful development of a title across both PC and console platforms remains a notoriously difficult trick to pull off, but *Freedom Fighters* ably demonstrates how the approach need not result in compromise. For, while squad-based combat games are nothing new on the PC, the arcade-style approach taken here gives *Freedom Fighters* an enviable degree of accessibility. It also helps that Io Interactive, the team responsible for the excellent *Hitman 2*, knows a thing or two about coding for the PC.

Graphically, the game wants for nothing. Beautifully gritty New York environments are further improved through high resolutions and increased draw distances. Meanwhile a full appreciation of NVIDIA's GeForce FX rendering pipeline ensures the third person battles rage on amidst ultra-realistic smoke, fire, rain, snow, and a highly impressive real-time lighting system. War may be hellish, but with Io Interactive calling the shots there's clearly no reason why it can't look divine at the same time.



Publisher: **Electronic Arts**  
Developer: **Io Interactive**  
Release: **Out now**

## URU: Ages Beyond Myst

With more than 12 million combined sales, the *Myst* series is assured a place in videogaming history. With *URU*, its creators at Cyan Studios in Washington appear determined to ensure its future proves just as healthy. While remaining true to the spirit and retaining the intrinsic appeal of those original adventure games, *URU* is the *Myst* experience re-imagined from the ground up. Here, online exploration is integral to the experience, and the benefits of Cyan's collaboration with NVIDIA can be seen in the scenes generated by the purpose-written 3D engine. "We place high value on our working relationship with NVIDIA," confirms Mark T. Finch, graphics programmer at Cyan. "Their hardware is powerful and robust, and their people are dedicated to making *URU* look as good in the consumer's home as it does in my office."

With its rich texture work and a frankly astonishing amount of world geometry, *URU*'s visuals are a world away from those famous pre-generated environments of the original.



Cyan is dedicated to making *URU* look as good in consumers' homes as it does in the offices of its Washington base.



Publisher: **Ubisoft**  
Developer: **Cyan Worlds Inc**  
Release: **Out now**



*Bridge-it* is the result of a three-way partnership between NVIDIA and developers Auran and Chronic Logic. NVIDIA is literally helping build bridges.

## Bridge-it

Already renowned for its 'Jet' engine, a custom built and highly adaptable 3D solution, Auran has opted to develop its latest title in conjunction with NVIDIA and fellow coders Chronic Logic. Keith Galocy, developer relations manager at NVIDIA, explains how the three companies worked together on the project: "While Chronic Logic nailed down the gameplay, NVIDIA and Auran worked closely to bring the 3D world of *Bridge-it* to life." It should come as no surprise that the partnership has spawned a visually dazzling game. Designed to take full advantage of the latest generation of GeForce FX graphics processing units, the game's shading and lighting effects lend the game a rare degree of realism.

As the name suggests, the challenge is to construct a feat of engineering that will stand up to the wear and tear of motorists, trains, and even earthquakes. It piles on the challenges with 30 levels and all manner of bridge types to build. The combination of the cerebral and cinematic looks nothing less than fascinating.



Publisher: **Auran Games**  
Developer: **Auran Games, Chronic Logic**  
Release: **Out now**

# The way it's meant to be played



Publisher: **Sega**  
Developer: **Team 17**  
Release: **Out now**



■ With *Worms 3D* the difficulty lies in trying to marry the gaming ethics of the original with the graphical splendour expected in today's games market.

## Worms 3D

Having built up a legion of loyal followers with its *Worms* franchise, the challenge for Team 17 has been to find a way of appeasing the fans whilst keeping mindful of the demands of a new generation raised on 3D. The solution has been to create a game that sticks remarkably closely to the original, but which throws up a multitude of new tactics thanks to the introduction of that third dimension. Despite the new visuals, there's a cosy familiarity here.

"The game runs like a dream on GeForce cards, taking full advantage of the video hardware where it can," says Team 17's Martyn Brown. "The ability to output so many polygons has really allowed us to have large, diverse environments, all of which are totally dynamically deformable, with lighting and a large array of particle effects."

A number of games now strive for cartoonishness. But slapstick is something else. With classic *Worms* weapons such as the sheep attack re-imagined in full 3D, this looks to have it in spades.



Publisher: **Acclaim**  
Developer: **Acclaim**  
Release: **Out now**

## Gladiator: Sword Of Vengeance

The adage about all roads leading to Rome has never been applicable to the beat-'em-up, which has always shied away from the home of gladiatorial combat. Post-Russell Crowe, however, it was always a possibility, and Acclaim have now literally entered the arena with a very mature game. It's also technically dazzling.

"Instead of using normal lights, *Gladiator* makes heavy use of vertex shaders and multi-texturing for projected texture lighting on both the scenery and characters", says Acclaim's Steve Perry. "Once we've finished rendering all those projectors we then use pixel shaders for image post production. This step really adds to the lighting by softening the hard edges and adding a glow to all the bright areas. Although it's computationally expensive, the final result is something that doesn't look like the PC games we're used to."

Impressive stuff. But of course it's the dismemberments and spectacular bloodshed that will grab the headlines. Perhaps 'The Way It's Meant To Be Sprayed' tagline would be more fitting.



■ The incredible use of light and shade in *Gladiator*, gives the cinematic feel needed for such a mature approach to the beat-'em-up genre.



Publisher: **Digital Jesters**  
Developer: **Nadeo**  
Release: **November**



■ Previous developers trying to replicate ocean conditions have come to something of a watery grave, but Nadeo look to have bucked the trend.

## Virtual Skipper 3

Just as TV presenters are advised never to work with animals or children, so those in the games industry steer clear of water. Simulating its movement and its appearance in real-time is simply too artistically and mathematically complex. Or at least it used to be. Yachting simulation *Virtual Skipper 3* spectacularly demonstrates what is now possible, using groundbreaking sea physics modelling and rendering power to replicate the behaviour and appearance of six vastly different bodies of water, whether depicting the choppy English Channel or the Caribbean.

"In *Virtual Skipper 3*, everything moves, so, the shadows and the pixel shaders can't be pre rendered," says Florent Castelnerac, Nadeo's Development Director. "But with the support of NVIDIA we're able to improve visual quality, using special features of its boards such as the shadow buffer."

The result is a game that may well transform even the most landlocked NVIDIA card owner into an avid sailing fan.



■ *Lords of EverQuest* opts for innovative real-time strategy, in this sequel to the massively popular original game, which brought online gaming to the masses.

## EverQuest: Lords of EverQuest

**T**he first *EverQuest* has become nothing less than a phenomenon, bringing online gaming to the masses, and hooking millions of players worldwide with its all-too-addictive open-ended design. Naturally there will be a sequel in due course, but *Lords of EverQuest* is something a little different. Eschewing the massively multiplayer design of the first game, this instead takes the form of an innovative real-time strategy game, one set some ten thousand years before the events of *EverQuest*.

Here one to 12 players command enormous armies, with skirmishes and full-scale battles depicted with an unparalleled level of detail and brought to life using a proprietary engine that also excels at rendering complex, fully deformable terrain.

"We've worked hard to ensure that *Lords of EverQuest* is a visually striking game," says Nicholas Beliaeff, Vice President of Development at Rapid Eye Games. "CineFX technology brings our work to life and helps make the game look incredible."



Publisher: **Ubisoft**  
Developer: **Rapid Eye Games**  
Release: **November**

## Silent Hill 3

**H**aving released its latest survival horror creation on the Playstation 2 to massive acclaim, it would have been easy for Konami to rush a PC version through. Commendably, it has instead opted to augment the chillingly effective game mechanics with a number of technical improvements.

Where other horror games simply pile on the gore, *Silent Hill 3* opts for something deeper and altogether more unnerving in its depiction of a young girl fighting for survival in a nightmarish place, where every echo and inky shadow cranks up the fear factor.

With the original Tokyo-based team handling this PC edition, it retains the highly effective atmospherics of the console version, reproducing the haunting musical score, jarring camera angles, and bizarre plot twists. But with an increase in resolution and graphical detail, it's also intended to deliver an even more shocking visual punch. GeForce FX technology enables gamers to play *Silent Hill 3* 'The way it's meant to be played'. If they dare...



■ Unlike the gore that fills most horror games, *Silent Hill 3* relies on tension and paranoia to crank up the fear factor to intolerable levels.



Publisher: **Konami**  
Developer: **Konami**  
Release: **Out now**



■ Who'd have thought we'd ever see the *Teenage Mutant Ninja Turtles* again? What's more, who'd have thought we'd see them in a decent Konami game?

## Teenage Mutant Ninja Turtles

**S**tarring in a new cartoon series, and fast becoming a multi-billion dollar phenomenon all over again, the heroes in a half-shell are well and truly back. A fresh video game spin-off is, of course, a given. But with coding duties handled by Konami, *Teenage Mutant Ninja Turtles* looks to be anything but a crude cash-in. Rather, with its crisp cel-shaded cartoon visuals, playful arcade action and full cast of familiar *Mutant Turtles* characters, including Splinter, Casey Jones, April O'Neil, and The Shredder, this brings the adventures of Leonardo, Donatello et al, bang up to date.

As Kengo Nakamura, the game's producer explains: "To introduce the *Teenage Mutant Ninja Turtles* to a new generation of gamers, we wanted to make sure the game depicts the turtles as close as possible to the cartoon series. NVIDIA's chipset enabled us to create this unique 3D cel-shaded action game on PC CD-ROM that faithfully represents the new *TMNT* universe based on the cartoon series showing on FoxBox."



Publisher: **Konami**  
Developer: **Konami**  
Release: **November**

# Russian Developers' Conference

## NVIDIA brings developers, publishers, and the power of GeForce together at its Russian Developers' Conference



■ Hands-on training at the conference was complemented by a competition to write the best shader. Here the winner presents his GeForce FX-powered Lava Shader.

In February of this year NVIDIA held its first ever event for Russian developers. Over two days of seminars and workshops, developers were able to see GeForce FX technology first-hand and learn more about the power and accessibility of its architecture. Building on the success of that first event, NVIDIA recently returned to host the nVISION Russian Developers Conference.

Running from October 6th to the 9th at Moscow's Hyatt Hotel, the event attracted developers from Russia, Ukraine, Belarus and even Spain, while publishers attending the event included Activision, LucasArts, Take 2, Vector, Ubisoft, Atari, JoWood and Sunflowers. In addition to demonstrating the technology and support at the heart of NVIDIA's The Way It's Meant To Be Played campaign, the conference was also uniquely designed to put local talent in touch with global publishers.

With the final day of the show given over to NVIDIA's Russian vendors, motherboard and mainboard manufacturers, the rest was left clear for developer-based events. A

technical seminar presented by NVIDIA occupied the first two days. Here, hands-on training was provided using 35 PCs equipped with NVIDIA GeForce GPUs, while competition to write a shader program by the end of the day two added further interest. The winner awarded a GeForce FX 5900 Ultra card.

A day was also devoted to the Talent Showcase, with the attending publishers brought in to meet the various development teams and get a closer look at their NVIDIA-enabled works. In all, some 20 presentations were made, with work in progress code, newly completed games and titles currently on release all shown. Two development teams, Nival Interactive and GSC Games World also took the opportunity to break their silence on projects just commencing. Also at the show were 1C, Akella, Action Forms, Buka, Burut, Digital Art Design, DioSoft, Eagle Dynamics, G5 Software, Gaijin Entertainment, Life Mode Interactive, and Steel Monkeys.

After its success, the conference is set to become a regular fixture.

## The pick of the games presented at the Russian Conference...



**BLITZKRIEG**



**DEATH DRIVE**



**ETHERLORDS II**



**FAIR STRIKE**



**LOCK ON**

**PLUS...**  
**MIRROR LAND**  
**OSTRICH RUNNER**  
**STEEL SQUALL**  
**UTOPIA CITY**  
**VIVISECTOR**

## The Developers Give Their Verdict On The nVISION Conference

"We're pleased to see NVIDIA playing an active role in computer industry development in Russia. The conference is an excellent opportunity for Russian teams to bring their projects to the attention of Western publishers."

**Nikolai Baryshnikov**  
1C, International Sales Director

"The training and lab events were well prepared, and the shader contest proved interesting. We're very pleased that NVIDIA pays so much attention to Russian developers."

**Damir Tenishev**  
Technical Director, ToolsMedia

"What NVIDIA has initially launched as a technical seminar for graphics programmers, looks like becoming a must-attend industry event for the whole Eastern European game developer community."

**Alan Gasanov**  
V.P. of Marketing, LifeMode Interactive

"I have never seen such hard work and diligence from conference organisers, especially in Russia, where I know how difficult things can be to organise."

**Derek McLennan**  
CEO/Managing Director,  
Steel Monkeys

"I think NVIDIA is an obvious leader of the graphics cards market. As game development closely attached to the latest achievements in visualization, we need very close cooperation to achieve better results. With this conference NVIDIA clearly demonstrated this cooperation."

**Alexander Pak**  
International Sales Manager, Akella

"I am very pleasantly surprised with NVIDIA's approach. NVIDIA sees our potential and opens the Russian games industry to Western publishers."

**Vlad Suglobov**  
G5 Software

## A Media Center PC can enrich and enliven the whole entertainment experience... via a remote control.

The future is now. With the arrival of Media Center PCs based around NVIDIA technology and Microsoft® Windows® XP Media Center Edition, the dream of a home computer as an entertainment unit for the entire family is finally a reality.

Whether it's used to watch, store or playback TV programmes, to show friends digital photos or movies, playback and record music, to play games, or to turn research and revision from a chore into a pleasure, a Media Center PC can enrich and enliven the whole entertainment experience, via a remote control.

It's no surprise that powerful graphics and multimedia capabilities are at the heart of the Media Center experience. This is where NVIDIA comes in, providing an ideal partner for Microsoft's specially designed Media Center Edition operating system through the introduction of the most comprehensive product

suite available for Media Center PCs. "PCs running Windows XP Media Center Edition are the most exciting Windows-based computers available today," says Dan Vivoli, executive vice president of marketing at NVIDIA. "As a company we strive to advance the usability and feature-sets in Media Center to deliver the best consumer experience. It's this focus that has secured NVIDIA's role as the technology of choice for the majority of Media Center PCs shipping in the market today."

NVIDIA's product suite for Microsoft Windows XP Media Center Edition-based PCs include GeForce FX GPUs, NVIDIA nForce™2 media and communications processors (MCP), NVIDIA MCE TV, plus custom Media Center software. Designed for both original equipment manufacturers and PC system builders, new product suites represent the most compatible, reliable and complete solutions, for

both desktop and notebook Media Center PCs.

GeForce FX GPUs provide the hardware to power the next generation of 3D gaming, via full DirectX 9.0 functionality and high quality video playback using DirectX Video Acceleration. These are complemented by the NVIDIA nForce2 MCPs, which feature NVIDIA SoundStorm™ audio technology with Dolby Digital surround sound, plus integrated USB and Firewire ports for high speed external media connections.

NVIDIA MCE TV is a PCI TV tuner card with hardware MPEG-2 encoding, which ensures the highest quality TV viewing. Then there's the Media Center-ready software, which includes NVIDIA decoder drivers for crisp DVD playback, and integration of full control of display and audio settings into the Windows XP Media Center Edition interface.



### NVIDIA in Media Center PCs

The majority of Media Center PCs being introduced make use of NVIDIA technology. Jeff Fisher, executive vice president of worldwide sales at NVIDIA sees this as a ringing endorsement of its Media Center product suite: "The overwhelming response is best attributed to the video quality and consistent compatibility, stability, and reliability of NVIDIA-based products – key components to delivering the best digital entertainment experience possible."

NVIDIA technology can be found in (but is not limited to) Media Center systems from the following major companies: Absolut Technology, Auchan, Carrera, CFL, Comet, Dixons, EID/Surcouf, Fujitsu-Siemens, Hi-Grade Computer Plc, HP, IQON, MediaMarkt/Saturn, Multivision, Peristyle, PC City, Quantum, Toshiba, Viglen, and Yakumo GmbH.

## Powering the World's Best Media Center PCs

**High Quality Video:** Ensures the highest quality viewing experience for television, DVDs and home movies. The hardware-based MPEG-2 encoding offers uninterrupted quality of service, while extended colour support drivers preserve original colour fidelity and prevent the loss of blacks and whites when converting between video and standard computer monitors.

**Custom Media Center Controls:** Using the Microsoft Media Center remote control, NVIDIA's custom Media Center controls provide access to settings for colour scheme, brightness, contrast, hue, gamma and digital vibrancy of live TV and DVDs.

**High-Speed Connectivity:** NVIDIA nForce2-based Media Center PCs

feature both USB 2.0 and FireWire connections. These make it possible to quickly download MP3 tunes to an external MP3 player, take photos from a digital camera, or hook the Media Center up to a digital video camera to capture footage for editing.

**Immersive Audio:** NVIDIA nForce2-based Media Center PCs feature NVIDIA Soundstorm audio technology, which includes a S/PDIF socket for home theatre system connection, for playback of MP3 tunes and to deliver a full Dolby Digital 5.1 surround sound DVD experience. The NVIDIA Media Center product suite also makes it easy to sort music files.

**High Performance Display Architecture:** Built on the award-

winning GeForce display architecture, GeForce FX and GeForce FX Go GPUs bring high-quality RAMDACs to Media Center PCs for high-resolution photo presentations. Images can easily be organised and viewed using the Microsoft MCE.

**Gaming:** More than a multimedia solution, NVIDIA technology turns a Media Center PC into the ultimate gaming platform. Powered by the NVIDIA CineFX engine, both GeForce FX and GeForce FX Go provide DirectX 9.0 support for industry leading compatibility, reliability and performance. Look out for games with the 'NVIDIA: The Way It's Meant To Be Played' seal, to enjoy ultimate 'install and play' experiences.



Joint Operations



Far Cry



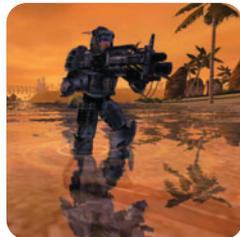
Warhammer Online



FIFA 2004



Trackmania



BREED

Look for 'The way it's meant to be played' seal on games and hardware that deliver an awesome gaming experience. Equip yourself with an NVIDIA GPU so you can play your game the way it's meant to be played. The power, compatibility and reliability of NVIDIA GPUs make them the overwhelming choice of game developers, which is why today's hottest games are developed on NVIDIA, to be played on NVIDIA.

