3ds max® 7
discreet®

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top: Ubisoft
middle: ARUP
bottom: Blur

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top: © 2004 Warner Brothers / A Cinderella Story / Digital Dimension
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3ds max® 7

**evolve
your work,
your way**

3ds max® 7 is the landmark new version of Discreet's comprehensive solution for advanced 3D modeling, animation, and rendering.

With an extensive new feature set designed to increase performance and boost productivity, **3ds max 7** offers animators powerful new creative workflow tools, including the most comprehensive advanced character animation toolset currently available, acclaimed visual effects and support for next generation production environments.

3ds max 7 offers users enhanced performance and scalability when dealing with the extremely large datasets and complex 3D modeling and animation tasks studios face today.

3ds max 7 has been engineered to accelerate both application and facility pipeline workflows, increasing studio productivity while providing intuitive artist-friendly tools to an extensive user base of over 280,000 customers.

proven success in game development

Across the globe, the top game development studios rely on **3ds max** for creating optimized, game-ready assets and seamlessly integrated custom tools for PCs, consoles, and mobile gaming and handheld devices.

Whether using off the shelf platforms and middleware, or creating an entire optimized custom pipeline, **3ds max 7** has all the modeling, texturing, animation, and data accessibility needed to give your artists the flexibility, creativity, and, most importantly, the immediate feedback required to know exactly how characters, environments, and animated effects will perform on the target platform.

Bolstered by a significant history of success for leading developers like Rockstar Games, Ubisoft, Electronic Arts, Blizzard Entertainment, Codemasters, Bioware, Shiny Entertainment, and Relic, building a relationship with Discreet opens doors for improved integration, faster results, and a superior knowledgebase backed by the largest development community of its kind.

high volume film effects

From Digital Matte Paintings to realistic animated effects and characters, **3ds max** has proven time and again in leading facilities such as ILM, Blur Studio, Frantic Films, Digital Dimensions, and Animal Logic that it can outperform the competition when it comes to getting the job done in record time.

With more approaches to solving production problems than any other tool, **3ds max** is a highly creative environment for building 3D storyboards, realistic digital environments, believable characters, and impressive crowds.

More modeling paradigms, more rendering options, more procedural shaders, more access to core code, and more plug-ins that can extend the reach of your base package based on the specific needs of the job at hand makes **3ds max 7** a must have for any serious production pipeline.

And for data connectivity, nobody does it better than Discreet: all the standard file formats you need are supported – and you can trust Discreet to continue providing industry-leading connectivity between **3ds max** and the worlds most powerful HD and film resolution compositing and editing suites – **inferno®**, **flame®**, **flint®**, **combustion®**, **fire®**, and **smoke®**.

DISCREET
Based in the Cité Multimédia section of Montreal's historic Old Port, Discreet has been a key force behind the development and evolution of high-resolution digital film technology for the last decade. Discreet's digital solutions have played a critical role in shaping the film visual effects industry and the skills of today's digital artists, helping set many of the standards that define how films are produced digitally today.

Discreet designs and builds highly optimized real-time solutions that consistently defy the most demanding post-production challenges. From tools to workflow, Discreet's systems are designed from an intimate knowledge of the evolving nature of our clients' work – and with their active participation. A leading provider of high resolution digital film systems, Discreet received an Academy Award® for Scientific and Technical Achievement from The Academy of Motion Picture Arts and Sciences in 1998 for the contribution of its inferno® and flame® visual effects systems to filmmaking.

"The thing about 3ds max that impressed me most, was the ability to model, animate and render upwards of 250 shots, in a matter of less than a week, as was necessary for previz production on Warner bros feature film Catwoman."

Chad Wiebe
Previz Supervisor, Frantic Films

Images courtesy of
top: Digital Pictures / Babyfoot Productions / Partizan
bottom: Abis

the ultimate in design visualization
Creating compelling, visually-charged design visualizations requires a strong visual effects engine with a deep animation toolset that can handle even the most demanding mechanical assemblies and character animations.

3ds max 7, building upon the legacy film-quality rendering and end-to-end connectivity found in Autodesk VIZ 2005, brings Hollywood techniques and cinematic power to the crème de la crème of the architectural, mechanical, automotive, industrial design, forensic, scientific, and simulation markets.

Able to handle the most demanding data requirements for clients like Lockheed Martin, HOK, JPL, Peugeot, and ARUP, **3ds max** enables seamless integration of any content into live action backgrounds with full visual effects force – even down to the virtual pilots needed to fly the latest fighter concepts.

a leading force in education
Give students the best start in the business by adopting the most widely-used professional animation toolset available: **3ds max** has the short learning curve and vast toolset required to give any burgeoning artist the chance to quickly create a winning portfolio.

By using tools that define the very nature of the business itself, students and educators find Discreet's leading connectivity prepares them for working within collaborative environments amongst diversified production pipelines.

As the industry evolves, the need to learn never ends – and that's why Discreet has hundreds of Certified instructors and training centers worldwide, master classes at tradeshows and major events, courseware, and personalized advanced training services designed to custom-fit specific high-end production needs.

3ds max 7: new features

modeling & texturing
- Edit Poly modifier and Editable Poly enhancements bring improved modeling workflow
- Edit poly objects without changing UV coordinates
- Generate and render Normal Maps that bring advanced texturing capabilities to games, film effects, and design visualization artists
- Paint Selections makes object editing more intuitive
- Interactively deform surfaces using mesh painting functionality
- Project mapping coordinates (and other vertex channel information types) between objects using the new Projection Mapping modifier
- New copy/paste approach to propagate materials, maps, and colors – and extension to the existing drag/drop approach
- Improved UV workflow allows artists to quickly identify and work with texture seams and open edges

software & hardware rendering
- **mental ray**® **3.3** includes unified indirect lighting model, Sub Surface Scattering shaders, and a simplified workflow for building and editing GI solutions
- Render to Texture now supports mental ray, increasing levels of fidelity possible
- Render multiple passes of Render to Texture in a single session, including support for individual texture coordinate setups and mapping channels
- Modular DX Materials separate shader UI from the parsing/rendering – allowing for any appropriate effects file to be accurately displayed in the viewport
- Developers now have access to the DirectX layer, allowing ultimate control of what is displayed in the **3ds max** viewport
- Standard Material is now supported in the DX pipeline, enabling materials from all disciplines to be represented and saved as .fx shaders for in-game implementation
- Pixel-based camera mapping closes the loop for 2D and 3D artists working on the same production shot, allowing for changes made in 2D to be directly mapped onto the 3D scene from the original 3D camera perspective

animation
- Parameter Collections provides a simple interface for grouping Custom Attributes together so artists can create animations from an easy to understand, simplified UI
- Skin Morph applies progressive morphing to a skinned entity, based on the angle of joint rotation
- The Skin Wrap Deformer makes it easy to apply clothing and props to characters, even if they have already been rigged and animated
- Reaction Controller gives event-driven animation a boost by enabling artists to drive any animation channel through a user-defined scene event
- Parametric BIPED setups allow for in-context editing regardless of animation complexity
- Advanced Animation Mixdown identifies and troubleshoots animation "pops", ensuring desired results and "locked" feet when required
- Crowd Simulation System enables multi-stage "team"-based behaviors, scriptable AI, and multi-animation-cycle solving for best results based on solution goals

- FK/IK blending with animated pivot points and weighted animation control between scene objects and characters
- Multi-segment forearm twisting with bias control yields superior results
- Quaternion function curves eliminate gimbal lock ("joint flipping") yet provide fluid curve editing utilities
- Animation layering gives complete directorial control over even the most complex animation sequences
- Visual Clipboard brings a highly intuitive way of managing large amounts of animation tracks and character poses, with full support to copy/paste animations and poses between full characters, limbs, or across one character itself
- Constraint-based Non-Linear Animation approach ensures fluid motion when unrelated animation clips are combined
- Full motion capture support includes filtering, editing, cleanup, and prop retargeting for up to 3 systemic props
- Animation Retargeting enables full rescaling of data to vastly different character types
- Animation Redirecting allows full, interactive control over direction and elevation of animated characters

data access and management
- Extensive SDK and MAXscript language offer strong access for creating and integrating custom tools
- Game Exporter Interface simplifies creation of data transfer formats between **3ds max** and middleware solutions or target platforms
- Discreet leads the charge into the mobile gaming market with native JSR-184 mobile gaming format support
- In-scene management of maps, materials, rendering setups, plug-ins, user interface, and macroscripts

hardware system requirements
– Intel® PIII or later Processor or AMD® running at 500Mhz minimum (Dual Intel® Xeon™ or dual AMD Athlon™ or Opteron™ (32 bit) system recommended)
– 512 MB RAM and 500 MB swap space minimum (1GB RAM and 2GB Swap Space Recommended)
– Graphics card supporting 1024x768 16-bit color with 64MB RAM. (OpenGL and Direct3D hardware acceleration supported; 3D graphics accelerator 1280 x 1024 32-bit color with 256MB RAM preferred)
– Windows-compliant pointing device (specific optimization for Microsoft Intellimouse™)
– Wacom Intuos or similar pressure sensitive tablet recommended for vertex paint
– CD-ROM drive
– Optional: sound card and speakers; cabling for TCP/IP-compliant network; 3D hardware graphics acceleration; video input and output devices; joystick; midi-instruments; 3-button mouse

software system requirements
– Primary Operating Systems: XP Professional (SP2), Windows 2000 (SP4), and XP Home (SP2)
– Internet Explorer 6
– DirectX 9 Required, OpenGL
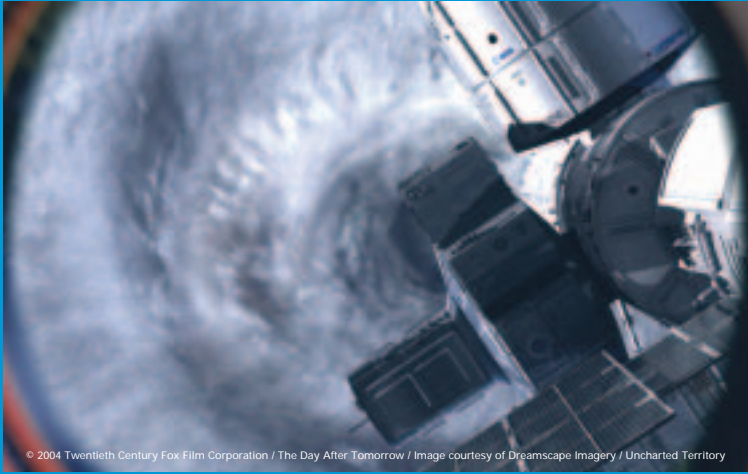
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